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The 2017 Annual Economic Report on the EU Fishing Fleet (STECF 17-12)

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Abstract

In 2015, the EU fishing fleet numbered 84 420 vessels with a combined gross tonnage (GT) of 1.62 million tonnes and engine power of 6.44 million kilowatts (kW). EU fleet capacity continues to decrease steadily at an average annual rate of 2.2% in terms of vessel numbers and engine power (kW) and 2.5% in terms of gross tonnage (GT). Based on data submitted by Member States under Data Collection Framework (DCF), there were 63 976 active vessels in 2015, of which 74% were classed as small-scale coastal vessels, 25% as large-scale and remaining 1%, distant-water vessels. The EU inactive fleet, amounting to 20 444 vessels, represented 24% of the total EU fleet in number, 9% of the gross tonnage and 14% of the engine power. Direct employment generated by the fleet amounted to 152 720 fishers, corresponding to 114 863 FTEs; on average earning €24.8 in wages annually. The EU fleet spent 4.8 million days at sea and consumed 2.3 billion litres of fuel to land over 5 million tonnes of seafood with a reported value of €7 billion. Revenue (income from landings plus other income) earned by the EU fishing fleet in 2015 (excl. Greece) was estimated at €7.27 billion. The amount of Gross Value Added (GVA) and gross profit (all excl. subsidies) generated by the EU fishing fleet (excl. Greece) was €3.9 billion and €1.6 billion, respectively. GVA as a proportion of revenue was estimated at 54% and gross profit margin at 23%. With a total net profit of €798 million in 2015, 11% of the revenue was retained as profit, up from 7.4% in 2013 and remaining stable compared to 2014 This publication includes: 1) An structural and economic overview of the EU fishing fleet in 2015, with projections for 2016-2017, and trend analyses for the years 2008-2015; 2) A regional analysis of the EU fishing fleet by major sea basin: Baltic Sea, North Sea & Eastern Arctic, North East Atlantic, Mediterranean & Black Sea, as well as fleets operating in Other Fishing Regions, including the Northwest Atlantic, Outermost regions and Other regions; 3) A detailed structural and economic overview of each EU Member State fishing fleet, including qualitative economic performance assessments for 2015 and projections for 2016 and 2017.

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1 INTRODUCTION

The 2017 Annual Economic Report (AER) on the European Union (EU) fishing fleet provides a comprehensive overview of the latest information available on the structure and economic performance of EU Member States (MS) fishing fleets.

This report covers a nine-year time period (2008-2016) and includes information on the EU fleet's fishing capacity, effort, employment, landings, income and costs for the years 2008 to 2015 and projected values for 2016 and forecast estimates for 2017, where possible. All monetary values have been adjusted for inflation, to 2015 constant prices. The economic performance of the EU fishing fleet is also reported in terms of gross value added, profits, profit margins and productivity (labour and capital).

This publication includes:

1) A structural and economic overview of the EU fishing fleet for the reference year 2015, with trend analyses for the period 2008 to 2015, including projection estimates for 2016 and 2017;
2) A regional analysis of the EU fishing fleet by major sea basin: Baltic Sea, North Sea, North East Atlantic, Mediterranean & Black Sea, as well as fleets operating in Other Fishing Regions, including the Northwest Atlantic, Outermost regions and Other fishing regions;
3) A detailed structural and economic overview of each EU Member State fishing fleet, including qualitative economic performance assessments for the years 2008-2015 and projections for 2016 and 2017 forecasts.

Terms of Reference for STECF EWG-17-01 & 17-06

Background and general objectives provided by the Commission

- The AER has become one of the main sources of economic and social data for scientific advice on the performance of the EU fleets. It is also increasingly used by scientific bodies, national administrations and international institutions.
- Given the increasing number of scientific uses of the AER and its growing complexity, there is a greater need to guarantee robust and precise data as well as streamline the content of the report. This will be mainly achieved through:
  (1) a dedicated data checking exercise https://datacollection.jrc.ec.europa.eu/data-analysis

  (2) more concise and less descriptive chapters, supplemented by the JRC online data dissemination tool https://datacollection.jrc.ec.europa.eu/da/fleet/

  (3) the continued effort to provide more analytical outcomes, notably on drivers of profitability and trends at the EU and regional levels.
- The trimming down of the AER is intended to achieve a more balanced effort/product exercise, concentrating on the core tasks of the AER on the one hand while freeing up some time and resources on the other so that EWG experts can focus on more applied economic analyses. Frequently asked questions following the publication of the AER include for example why a particular fleet segment has shown greater/lower profitability, what are the (possible/probable) underlining factors causing the increase/decrease in performance, etc.
- In view of the above, the 2017 AER will provide a more in-depth look at the different factors driving the economic performance of the EU fleets with a special focus on the economic benefits of MSY (such as analysis of causality between stocks exploited sustainably and the improvement in the performance of the fleets), recovery of stocks and implementation of conservation measures. Other driver may include changes in first sale prices and operational costs, ITQ systems, structural and marketing measures. The analysis will be done at EU, region (North Sea, Baltic Sea, etc.) and MS levels. The main socio-economic indicators, if possible and where relevant, should also be put into context with homologous figures at the EU and national levels, e.g., national average salaries, GDP, etc.
- A section on the EU small-scale coastal fleets will be added. Latest results suggest that the economic performance of these fleets follows a deteriorating or less positive trend. This section will investigate the factors behind this trend and whether there are regional differences.
- The 2017 AER will also include an overview of the employment, profitability and salaries for the EU distant water fleets and also fleets in outermost region.
- Links between economic growth and resource use. This section will examine key drivers and indicators, such as landings per unit of effort, gross value added by the different fleets, first sale prices, labour and capital productivity. It will examine for example trends in resource efficiency, i.e. fish landed per fishing day or day at sea, improvements in energy efficiency, etc.

Specific objectives

The specific objectives for the two working groups are:

EWG 17-01: the first AER STECF meeting should lead to a data endorsement by the attending experts, detailed account of any data transmission issues (DTI) and the writing of concise national chapters. An economic forecast estimating performance for 2017 and beyond (if possible) should be attempted.

EWG 17-06: the second AER EWG meeting will focus on developing applied economic analysis based on the submitted data. In particular, experts will produce a synthesis on the trends and economic results of the EU fishing fleet by sea-basin and aggregated at EU level, and identify the main factors behind these trends.

Request to the STECF

STECF is requested to provide the Annual Economic Report on EU fishing fleets for 2017 including, the following sections:

STECF OBSERVATIONS

EXPERT WORKING GROUP REPORT

EU FLEET OVERVIEW

- Fleet structure
- Fishing activity and output
- Employment and average salaries
- Economic performance
- Resource productivity and efficiency
- Summary of the main drivers and trends
- EU small-scale coastal fleet segments (key socio-economic indicators)
- EU distant water and outermost region fleets (key socio-economic indicators)
- Assessment of the economic performance for 2016 and 2017

REGIONAL ANALYSIS

- Baltic Sea
- North Sea & Eastern Arctic
- North-east Atlantic
- Mediterranean and Black Sea
- EU Outermost Regions and
- Other Fishing Regions

NATIONAL CHAPTERS

- Including a brief section on small-scale coastal fleet segments (key socio-economic indicators) where relevant
- Including a brief section on EU distant water fleets (key socio-economic indicators) where relevant

ANNEX (METHODOLOGIES, GLOSSARY, ETC)

EWG structure, workflow and outputs

The first meeting will focus primarily on data quality and coverage. All data issues that may impact the quality and robustness of the analyses in the AER, and associated STECF reports (e.g. Balance) will be reported in the Data Transmission template. Any outstanding data issues not covered by EWG 17-01 will be followed up by EWG 17-06. This may occur if MSs resubmit revised data after EWG 17-01. That is, according to the data handling procedure, data submission may occur up to two weeks after the first meeting upon request of STECF or the JRC.

EWG 17-01 will also produce final draft national chapters. The formulation of the national chapters is an integral part of the data checking process. Data and time-permitting, preliminary analyses for the EU overview chapter will be carried out.

EWG 17-06 will continue on from EWG 17-01 and produce final EU overview and Regional chapters. National chapters will be finalised if needed. Forecast projections for 2017 (Atlantic and Mediterranean) will be completed and incorporated into the various chapters.

To produce the various expected outputs, the invited independent experts will be divided into 4 sub-groups during EWG 17-01. (Tentative planning):

Sub-group 1: Data quality and coverage issues (DT)

Main output - detailed account of all data transmission issues by Member State, using the DT template provided.

Support documents and tools - JRC data dissemination online tool in Tableau ('Data Check reports'), complementary Excel files if applicable; draft national chapters (in Word and Excel) produced by JRC prior to meeting.

Process – during the first stage, national experts will review and assess their own MS data. If a MS is not represented at EWG 17-01, an expert will be assigned to assess the quality and coverage of the MS data submission and revision should be done in collaboration with the focal person from the MS in question via email, where possible. The second stage will include an independent review by a different expert. This independent review should not be undertaken in collaboration with the national expert in question.

Time frame – day 1 to 3 for first stage (national expert review); day 4 and 5 'independent' review and final output production (DT file).

Sub-group 2*:* Production of National chapters

Main output – final draft national chapters.

Support documents and tool – the JRC data dissemination online tool in Tableau (National Chapter reports), draft national chapters in Word and Excel files produced by JRC prior to meeting, based on last year's chapters (text) with updated tables and graphs.

Process – while undertaking the data checking exercise, national experts will update and complement the draft national chapters provided by the JRC.

Time frame – day 1 to 5, EWG 17-01 (+ day 1, EWG 17-06 if applicable).

***Sub-group 3*:** Projections and Forecasts

Main output – review of the models (BEMEF, BEMTOOL and JRC database) used to project y-1 and y-0 and preparation/provision of preliminary estimates. Final estimates to be incorporated into the JRC database before EWG 17-06.

Support documents and tool – DCF fleet data by fleet segment and preliminary projections produced by the JRC database, TACs and quotas for 2016 - 2017 (FIDES).

Process – a small group of experts will review and update the methodology/models, including sensitivity analyses, and critically assess model outputs.

Time frame – day 1 to 5, EWG 17-01.

***Sub-group 4**:* Complementary and additional analyses

Main output – selection and analysis of several important fleet segments / quota TAC units by MS and context socio-economic indicators at the EU and national levels to be inserted into national chapters, EU overview and regional chapters.

Support documents and tool – MS and EU level Excel data files, TAC Dependency online tool, TACs and quotas for 2016 - 2018 (FIDES), Eurostat.

Process – a small group of experts will review and analyse results from the TDI (TAC Dependency Indictor) and select several important TAC units and fleet segments by MS, review the results and comment. The group will also put into context several socio-economic indicators for the EU fishing fleet and MS fleets, such as employment, average salaries, GVA (GDP), etc.

Time frame – day 1 to 5, EWG 17-01 + day 1 to 3 EWG 17-06.

Relevant documents

All relevant documentation and data are available on the DCF_JRC or STCF websites or will be made available on a dedicated FTP:

- The Economic Performance of the EU Fishing Fleet (2016 AER)
- Assessment of balance indicators for key fleet segments and review of national reports on Member States efforts to achieve balance between fleet capacity and fishing opportunities
- Member States Annual Report on the National Data Collection Programmes
- http://datacollection.jrc.ec.europa.eu/ars/
- Data-handling procedure for STECF Expert Working Groups
- http://datacollection.jrc.ec.europa.eu/index.html

Abbreviations

European Member States

BEL	Belgium	**HRV**	Croatia
BGR	Bulgaria	**IRL**	Ireland
CYP	Cyprus	**ITA**	Italy
DEU	Germany	**LTU**	Lithuania
DNK	Denmark	**LVA**	Latvia
ESP	Spain	**MLT**	Malta
EST	Estonia	**NLD**	Netherlands
EU	European Union	**POL**	Poland
FIN	Finland	**PRT**	Portugal
FRA	France	**ROU**	Romania
GBR	United Kingdom	**SVN**	Slovenia
GRC	Greece	**SWE**	Sweden

Fishing Technologies – DCF categories

DFN	Drift and/or fixed netters	**PG**	Vessels using passive gears only for vessels < 12m
DRB	Dredgers	**PGO**	Vessels using other passive gears
DTS	Demersal trawlers and/or demersal seiners	**PGP**	Vessels using polyvalent passive gears only
FPO	Vessels using pots and/or traps	**PMP**	Vessels using active and passive gears
HOK	Vessels using hooks	**PS**	Purse seiners
MGO	Vessel using other active gears	**TM**	Pelagic trawlers
MGP	Vessels using polyvalent active gears only	**TBB**	Beam trawlers

Fishing activity – scale of fishing operation

SSCF	Small-scale coastal fleet
LSF	Large-scale fleet
DWF	Distant water fleet

Fishing regions

BS	Baltic Sea
MBS	Mediterranean & Black Sea
NA	North Atlantic
NS	North Sea & Eastern Arctic
OFR	Other fishing regions

Data source and coverage

The data used to compile all the various analyses contained within the report were collected under the data collection framework (DCF), cf. Council regulation (European Commission (EC) No 199/2008 of 25th February 2008).

The 2017 call requested data for the years 2008 to 2016. Fleet capacity and recreational catch data were requested up to and including 2016, while fishing activity, employment and economic parameters were requested up to and including 2015. In addition, some effort, landings and income from landings were requested (non-mandatory) for 2016 to allow for economic performance projections to be estimated at fleet segment and national level for 2016 and on which to base forecasts for 2017.

This report includes data reported by national totals and by fleet segments (a combination of the main fishing technology used and vessel length group operating predominately in one supra-region). The data analysed covers transversal (capacity, landings and effort) and economic data (income, costs, employment, enterprises, capital value and investment).

For a full list of variables and reference years requested under the 2017 DCF call for economic data on the EU fishing fleet see Table 6.1 in the Section 6 – AER Report Methodology.

In terms of the completeness of the Member States data submissions, most countries submitted the majority of parameters requested under the call. In many cases missing data relates to fleet segments with low vessel numbers for which data can be hard to obtain (logbooks are compulsory for vessels over 10 meters only). In terms of data quality, inevitably some 'abnormal' estimates for various parameters were detected by JRC or the experts and in many cases rectified by the Member States. However, some coverage and quality issues remain outstanding:

- Greece provided on partial data for some years. Due to the incomplete coverage of the fishing activity and socio-economic data, Greece was excluded from all aggregated analyses.
- This year's submissions from France and Spain improved but continue to be incomplete, in particular for effort and landings data for the years 2008-2010, and some issues remain for the Irish under 10m vessels;
- Furthermore, due to the reduced number of vessels and/or enterprises, several MS, including Germany and the Baltic States, do not deliver sensitive data on their distant water fleets, making coverage at the EU and regional levels incomplete.

As a new Member State, Croatia is only required to provide data from 2012 onwards.

Incomplete time series data due to either the non-submission of data, questionable data and/or new MS additions, make trend analysis over the entire period 2008-2015/2016 at the EU and regional levels impossible without excluding the MS fleets that are incomplete.

Section 7 – DCF Data Coverage and Quality and Annex 1, provide more information on outstanding issues.

2 EWGs AND LIST OF PARTICIPANTS

The 2017 Annual Economic Report on the EU fleet (AER) has been produced by two working groups of economic experts (EWG 17-01 and 17-06) convened under the Scientific, Technical and Economic Committee for Fisheries (STECF), which took place from the 3 to 7 of April in Dublin, Ireland and from the 19 to 23 June 2017 in Varese, Italy.

The groups consisted of independent experts from within the EU and experts from the European Commission's Research Centre (JRC).

The full list of participants at EWG 17-01 and 17-06 is presented in section 8.

TABLE OF CONTENTS

1 INTRODUCTION 3

2 EWGs AND LIST OF PARTICIPANTS 8

TABLE OF CONTENTS 9

LIST OF TABLES 10

LIST OF FIGURES 15

EXECUTIVE SUMMARY 27

EU MEMBER STATE FLEET SUMMARY REPORTS 30

Expert Working Group report 62

3 EU FLEET OVERVIEW 63

3.1 Overview of the EU Fishing Fleet in 2015 65
3.2 Economic Performance indicators 78
3.3 Assessment for 2016 and 2017 83
3.4 EU small-scale coastal fleet (SSCF) 86
3.5 Main drivers and trends affecting the economic performance of the EU fleet 88
3.6 Summary data tables by Member State and fishing activity (scale of operation) 90

4 EU FLEET REGIONAL ANALYSIS 101

4.1 General Overview 103
4.1 North Sea & Eastern Arctic region 106
4.2 Baltic Sea 124
4.3 Northeast Atlantic region 140
4.4 Mediterranean & Black Sea region 159
4.5 Other Fishing Regions (OFR) 178

5 NATIONAL CHAPTERS 219

5.1 Belgium 220
5.2 Bulgaria 232
5.3 Croatia 242
5.4 Cyprus 252
5.5 Denmark 262
5.6 Estonia 272
5.7 Finland 280
5.8 France 287
5.9 Germany 301
5.10 Greece 312
5.11 Ireland 318
5.12 Italy 330
5.13 Latvia 341
5.14 Lithuania 350
5.15 Malta 359
5.16 Netherlands 371
5.17 Poland 381
5.18 Portugal 390
5.19 Romania 402
5.20 Slovenia 412
5.21 Spain 421
5.22 Sweden 435
5.23 United Kingdom 444

6 AER REPORT METHODOLOGY 454

7 DCF DATA COVERAGE AND QUALITY 479

8 LIST OF PARTICIPANTS EWG 17-01 AND 17-06 482

9 LIST OF ANNEXES 484

10 LIST OF BACKGROUND DOCUMENTS 485

ANNEXES 486

LIST OF TABLES

Table 3.1 Revenue and total costs for 2015 and projections for 2016 and 2017 by Member State 84

Table 3.2 Profit indicator results for 2015 and projections for 2016 and 2017 by Member State 84

Table 3.3 Variation in cost items by Member state projected for 2016 and 2017 85

Table 3.4 Main performance indicators by Member State in 2015 and projection results for 2016 and 2017 85

Table 3.5 Main indicators for the EU small-scale coastal fleet 2008-2015 and projections for 2016 and 2017 87

Table 3.6 Main profitability indicators for the small-scale coastal fleet by Member State in 2015 and projections for 2016 and 2017 87

Table 3.7 Main capacity, employment, effort and landings variables by Member State, 2015 90

Table 3.8 Main economic variables by Member State, 2015 91

Table 3.9 Main socio-economic performance indicators by Member State, 2015 92

Table 3.10 Main capacity, effort and landings variables for the EU small-scale coastal fleet by MS, 2015 93

Table 3.11 Main economic variables and indicators for the EU small-scale coastal fleet by MS, 2015 94

Table 3.12 Main economic performance indicators for the EU small-scale coastal fleet by MS, 2015 95

Table 3.13 Main capacity, effort and landings variables for the EU large-scale fleet by MS, 2015 96

Table 3.14 Main economic variables and indicators for the EU large-scale fleet by MS, 2015 97

Table 3.15 Main economic performance indicators for the EU large-scale fleet by MS, 2015 98

Table 3.16 Main Capacity, effort and landings variables for the EU distant water fleet by MS, 2015 99

Table 3.17 Main economic variables and indicators for the EU distant water fleet by MS, 2015 99

Table 3.18 Main economic performance indicators for the EU distant water fleet by MS, 2015 100

Table 4.1 Estimates of main capacity, effort, landings and performance indicators for the EU fleet by region, 2015 104

Table 4.2 Estimates of main capacity, effort, landings and performance indicators for the EU fleet by region, 2014 104

Table 4.3 Percentage variation for the main capacity, effort, landings and performance indicators for the EU fleet by region, Δ 2015–2014 105

Table 4.4 Percentage variation for the main capacity, effort, landings and performance indicators for the EU fleet by region, Δ 2015–2010 105

Table 4.5 Structure and economic performance estimates by MS fleet operating in the North Sea & Eastern Arctic region, 2015 119

Table 4.6 Structure and economic performance estimates by main type of fishery (Pelagic, demersal or other) for MS fleets operating in the North Sea & Eastern Arctic region, 2015 120

Table 4.7 Structure and economic performance estimates by MS and main type of fishery (Pelagic, demersal or other) for fleets operating in the North Sea & Eastern Arctic region, 2015 120

Table 4.8 Structure and economic performance estimates by main type of fishing activity operating in the North Sea & Eastern Arctic region, 2015 121

Table 4.9 Structure and economic performance estimates by main type of fishing activity and MS operating in the North Sea & Eastern Arctic region, 2015 121

Table 4.10 Structure and economic performance estimates for the top 40 fleet segments (in terms of landed value) operating in the North Sea & Eastern Arctic region, 2015 122

Table 4.11 Structure and economic performance estimates for fleet segments operating 80% or more in the North Sea & Eastern Arctic region, 2015 123

Table 4.12 TAC use for some of the most important stocks in the Baltic Sea region, 2012-2016 133

Table 4.13 Structure and economic performance estimates by MS fleet operating in the Baltic Sea region, 2015 135

Table 4.14 Structure and economic performance estimates by main type of fishery (pelagic, demersal, other) operating in the Baltic Sea region, 2015 136

Table 4.15 Structure and economic performance estimates by main type of fishery (pelagic, demersal, other) and MS fleets operating in the Baltic Sea region, 2015 136

Table 4.16 Structure and economic performance estimates by main type of fishing activity for MS fleets operating in the Baltic Sea region, 2015 137

Table 4.17 Structure and economic performance estimates by main type of fishing activity and MS fleet operating in the Baltic Sea region, 2015 137

Table 4.18 Structure and economic performance estimates for the top 40 MS fleets operating in the Baltic Sea region, 2015 138

Table 4.19 Structure and economic performance estimates for MS fleet segments operating 80% or more in the Baltic Sea region, 2015 139

Table 4.20 Structure and economic performance estimates by MS fleets operating in the NE Atlantic region, 2015 153

Table 4.21 Structure and economic performance estimates by main type of fishery (pelagic, demersal, other) operating in the NE Atlantic region, 2015 154

Table 4.22 Structure and economic performance estimates by MS and main type of fishery (pelagic, demersal, other) for fleets operating in the NE Atlantic region, 2015 154

Table 4.23 Structure and economic performance estimates by main type of fishing activity for MS fleets operating in the NE Atlantic region, 2015 155

Table 4.24 Structure and economic performance estimates by MS and main type of fishing activity operating in the NE Atlantic region, 2015 155

Table 4.25 Structure and economic performance estimates for the top 40 MS fleets operating in the NE Atlantic region, 2015 156

Table 4.26 Structure and economic performance estimates for MS fleet segments operating 90% or more in the NE Atlantic region, 2015 157

Table 4.27 Structure and economic performance estimates by MS fleets operating in the Mediterranean & Black Sea region, 2015 171

Table 4.28 Structure and economic performance estimates by main type of fishery (pelagic, demersal, other) for fleets operating in the Mediterranean & Black Sea region, 2015 172

Table 4.29 Structure and economic performance estimates by MS and main type of fishery (pelagic, demersal, other) for fleets operating in the Mediterranean & Black Sea region, 2015 172

Table 4.30 Structure and economic performance estimates by main type fishing activity (SSCF and LSF) in the Mediterranean & Black Sea region, 2015 173

Table 4.31 Structure and economic performance estimates by MS and main type of fishing activity operating in the Mediterranean & Black Sea region, 2015 173

Table 4.32 Structure and economic performance estimates for the top 40 MS fleets operating in the Mediterranean & Black Sea region, 2015 174

Table 4.33 Structure and economic performance estimates for MS fleet segments operating 80% or more in the Mediterranean & Black Sea region, 2015 175

Table 4.34 *Other Fishing Region* fleet structure and economic performance estimates by MS in 2015 212

Table 4.35 Other Fishing Region fleet structure and economic performance estimates by main type of fishery (pelagic, demersal, other) and region, 2015 213

Table 4.36 Other Fishing Region fleet structure and economic performance estimates by MS, main type of fishery and region, 2015 213

Table 4.37 Other Fishing Region fleet structure and economic performance estimates by main type of fishing activity and region, 2015 214

Table 4.38 Other Fishing Region fleet structure and economic performance estimates by MS, fishing activity and region, 2015 214

Table 4.39 *Other Fishing Region* fleet structure and economic performance estimates by region and fleet segment - Other regions, 2015 215

Table 4.40 Structure and economic performance estimates for MS fleet segments operating 90% or more in Other Regions, 2015 215

Table 4.41 EU Other Fishing Region fleet structure and economic performance estimates by region and fleet segment - EU Outermost regions, 2015 216

Table 4.42 Structure and economic performance estimates for MS fleet segments operating 90% or more in EU Outermost regions, including the Portuguese Azorean fleet, 2015 217

Table 4.43 *Other Fishing Region* fleet structure and economic performance estimates by region and fleet segment - Northwest Atlantic, 2015 218

Table 4.44 *Other Fishing Region* fleet structure and economic performance estimates by region and fleet segment - non-EU Mediterranean Sea, 2015 218

Table 5.1 Belgium: National fleet statistics and economic performance results. *projections 227

Table 5.2 Belgium: National fleet statistics and economic performance results by fishing activity. *projections 229

Table 5.3 Belgium: National fleet statistics and economic performance results by fleet segment, 2015 230

Table 5.4 Belgium: National fleet statistics and economic performance results by fleet segment, 2016* 230

Table 5.5 Belgium: Landed value, weight and average price of principal species 231

Table 5.6 Bulgaria: National fleet statistics and economic performance results. *projections 237

Table 5.7 Bulgaria: National fleet statistics and economic performance results by fishing activity.*projections 239

Table 5.8 Bulgaria: National fleet statistics and economic performance results by fleet segment, 2015 240
Table 5.9 Bulgaria: National fleet statistics and economic performance results by fleet segment, 2016 241
Table 5.10 Bulgaria: Landed value, weight and average price of principal species 241
Table 5.11 Croatia: National fleet statistics and economic performance results. *projections 246
Table 5.12 Croatia: National fleet statistics and economic performance results by fishing activity. *projections 248
Table 5.13 Croatia: National fleet statistics and economic performance results by fleet segment, 2015 249
Table 5.14 Croatia: National fleet statistics and economic performance results by fleet segment, 2016* 250
Table 5.15 Croatia: Landed value, weight and average price of principal species 251
Table 5.16 Cyprus: National fleet statistics and economic performance results. *projections 257
Table 5.17 Cyprus: National fleet statistics and economic performance results by fishing activity. *projections 259
Table 5.18 Cyprus: National fleet statistics and economic performance results by fleet segment 260
Table 5.19 Cyprus: National fleet statistics and economic performance results by fleet segment, 2016* 260
Table 5.20 Cyprus: Landed value, weight and average price of principal species 261
Table 5.21 Denmark: National fleet statistics and economic performance results. *projections 266
Table 5.22 Denmark: National fleet statistics and economic performance results by fishing activity. *projections 268
Table 5.23 Denmark: National fleet statistics and economic performance results by fleet segment, 2015 269
Table 5.24 Denmark: National fleet statistics and economic performance results by fleet segment, 2016* 270
Table 5.25 Denmark: Landed value, weight and average price of principal species 271
Table 5.26 Estonia: National fleet statistics and economic performance results. *projections 276
Table 5.27 Estonia: National fleet statistics and economic performance results by fishing activity. *projections 278
Table 5.28 Estonia: National fleet statistics and economic performance results by fleet segment, 2015 279
Table 5.29 Estonia: National fleet statistics and economic performance results by fleet segment, 2016* 279
Table 5.30 Estonia: Landed value, weight and average price of principal species 279
Table 5.31 Finland: National fleet statistics and economic performance results. *projections 283
Table 5.32 Finland: National fleet statistics and economic performance results by fishing activity. *projections 285
Table 5.33 Finland: National fleet statistics and economic performance results by fleet segment, 2015 286
Table 5.34 Finland: National fleet statistics and economic performance results by fleet segment, 2016* 286
Table 5.35 Finland: Landed value, weight and average price of principal species 286
Table 5.36 France: National fleet statistics and economic performance results. *projections 295
Table 5.37 France: National fleet statistics and economic performance results by fishing activity. *projections 297
Table 5.38 France: National fleet statistics and economic performance results by fleet segment, 2015 298
Table 5.39 France: National fleet statistics and economic performance results by fleet segment, 2016* 299
Table 5.40 France: Landed value, weight and average price of principal species 300
Table 5.41 Germany: National fleet statistics and economic performance results. *projections 307
Table 5.42 Germany: National fleet statistics and economic performance results by fishing activity. *projections 309
Table 5.43 Germany: National fleet statistics and economic performance results by fleet segment, 2015 310
Table 5.44 Germany: National fleet statistics and economic performance results by fleet segment, 2016* 310
Table 5.45 Germany: Landed value, weight and average price of principal species 311
Table 5.46 Greece: National fleet statistics 317
Table 5.47 Greece: National fleet statistics by fishing activity 317
Table 5.48 Ireland: National fleet statistics and economic performance results. *projections 324
Table 5.49 Ireland: National fleet statistics and economic performance results by fishing activity. *projections 326
Table 5.50 Ireland: National fleet statistics and economic performance results by fleet segment, 2015 327
Table 5.51 Ireland: National fleet statistics and economic performance results by fleet segment, 2016* 328
Table 5.52 Ireland: Landed value, weight and average price of principal species 329
Table 5.53 Italy: National fleet statistics and economic performance results. *projections 335
Table 5.54 Italy: National fleet statistics and economic performance results by fishing activity. *projections 337

Table 5.55 Italy: National fleet statistics and economic performance results by fleet segment, 2015 338
Table 5.56 Italy: National fleet statistics and economic performance results by fleet segment, 2016* 339
Table 5.57 Italy: Landed value, weight and average price of principal species 340
Table 5.58 Latvia: National fleet statistics and economic performance results. *projections 346
Table 5.59 Latvia: National fleet statistics and economic performance results by fishing activity. *projections 348
Table 5.60 Latvia: National fleet statistics and economic performance results by fleet segment, 2015 349
Table 5.61 Latvia: National fleet statistics and economic performance results by fleet segment, 2016* 349
Table 5.62 Latvia: Landed value, weight and average price of principal species 349
Table 5.63 Lithuania: National fleet statistics and economic performance results. *projections 355
Table 5.64 Lithuania: National fleet statistics and economic performance results by fishing activity. *projections 357
Table 5.65 Lithuania: National fleet statistics and economic performance results by fleet segment, 2015 358
Table 5.66 Lithuania: National fleet statistics and economic performance results by fleet segment, 2016* 358
Table 5.67 Lithuania: Landed value, weight and average price of principal species 358
Table 5.68 Malta: National fleet statistics and economic performance results. *projections 365
Table 5.69 Malta: National fleet statistics and economic performance results by fishing activity. *projections 367
Table 5.70 Malta: National fleet statistics and economic performance results by fleet segment, 2015 368
Table 5.71 Malta: National fleet statistics and economic performance results by fleet segment, 2016* 369
Table 5.72 Malta: Landed value, weight and average price of principal species 370
Table 5.73 Netherlands: National fleet statistics and economic performance results. *projections 376
Table 5.74 Netherlands: National fleet statistics and economic performance results by fishing activity. *projections 378
Table 5.75 Netherlands: National fleet statistics and economic performance results by fleet segment, 2015 379
Table 5.76 Netherlands: National fleet statistics and economic performance results by fleet segment, 2016* 379
Table 5.77 Netherlands: Landed value, weight and average price of principal species 380
Table 5.78 Poland: National fleet statistics and economic performance results. *projections 385
Table 5.79 Poland: National fleet statistics and economic performance results by fishing activity. *projections 387
Table 5.80 Poland: National fleet statistics and economic performance results by fleet segment, 2015 388
Table 5.81 Poland: National fleet statistics and economic performance results by fleet segment, 2016* 388
Table 5.82 Poland: Landed value, weight and average price of principal species 389
Table 5.83 Portugal: National fleet statistics and economic performance results. *projections 395
Table 5.84 Portugal: National fleet statistics and economic performance results by fishing activity. *projections 397
Table 5.85 Portugal: National fleet statistics and economic performance results by fleet segment, 2015 398
Table 5.86 Portugal: National fleet statistics and economic performance results by fleet segment, 2016* 400
Table 5.87 Portugal: Landed value, weight and average price of principal species 401
Table 5.88 Romania: National fleet statistics and economic performance results. *projections 408
Table 5.89 Romania: National fleet statistics and economic performance results by fishing activity. *projections 410
Table 5.90 Romania: National fleet statistics and economic performance results by fleet segment, 2015 411
Table 5.91 Romania: National fleet statistics and economic performance results by fleet segment, 2016* 411
Table 5.92 Romania: Landed value, weight and average price of principal species 411
Table 5.93 Slovenia: National fleet statistics and economic performance results. *projections 417
Table 5.94 Slovenia: National fleet statistics and economic performance results by fishing activity. *projections 419
Table 5.95 Slovenia: National fleet statistics and economic performance results by fleet segment, 2015 420
Table 5.96 Slovenia: National fleet statistics and economic performance results by fleet segment, 2016* 420
Table 5.97 Slovenia: Landed value, weight and average price of principal species 420
Table 5.98 Spain: National fleet statistics and economic performance results. *projections 428
Table 5.99 Spain: National fleet statistics and economic performance results by fishing activity. *projections 430
Table 5.100 Spain: National fleet statistics and economic performance results by fleet segment, 2015 431
Table 5.101 Spain: National fleet statistics and economic performance results by fleet segment, 2016* 433

Table 5.102 Spain: Landed value, weight and average price of principal species 434
Table 5.103 Sweden: National fleet statistics and economic performance results. *projections 439
Table 5.104 Sweden: National fleet statistics and economic performance results by fishing activity. *projections 441
Table 5.105 Sweden: National fleet statistics and economic performance results by fleet segment, 2015 442
Table 5.106 Sweden: National fleet statistics and economic performance results by fleet segment, 2016* 442
Table 5.107 Sweden: Landed value, weight and average price of principal species 443
Table 5.108 United Kingdom: National fleet statistics and economic performance results by fishing activity. 448
Table 5.109 United Kingdom: National fleet statistics and economic performance results by fishing activity. 450
Table 5.110 United Kingdom: National fleet statistics and economic performance results by fleet segment, 2015 451
Table 5.111 United Kingdom: National fleet statistics and economic performance results by fleet segment, 2016* 452
Table 5.112 United Kingdom: Landed value, weight and average price of principal species 453
Table 6.1 2015 DCF Fleet economic data call contents for years 2008-2015/16 455
Table 6.2 Harmonised index of consumer prices (HICP) by EU Member State, 2008-2016 458
Table 6.3 Inflation and nominal LT interest rates by EU Member State 2008-2016 460
Table 6.4 Development trend classification 461
Table 6.5 Profitability classification 461
Table 6.6 Variation in the number of vessels from 2015 to 2016 (Vessels 2016 / Vessels 2015) 473
Table 6.7 Variation in the number of vessels from 2016 to 2017 (Vessels 2017 / Vessels 2016) 474
Table 6.8 Variation in the fish and seafood price from 2015 to 2016 and from 2016 to 2017 475
Table 6.9 Change in fuel prices from 2015 to 2016 (e.g. Prices 2016 / Prices 2015) and from 2016 to 2017 476
Table 6.10 Inflation (%) 477
Table 6.11 Nominal interest rate evolution for the period 2015-17 (%) 478

LIST OF FIGURES

Figure 3.1 Left: Trends in EU total fleet capacity in number, engine power (kW) and gross tonnage; Right: EU fleet capacity by number of active and inactive vessels (include Greece and Croatia) 65

Figure 3.2 Left: Trends in EU fleet capacity in number, engine power (kW) and gross tonnage; Right: fleet capacity by number of active and inactive vessels (exclude Greece and Croatia) 65

Figure 3.3 EU inactive fleet capacity by vessel length group, 2015 66

Figure 3.4 Variations in EU total fleet capacity, by active and inactive vessels (based on 2008 = 100) 66

Figure 3.5 Variation in fleet capacity for active vessels by length groups (based on 2008 = 100) 66

Figure 3.6 EU fleet capacity by main type of fishing activity as a percentage of the EU fleet, 2015 67

Figure 3.7 Trends on the EU fishing fleet capacity by main type of fishing activity 67

Figure 3.8 Left: EU fleet employment (in total employed and FTE) and average wage per FTE; Right: variation in employment and average wage per FTE (based on 2008=100) 68

Figure 3.9 Employment by fishing activity as a percentage of the EU fleet, 2015 68

Figure 3.10 Left: average wage per FTE by main fishing activity and Right: variation in average wage per FTE (based on 2008=100) 69

Figure 3.11 Left: Trends on fishing effort of the EU fleet; Right: Days at sea by MS fleet, 2015 69

Figure 3.12 Left: Trends on energy consumption and average fuel consumed per day at sea; Right: energy consumption by MS fleet, 2015 69

Figure 3.13 Variation in fishing effort, fuel consumption and fuel costs (based on 2008=100) 70

Figure 3.14 Effort by fishing activity as a percentage of the EU fleet, 2015 70

Figure 3.15 Left: Trends on landings weight and value by the EU fleet; Right: variation in landings and average price (based on 2008=100) 71

Figure 3.16 Landings in weight and value by Member State fleet, 2015 71

Figure 3.17 Trends on top ten species landed by the EU fleet in weight (top) and value (bottom) 72

Figure 3.18 Average real price of the top species landed in terms of weight and/or value 73

Figure 3.19 Variation in average price of the top species landed in terms of weight and/or value (based on 2008=100) 73

Figure 3.20 Landings by fishing activity as a percentage of the EU fleet, 2015 74

Figure 3.21 Left: Trends on landings per unit of effort (LPUE) for the EU fleet; Right: Variation in landings per unit of effort for the EU fleet on average and by fishing activity (based on 2008=100) 74

Figure 3.22 Trends on landings per unit of effort (LPUE) by main fishing activity 74

Figure 3.23 Trends on income (left) and costs (right) generated by the EU fleet 75

Figure 3.24 Trends on costs as a % of revenue 75

Figure 3.25 Left: Variations in revenue and costs for the EU fleet (based on 2008=100) 76

Figure 3.26 Average EU marine fuel price (€/litre) 76

Figure 3.27 Cost items by fishing activity as a percentage of the EU fleet, 2015 77

Figure 3.28 Trends on revenue (top) and cost structure by main type of fishing activity 77

Figure 3.29 Variations in revenue (left) and cost structure (right) by main type of fishing activity. *projections 77

Figure 3.30 Trends on EU fleet economic performance indicators. * projections 78

Figure 3.31 Variations in EU fleet economic performance indicators (based on 2008=100) 78

Figure 3.32 Economic performance by fishing activity as a proportion of the EU fleet, 2015 79

Figure 3.33 Trends on fleet economic performance indicators for the EU SSCF. *projections 79

Figure 3.34 Trends on fleet economic performance indicators for the EU LSF 80

Figure 3.35 Trends on fleet economic performance indicators for the EU DWF 80

Figure 3.36 Trends on labour (GVA per FTE) and capital productivity (RoFTA) for the EU fleet and by fishing activity 81

Figure 3.37 Trends on fuel use, measured as fuel costs to income from landings (fuel efficiency) and litres of fuel consumed per tonne landed (fuel intensity) for the EU fleet and by main fishing activity 82

Figure 4.1 Trends on effort and landings for MS fleets operating in the North Sea & Eastern Arctic region 107

Figure 4.2 Trends on revenue and profits for MS fleets operating in the North Sea & Eastern Arctic region 107

Figure 4.3 Trends on average wage and labour productivity (GVA per FTE) by fishing activity for MS fleets operating in the North Sea & Eastern Arctic region 107

Figure 4.4 Importance of the North Sea & Eastern Arctic regions for Member States' fisheries in terms of landings in weight and value, 2015 108

Figure 4.5 Share of North Sea & Eastern Arctic fleet capacity by MS and fishing activity, 2015 109

Figure 4.6 Trends on number of vessels and employment (in FTE) for MS fleets operating in the North Sea & Eastern Arctic region 109

Figure 4.7 Share of the effort deployed by the North Sea & Eastern Arctic fleet by MS and fishing activity, 2015 109

Figure 4.8 Trends on fishing effort (in days at sea) and fuel consumption for MS fleets operating in the North Sea & Eastern Arctic region 110

Figure 4.9 Share of landings from the North Sea & Eastern Arctic region by MS and fishing activity, 2015 110

Figure 4.10 Trends on landings in weight and value for MS fleets operating in the North Sea & Eastern Arctic region 110

Figure 4.11 List of the top 10 species in terms of landed weight and value by MS fleets operating in the North Sea & Eastern Arctic in 2015 111

Figure 4.12 Trends on landings of the top six species in terms of landed value for MS fleets operating in the North Sea & Eastern Arctic 111

Figure 4.13 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) for MS fleets operating in the North Sea & Eastern Arctic region 112

Figure 4.14 Schematic representation of the amount of fuel consumed per landed weight (litre/tonne) by the various MS fleet components operating in the North Sea & Eastern Arctic, including some important segments 112

Figure 4.15 Schematic representation of the ratio fuel costs to landed value (%) for the various MS fleet components operating in the North Sea & Eastern Arctic, including some important segments 113

Figure 4.16 Schematic representation of the gross profit per day at sea generated by the various MS fleet components operating in the North Sea & Eastern Arctic, including some important segments 113

Figure 4.17 TACs for major pelagic species (left) and demersal species (right, dotted line -> secondary axis) in the North Sea & Eastern Arctic region 114

Figure 4.18 Top 10 species (and others) landed in terms of value as a proportion of the total landings in the region by MS large-scale fleets operating in the North Sea and Eastern Arctic, 2015 115

Figure 4.19 Top 10 species (and others) landed in terms of value as a proportion of the total landings in the region by MS large-scale fleets operating in the North Sea and Eastern Arctic, 2015 116

Figure 4.20 Trends on effort and landings for MS fleets operating in the Baltic Sea region 125

Figure 4.21 Trends on revenue and profits for MS fleets operating in the Baltic Sea 125

Figure 4.22 Trends on average wage and labour productivity (GVA per FTE) by fishing activity for MS fleets operating in the Baltic Sea region 125

Figure 4.23 Importance of the Baltic Sea region for Member States' fisheries in terms of landings in weight and value, 2015 126

Figure 4.24 Share of the Baltic Sea fleet capacity (number of vessels) by MS and by fishing activity, 2015 127

Figure 4.25 Trends on the number of vessels and employment in FTE for MS fleets operating in the Baltic Sea 127

Figure 4.26 Share of the effort deployed by the Baltic Sea fleet by MS and fishing activity, 2015 127

Figure 4.27 Trends on effort (in days at sea) and energy consumption for MS fleets operating in the Baltic Sea 128

Figure 4.28 Share of landings from the Baltic Sea region by MS and main type of fishing activity, 2015 128

Figure 4.29 Trends on landings in weight and value for MS fleets operating in the Baltic Sea 128

Figure 4.30 List of top 10 species in terms of landed weight and value by MS fleets operating in the Baltic Sea, 2015 129

Figure 4.31 Trends on landings of the top six species in terms of landed value for MS fleets operating in the Baltic Sea, 2015 129

Figure 4.32 Trends on revenue (landings income + other income) and profits (GVA, gross profit and net profit) for MS fleets operating in the Baltic Sea region 130

Figure 4.33 Schematic representation of the amount of fuel consumed per landed weight (litre/tonne) by the various MS fleet components operating in the Baltic Sea, including some of the most important segments 130

Figure 4.34 Schematic representation of the ratio fuel costs to landed value (%) for the various MS fleet components operating in the Baltic Sea, including some important segments 131

Figure 4.35 Schematic representation of the gross profit per day at sea generated by the various MS fleet components operating in the Baltic Sea, including some important segments 131

Figure 4.36 Adapted quota (grey bars) and reported catches (coloured bars) for the four most important TACs species in the Baltic Sea region, 2012-2015 132

Figure 4.37 Trends on effort and landings for MS fleets operating in the NE Atlantic region 141
Figure 4.38 Trends on revenue and profits for MS fleets operating in the NE Atlantic region 141
Figure 4.39 Trends on average wage and labour productivity (GVA per FTE) by fishing activity for MS fleets operating in the NE Atlantic region 141
Figure 4.40 Importance of the NE Atlantic region for Member States' fisheries in terms of landings in weight and value, 2015 142
Figure 4.41 Share of NE Atlantic fleet capacity by MS and fishing activity, 2015 142
Figure 4.42 Trends on the number of vessels and employment (in FTE) for MS fleets operating in the NE Atlantic region 143
Figure 4.43 Share of effort deployed in the NE Atlantic region by MS and fishing activity, 2015 143
Figure 4.44 Trends on fishing effort (in days at sea) and energy consumption for MS fleets operating in the NE Atlantic region 143
Figure 4.45 Share of landings from the NE Atlantic region by MS and fishing activity, 2015 144
Figure 4.46 Trends on landings in weight and value from MS fleets operating in the NE Atlantic fishing region 144
Figure 4.47 Top 10 species in terms of landed weight and value for MS fleets operating in the NE Atlantic, 2015..... 145
Figure 4.48 Trends on landings of the top six species in terms of landed value for MS fleets operating in the NE Atlantic region 145
Figure 4.49 Trends on revenue (income from landings + other income) and profit (GVA, gross profit and net profit) for MS fleets operating in the NE Atlantic region 146
Figure 4.50 Schematic representation of the amount of fuel consumed per landed weight (litre/tonne) by the various MS fleet components operating in the NE Atlantic region, including some of the most important segments 147
Figure 4.51 Schematic representation of the ratio fuel costs to landed value (%) for the various MS fleet components operating in the NE Atlantic region, including some of the most important segments 147
Figure 4.52 Schematic representation of the gross profit per day at sea generated by the various MS fleet components operating in the NE Atlantic region, including some of the most important segments 148
Figure 4.53 Trends on TACs for major demersal (left) and pelagic (right) stocks in the North-western waters, 2001-2015. 149
Figure 4.54 Trends on TACs for major demersal (left) and pelagic (right) stocks in the South-western waters, 2001-2015 (For the SWW the amount of WHB are NWW+SWW) 149
Figure 4.55 Top 10 species (and other) landed in terms of value as a proportion of the total landings in the region by MS small-scale coastal fleets and large-scale fleets operating in the NE Atlantic, 2015 151
Figure 4.56 Trends on effort and landings for MS fleets operating in the Mediterranean & Black Sea regions 160
Figure 4.57 Trends on revenue and profits for MS fleets operating in the Mediterranean & Black Sea regions 160
Figure 4.58 Trends on average wage and labour productivity (GVA per FTE) by fishing activity for MS fleets operating in the Mediterranean & Black Sea regions 160
Figure 4.59 Importance of the Mediterranean & Black Sea regions for Member States' fisheries in terms of landings in weight and value, 2015..... 161
Figure 4.60 Share of Mediterranean & Black Sea fleet capacity by MS and fishing activity, 2015 (middle panel excluded Greece)..... 162
Figure 4.61 Trends on the number of vessels and employment (in FTE) for the MS fleets operating in the Mediterranean & Black Sea region 162
Figure 4.62 Share of the fishing effort deployed in Med & Black Sea region by MS and fishing activity, 2015 162
Figure 4.63 Trends on fishing effort (in days at sea) and energy consumption for MS fleets operating in the Mediterranean & Black Sea region 163
Figure 4.64 Share of landings from the Mediterranean & Black Sea region by MS and fishing activity, 2015 163
Figure 4.65 Trends on landings in weight and value by MS fleets operating in the Mediterranean and Black seas 163
Figure 4.66 List of the top 10 species in terms of landed weight and value for MS fleets operating in the Mediterranean & Black Sea, 2015. 164
Figure 4.67 Trends on landings of the top six species in terms of landed value for MS fleets operating in the Mediterranean & Black Sea, 2015 164
Figure 4.68 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) by MS fleets operating in the Mediterranean & Black Sea region 165
Figure 4.69 Schematic representation of the amount of fuel consumed per landed weight (litres/tonne) by the various MS fleet components operating in the Med & Black seas, including some important segments..... 165
Figure 4.70 Schematic representation of the ratio fuel costs to landed value (%) for the various MS fleet components operating in the Mediterranean & Black seas, including some important segments..... 166

Figure 4.71 Schematic representation of the amount of gross profit generated per day at sea (€/day) by the various MS fleet components operating in the Mediterranean & Black seas, including some important segments 166

Figure 4.72 Top 10 species landed in terms of value as a proportion of the total landings in the region by MS small-scale coastal fleets operating in the Mediterranean & Black seas, 2015 168

Figure 4.73 Top 10 species landed in terms of value as a proportion of the total landings in the region by MS large-scale fleets operating in the Mediterranean & Black seas, 2015 169

Figure 4.74 Share of landings in weight by main fishing region (left) and by Member State (right) in Other Fishing Regions (OFR), 2015 178

Figure 4.75 Share of landings in weight by main fishing region (left) and value (right) in OFR according to the data submitted under the DCF, 2015 179

Figure 4.76 Share of landings weight and value in 2015 by main fishing region: Area 27, Area 37 and OFR 179

Figure 4.77 Trends on landings weight and value by main fishing region 179

Figure 4.78 Importance of the *Other Fishing Regions* for Member States' fisheries in terms of landings in weight and value, 2015 180

Figure 4.79 Trends on landings, revenue and profit by MS fleets operating in *Other Fishing Regions* 180

Figure 4.80 Share of the OFR fleet capacity by MS and main fishing areas in OFR 2015 180

Figure 4.81 Trends on the number of vessels and employment (in FTE) for MS fleets operating in OFR. Data for France available only in 2014 and 2015 181

Figure 4.82 Trends on the number of vessels and employment (in FTE) for the MS fleets operating in OFR. Excludes France 181

Figure 4.83 Share of fishing effort (in days at sea) and landed value by MS and by main fishing area in OFR, 2015 . 181

Figure 4.84 Trends on effort (days at sea) and fuel consumption for the MS fleets operating in OFR. Data for France available only in 2014 and 2015 182

Figure 4.85 Trends on effort (days at sea) and fuel consumption for the MS fleets operating in OFR. Excludes France 182

Figure 4.86 Share of landings in weight by fishing area and MS fleet operating in OFR, 2015 183

Figure 4.87 Share of landed value by main fishing area and MS fleet operating in OFR, 2015 183

Figure 4.88 Trends on landed weight (left) and value (right) by fishing area in OFR 183

Figure 4.89 Trends on landings weight and value from Other Fishing Regions by MS fleets 183

Figure 4.90 Trends on landings weight and value from Other Fishing Regions by MS fleets. Excludes France 184

Figure 4.91 List of top 10 species in terms of weight and value and the proportion landed by MS fleets operating in the OFR in 2015. 184

Figure 4.92 Trends on landings weight and value of the top species in terms of landed value for MS fleets operating in OFR. 184

Figure 4.93 Trends in revenue (landings income + other income) and profit (GVA, gross profit and net profit) by MS fleets operating in OFR. Data for France available only in 2014 and 2015 185

Figure 4.94 Trends in revenue (landings income + other income) and profit (GVA, gross profit and net profit) by MS fleets operating in OFR. Excludes France and Lithuania 185

Figure 4.95 Landings value and share of landing in 2015 by sub-region for ESP OFR PS40XX 187

Figure 4.96 Landings value and share of landing in 2015 by sub-region for ESP OFR DTS40XX 187

Figure 4.97 Landings value and share in 2015 by sub-region for ESP OFR DTS 2440 188

Figure 4.98 Landings value and share in 2015 by sub-region for ESP OFR HOK 2440 & ESP OFR PGO2440 189

Figure 4.99 Landings value and share in 2015 by sub-region for FRA OFR PS40XX 189

Figure 4.100 Landings value and share in 2015 by sub-region for LTU OFR TM40XX 190

Figure 4.101 Landings value and share in 2015 by sub-region for POL OFR TM40XX 191

Figure 4.102 Trends on landings value and share in 2015 by sub-region for PRT OFR HOK2440 IWE 192

Figure 4.103 Trends on landings value and share in 2015 by sub-region for PRT OFR HOK2440 P2 192

Figure 4.104 Landings value and share in 2015 by sub-region for PRT OFR HOK40XX IWE 192

Figure 4.105 Landings value and share in 2015 by sub-region for NLD A27 TM40XX 193

Figure 4.106 Estimated cost of SFPAs annually. 195

Figure 4.107 Importance of the *Other Regions* for Member States' fisheries in terms of landings in weight and value, 2015 195

Figure 4.108 Trends on revenue, profits and profit margins for EU fleets operating in Other regions 196

Figure 4.109 Share of the number of vessels by MS fleet and fishing activity in Other regions, 2015 196
Figure 4.110 Trends on the number of vessels and employment (in FTE) for MS fleets operating in Other regions ... 197
Figure 4.111 Share of the effort deployed by MS fleet and fishing activity in Other regions, 2015 197
Figure 4.112 Trends in fishing effort (days at sea) and fuel consumption for MS fleets operating in Other regions ... 197
Figure 4.113 Share of landed weight by MS fleet and main type of fishing activity in Other regions, 2015 198
Figure 4.114 Share of landed value by MS fleet and main type of fishing activity in Other regions, 2015 198
Figure 4.115 Trends on landings in weight and value by MS fleet operating in Other regions 198
Figure 4.116 Top 10 species in terms of weight and value landed by MS fleets operating in Other regions, 2015 199
Figure 4.117 Trends on landings of the top six species in terms of landed value for MS fleets operating in Other regions 199
Figure 4.118 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) for MS fleets operating in Other regions (excludes Lithuania) 200
Figure 4.119 Importance of the EU *Outermost regions* for Member States' fisheries in terms of landings in weight and value, 2015 201
Figure 4.120 Trends on fishing effort and landings by MS fleets operating in the EU outermost regions 201
Figure 4.121 Trends on revenue and profits for MS fleets operating in the EU outermost regions 202
Figure 4.122 Share of capacity (no. vessels) by MS fleet and type of fishing activity in EU Outermost Regions, 2015 (includes France) 202
Figure 4.123 Trends on the number of vessels and employment (in FTE) for MS fleets operating in the EU Outermost Regions 202
Figure 4.124 Trends on the number of vessels and employment (in FTE) for MS fleets operating in the EU Outermost Regions. Excludes France 203
Figure 4.125 Share of fishing effort (in days at sea) by MS fleet and type of fishing activity in EU Outermost Regions, 2015 (includes France) 203
Figure 4.126 Trends on fishing effort (days at sea) and fuel consumption for the MS fleets operating in the EU Outermost regions 203
Figure 4.127 Trends on effort (days at sea) and fuel consumption for the MS fleets operating in the EU Outermost Regions. Excludes France 204
Figure 4.128 Share of landings in weight and value by MS fleet and fishing activity in the EU Outermost Regions, 2015 204
Figure 4.129 Top 10 species in terms of weight and value landed by MS fleets operating in EU Outermost Regions, 2015 204
Figure 4.130 Trends on landings of the top six species in terms of landed value for MS fleets operating in EU Outermost Regions 205
Figure 4.131 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) for MS fleets operating in the EU Outermost Regions 205
Figure 4.132 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) by MS fleets operating in the EU Outermost Regions. Excludes France 206
Figure 4.133 Importance of the Northwest Atlantic fishing regions for Member States' fisheries in terms of landings in weight and value, 2015 207
Figure 4.134 Trends on effort and landings for MS fleets operating in the Northwest Atlantic region 207
Figure 4.135 Trends on revenue and profits for MS fleets operating in the Northwest Atlantic region 207
Figure 4.136 Share of the number of vessels by MS fleet and fishing activity in the Northwest Atlantic region, 2015 208
Figure 4.137 Trends on the number of vessels and employment in FTE for MS fleets operating in the Northwest Atlantic region 208
Figure 4.138 Share of the effort deployed by MS fleet and fishing activity in the Northwest Atlantic region, 2015 208
Figure 4.139 Trends on effort (in days at sea) and fuel consumption for the MS fleets operating in the Northwest Atlantic region 209
Figure 4.140 Share of landed weight by MS fleet and fishing activity in the Northwest Atlantic region, 2015 209
Figure 4.141 Share of landed value by MS fleet and fishing activity in the Northwest Atlantic region, 2015 209
Figure 4.142 Trends in landings, weight and value, by MS fleet operating in the Northwest Atlantic region 210
Figure 4.143 List of the top 10 species in terms of weight and value for MS fleets operating in the Northwest Atlantic region, 2015 210
Figure 4.144 Trends on landings of the top six species in terms of landed value for MS fleets operating in the Northwest Atlantic region, 2010-2015 210

Figure 4.145 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) for MS fleet operating in the Northwest Atlantic region 211

Figure 5.1 Belgium: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections 228

Figure 5.2 Bulgaria: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections .. 238

Figure 5.3 Croatia: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price of top species (panel 3b) 247

Figure 5.4 Cyprus: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections 258

Figure 5.5 Denmark: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections .. 267

Figure 5.6 Estonia: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections 277

Figure 5.7 Finland: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections 284

Figure 5.8 France: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections 296

Figure 5.9 Germany: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections .. 308

Figure 5.10 Greece: Cost structure (panel 1a) and key inputs (panel 1b) 317

Figure 5.11 Ireland: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections .. 325

Figure 5.12 Italy: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections 336

Figure 5.13 Latvia: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections 347

Figure 5.14 Lithuania: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections .. 356

Figure 5.15 Malta: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections 366

Figure 5.16 Netherlands: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections .. 377

Figure 5.17 Poland: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections 386

Figure 5.18 Portugal: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections .. 396

Figure 5.19 Romania: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections .. 409

Figure 5.20 Slovenia: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections .. 418

Figure 5.21 Spain: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections 429

Figure 5.22 Sweden: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections.. 440

Figure 5.23 United Kingdom: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections..... 449

THE 2017 ANNUAL ECONOMIC REPORT ON THE EU FISHING FLEET (STECF 17-12)

THIS REPORT WAS REVIEWED BY THE STECF PLENARY (PLEN-17-02), 10-14 JULY 2017

Request to the STECF

STECF is requested to review the report of the STECF Expert Working Group meetings, evaluate the findings and make any appropriate comments and recommendations.

Background

Following the 2017 DCF call for economic data on the EU fishing fleet, EWG 17-01 & 17-06 were requested to analyse the data and comment on the economic performance of the EU and Member State fishing fleets between 2008 and 2016.

STECF OBSERVATIONS

STECF reviewed the 2017 Annual Economic Report on the EU Fishing fleet and notes that the EWG adequately addressed all the ToRs. STECF acknowledges the extensive work undertaken by all personnel involved in the preparation of the 2017 AER by attendance to two EWGs (EWG17-01 and 17-06). The 2017 AER represents the most comprehensive overview of the structure and economic performance of the EU fishing fleets (at EU, regional and Member states' level) and replaces previous AER reports.

The results of the AER 2017 report indicate that the profitability of the EU fishing fleet again increased in 2015 compared to 2014 and is expected to have continued in 2016 and into 2017 mainly because of increased landings and low fuel prices. At the regional level, the profitability of the European fleets is improving in almost all the regions except for the Baltic region where the net profit still shows negative values and after a slight improvement in 2013 and 2014, deteriorated again in 2015. Regarding the other regions, in the Northeast Atlantic, despite the decrease in landings, the overall performance improved as well as in the North Sea & Eastern Arctic region and in the Mediterranean & Black Sea, where 2015 was the most profitable year so far analysed.

The data in this report have undergone extensive data validation procedures by JRC and assessment by the two EWGs. STECF acknowledges that a significant amount of effort is required to carry out quality check and correct the first data uploaded by MS, before and during the first EWG. Data errors observed during the first EWG can be corrected by the MS up to two weeks after the first EWG.

Based on the EWG report, STECF made a number of observations:

The identification and the assessment of data transmission failures should be improved as reported under TOR 5.5.

The quality and coverage of data submitted by Member States has continued to improve, allowing for more accurate and precise observations about the economic performance of the EU Member States' fishing fleets. Overall, the coverage has improved, and in the 2017 AER report only Greece was excluded from the EU overview (due to incompleteness of data series); and only a few fleet segments were excluded due to confidentiality reasons.

STECF acknowledges the positive development in the two EWG's moving from data handling towards more detailed discussions about the applied methodologies and analysis of why observed developments takes place (e.g. main drivers). Some preliminary investigations are provided in the report, including for example discussions on high wage levels in some member states or negative economic performance in the Baltic Sea. Such analyses are expected to be further developed in the future.

As observed in PLEN 16-02, the use of the CPI (Consumer Price Index) to adjust time series for inflation is still a pending issue. CPI is an index compiled using the price development of many goods. However, many of these goods are not directly used in fisheries, thus other indices could potentially be applied, if such are available and applicable.

Many Member States have voluntarily provided information about fleet structure and landings for 2016. This information is used as the basis for the 2016 and 2017 economic projections based on the BEMEF-model, including other types of information as well (e.g. agreed TACs, average fuel prices and first-sale prices).

A thorough description of the BEMEF-model is included in the 2017 AER addressing the some of the limitations raised in PLEN 17-01-report (i.e. uncertainty estimates and robustness of outputs given model structure). The possibility of incorporating technical interactions at the metier level was not addressed because not required for the specific needs of the AER.

The approach of using "days at sea" to split fleet segment data by region continues to have some drawbacks. Given that it is based on the assumption that the cost structure, and/or costs per day at sea, are the same for all regions, it can

result in inaccurate estimates. Furthermore, it is not within the DCF data possible to make a distinction between how much time is used for fishing and steaming between fishing areas and homeport.

The EWG has considered last years' deviations in the methodologies for calculating some economic indicators across different STECF working groups. Thus, STECF acknowledges that the use and estimation of capital costs in AER 2017 are consistent with the approach used in the report on the Balance between fleet capacity and fishing opportunities (STECF 16-18).

STECF notes that the AER reports have never included any information about the downstream services covering the processing industry and onshore service industries (e.g. shipyards, oil bunkers, gear producers, provision suppliers, etc.). STECF observes that the general interest about the downstream services beyond just covering the processing sector is increasing in order evaluate the importance and potential effect on e.g. local communities following changes in the level of activity in the primary fishery.

STECF CONCLUSIONS

The 2017 Annual Economic Report (AER) on the European Union (EU) fishing fleet provides the most comprehensive overview of the structure and economic performance of EU Member States' fishing fleets prepared up to date. STECF concludes that the report represents a step forward and that the report can provide useful information to managers, policy-makers, as well as other end-users.

STECF concludes that the appropriateness in using the CPI compared to other more specific price/cost indices should be further evaluated.

STECF concludes that the methodology on data disaggregation by fishing regions using the days at sea should be further investigated in order to assess its potential bias and inaccuracy, and to consider alternative options to obtain better cost estimates for the different regions.

STECF notes the interest of DG MARE for analysis regarding the downstream services. A process would need to be initiated to identify the purpose of collecting the information, which industries should be in focus, potential approaches for collecting this, and how it can be presented.

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EXECUTIVE SUMMARY

The 2017 Annual Economic Report (AER) on the European Union (EU) fishing fleet provides a comprehensive overview of the latest information available on the structure and economic performance of the 23 coastal EU Member State fishing fleets. The results indicate that the profitability of the EU fleet improved further in 2015, compared to 2014. This improvement is expected to have continued into 2016 mainly as a result of increased landings and low fuel prices. Forecasts for 2017 suggest that developments are offset by higher fuel prices compared to 2016.

In 2015, the EU fishing fleet numbered 84 420 vessels with a combined gross tonnage (GT) of 1.6 million tonnes and engine power of 6.4 million kilowatts (kW) (or 68 796 vessels, 1.5 million GT and 6.0 million kW when excluding Greece). EU fleet capacity has continued to decrease steadily at an average rate of 2.2% p.a. in terms of vessel numbers and kW and 2.5% in GT.

Based on DCF data, 63 976 of the registered vessels were active in 2015 (49 562 when excluding Greece) while the remaining 20 444 were inactive (19 234 when excluding Greece). Of the active vessels, 74% were small-scale coastal vessels, 25% were large-scale and 1% distant water vessels.

Direct employment generated by the sector amounted to 152 700 fishers, corresponding to 114 863 FTEs. Average annual wage per FTE was estimated at €24.8 thousand, ranging from €1.4 thousand for Cypriot fishers to €75 thousand for Belgian fishers.

The EU fleet spent almost 4.8 million days at sea and consumed 2.3 billion litres of fuel. According to the DCF data, the EU fleet landed 5 million tonnes of seafood in 2015 with a reported landed value of €7 billion.

In 2015, the EU fleet had an estimated, depreciated replacement value (tangible asset value) of €5.6 billion and in-year investments amounted to €406 million.

The amount of Gross Value Added (GVA) and gross profit (all excl. subsidies) generated by the EU fishing fleet (excl. Greece) in 2015 was €3.9 billion and €1.6 billion, respectively. GVA as a proportion of revenue was estimated at 54%, up from 52% in 2014 and gross profit margin at 23%, up from 22% in 2014. With a total net profit of €798 million, 11% (unchanging from 2014) of the revenue generated by the EU fleet in 2015 was retained as net profit.

While overall the EU fleet was profitable, six out of the 22 MS fleets (excl. Greece) generated net losses in 2015. Results also varied by fishing region.

The overall performance of fleets operating in the **North Sea & Eastern Arctic region** was positive in 2015, and improved further compared to previous years. Overall, fleets operating in the region spent almost 485 thousand days at sea in 2015, and landed 1.66 million tonnes of seafood valued at €1.8 billion. The most profitable fleets were the large (over 40 m) pelagic trawlers, with average gross profits estimated at around €30 000 per day at sea. Factors that may have contributed to the positive situation include: (1) recovery of several stocks, such as the North Sea common sole, plaice, herring, haddock, saithe and cod; (2) increased TACs for a number of species such as plaice, hake, cod, *Nephrops*, sandeels and sprat; (3) higher average prices for some important species, such as sole, plaice, common shrimp, cod and *Nephrops* and (4) low fuel prices resulting in lower energy costs. On the other hand, factors that may have hampered economic performance in the region include: (1) reduced TACs and quotas for certain key stocks, such as Atlantic mackerel. Whilst the consequences of Brexit are unknown, it is to be expected that it could have a large impact on the North Sea as the UK fleet holds a significant portion of the landings. Furthermore, there is a high dependency on UK waters for a number of MS fleets in the region: Belgium, the Netherlands, Germany, Denmark, France, Ireland and Sweden are expected to be the most affected.

Overall, the EU **Baltic Sea fleet** spent almost 426 thousand days at sea in 2015, to land approximately 613 thousand tonnes of seafood valued at €217 million. A slight increase (3%) in revenue, combined with significant reductions in operating costs (e.g. -17% in fuel costs), helped the overall situation of the Baltic Sea fleet move from a loss-making position in 2014 to post a modest net profit in 2015. The main factors that may have contributed to the positive situation, include: (1) decreasing fuel prices resulting in lower energy costs; (2) policy management instruments in quota allocation and ITQs (as introduced in some countries); (3) several pelagic fisheries that are exploited at MSY and thus at sustainable levels; (4) vessel decommissioning schemes (these measures positively influenced Polish and Latvian fleet profitability) and (5) EMFF support, such as measures aimed at increasing the added value of products (prioritised for s SSCF) and by-catch from landing obligations (for large-scale fleet). Conversely, factors that may have negatively influenced the performance, include: (1) lower average prices for several commercially important species, such as sprat, herring and cod - the price for sprat was driven by the reduced demand caused by Russian embargo while the decline of cod price was related to the poor quality of cod (market size), and low CPUE; (2) reduced TACs and quotas for Baltic cod, which has decreased consistently since 2014; (3) limited fishing activity, especially for the SSCF which is highly dependent on weather conditions and even in the favourable economic conditions could be the limiting factor for fleet performance and (4) the long service life of the vessels, obsolete equipment and insufficient investments increase the maintenance costs and may therefore reduce the profitability of the fleet.

The major players in the **Northeast Atlantic** are the Spanish, French, British, Portuguese and Irish fleets. The most important species include mackerel, horse mackerel, hake and Norway lobster. Fleets operating in this region spent an estimated 1.5 million days at sea, landed 1.4 million tonnes of seafood valued at €2.4 billion. Despite the decrease in landings, the overall performance improved, with the majority of Member State fleets generating net profits in 2015. In 2015, fuel price decreased and remained low in 2016, while most fish prices remained stable or increased (including plaice and common shrimp). Therefore, it is expected that economic performance further improved as revenues are likely to have increased while costs decreased. Factors that may have contributed to the positive situation include: (1) recovery of some stocks, such as herring and Northern hake; (2) low fuel prices resulting in lower energy costs, especially for pelagic fisheries; (3) increased TACs for hake, herring and anglerfish; (4) stable or higher average prices for some species, such as common sole and *Nephrops* have helped maintain profitability and (6) capacity reduction (with or without public support) leading to decreased fixed costs. Factors that may have hampered economic performance in the region include: (1) reduced quotas for mackerel, common sole, plaice and cod; (2) lower average prices and total landings for commercially important species, such as, plaice, common shrimp, herring and mackerel. Whilst the consequences of Brexit are unknown, it could have a large impact on fleets operating the Northeast Atlantic as the UK holds a significant portion of the landings and there is a high dependency on UK waters for a number of MS in the region, especially, Ireland, France, Spain, Belgium, the Netherlands and Germany.

Overall, the economic situation of EU fleets operating in the **Mediterranean & Black Sea** improved: 2015 was the best year so far analysed, in particular for the Italian fleet, which is the main player and contributor to trends in the region. The main species include anchovy, sardine, and hake. Overall, fleets operating in the region spent almost 2.1 million days at sea in 2015, and landed 368 thousand tonnes of seafood valued at €1.3 billion. Factors that may have contributed to improved economic performance in the region include: (1) higher revenues brought on by increased landings and higher average prices; (2) low fuel prices reducing energy costs; (3) more fisheries where stocks are being exploited at rates consistent with achieving MSY and fleets are showing positive trends, particularly in landings (e.g. deep sea rose shrimp in North Tyrrhenian-Ligurian Sea). Other factors that affected fleet performance in this region include: (1) overfishing and stock status - only very few demersal stocks are currently being exploited at rates consistent with achieving MSY; (2) marine resources and ecosystems under increased pressure, driven by diversification and intensification of marine and maritime activities; (3) high competition between professional fishers and recreational fishers; (4) new management measures, in particular the introduction of a TAC for swordfish and for pelagic fisheries in the Adriatic Sea - fishers are concerned that these TACs will have a negative impact on their profits in the future; (5) introduction of two Fisheries Restricted Areas (RFAs) in the Strait of Sicily and (6) lack of investments in fishing gears with lower environmental impact and greater energy efficiency (energy efficiency has not improved in recent years in the region).

Preliminary results for 2016 indicate a 3.4% decrease in landed weight with a 3.6% increase in value. Projections suggest that low fuel prices translated in part to a 4.8% decrease in operating costs, and, together with an 2.5% reduction in capital costs fostered further economic performance improvements in 2016: GVA +15%, gross profit +31% and net profit +66%. Results suggest that the EU fleet as a whole was profitable in 2016, with an estimated net profit margin of 17.7%. Gains in 2016 are offset slightly in 2017 as the small increase in landings (+1%) is counteracted by lower average prices, resulting in no significant change in value. With fuel costs increasing 16% in 2017, the fleet remains profitable with a 26.7% gross profit margin and 16.8% net profit margin. By Member State, projected results for 2016 and 2017 suggest that all fleets analysed generated gross profits. With the exception of Bulgaria, Croatia, Cyprus, Finland and Malta, all MS also generated net profits in 2016. In 2017, the same MS excluding Malta and now including Ireland are forecasted to suffer net losses.

The EU active **small-scale coastal fleet (SSCF)** totalled 47 545 vessels in 2015, employing 77 708 fishers or 47 789 in FTE (including Greece). In 2016, the number of small-scale coastal vessels increased (+7%) mainly due to a significant increase in licenced Croatian SSCF vessels (from 1 771 registered vessels in 2015 to 4 292 in 2016 and 5 155 in 2017), while FTE increased by only 2.5%.

As a whole, the EU SSCF was profitable in 2015: lower energy and capital costs in 2015 together with higher revenues fostered a 6.5% increase in GVA, 28% increase in gross profit and 98.4% increase in Net profit compared to 2014. Net profit increased from €46.4 million in 2014 to €92.1 million in 2015 (excluding Greece).

Projection results suggest that fishing effort, in days at sea, decreased 2.3% in 2016. The reduction in fishing effort combined with low fuel prices, indicate that energy costs decreased by 22%. Landed weight remained stable at around 284 thousand tonnes while landed value, estimated at €851 million in 2016, increased 2.6%. These preliminary findings suggest that the EU SSCF generated €650 million in GVA, an increase of 5.4% compared to 2015. Labour productivity (GVA per FTE) also increased, from €21.4 thousand in 2015 to €22 thousand in 2016. Gross profit was estimated at €236.7 million, a 10.8% increase on 2015. Positive economic developments can also be seen in the performance indicators - GVA to revenue estimated at 67% (+3%%) and gross profit margin estimated at 24.4% (+8.2%) in 2016. With increased capital costs, net profit was estimated at €72.3 million, a decrease of 21.6% compared to 2015, year with the highest net profit (€92 million) observed over the period analysed (2008-2015). Net profit margin moves from 10.1% in 2015 to 7.7% in 2016. However, the 2016 gains are offset slightly in 2017 with fuel

costs increasing 10.3%. The SSCF remains profitable with gross and net profit margins of 23% and 7.1%, respectively.

While the EU SSCF as a whole was profitable over the time period analysed, results at the regional and Member State level are mixed. At the regional level, results suggest that the North Sea, Northeast Atlantic, Mediterranean & Black Sea and Outermost region SSCFs were profitable in 2015, generating 2.8%, 8.4%, 6.6% and 8% net profit margins respectively. Conversely, the SSCFs operating in the Baltic Sea suffered losses, amounting to €18.37 million in net losses in 2015. The Danish, Finnish, Polish and Swedish Baltic SSCFs were the most unprofitable, collectively suffering over €19 million in net losses in 2015.

By Member State, projected results suggest that five MS SSCFs suffered gross losses in 2015 and 2016. In 2017, the number falls to three, as the Danish and Swedish SSCFs recover to post gross profits. The Croatian SSCF, generating gross profits in 2015, is projected to suffer losses in 2016 and 2017. The Lithuanian SSCF, suffering gross losses in 2015, is projected to have recovered in 2016, posting gross and net profits; situation which is expected to remain in 2017. In 2016, eight MS SSCFs are projected to have suffered net losses. The Irish SSCF, which was only marginally profitable in 2016, is expected to revert to posting net losses in 2017, similar to its situation in 2015.

This publication includes: 1) An structural and economic overview of the EU fishing fleet in 2015, with projections for 2016 and 2017, and trend analyses for the years 2008-2015; 2) A regional analysis of the EU fishing fleet by major sea basin: Baltic Sea, North Sea & Eastern Arctic, North East Atlantic, Mediterranean & Black Sea, as well as fleets operating in Other Fishing Regions, including the Northwest Atlantic, Outermost regions and Other regions; 3) A detailed structural and economic overview of each EU Member State fishing fleet, including qualitative economic performance assessments for 2015 and projections for 2016 and forecasts for 2017.

The data used to compile all the various analyses contained within the report were collected under the framework of the data collection framework (DCF), cf. Council regulation (European Commission (EC) No 199/2008 of 25th February 2008).

The 2017 AER supersedes all previous AERs. Comparisons across AER reports should not be made. This is mainly due to the inclusion of more MS fleets and greater coverage of the data this year: only Greece was excluded from the 2015 economic performance estimates in the current report whereas in previous years' AER, several other MS fleets had to be excluded. Moreover, MS may have provided revised data submitted in previous calls, which is expected to have increased the coverage and quality of the data reported under the 2017 DCF.

EU MEMBER STATE FLEET SUMMARY REPORTS

A brief summary including the main issues affecting the economic performance of each EU Member States' national fleet in 2015 and 2016 are provided below:

Belgium

Even though the number of vessels in the Belgian fleet is still yearly decreasing, its economic performance has improved substantially. After years of being in a loss making position, net profit was positive in 2015. Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €41.6 million, €11.2 million and €2.9 million, respectively. GVA increased by 14%, gross profit by 51% and net profit improved from a loss situation. Although the Belgian fleet was still in a net loss making position in 2014, its economic performance had already improved compared to previous years: GVA increased by 27%, gross profit and net profit increased by 220% and by 60% respectively compared to 2013. Revenue and total income in 2015 were comparable to figures in 2014 and could therefore not account for this improved situation. Total operating costs on the other hand decreased mainly due to a 27% decrease in energy costs. Crew costs increased by 5% and represented 34% of the value of landings in 2015, while direct income subsidies decreased by 11% (€1.6 million). Total number of crew on board was estimated at 340 in 2015, without taking into account rotation, corresponding to a total employment of 406 FTE's.

In 2015, 24.5 thousand tonnes of seafood were landed by the Belgian fleet, with a value of €82 million. Sole remained the dominant species, generating the highest landed value (€30.7 million) and representing about 40% of the total landings value. In terms of weight, European plaice remained the top landed species (7.8 thousand tonnes or 32% of the total landed weight) and generated the second highest landed value (€11.6 million). There are indications of an overall improved efficiency since 2008. Landings per unit of effort has been increasing and so has the energy consumption per landed tonne. Furthermore, the energy consumption per day at sea decreased between 2008 and 2013, but seemed to slightly increase again in 2014 and 2015 as a result of lower fuel prices.

Lower fuel costs together with higher average fish prices were the main driving forces behind the overall improvement in the profitability of the fleet. Profitability is expected to increase even further in 2016. However, major challenges lie ahead. With the complete implementation of the landing obligation, it is likely that costs will increase (crew costs, storage costs, extra steaming costs, etc.). Revenue will remain the same or even decrease (more low value and unmarketable fish). Crew members are currently well remunerated for their hard work, but a lower value of landings will have an impact on crew wages (a percentage of the gross value of landings), potentially making the profession less attractive (again). Another concern is related to choke species, i.e. losing catches of species where quota is still available. Therefore, to continue fishing throughout the year, it will be vital to have either enough quota available or adapt fishing strategies. Next, Brexit presents a second major challenge in itself, but is also likely to interact with consequences of the landing obligation in terms of available quota and possibilities to adapt fishing strategies such as changing effort allocation. Therefore, it remains to be seen whether the still economically fragile Belgian fleet will be resilient enough to overcome these fast approaching challenges.

Belgium															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		**102**	**102**	**91**	**90**	**88**	**83**	**80**	**79**	***68***	***70***		*-1%*	*-13%*
		LSF	98	94	88	86	81	76	76	73	*68*	*70*		*-4%*	*-15%*
Vessel tonnage	(thousand GT)		**19.3**	**19.5**	**16.1**	**15.8**	**15.8**	**15.1**	**14.6**	**14.6**				*-1%*	*-12%*
		LSF	18.8	18.3	15.7	15.0	14.9	14.4	14.2	14.1				*0%*	*-11%*
Engine power	(thousand kW)		**62.2**	**63.1**	**52.3**	**51.3**	**51.1**	**47.6**	**46.5**	**47.6**				*2%*	*-11%*
		LSF	60.6	59.0	51.0	48.7	47.1	45.6	44.8	45.3				*1%*	*-11%*
Total employed	(person)		**472**	**421**	**394**	**382**	**376**	**345**	**345**	**340**	***320***	***330.0***		*-1%*	*-13%*
		LSF	472	421	394	382	376	345	345	340	*320*	*330*		*-1%*	*-13%*
FTE	(#)		**353**	**305**	**317**	**312**	**312**	**230**	**293**	**406**	***419***	***407***		*39%*	*34%*
		LSF	353	305	317	312	312	230	293	406	*419*	*407*		*39%*	*34%*
Days at sea	(thousand day)		**19.5**	**19.3**	**18.2**	**17.4**	**16.8**	**16.3**	**16.3**	**15.3**	***15.5***	***15.1***		*-6%*	*-14%*
		LSF	19.5	19.3	18.2	17.4	16.8	16.3	16.3	15.3	*15.5*	*15.1*		*-6%*	*-14%*
Fishing days	**(thousand day)**		**19.6**	**19.6**	**18.7**	**17.6**	**17.2**	**17.0**	**16.9**	**15.7**				*-7%*	*-13%*
		LSF	19.6	19.6	18.7	17.6	17.2	17.0	16.9	15.7				*-7%*	*-13%*
Live weight of landings	(thousand tonne)		**21.8**	**19.4**	**21.7**	**22.2**	**24.2**	**25.2**	**26.2**	**24.5**	***26.7***	***26.3***		*-6%*	*7%*
		LSF	21.8	19.4	21.7	22.2	24.2	25.2	26.2	24.5	*26.7*	*26.3*		*-6%*	*7%*
Value of landings	(million €)		**84.3**	**71.8**	**82.8**	**83.3**	**78.0**	**74.0**	**81.5**	**82.0**	***91.3***	***80.2***		*1%*	*3%*
		LSF	84.3	71.8	82.8	83.3	78.0	74.0	81.5	82.0	*91.3*	*80.2*		*1%*	*3%*
Revenue	**(million €)**		**87.0**	**76.6**	**86.3**	**87.1**	**82.4**	**77.7**	**85.4**	**86.3**	***95.9***	***84.3***		*1%*	*4%*
		LSF	87.0	76.6	86.3	87.1	82.4	77.7	85.4	86.3	*95.9*	*84.3*		*1%*	*4%*
Gross Value Added	**(million €)**		**23.6**	**29.9**	**37.5**	**37.8**	**30.4**	**28.7**	**36.6**	**41.6**	***54.7***	***41.8***		*14%*	*30%*
		LSF	23.6	29.9	37.5	37.8	30.4	28.7	36.6	41.6	*54.7*	*41.8*		*14%*	*30%*
Gross profit	**(million €)**		**- 7.8**	**1.9**	**7.3**	**9.1**	**2.6**	**2.3**	**7.4**	**11.2**	***20.6***	***11.9***		*51%*	*241%*
		LSF	- 7.8	1.9	7.3	9.1	2.6	2.3	7.4	11.2	*20.6*	*11.9*		*51%*	*241%*
Net profit	**(million €)**		**- 18.9**	**- 11.0**	**- 3.1**	**- 0.5**	**- 7.2**	**- 7.3**	**- 2.9**	**2.9**	***13.4***	***4.8***		*197%*	*139%*
		LSF	- 18.9	- 11.0	- 3.1	- 0.5	- 7.2	- 7.3	- 2.9	2.9	*13.4*	*4.8*		*197%*	*139%*
Return on fixed tangible assets	(%)		**- 31.7**	**- 9.1**	**- 3.0**	**- 0.0**	**- 11.7**	**- 10.5**	**- 3.9**	**5.6**	***25.3***	***8.6***		*244%*	*156%*
		LSF	- 31.7	- 9.1	- 3.0	- 0.0	- 11.7	- 10.5	- 3.9	5.6	*25.3*	*8.6*		*244%*	*156%*
GVA per FTE	(thousand €)		**66.9**	**98.1**	**118.1**	**121.3**	**97.4**	**125.1**	**124.9**	**102.5**	***130.5***	***102.8***		*-18%*	*-5%*
		LSF	66.9	98.1	118.1	121.3	97.4	125.1	124.9	102.5	*130.6*	*102.8*		*-18%*	*-5%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Bulgaria

In 2016, the Bulgarian fishing fleet consisted of 1 918 registered vessels, of which 1 206 were active and the remaining 712 vessels were inactive. The active fleet had a combined gross tonnage (GT) of 5.1 thousand tonnes, engine power of 40.7 thousand kilowatts (kW) and an average age of 23 years. The national fleet is divided into a small-scale segment (89.9% in 2016) with an engine power of 23.1 kW and a large-scale fleet segment (10.1% in 2016) with an engine power of 17.6 kW. Total employment in 2015 was estimated at 1 728 jobs, corresponding to 608 FTEs with an average of 0.5 FTE per active vessel. The level of employment increased between 2014 and 2015 by 14%, and by 33% when compared to the average total employed for the period 2008-2014.

The fleet spent over 22.7 thousand days at sea in 2015, an 8% increase compared to 2014 and 25% increase over the period 2008-2014. While the days at sea remained steady in the period 2013-2015, data for 2016 indicate a 19% increase compared to the period. The total landed weight in 2015 reached 8.3 thousand tonnes of seafood, with a landed value of €3.77 million. Compared to the period analysed (2008-2015) the total weight of landings increased by 4% while the value decreased by 16%. Regarding the top species in terms of value, the average first sale price for 2016 for European sprat remained stable compared to 2014-2015. The price of sea snails for 2016 increased by more than 50% compared to 2015 but compared to over the period 2008-2015 is stable. The average price of turbot has decreased since 2012 and in 2016 achieved €5.0 per kg. The price of European anchovy, Mediterranean horse mackerel, and red mullet for 2016 increased by 38%, 57%, and 18% respectively over the period 2008-2015. The price of picked dogfish for 2016 is stable compared to the period 2008-2015 but compared to 2015 increase be 46%.

The amount of income from landings generated by the national fleet in 2015 was €4.9 million (+24% compared to 2014) while the non-fishing income amounted to €2.2 million (+43%), generating a revenue of €7.1 million. Costs decreased 18% between 2014 and 2015, except 'other non-variable costs'. The 'wages and salaries of crew' decreased by 10% compared to 2014. Operating costs in 2015 amounted to €4.79 million (-13% compared to 2014). Crew cost and energy costs were the two major cost items (€2.36 million and €1.37 million, respectively). However, €0.38 million of crew cost were estimated for the unpaid labour which remained in the hands of the fishers as working capital.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €4.7 million, €2.3 million and €1.2 million, respectively. The economic situation of the fleet in 2015 improved considerably compared to the negative performances of previous years.

Small-scale fleet: The majority of the vessels (1 080 out of 1 204 active vessels) are under 12 meters LOA, using only passive gears in coastal, seasonal fishing. The preferred fishing gear is gillnet (anchored) and when targeting Rapana they use the diving manual method. This segment employed 1 429 fishers, 19% more than in 2014. For the majority of people involved in this type of fishing, this is a seasonal activity closer to a hobby than a business and most of the catch is for private consumption. The live weight of landings amounted to 1.77 thousand tonnes, a 15% decrease compared to 2014 and -21% compared to the average for the period 2008-2014. The value of the landings decreased by 43%. The net profit and net profit margin remained positive with a very high increase compared to 2014 and over the period 2008-2014.

Large-scale: The large-scale fleet consisted of 124 vessels in 2015, of which 39 were under 12 metres, but with active gears; 18 were between 0-6m using beach seines, 10 were between 6-12m using beach seines, 5 were between 6-12m using mid-water trawls and 6 vessels between 6-12m used beam trawls. This segment employed 225 FTEs (represented 299 total employed) and landed 6.53 thousand tonnes amounting to €3.07 million, representing 78.6% and 81.4% of the total fleet landings in weight and value respectively. Income from landings increased 29% and the other income increased 38%. In 2015 wages and salaries of crew increased 24% compared to 2014. Costs generally decreased, except for repair & maintenance costs which remained stable, and other non-variable costs which increased by 14%.

Bulgaria															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		2,548	2,207	2,344	2,345	2,387	2,043	2,011	1,979	1,206	1,210		-2%	-13%
		SCF	502	803	922	910	1,074	1,100	999	1,080	1,084	1,084		8%	20%
		LSF	89	95	106	98	115	104	111	124	122	126		12%	21%
Vessel tonnage	(thousand GT)		8.3	7.6	7.9	7.5	7.4	6.6	6.4	6.4				-1%	-13%
		SCF	1.1	1.5	1.7	1.9	1.9	2.0	1.7	1.8				6%	8%
		LSF	3.0	3.2	3.5	3.1	3.2	3.0	3.1	3.2				5%	2%
Engine power	(thousand kW)		65.9	60.4	63.5	62.1	62.9	57.4	56.6	56.0				-1%	-9%
		SCF	11.8	16.7	19.4	20.5	23.0	24.0	20.8	22.8				10%	17%
		LSF	11.9	12.8	14.9	13.2	14.5	14.8	15.6	16.9				8%	21%
Total employed	(person)		811	1,195	1,368	1,344	1,541	1,312	1,517	1,728	1,739	1,750		14%	33%
		SCF	598	961	1,096	1,094	1,263	1,140	1,196	1,429	1,446	1,446		19%	36%
		LSF	213	234	272	250	278	172	321	299	293	303		-7%	20%
FTE	(#)		319	441	504	501	544	488	532	608	616	624		14%	28%
		SCF	179	283	322	327	362	366	343	382	392	392		12%	23%
		LSF	140	158	183	173	182	122	189	225	224	231		19%	37%
Days at sea	(thousand day)		9.1	14.5	21.8	18.6	20.6	21.6	21.1	22.7	25.9	26.2		8%	25%
		SCF	5.8	9.3	15.5	12.2	13.6	14.3	13.3	13.8	16.5	16.5		3%	15%
		LSF	3.3	5.2	6.4	6.5	7.0	7.3	8.0	8.9	9.3	9.7		12%	44%
Fishing days	(thousand day)		9.1	14.5	21.8	18.6	20.6	21.6	21.1	22.7				8%	25%
		SCF	5.8	9.3	15.5	12.2	13.6	14.3	13.3	13.8				3%	15%
		LSF	3.3	5.2	6.4	6.5	7.0	7.3	8.0	8.9				12%	44%
Live weight of landings	(thousand tonne)		7.5	7.1	9.3	7.8	7.2	9.2	7.9	8.3	7.0	7.1		5%	4%
		SCF	2.6	1.8	2.9	2.3	1.9	2.2	2.1	1.8	1.9	1.9		-15%	-21%
		LSF	4.9	5.3	6.4	5.5	5.4	7.0	5.8	6.5	5.1	5.2		12%	14%
Value of landings	(million €)		4.9	4.4	4.2	4.5	4.9	4.4	4.3	3.8	4.6	4.6		-13%	-16%
		SCF	1.7	1.1	1.2	1.1	1.3	1.2	1.2	0.7	1.1	1.1		-43%	-44%
		LSF	3.2	3.3	3.0	3.4	3.6	3.2	3.1	3.1	3.5	3.5		-1%	-6%
Revenue	(million €)		4.5	4.7	4.3	4.8	5.8	6.7	5.5	7.1	7.4	7.3		30%	37%
		SCF	2.7	2.6	2.8	2.5	3.2	3.0	2.8	3.7	4.4	4.4		30%	31%
		LSF	3.5	3.7	3.4	3.8	4.0	3.7	2.7	3.4	2.9	2.9		29%	-3%
Gross Value Added	(million €)		2.4	2.2	1.0	1.3	2.2	2.0	2.7	4.7	4.3	4.9		74%	139%
		SCF	2.1	1.8	1.8	1.5	2.1	1.7	1.9	2.9	3.7	3.6		57%	60%
		LSF	2.0	1.9	1.1	1.4	1.5	0.2	0.8	1.7	0.6	1.3		114%	37%
Gross profit	(million €)		0.7	-0.2	-1.6	-1.3	-0.5	-1.0	-0.0	2.3	0.8	1.4		4906%	512%
		SCF	1.0	0.2	0.1	-0.3	0.3	-0.5	0.0	1.5	1.3	1.3		3744%	1161%
		LSF	1.3	1.1	0.3	0.6	0.7	-0.5	-0.1	0.8	-0.6	0.1		1029%	75%
Net profit	(million €)		1.8	-1.7	-2.7	-2.1	-1.4	-1.7	-1.8	1.2	-0.3	0.8		165%	183%
		SCF	1.1	-0.2	-0.2	-0.6	-0.1	-0.9	-0.5	1.1	0.9	1.1		338%	715%
		LSF	1.6	0.4	-0.3	0.2	0.2	-0.3	-1.1	0.2	-1.2	-0.3		115%	89%
Return on fixed tangible assets	(%)		1.4	-2.8	-8.6	-7.6	-4.4	-5.8	-3.9	9.4	2.2	5.8		343%	309%
		SCF	33.9	0.0	-2.0	-10.0	0.9	-25.3	-4.7	25.1	21.0	21.5		639%	2554%
		LSF	11.2	8.4	0.0	3.5	3.9	-19.5	-5.2	5.1	-6.6	-1.2		198%	1500%
GVA per FTE	(thousand €)		7.6	4.9	2.0	2.6	4.0	4.0	5.0	7.7	7.0	7.9		53%	79%
		SCF	11.7	6.3	5.7	4.5	5.7	4.7	5.5	7.7	9.3	9.2		41%	22%
		LSF	14.0	12.0	6.2	7.9	8.2	1.9	4.3	7.8	2.9	5.6		80%	-1%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Croatia

The national fleet consisted of 23 (DCF) fleet segments with a total of 7 849 vessels in 2015, of which 2 823 were active. In 2016, the active fleet increased to 5 047 vessels out of 7 746 in total due to an ongoing process of issuing licenses for small costal fishery for personal needs. In 2015, the total fleet had a combined capacity of 53.8 thousand gross tonnes (GT) and 429.7 thousand kilowatts (kW). The total number of employees in 2015 was 5 067, equivalent to 2 384 FTE.

The total number of days at sea in 2015 remained stable at 242 thousand days. Total landings amounted to 72.91 thousand tonnes; a decrease of 8% from 2014. Landed value was €60.92 million, similar to 2013 when it was €60.84 million. Total revenue in 2015 was €74.55 million representing a decrease of 3%, while GVA increased 8% to €39 million.

Landings in 2016 included 115 species with a combined weight of 72 thousand tonnes. Quantities landed have been quite stable over time. Small pelagic species targeted in purse seine fisheries, such as sardine and anchovy, by far dominate the overall catch composition (around 87% of total landing weight). Small pelagic species also constituted the most important species in terms of value, accounting for 50% of the total landing value.

The number of vessels in the large-scale fleet has been relatively stable counting 1 052 active vessels in 2015; this has also been the case for capacity (+2%) and engine power (+2%). On the other hand, data for 2016 indicate reduction in large-scale fleet to 964 vessels with corresponding decrease in capacity and engine power. The small-scale fleet, with 1 771 active vessels, accounted for 62% of all active vessels in 2015 but less than 2% of all landings. In 2015, the total value of landings from the SSCF was €8 million, equal to 13% of the total. For 2016, the number of active vessels in the SSCF significantly increased due to a licensing process of vessels used in special category of coastal fisheries for personal needs. It can be expected that this increase will not have effect on total landing.

Most important fleet segment was the purse seine (PS) segment with vessel length 24 to 40m. This segment counts 71 vessels but contribute to 55% of total landings. The largest number of active vessels was in the fixed net segment (DFN, fixed nets: gill nets and trammel net) with vessel length 6 to 12m which accounts for 25% of all active vessels.

Croatia											
			2012	2013	2014	2015	2016*	2017*	Trend 2012-2017	Δ 2015 to 2014	Δ 2015 to avg. 12-14
Total number of vessels	(#)		**4,211**	**4,358**	**4,385**	**7,849**	***5,280***	***6,169***		*79%*	*82%*
		SCF	1,707	1,726	1,665	1,771	*4,292*	*5,155*		*6%*	*4%*
		LSF	1,101	1,081	1,051	1,052	*988*	*1,014*		*0%*	*-2%*
Vessel tonnage	(thousand GT)		**45**	**46**	**46**	**54**				*17%*	*18%*
		SCF	5.0	5.1	5.0	4.9				*-2%*	*-2%*
		LSF	28.1	27.3	27.2	27.8				*2%*	*1%*
Engine power	(thousand kW)		**329.7**	**346.2**	**347.9**	**429.7**				*24%*	*26%*
		SCF	90.3	95.7	94.2	93.9				*0%*	*0%*
		LSF	152.1	150.8	149.7	152.2				*2%*	*1%*
Total employed	(person)		**4,897**	**4,946**	**4,842**	**5,067**	***5,797***	***7,048***		*5%*	*4%*
		SCF	2,170	2,156	2,076	2,402	*4,496*	*5,712*		*16%*	*13%*
		LSF	2,727	2,790	2,766	2,665	*1,301*	*1,336*		*-4%*	*-3%*
FTE	(#)		**2,467**	**2,448**	**2,151**	**2,384**	***2,512***	***3,035***		*11%*	*1%*
		SCF	779	701	537	745	*1,763*	*2,285*		*39%*	*11%*
		LSF	1,688	1,747	1,614	1,638	*749*	*751*		*1%*	*-3%*
Days at sea	(thousand day)		**235.5**	**240.4**	**241.2**	**242.0**	***210.3***	***202.3***		*0%*	*1%*
		SCF	135.2	135.7	134.9	136.1	*111.7*	*104.4*		*1%*	*1%*
		LSF	100.3	104.7	106.3	105.9	*98.5*	*97.8*		*0%*	*2%*
Fishing days	(thousand day)		**201.1**	**204.0**	**206.1**	**206.7**				*0%*	*1%*
		SCF	115.2	114.2	115.0	116.5				*1%*	*1%*
		LSF	85.9	89.8	91.1	90.2				*-1%*	*1%*
Live weight of landings	(thousand tonne)		**63.1**	**74.9**	**79.4**	**72.9**	***72.0***	***70.3***		*-8%*	*1%*
		SCF	1.2	1.2	1.3	1.4	*1.1*	*1.0*		*5%*	*11%*
		LSF	62.0	73.7	78.1	71.5	*70.9*	*69.4*		*-8%*	*0%*
Value of landings	(million €)		**48.6**	**59.9**	**60.8**	**60.9**	***56.9***	***53.3***		*0%*	*8%*
		SCF	6.1	7.1	7.0	8.0	*6.9*	*5.4*		*13%*	*18%*
		LSF	42.5	52.8	53.8	53.0	*50.1*	*47.8*		*-2%*	*7%*
Revenue	**(million €)**		**54.1**	**72.3**	**76.5**	**74.6**	***65.3***	***60.9***		*-3%*	*10%*
		SCF	8.3	12.0	15.6	14.5	*13.1*	*10.8*		*-7%*	*21%*
		LSF	45.8	60.3	60.9	60.1	*52.2*	*50.1*		*-1%*	*8%*
Gross Value Added	**(million €)**		**11.7**	**30.1**	**36.6**	**39.4**	***39.1***	***30.5***		*8%*	*51%*
		SCF	0.4	5.0	10.0	8.3	*- 2.2*	*- 8.5*		*-18%*	*61%*
		LSF	11.3	25.1	26.6	31.2	*13.4*	*13.0*		*17%*	*48%*
Gross profit	**(million €)**		**- 7.3**	**9.6**	**13.8**	**16.2**	***27.7***	***20.0***		*17%*	*201%*
		SCF	- 3.4	0.6	4.9	3.4	*- 6.6*	*- 12.2*		*-32%*	*374%*
		LSF	- 3.9	9.0	8.9	12.8	*6.4*	*6.1*		*44%*	*175%*
Net profit	**(million €)**		**- 31.6**	**- 11.6**	**- 15.5**	**- 14.5**	***- 30.3***	***- 33.9***		*6%*	*26%*
		SCF	- 6.5	- 2.3	1.2	- 1.9	*- 57.0*	*- 61.3*		*-268%*	*24%*
		LSF	- 22.4	- 6.9	- 12.1	- 7.5	*- 1.2*	*1.3*		*38%*	*46%*
Return on fixed tangible assets	(%)		**- 5.8**	**- 0.9**	**- 0.1**	**0.4**	***- 0.6***	***- 2.7***		*484%*	*115%*
		SCF	- 13.1	- 3.5	6.5	0.6	*- 6.1*	*- 6.5*		*-91%*	*118%*
		LSF	- 7.0	- 0.9	- 1.4	0.5	*2.7*	*2.9*		*136%*	*116%*
GVA per FTE	(thousand €)		**4.7**	**12.3**	**17.0**	**16.5**	***15.6***	***10.1***		*-3%*	*46%*
		SCF	0.5	7.1	18.7	11.1	*- 1.3*	*- 3.7*		*-41%*	*26%*
		LSF	6.7	14.4	16.5	19.0	*18.0*	*17.3*		*16%*	*52%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Cyprus

Capacity of the Cypriot national fleet, which operates solely in the Mediterranean Sea, ended the declining trend in 2016, since it increased compared to the last year by 7.7%. With a total of 908 vessels in 2016, a combined gross tonnage (GT) of 3.6 thousand tonnes and a total engine power of 39.3 thousand kilowatts (kW). On average there was a reduction of 16% in the number of vessels of the period 2008-2014 compared to 2015. Consequently, GT and KW decreased due to the reduction in the number of vessels. Most of the vessels which ceased their fishing activities were scrapped in 2013 and of 2015 through structural aid within the framework of the EFF 2007-2013 and EMFF 2014-2020. The capacity related with the active vessels increased slightly by 0.36% (3 vessels). During 2015, 66 vessels of A' and B' category of small-scale fleet segment were scrapped with public aid within the framework of the Scheme of Permanent Cessation, co-funded by the European Maritime and Fisheries Fund 2014-2020.

Employment, estimated at 1 285 jobs in 2015, corresponding to 794 FTEs or an average of 1.43 fishers per vessel. Effort in days at sea decreased slightly 1% compared to 2014, while energy consumed increased only 4% and energy costs decreased 11% as a result of low fuel prices. Landings increased 12% to 1.5 thousand tonnes, with a value of €7.6 million in 2015, only a 1% increase compared to 2014 due to lower fish prices.

The Cypriot national fleet remained in a net loss making position in 2015 and its economic performance was slightly in a worse position compared to the previous year 2014. In 2015, revenue was estimated at €7.84 million showing an increase of 4.4% due to a 1% increase in income from landings and an increase in direct subsidies. Gross Value Added (GVA) in 2015 was estimated at €1.1 million, increased by 10% compared to 2014. Gross profit and net profit in 2015 were estimated at -€0.03 million and -€6.5 million, respectively, showing a deterioration in the economic performance compared to 2014.

Higher overall operational costs were the main driving forces behind the overall deterioration of the economic performance of the Cyprus fleet. Important economic indicators such as the Gross profit margin and the Net profit margin were still negative.

Small-scale coastal fleet: vessels using Polyvalent passive gears with length 0-< 6m and 6-< 12m compose the small-scale inshore fleet, targeting demersal species, and represent the large majority of the fishing vessels in the Register (95%). The value of landings amounted to €3.9 million. A stable economic development trend is shown for this fleet segment which for 2015 was in a net loss making position (€2.1 million). The improved economic performance was mainly due to the increase in value of landings, the decrease in fuel prices and the reduction in the overall operating costs. Although there was a slight increase in fishing effort compared to the previous year, a downfall in fuel consumption together with a significant reduction in fuel prices have driven the significant reduction in fuel cost. The GVA (around €1 million) was significantly improved by 194% compared to 2014. Although the main economic indicators improved during 2015, the economic performance indicators are still low or negative.

Cyprus															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	**(#)**		**1,197**	**1,177**	**1,013**	**1,079**	**1,082**	**1,001**	**951**	**905**	***768***	***800***		*-5%*	*-16%*
		SCF	497	880	882	931	880	907	827	807	*733*	*762*		*-2%*	*-3%*
		LSF	34	31	27	26	27	26	27	33	*35*	*37*		*22%*	*17%*
Vessel tonnage	**(thousand GT)**		**6.2**	**5.1**	**4.4**	**4.1**	**4.0**	**3.4**	**3.5**	**3.6**				*3%*	*-18%*
		SCF	1.6	2.2	2.2	2.2	2.1	2.1	1.9	1.9				*-3%*	*-8%*
		LSF	1.8	1.6	1.7	1.2	1.2	1.1	1.1	1.5				*31%*	*6%*
Engine power	**(thousand kW)**		**52.8**	**49.5**	**44.4**	**45.9**	**45.9**	**41.5**	**41.1**	**41.2**				*0%*	*-10%*
		SCF	20.8	33.6	34.0	35.5	33.2	34.1	31.9	31.8				*0%*	*0%*
		LSF	8.2	6.6	6.3	5.3	5.3	4.7	4.8	6.4				*32%*	*8%*
Total employed	**(person)**		**1,085**	**909**	**1,329**	**1,344**	**1,301**	**1,334**	**1,219**	**1,285**	***1,156***	***1,205***		*5%*	*6%*
		SCF	895	761	1,181	1,245	1,192	1,233	1,106	1,126	*991*	*1,031*		*2%*	*4%*
		LSF	190	148	148	99	109	101	113	159	*165*	*175*		*41%*	*23%*
FTE	**(#)**		**875**	**777**	**871**	**839**	**810**	**824**	**729**	**794**	***695***	***726***		*9%*	*-3%*
		SCF	697	629	723	740	701	723	616	635	*530*	*551*		*3%*	*-8%*
		LSF	178	148	148	99	109	101	113	159	*165*	*175*		*41%*	*24%*
Days at sea	**(thousand day)**		**100.2**	**81.3**	**75.6**	**66.4**	**85.1**	**80.7**	**65.6**	**65.2**	***55.5***	***57.8***		*-1%*	*-18%*
		SCF	96.7	78.6	72.9	63.9	82.8	77.8	63.2	62.4	*52.6*	*54.7*		*-1%*	*-18%*
		LSF	3.5	2.7	2.7	2.5	2.3	2.9	2.4	2.7	*2.8*	*3.0*		*12%*	*0%*
Fishing days	**(thousand day)**		**100.2**	**81.3**	**75.6**	**66.4**	**85.1**	**80.2**	**65.6**	**65.2**				*-1%*	*-18%*
		SCF	96.7	78.6	72.9	63.9	82.8	77.8	63.2	62.4				*-1%*	*-18%*
		LSF	3.5	2.7	2.7	2.5	2.3	2.4	2.4	2.7				*12%*	*3%*
Live weight of landings	**(thousand tonne)**		**1.99**	**1.40**	**1.38**	**1.12**	**1.05**	**1.15**	**1.32**	**1.48**	***1.40***	***1.47***		*12%*	*10%*
		SCF	1.15	0.81	0.85	0.70	0.54	0.52	0.58	0.69	*0.57*	*0.59*		*20%*	*-6%*
		LSF	0.85	0.58	0.53	0.42	0.51	0.63	0.74	0.79	*0.83*	*0.88*		*6%*	*29%*
Value of landings	**(million €)**		**13.72**	**9.77**	**10.74**	**8.08**	**6.61**	**7.46**	**7.51**	**7.56**	***6.91***	***7.12***		*1%*	*-17%*
		SCF	9.26	6.82	7.39	6.18	4.32	4.19	4.35	4.55	*3.86*	*3.97*		*5%*	*-25%*
		LSF	4.46	2.95	3.34	1.90	2.30	3.27	3.14	3.00	*3.05*	*3.15*		*-4%*	*-2%*
Revenue	**(million €)**		**13.72**	**9.77**	**10.74**	**8.08**	**6.61**	**7.46**	**7.50**	**7.56**	***6.91***	***7.12***		*1%*	*-17%*
		SCF	9.26	6.82	7.39	6.18	4.32	4.19	4.35	4.55	*3.85*	*3.96*		*5%*	*-25%*
		LSF	4.46	2.95	3.34	1.90	2.30	3.19	3.14	3.00	*3.06*	*3.16*		*-4%*	*-1%*
Gross Value Added	**(million €)**		**4.72**	**- 0.67**	**- 4.27**	**- 0.55**	**- 2.57**	**0.24**	**1.00**	**1.10**	***1.31***	***1.44***		*10%*	*468%*
		SCF	4.26	- 0.14	- 2.13	0.71	- 0.46	- 0.77	- 0.15	0.84	*0.81*	*0.88*		*649%*	*344%*
		LSF	0.46	- 0.53	- 0.53	- 0.40	0.07	0.93	1.18	0.26	*0.51*	*0.56*		*-78%*	*55%*
Gross profit	**(million €)**		**3.18**	**- 1.90**	**- 5.64**	**- 1.38**	**- 3.55**	**- 0.65**	**0.17**	**- 0.03**	***0.15***	***0.22***		*-117%*	*98%*
		SCF	3.84	- 0.48	- 2.47	0.38	- 0.76	- 1.10	- 0.43	0.55	*0.56*	*0.63*		*227%*	*473%*
		LSF	- 0.66	- 1.42	- 1.50	- 0.89	- 0.42	0.38	0.63	- 0.58	- *0.41*	- *0.41*		*-192%*	*-4%*
Net profit	**(million €)**		**- 1.51**	**- 8.50**	**- 10.42**	**- 7.73**	**- 12.56**	**- 6.09**	**- 5.80**	**- 6.51**	- ***5.22***	- ***3.67***		*-12%*	*13%*
		SCF	1.78	- 4.15	- 4.56	- 1.98	- 4.52	- 4.66	- 4.65	- 3.60	- *2.71*	- *1.74*		*23%*	*-11%*
		LSF	- 3.30	- 4.35	- 4.18	- 3.53	- 4.67	- 1.50	- 1.12	- 2.91	- *2.51*	- *1.93*		*-159%*	*10%*
Return on fixed tangible assets	**(%)**		**- 2.78**	**- 11.06**	**- 26.22**	**- 8.85**	**- 17.78**	**- 7.80**	**- 5.20**	**- 5.61**	- ***5.23***	- ***5.10***		*-8%*	*51%*
		SCF	5.52	- 5.87	- 16.06	- 2.66	- 10.04	- 9.65	- 6.78	- 4.04	- *3.76*	- *3.55*		*40%*	*38%*
		LSF	- 18.72	- 25.47	- 33.88	- 23.71	- 36.69	- 4.48	- 1.24	- 8.36	- *7.51*	- *7.48*		*-575%*	*59%*
GVA per FTE	**(thousand €)**		**5.39**	**- 0.86**	**- 4.90**	**- 0.65**	**- 3.17**	**0.29**	**1.38**	**1.39**	***1.89***	***1.98***		*1%*	*483%*
		SCF	6.11	- 0.22	- 3.28	1.09	- 0.74	- 1.07	- 0.25	1.32	*1.52*	*1.60*		*632%*	*461%*
		LSF	2.60	- 3.58	- 3.56	- 4.06	0.61	9.21	10.46	1.64	*3.09*	*3.20*		*-84%*	*-1%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Denmark

In 2015, the Danish fishing fleet consisted of 1 851 registered vessels, with a combined vessel tonnage of 66 thousand gross tonnages (GT) and engine power (kW) of 208 thousand kW. In 2015, there were 1 392 active and 459 inactive units. Some of the 1 392 active production units include more than one vessel. The number of registered fishing vessels decreased by 5% between 2014 and 2015, whereas vessel tonnage and engine power decreased by 3% and 1% respectively. The decrease in fishing capacity between 2014 and 2015 is in line with the long-term trend of declining fishing capacity. Thus, between 2008 and 2015, the total vessel numbers decreased 34%, whereas vessel tonnage (GT) and engine power (kW) decreased 16% and 26% respectively. The decrease has partly happened as a result of a cleaning up of inactive vessels in the register, initiated by a yearly fee for vessel registering.

In 2015, the total weight landed by the fleet was 866 thousand tonnes of seafood with a landing value of €440 million. The landed weight increased from 2014 to 2015 by 17%, while the value of landings increased by 16%. One of the species driving this total increase in both weight and value is sprat. The volumes of landed sprat increased significantly (78%) from 2014 to 2015 and prices increased by 9%. This resulted in almost a doubling of the landings value of sprat, from €37 million in 2014 to €73 million in 2015.

In terms of economic fleet performance, the total amount of gross value added (GVA), gross profit, and net profit generated by the national fleet in 2015 were €313 million, €199 million and €106 million, respectively. This corresponded to increases of 32%, 52% and 186%, compared to 2014. These large increases in economic indicators is a result of increased landings weight (17%) and value (16%) and minor decreases in variable costs. The decrease in variable costs despite the increase in landings was largely driven by decreasing energy costs due to decreasing fuel prices.

The **large-scale fleet** (vessels above 12 meters) targets a large variety of species including codfish, flatfish, Norway lobster, herring, mackerel, sprat and sandeels in the Baltic Sea, the Sounds, Kattegat, Skagerrak, the North Sea and the Norwegian Sea. In 2015, the large-scale fishing fleet consisted of 419 registered vessels, with a combined vessel tonnage of 61 thousand GT and engine power of 156 thousand kW. The size of the large-scale fleet decreased between 2014 and 2015 in terms of number of vessels (-3%), vessel tonnage (-2%) and engine power (-1%). Comparing 2015 to the average of 2008-2014, the number of vessels in the large-scale fisheries decreased by 17%, the gross tonnage increased by 4%, while the total engine power decreased by 6%.

The value of landings generated by the large-scale fleet accounted for €418 million in 2015, which was 95% of the total national landings value for fisheries. The revenue increased by 19% from 2014 to 2015. Total operating costs incurred by the large-scale fleet in 2015 equated to €228 million. Of these, crew costs (incl. unpaid labour value) are the major fishing expense for the large-scale fleet and accounted for €101 million. Annual depreciation is also a major expense for the large-scale fleet and amounted to €87 million in 2015. The large-scale fleet had a gross profit and net profit of €200 million and €110 million in 2015, which is an increase of 50% and 149% compared to 2014.

Small-scale coastal fleet: operates mostly in the Baltic Sea, the Sounds and the Kattegat. In 2015, the small-scale fishing fleet consisted of 973 registered vessels, with a combined vessel tonnage of 3.8 thousand GT and engine power of 40.8 thousand kW. The number of vessels decreased by 3% between 2014 and 2015, while vessel tonnage decreased by 2%. The total engine power of the SSCF remained constant between 2014 and 2015. Compared to the average in the period 2008-2014, there was a decrease in number of vessels, gross tonnage and engine power of 12%, 9% and 5% respectively.

The value of landings generated by the SSCF amounted to €22 million in 2015, which is 5% of the national landings value for fisheries. The landing value generated by the Danish SSCF increased by 2% from 2014-2015. Total operating costs incurred by the SSCF in 2015 equated to €24 million. Crew costs are a major fishing expense for the SSCF and accounted for €13 million in 2015 (incl. unpaid labour value). Between 2014 and 2015, total operating costs decreased by 5%, due to decreases in wages, energy costs, repair and maintenance costs, as well as other variable costs. The SSCF made a loss in 2015 with gross profit and net profit of -€0.9 million and -€4.4 million, respectively. The loss in gross profit decreased by 64% from 2014 to 2015, while the loss in net profit decreased by 39%. Compared to the average between 2008 and 2014, the gross profit margin and net profit margin increased (reduced the negative net profit margin) by 59% and 35%, respectively in 2015.

Denmark															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		2,813	2,786	2,682	2,663	2,052	2,048	1,956	1,851	1,343	1,326		-5%	-24%
		SCF	1,228	1,203	1,118	1,102	1,075	1,025	1,004	973	947	934		-3%	-12%
		LSF	582	566	521	501	462	456	434	419	396	393		-3%	-17%
Vessel tonnage	(thousand GT)		79	74	68	68	62	65	68	66				-3%	-4%
		SCF	4.4	4.3	4.2	4.2	4.1	3.9	3.8	3.8				-2%	-9%
		LSF	59	60	59	59	56	58	63	61				-2%	4%
Engine power	(thousand kW)		283	269	247	239	213	215	211	208				-1%	-13%
		SCF	45	44	44	44	43	41	41	41				0%	-5%
		LSF	181	178	171	167	154	156	157	156				-1%	-6%
Total employed	(person)		1,801	1,694	1,528	1,460	1,472	1,489	1,405	1,330	1,272	1,258		-5%	-14%
		SCF	420	378	333	342	345	362	307	326	318	309		6%	-8%
		LSF	1,380	1,317	1,195	1,119	1,127	1,127	1,099	1,004	954	950		-9%	-16%
FTE	(#)		2,061	1,854	1,804	1,661	1,558	1,652	1,619	1,570	1,661	1,719		-3%	-10%
		SCF	379	319	281	276	252	239	225	219	242	254		-3%	-22%
		LSF	1,682	1,535	1,523	1,385	1,307	1,413	1,394	1,351	1,419	1,466		-3%	-8%
Days at sea	(thousand day)		129.2	127.5	119.4	116.0	109.4	106.2	103.8	96.8	107.2	111.6		-7%	-16%
		SCF					45.6	43.6	42.6	39.5	43.8	46.1		-7%	-10%
		LSF					63.8	62.6	61.1	57.3	63.4	65.5		-6%	-8%
Fishing days	(thousand day)		122.5	120.6	112.5	108.5	103.1	102.0	99.2	91.5				-8%	-17%
		SCF					45.3	43.4	42.4	39.5				-7%	-10%
		LSF					57.8	58.6	56.8	51.9				-8%	-10%
Live weight of landings	(thousand tonne)		690.5	773.0	822.3	711.0	499.3	665.0	741.9	865.9	705.2	617.6		17%	24%
		SCF	12.9	11.8	11.2	12.3	11.8	11.2	11.1	10.2	10.2	10.2		-8%	-14%
		LSF	677.5	761.2	811.1	698.7	487.5	653.8	730.8	855.7	695.0	607.3		17%	24%
Value of landings	(million €)		366.8	310.3	408.3	427.4	382.8	395.3	380.0	440.3	437.7	435.9		16%	15%
		SCF	32.0	24.8	24.6	26.9	24.9	23.3	21.6	22.2	24.2	25.0		2%	-13%
		LSF	334.7	285.5	383.7	400.3	358.0	372.0	358.3	418.1	413.4	410.9		17%	17%
Revenue	(million €)		376.5	317.8	430.0	408.4	390.0	402.3	385.6	450.9	448.6	446.5		17%	16%
		SCF	32.8	25.1	26.3	25.8	27.2	26.0	23.1	23.3	25.3	26.1		1%	-12%
		LSF	343.7	292.7	403.7	382.7	362.8	376.3	362.5	427.7	423.3	420.4		18%	19%
Gross Value Added	(million €)		219.8	187.4	283.8	257.5	245.2	252.3	238.4	313.5	320.2	314.2		32%	30%
		SCF	16.6	12.3	14.0	12.8	13.1	12.7	10.9	12.1	14.0	14.7		10%	-9%
		LSF	203.2	175.1	269.7	244.7	232.1	239.6	227.4	301.4	306.2	299.5		33%	33%
Gross profit	(million €)		86.5	70.9	156.7	138.8	138.5	142.1	131.3	199.2	202.2	195.1		52%	61%
		SCF	-4.1	-5.0	-1.4	-1.9	-0.9	-1.2	-2.4	-0.9	-0.1	0.1		64%	64%
		LSF	90.6	75.9	158.2	140.7	139.4	143.3	133.7	200.1	202.3	195.0		50%	59%
Net profit	(million €)		-13.9	-30.1	62.6	47.0	50.9	46.1	37.1	106.1	109.3	113.1		186%	272%
		SCF	-11.4	-11.6	-6.3	-6.2	-5.2	-5.8	-7.2	-4.4	-3.5	-2.6		39%	43%
		LSF	-2.5	-18.5	68.9	53.2	56.1	52.0	44.3	110.4	112.8	115.7		149%	205%
Return on fixed tangible assets	(%)		-2.3	-4.1	14.0	11.2	8.8	9.7	7.5	17.9	18.3	18.4		140%	179%
		SCF	-26.4	-31.3	-18.9	-21.5	-14.9	-11.9	-17.0	-12.7	-10.4	-9.6		26%	38%
		LSF	0.1	-1.9	16.5	13.6	10.6	11.7	9.3	19.7	19.9	19.9		112%	130%
GVA per FTE	(thousand €)		106.7	101.1	157.3	155.0	157.4	152.8	147.3	199.7	192.8	182.8		36%	43%
		SCF	44.0	38.7	50.0	46.3	51.9	53.1	48.6	55.1	57.8	57.8		13%	16%
		LSF	120.8	114.1	177.1	176.6	177.7	169.6	163.2	223.1	215.7	204.3		37%	42%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Estonia

In 2016, the Estonian Baltic Sea fishing fleet consisted of 1 550 registered vessels, with a combined gross tonnage of 5.9 thousand GT and engine power of 31.5 thousand kW. While the number of vessels in the fleet increased compared to previous years the GT and kW decreased slightly. This reflects different trends in the large and small-scale fleets, with the number of open sea trawlers down by 3 vessels, while the number of small-scale vessels increased by 19 boats.

The Estonian Baltic Sea fleet is nationally divided into a large-scale fleet (2% of total vessels in 2016) and a small-scale coastal fleet (98% in 2016). The large-scale fleet operates outside the coastal zone using mainly pelagic trawls. It is divided into two size groups (12-18m and 24-40m). The small-scale coastal fleet operates inside Estonian coastal waters using mainly passive gears. It is also divided into two size groups (0-10m and 10-12m).

In 2015 employment was estimated at 2 242 jobs, corresponding to 485 FTEs. While the total number employed increased over the period, the equivalent FTE declined reflecting an increased reliance on part-time workers for whom fishing is not the only source of income. The average age of those employed in the sector was around 50 years.

The live weight landed by the Estonian Baltic Sea fleet in 2015 was 59.3 thousand tonnes of seafood, with a landed value of €14.5 million. Although the total weight of landings increased 8% in 2015, the total value of landings remained rather stable. The reason of this was the fall in the average fish price. In 2015, Atlantic herring generated the highest value (€6.2 million) landed by the Estonian Baltic Sea fleet, followed by European sprat (€4.6 million) and European perch (€2.4 million). In terms of landings weight, Atlantic herring landings were 32.3 thousand tonnes, European sprat 24 thousand tonnes and European perch 1.5 thousand tonnes.

Gross Value Added (GVA), gross profit and net profit were estimated at €9.4 million, €3.7 million and €1.7 million, respectively. GVA and net profit increased 0.5% and 4.6%, respectively; gross profit decreased 6.8%. These results do not show significant changes in the economic situation compared to 2014.

Changes in first sale fish prices, fuel prices and allowable fishing capacity were the main driving forces behind the economic performance in 2015. The average prices for sprat and herring fell further in 2015 and this affected mainly the performance of large-scale fleet. The decline in fuel prices helped to alleviate the situation. Losses in income also were covered by a higher catch volume - the herring quota increased by as much as 48% over the year.

According to the preliminary projections an improvement in economic performance will be expected in 2016. The main reason for this is a decrease in fishing effort which in turn affects total operating costs. Although the price of fuel remains low, the first sale prices of the top two species (European sprat and Atlantic herring) remains stable or decline further. This reflects ongoing difficulties selling fish caused in part by the Russian embargo on EU food products.

Estonia															
			2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		**954**	**955**	**939**	**928**	**917**	**1,343**	**1,514**	**1,534**	***1,550***	***1,552***		1.3%	42.2%
		SCF	880	884	881	876	872	1,300	1,475	1,498	*1,517*	*1,518*		1.6%	46.3%
		LSF	64	53	48	42	36	36	38	34	*33*	*34*		-10.5%	-24.9%
Vessel tonnage	(thousand GT)		**7.6**	**7.6**	**7.0**	**6.4**	**6.0**	**6.1**	**6.0**	**5.9**				-1.8%	-11.6%
		SCF	1.8	1.8	1.8	1.7	1.7	2.0	2.2	2.2				0.5%	19.2%
		LSF	5.6	5.4	5.0	4.4	4.0	4.0	3.8	3.7				-3.5%	-19.9%
Engine power	(thousand kW)		**30.3**	**30.4**	**28.7**	**26.9**	**26.1**	**30.6**	**32.1**	**31.8**				-0.9%	8.5%
		SCF	14.6	14.6	14.5	14.4	14.6	19.6	22.2	22.2				-0.1%	35.7%
		LSF	15.0	13.7	12.9	11.2	10.3	10.1	9.8	9.4				-3.7%	-20.3%
Total employed	(person)		**3,002**	**1,899**	**1,948**	**1,993**	**2,046**	**2,046**	**2,070**	**2,242**	***2,260***	***2,267***		8.3%	4.6%
		SCF	2,727	1,646	1,721	1,777	1,858	1,865	1,895	2,075	*2,099*	*2,100*		9.5%	7.7%
		LSF	275	253	227	216	188	181	175	167	*161*	*167*		-4.6%	-22.8%
FTE	(#)		**699**	**541**	**521**	**524**	**540**	**514**	**497**	**485**	***413***	***407***		-2.4%	-11.5%
		SCF	444	301	309	320	362	339	333	351	*303*	*290*		5.4%	2.0%
		LSF	255	240	212	204	178	175	164	134	*110*	*117*		-18.3%	-34.3%
Days at sea	(thousand day)		**88.5**	**93.6**	**80.3**	**66.8**	**63.9**	**86.8**	**94.5**	**84.8**	***72.1***	***71.9***		-10.2%	3.4%
		SCF	81.2	87.5	75.1	62.1	59.7	83.5	91.1	81.0	*68.8*	*68.5*		-11.1%	4.9%
		LSF	7.3	6.1	5.2	4.7	4.2	3.3	3.4	3.9	*3.2*	*3.4*		14.8%	-20.7%
Fishing days	**(thousand day)**		**135.7**	**147.5**	**125.5**	**104.2**	**100.2**	**143.0**	**162.9**	**151.6**				-6.9%	15.5%
		SCF	128.8	141.9	120.7	100.1	96.1	139.8	159.7	148.0				-7.3%	16.8%
		LSF	6.9	5.6	4.8	4.2	4.0	3.2	3.2	3.6				13.0%	-20.6%
Live weight of landings	(thousand tonne)		**83.5**	**83.5**	**79.6**	**63.4**	**53.3**	**54.6**	**54.8**	**59.3**	***60.7***	***63.9***		8.3%	-12.1%
		SCF	12.6	14.0	11.2	10.4	8.7	9.6	10.4	12.0	*11.6*	*11.1*		15.7%	9.4%
		LSF	70.9	69.5	68.3	53.0	44.5	44.9	44.4	47.3	*49.1*	*52.7*		6.6%	-16.3%
Value of landings	(million €)		**18.4**	**16.9**	**14.7**	**15.1**	**14.6**	**15.5**	**14.5**	**14.5**	***14.6***	***14.5***		-0.1%	-7.3%
		SCF	4.1	4.1	3.9	4.2	4.8	5.6	5.1	5.4	*5.6*	*5.1*		6.7%	19.0%
		LSF	14.3	12.8	10.8	10.9	9.7	9.8	9.5	9.1	*9.0*	*9.4*		-3.7%	-17.9%
Revenue	**(million €)**		**18.5**	**17.0**	**14.8**	**15.2**	**14.7**	**15.6**	**14.7**	**14.7**	***14.8***	***14.7***		0.0%	-6.8%
		SCF	4.1	4.2	3.9	4.3	4.9	5.8	5.2	5.6	*5.8*	*5.3*		6.6%	20.2%
		LSF	14.4	12.9	10.9	11.0	9.8	9.8	9.5	9.2	*9.0*	*9.5*		-3.6%	-18.0%
Gross Value Added	**(million €)**		**11.4**	**10.6**	**8.3**	**8.3**	**8.2**	**9.2**	**9.3**	**9.4**	***10.3***	***10.0***		0.5%	0.3%
		SCF	2.4	2.5	2.1	2.4	3.1	3.4	2.8	3.1	*3.6*	*3.0*		10.5%	15.1%
		LSF	9.0	8.1	6.2	5.8	5.0	5.8	6.5	6.3	*6.7*	*7.0*		-3.8%	-5.7%
Gross profit	**(million €)**		**5.2**	**5.0**	**3.0**	**3.3**	**3.0**	**4.2**	**3.9**	**3.7**	***4.7***	***4.3***		-6.8%	-7.1%
		SCF	0.9	1.2	0.9	1.2	1.7	1.8	1.1	1.2	*1.7*	*1.3*		4.7%	-5.1%
		LSF	4.4	3.7	2.1	2.2	1.3	2.4	2.8	2.5	*3.0*	*3.0*		-11.5%	-8.1%
Net profit	**(million €)**		**4.1**	**1.6**	**0.5**	**1.6**	**1.5**	**2.2**	**1.6**	**1.7**	***2.9***	***2.9***		4.6%	-9.0%
		SCF	0.7	0.2	0.3	0.8	1.3	1.3	0.5	0.7	*1.2*	*1.0*		33.4%	-4.8%
		LSF	3.5	1.5	0.2	0.9	0.3	1.0	1.1	1.0	*1.7*	*1.9*		-8.3%	-12.3%
Return on fixed tangible assets	(%)		**19.6**	**16.1**	**5.4**	**9.0**	**9.4**	**12.6**	**10.8**	**9.4**	***15.2***	***13.3***		-12.5%	-20.6%
		SCF	5.8	10.6	7.2	11.1	19.8	18.1	9.2	9.2	*15.3*	*10.0*		-0.8%	-21.6%
		LSF	30.5	21.1	4.5	8.0	3.1	9.1	11.7	9.6	*15.1*	*15.7*		-17.8%	-23.7%
GVA per FTE	(thousand €)		**16.3**	**19.6**	**15.9**	**15.8**	**15.1**	**17.9**	**18.7**	**19.3**	***25.0***	***24.6***		3.0%	13.0%
		SCF	5.4	8.3	6.9	7.6	8.6	9.9	8.4	8.8	*11.9*	*10.5*		4.8%	11.4%
		LSF	35.3	33.8	29.0	28.7	28.3	33.4	39.7	46.8	*60.9*	*59.4*		17.7%	43.5%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Finland

The Finnish fishing fleet consisted of 1 577 active vessels in 2015, with a combined gross tonnage of 15.8 thousand GT and a total power of 156 thousand kW. The number of active vessels decreased significantly in 2015 by 187 vessels.

The Finnish fishing fleet is dominated by small-scale vessels in terms of number: 1 513 out of 1 577 (96%) active vessels were operating in small-scale coastal fisheries. However, the 64 trawlers accounted for two thirds in terms of gross tonnage of the total fleet tonnage.

Total employment in 2015 was estimated at 1 668 jobs. The majority of the jobs are created by the SSCF that is a seasonal fishery. Therefore, the employment in that sector is usually only part-time and in terms of full time equivalent the total fleet added up to 358 FTEs. The number of fishers has been dropping for long time and the average age of fishers is increasing. Average age of fishers was 57 and one out of ten was older than 70 years and the equal share were under 37 years old. One aim of EMFF Finnish Operational Programme is to make the fishing sector attractive for younger people to recruit into the sector.

The total effort in 2015 dropped significantly from the previous year by 16% to 106 thousand fishing days. This was due to bad weather conditions for the SSCF that accounts for 95% of the total effort. Finnish fleet operates exclusively in the Baltic Sea.

The total weight landed by the Finnish fleet in 2015 was 148 thousand tonnes of seafood, with a landed value of €33.6 million; a significant drop of 17% from the previous year despite the total weight of landings remained stable. Pelagic species are the most important species for Finnish fisheries in terms of landing weight and value. In 2015, the weight of pelagic species landed increased to record high due to strong herring stocks especially in the most important fishing grounds for Finnish fleet in northern Baltic Sea.

Baltic herring accounted for the highest landed value (€23.1 million), followed by European sprat (€2.1 million). Despite the highest landed weight, the value continues to decrease. The main reason for low prices for pelagics was the Russian embargo on EU food stuff as a countermeasure to EU sanctions due to the Ukraine crisis. And Russian markets have always been important for the pelagic fish.

The landing weight of the SSCF dropped significantly in 2015 and the total value of landings followed that trend with 15% decrease. Small-scale coastal fleet target mostly various freshwater fish species: European whitefish and pike-perch were the most important species for the segment.

Finland															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	**(#)**		**3,240**	**3,240**	**3,270**	**3,365**	**3,359**	**3,241**	**3,144**	**2,717**	***1,599***	***1,790***		*-14%*	*-17%*
		SCF	1,486	1,465	1,559	1,589	1,890	1,674	1,699	1,513	*1,536*	*1,728*		*-11%*	*-7%*
		LSF	67	66	60	60	62	59	65	64	*63*	*63*		*-2%*	*2%*
Vessel tonnage	**(thousand GT)**		**16.4**	**16.9**	**16.7**	**18.1**	**17.0**	**16.5**	**16.8**	**15.8**				*-6%*	*-7%*
		SCF	4.1	3.8	4.1	4.2	4.0	3.9	5.5	3.6				*-35%*	*-15%*
		LSF	7.1	7.5	7.6	9.2	8.6	8.3	9.0	9.2				*2%*	*13%*
Engine power	**(thousand kW)**		**173.4**	**174.8**	**175.4**	**181.6**	**178.2**	**172.6**	**173.0**	**155.7**				*-10%*	*-11%*
		SCF	71.9	68.8	74.9	75.8	76.5	75.6	77.9	70.1				*-10%*	*-6%*
		LSF	27.2	27.6	27.1	31.3	30.3	28.8	32.1	32.5				*1%*	*11%*
Total employed	**(person)**		**1,613**	**1,607**	**1,699**	**1,722**	**2,033**	**1,836**	**1,850**	**1,668**	***1,689***	***1,876***		*-10%*	*-6%*
		SCF	1,486	1,465	1,559	1,589	1,892	1,691	1,699	1,513	*1,536*	*1,728*		*-11%*	*-7%*
		LSF	127	142	140	133	141	145	151	155	*153*	*149*		*3%*	*11%*
FTE	**(#)**		**264**	**229**	**274**	**338**	**354**	**377**	**355**	**358**	***350***	***395***		*1%*	*14%*
		SCF	178	135	181	230	246	274	251	251	*240*	*260*		*0%*	*18%*
		LSF	86	94	93	108	108	103	104	107	*110*	*136*		*3%*	*8%*
Days at sea	**(thousand day)**		**129.5**	**143.0**	**149.7**	**148.2**	**137.6**	**137.8**	**126.4**	**106.0**	***101.2***	***110.6***		*-16%*	*-24%*
		SCF	124.0	138.0	145.1	142.8	131.6	131.8	120.1	99.0	*94.0*	*101.8*		*-18%*	*-26%*
		LSF	5.6	5.0	4.6	5.4	6.0	6.1	6.3	7.1	*7.2*	*8.8*		*13%*	*28%*
Fishing days	**(thousand day)**		**128.7**	**142.4**	**148.9**	**147.3**	**136.8**	**137.0**	**125.8**	**106.0**				*-16%*	*-23%*
		SCF	123.9	137.8	144.8	142.5	131.3	131.5	119.8	98.9				*-17%*	*-26%*
		LSF	4.8	4.6	4.1	4.8	5.5	5.4	6.0	7.1				*18%*	*41%*
Live weight of landings	**(thousand tonne)**		**111.6**	**117.5**	**122.1**	**119.7**	**132.9**	**138.4**	**148.2**	**148.1**	***157.0***	***144.9***		*0%*	*16%*
		SCF	8.4	9.4	10.2	10.1	13.1	17.9	14.3	11.1	*9.7*	*11.0*		*-22%*	*-7%*
		LSF	103.1	108.1	111.9	109.6	119.8	120.5	134.0	137.0	*147.3*	*133.9*		*2%*	*19%*
Value of landings	**(million €)**		**26.3**	**26.7**	**29.3**	**34.8**	**36.8**	**47.1**	**40.4**	**33.6**	***33.6***	***35.0***		*-17%*	*-2%*
		SCF	8.4	9.2	9.9	11.4	10.8	12.5	11.5	8.9	*7.7*	*9.3*		*-23%*	*-15%*
		LSF	17.9	17.5	19.4	23.4	26.1	34.5	28.8	24.7	*26.0*	*25.7*		*-14%*	*3%*
Revenue	**(million €)**		**29.5**	**31.0**	**32.4**	**38.7**	**44.7**	**44.1**	**39.3**	**36.1**	***36.2***	***37.5***		*-8%*	*-3%*
		SCF	12.1	13.1	12.9	13.7	15.2	13.2	13.1	9.6	*8.3*	*10.1*		*-27%*	*-28%*
		LSF	17.6	17.9	19.5	25.0	29.5	30.9	26.2	26.5	*27.9*	*27.4*		*1%*	*11%*
Gross Value Added	**(million €)**		**12.3**	**14.3**	**13.6**	**15.0**	**19.8**	**18.3**	**15.5**	**14.9**	***16.5***	***14.6***		*-4%*	*-4%*
		SCF	5.9	8.0	6.4	6.7	8.1	6.9	6.6	4.7	*3.7*	*4.8*		*-28%*	*-32%*
		LSF	6.4	6.3	7.1	8.2	11.7	11.4	8.9	10.2	*12.9*	*9.8*		*14%*	*18%*
Gross profit	**(million €)**		**5.5**	**7.5**	**5.8**	**5.4**	**9.3**	**9.4**	**8.1**	**7.8**	***9.5***	***7.1***		*-4%*	*7%*
		SCF	2.7	4.6	2.2	2.0	2.7	3.6	4.2	3.0	*2.2*	*3.0*		*-30%*	*-7%*
		LSF	2.8	2.9	3.6	3.3	6.5	5.8	3.9	4.8	*7.4*	*4.1*		*25%*	*17%*
Net profit	**(million €)**		**- 7.0**	**- 8.3**	**- 11.0**	**- 10.0**	**- 2.6**	**- 2.8**	**- 6.9**	**- 8.2**	***- 5.7***	***- 8.2***		*-18%*	*-18%*
		SCF	- 4.8	- 2.7	- 6.1	- 5.0	- 3.7	- 3.0	- 3.3	- 4.1	*- 4.7*	*- 4.5*		*-24%*	*0%*
		LSF	- 2.1	- 5.0	- 4.5	- 5.1	0.8	0.1	- 3.6	- 3.9	*- 1.0*	*- 3.7*		*-9%*	*-41%*
Return on fixed tangible assets	**(%)**		**- 10.7**	**- 9.3**	**- 12.8**	**- 13.8**	**- 5.5**	**- 5.2**	**- 10.5**	**- 11.0**	***- 12.8***	***- 18.7***		*-5%*	*-14%*
		SCF	- 20.1	- 10.4	- 23.2	- 22.6	- 18.6	- 14.5	- 13.9	- 18.4	*- 22.1*	*- 19.9*		*-32%*	*-4%*
		LSF	- 14.1	- 21.6	- 19.5	- 21.7	3.3	0.2	- 17.2	- 15.5	*- 4.5*	*- 17.4*		*10%*	*-20%*
GVA per FTE	**(thousand €)**		**46.6**	**62.5**	**49.5**	**44.2**	**55.9**	**48.5**	**43.6**	**41.5**	***47.3***	***36.9***		*-5%*	*-17%*
		SCF	33.1	59.2	35.6	29.1	33.0	25.1	26.1	18.7	*15.3*	*18.4*		*-28%*	*-46%*
		LSF	75.0	67.1	76.7	76.4	108.3	110.8	85.9	95.1	*116.8*	*72.2*		*11%*	*11%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

France

The national fleet capacity continues to decline in 2015, with a total of 6 911 vessels (including 1 186 of which were inactive), having a combined gross tonnage (GT) of 172 thousand tonnes and engine power of 999.4 thousand kilowatts (kW). If the number of vessels has been decreasing since 2009 by 5%, the national engine power remained globally stable on the period. In a similar way, after a severe decrease between 2008 and 2010 (-12%), gross tonnage remained stable, increasing in 2014 (+7%), due to the inclusion of five purse seiners based in Mayotte (overseas territory) adding 12 thousand tonnes at the national gross tonnage.

The proportion of inactive vessels tends to increase (11% in 2009 and 17% in 2015). They are mainly made up of less than 12 meter vessels (98%) and mostly based in the French overseas territories (66%), especially in Martinique and Guadeloupe, where they represent 35% of the total number of vessels.

The French fishing fleet is nationally divided into:

- a small-scale coastal fleet (73% of total active vessels, but only 9% of total GT and 41% of total kW), mainly composed of vessels less than 10 meters long with a large diversity of metiers and an important part of polyvalent vessels. These vessels represent 40% of the fleet in overseas territories (outermost regions), 33% in the Northeast Atlantic and North Sea regions and 27% in the Mediterranean;

- a large-scale fleet (27% of total active vessels) which is mainly made up of vessels using active gears, especially demersal trawlers and dredgers with lengths ranging from less than 10 meters to more than 40 meters. Even though they are active in all the French regions, the major proportion of those vessels is based in North East Atlantic and North Sea regions. As they are most of time larger than SSCF vessels, they represent the major part of the fleet regarding the gross tonnage (65%).

- a distant water fleet composed of 22 tropical purse seiners over 40 meters catching tuna in South Atlantic and Indian Oceans; even if they represent only a small part of the fleet in terms of number, these vessels generate approx. 10% of the national fleet's income.

Employment in the sector was estimated at 13 442 jobs in 2015 corresponding to around 6 865 FTEs, distributed as follows: 52% to the small-scale coastal fleet, 44% to the large-scale fleet, and 4% to the distant water fleet. The level of employment decreased between 2009 and 2015, at an average rate of -2.7% per year. After a severe drop between 2009 and 2011 (-26%), employment remained stable on the Mediterranean fleet, around 2000 jobs. Since 2013, loss of jobs especially concerns North East Atlantic and North Sea regions.

The fleet spent 455 thousand days at sea, to land more than 518 thousand tonnes of seafood valued at €1.15 billion in 2015. European hake landings generated the highest value by the national fleet (€128.5 million), an increase of 35% compared to 2014, thanks to a high weight of landings as in 2014 and an increase in price from €2.3 per kg to €3 per kg. Hake is followed by monkfish (€98.1 million), common sole (€72.2 million), Great Atlantic scallop (€69.8 million) and yellowfin tuna (€69.3 million). Thanks to its recent recovery and a high price value (€13 per kg), the Atlantic bluefin tuna value of landing reached €38 million in 2015.

Performance of the fleet reached a record high in 2015 its higher economic performances since 2009, mainly thanks to a high income from landings and a significant fuel price decrease. Revenue was estimated at €1.195 billion (+2% from 2014) while total operational costs decreased, mainly due to energy costs decrease (-23%) and also other variable and fixed costs but in a lesser extent. In the same time crew costs and repair and maintenance costs increased by about 8%. The cost structure has generally followed fuel price trends, with some apparent decrease in labour costs and increase in energy costs from 2010 to 2012 and the opposite effect from 2012 to 2015.

Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €651 million, €193 million and €97 million respectively and all increased significantly from 2014 to 2015. Further improvements are expected for 2016 and 2017.

While 2016 is marked by a global increase of French TAC by 4% (14 000 tonnes), the reduction of quotas for key species such as common sole in the Bay of Biscay and Atlantic mackerel is a source of concern for fishers. Regarding auctions sales, the year 2016 shows stability compared to 2015. However, regional disparities are important, and economic performance differs significantly between fleet segments and supra regions. 2016 will generally be more difficult for the vessels located on the North Sea Channel coast than in Brittany. In the Bay of Biscay, the Norway lobster season will be particularly good, offering regular volumes to buyers throughout the year.

In the Mediterranean, 2016 will finally be marked by an improvement of the economic situation, thanks to the return of species like anchovy. The common prawn also makes an appearance at the end of 2016, reaching volumes and high sales prices.

Therefore, it is to be expected that 2016 will be one of the most profitable year since 2010, in an overall economic context of stabilisation of fish prices, low fuel prices, and improvement of several biomasses of some strategic species from an economic point of view.

France															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	**(#)**		**7,919**	**7,290**	**7,234**	**7,211**	**7,144**	**7,125**	**7,069**	**6,911**	***5,722***	***5,662***		*-2%*	*-5%*
		SCF	4,589	4,629	4,371	4,480	4,382	4,332	4,198	4,178	*4,175*	*4,141*		*0%*	*-6%*
		LSF	2,011	1,826	1,889	1,687	1,612	1,559	1,538	1,526	*1,526*	*1,500*		*-1%*	*-12%*
		DWF	5	20	21	17	18	17	22	21	*21*	*21*		*-5%*	*23%*
Vessel tonnage	**(thousand GT)**		**197.2**	**185.3**	**174.2**	**171.0**	**168.3**	**164.2**	**175.6**	**171.9**				*-2%*	*-3%*
		SCF	16.1	16.2	15.4	16.2	16.0	15.7	15.6	15.5				*0%*	*-2%*
		LSF	168.9	126.5	118.9	113.5	109.5	108.0	105.7	106.9				*1%*	*-12%*
		DWF	3.2	33.6	30.6	28.1	32.7	32.4	45.0	42.9				*-5%*	*46%*
Engine power	**(thousand kW)**		**1,076.0**	**1,007.7**	**994.9**	**1,001.5**	**999.3**	**999.9**	**1,016.6**	**999.4**				*-2%*	*-1%*
		SCF	405.8	418.0	410.4	432.8	428.8	427.6	419.9	414.5				*-1%*	*-1%*
		LSF	547.9	453.6	440.4	410.8	398.6	393.8	386.4	387.7				*0%*	*-10%*
		DWF	4.6	57.8	53.0	49.5	55.4	54.4	73.8	70.1				*-5%*	*41%*
Total employed	**(person)**		**16,103**	**15,807**	**15,166**	**14,631**	**14,140**	**13,691**	**13,547**	**13,442**	***13,437***	***13,302***		*-1%*	*-9%*
		SCF	7,997	7,881	7,553	7,755	7,538	7,250	6,983	7,003	*6,998*	*6,959*		*0%*	*-7%*
		LSF	7,978	7,382	7,174	6,433	6,189	6,028	5,986	5,885	*5,885*	*5,790*		*-2%*	*-13%*
		DWF	127	543	439	443	413	413	578	553	*553*	*553*		*-4%*	*31%*
FTE	**(#)**		**8,629**	**7,644**	**7,819**	**7,464**	**7,196**	**6,900**	**7,026**	**6,865**	***6,866***	***7,052***		*-2%*	*-9%*
		SCF	2,518	2,045	2,230	2,424	2,360	2,235	2,165	2,152	*2,150*	*2,148*		*-1%*	*-6%*
		LSF	6,045	5,059	5,166	4,601	4,423	4,252	4,283	4,159	*4,163*	*4,351*		*-3%*	*-14%*
		DWF	66	540	423	439	413	413	578	553	*553*	*553*		*-4%*	*35%*
Days at sea	**(thousand day)**		**583.3**	**434.1**			**494.8**	**470.6**	**465.3**	**454.7**	***454.7***	***460.5***		*-2%*	*-7%*
		SCF	242.2	170.8			226.9	225.8	221.1	208.0	*208.8*	*208.7*		*-6%*	*-4%*
		LSF	340.8	257.8			267.8	244.8	243.8	242.6	*241.6*	*247.5*		*0%*	*-10%*
		DWF	0.4	5.6			0.1		0.4	4.0	*4.3*	*4.3*		*1018%*	*152%*
Fishing days	**(thousand day)**		**486.1**	**404.1**			**452.0**	**437.3**	**431.8**	**418.3**				*-3%*	*-5%*
		SCF	205.3	168.6			223.3	224.0	219.3	205.6				*-6%*	*-1%*
		LSF	280.4	235.3			228.7	213.3	212.3	211.0				*-1%*	*-10%*
		DWF	0.4	0.1			0.0		0.2	1.7				*923%*	*916%*
Live weight of landings	**(thousand tonne)**		**433.9**	**431.4**	**447.4**	**463.7**	**505.7**	**514.1**	**526.9**	**518.3**	***502.4***	***539.0***		*-2%*	*9%*
		SCF			50.8	65.3	73.5	83.5	77.7	81.8	*77.1*	*80.9*		*5%*	*17%*
		LSF			311.2	316.4	353.4	351.2	349.3	343.8	*345.5*	*378.3*		*-2%*	*2%*
		DWF			85.4	82.0	78.5	79.3	100.0	92.8	*79.8*	*79.8*		*-7%*	*9%*
Value of landings	**(million €)**		**978.8**	**948.0**	**982.8**	**1,092.2**	**1,088.8**	**1,112.3**	**1,101.1**	**1,147.7**	***1,175.0***	***1,204.9***		*4%*	*10%*
		SCF			166.0	201.3	187.7	186.2	184.4	183.5	*184.2*	*180.6*		*0%*	*-1%*
		LSF			715.1	772.5	740.7	787.9	772.8	855.8	*877.5*	*907.4*		*11%*	*13%*
		DWF			101.6	118.4	150.6	138.1	143.9	108.4	*113.3*	*117.0*		*-25%*	*-17%*
Revenue	**(million €)**		**1,035.7**	**1,109.7**	**1,104.2**	**1,197.0**	**1,098.8**	**1,150.1**	**1,166.1**	**1,194.8**	***1,212.9***	***1,238.3***		*2%*	*6%*
		SCF	255.6	259.5	254.3	270.6	216.4	221.3	222.5	223.2	*227.3*	*222.8*		*0%*	*-8%*
		LSF	780.1	759.8	754.7	799.8	729.8	788.6	805.8	859.2	*885.5*	*912.1*		*7%*	*11%*
		DWF		90.4	95.2	126.6	152.5	140.2	137.8	112.3	*100.1*	*103.4*		*-19%*	*-9%*
Gross Value Added	**(million €)**		**523.5**	**538.7**	**523.0**	**603.2**	**541.7**	**577.7**	**574.1**	**650.7**	***696.4***	***699.5***		*13%*	*17%*
		SCF	164.8	172.7	165.7	175.4	136.1	139.2	137.0	143.6	*150.0*	*144.9*		*5%*	*-8%*
		LSF	358.8	364.6	343.8	369.6	333.4	373.1	386.2	473.6	*521.9*	*529.9*		*23%*	*31%*
		DWF		1.4	20.3	58.2	72.2	65.4	50.9	33.5	*24.6*	*24.7*		*-34%*	*-25%*
Gross profit	**(million €)**		**121.5**	**102.6**	**109.0**	**177.1**	**157.5**	**178.6**	**144.7**	**193.0**	***228.4***	***222.5***		*33%*	*36%*
		SCF	38.4	51.6	52.5	56.9	40.0	42.5	37.2	43.6	*49.8*	*46.5*		*17%*	*-4%*
		LSF	83.1	79.1	75.6	99.1	86.9	111.1	100.2	154.6	*194.6*	*193.2*		*54%*	*70%*
		DWF		- 28.1	- 9.0	21.1	30.7	25.0	7.2	- 5.3	- *16.0*	- *17.2*		*-173%*	*-167%*
Net profit	**(million €)**					**81.4**	**59.6**	**76.7**	**50.1**	**97.1**	***135.9***	***135.3***		*94%*	*45%*
		SCF				33.6	19.4	22.2	18.4	24.8	*31.6*	*29.3*		*35%*	*6%*
		LSF				20.7	0.4	20.4	12.7	58.0	*95.1*	*93.6*		*357%*	*329%*
Return on fixed tangible assets	**(%)**					**16.1**	**10.5**	**14.3**	**10.2**	**18.5**	***25.0***	***24.5***		*81%*	*45%*
		SCF				25.7	15.7	20.0	17.8	23.3	*29.0*	*26.5*		*31%*	*18%*
		LSF				6.1	0.4	5.6	4.0	14.0	*21.9*	*21.1*		*253%*	*249%*
GVA per FTE	**(thousand €)**		**60.7**	**70.5**	**66.9**	**80.8**	**75.3**	**83.7**	**81.7**	**94.8**	***101.4***	***99.2***		*16%*	*28%*
		SCF	81.6	118.3	94.2	94.9	73.6	77.4	77.7	88.8	*92.7*	*89.9*		*14%*	*1%*
		LSF	72.6	74.7	69.7	81.6	76.3	88.3	91.2	115.2	*126.9*	*123.1*		*26%*	*45%*
		DWF		3.0	48.8	132.9	174.8	158.4	88.0	60.6	*44.5*	*44.6*		*-31%*	*-40%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Germany

The German fishing fleet comprised 1 430 vessels in 2016, a decline of 48 compared to the previous year. The gross tonnage increased by 9% to 61 thousand tonnes due to one large trawler entering the fleet and replacing an old one. Since 2008, the number of vessels declined 23%. 371 vessels reported no landings in 2016 and are thus considered inactive.

In 2015 the German large-scale fishing fleet (>12 metres LOA) consisted of 283 vessels (20%), with the remaining 1 147 vessels (80%) classified as small (<12 metres LOA) scale. Eight large-scale vessels are assigned to the high seas fleet.

German small-scale vessels operate almost exclusively in the Baltic Sea, whereas cutters (<500 GT) above 12 meters fish in the North Sea and in the Baltic Sea. German high seas trawlers operate mainly in the North Atlantic and Eastern Arctic area, but to some extent also in African and Southern Pacific waters.

The German pelagic trawler fleet was excluded from the current analysis except for capacity and weight and value of landings data as practically the entire segment is owned by one parent company. For confidentiality reasons the data

cannot be published. Vessels which target blue mussels are not included in the analysis because they are defined as operating in the aquaculture sector.

Landings (by weight) have increased slightly since 2012 and consisted of 228 thousand tonnes in 2016. The main species are herring, cod, common shrimp, saithe, and Greenland halibut. By weight, herring is by far the dominant species, whereas the highest revenue is generated through brown shrimp.

About 104 thousand days were spent at sea in 2016, a slight decrease of 2% from 2014 (106 thousand days). The energy consumed in 2015 amounted to an estimated 40.2 million litres and was thus slightly higher (5%) than in 2014. Due to considerably lower fuel prices the energy costs decreased from about €23.2 million in 2014 to €18.1 million in 2015.

Employment in the non-pelagic fleet was estimated at 1 532 jobs in 2015, corresponding to 1 202 FTEs. About half of the total jobs and 37% of the FTEs are assigned to the SSCF. The number of people employed in fisheries has varied over time, but shows a slightly declining trend. Economic performance indicators for the non-pelagic fleet show a stable or increasing trend, particularly for recent years. This applies to large-scale fleet while the SSCF faced some decrease from 2014 to 2015.

Germany															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		1,861.0	1,817.0	1,757.0	1,664.0	1,564.0	1,537.0	1,516.0	1,478.0	*1,059*	*1,046*		*-3%*	*-12%*
		SCF	961.0	939.0	903.0	883.0	852.0	832.0	817.0	787.0	*776*	*763*		*-4%*	*-11%*
		LSF	375.0	372.0	357.0	334.0	301.0	310.0	302.0	287.0	*283*	*283*		*-5%*	*-15%*
		DWF	12.0			10.0									*-100%*
Vessel tonnage	(thousand GT)		66.6	67.9	65.9	64.6	62.1	62.2	58.2	56.5				*-3%*	*-12%*
		SCF	2.6	2.6	2.5	2.4	2.3	2.2	2.2	2.2				*-2%*	*-10%*
		LSF	32.7	60.9	60.1	31.6	56.8	54.2	54.4	52.6				*-3%*	*5%*
		DWF	28.5			28.0									*-100%*
Engine power	(thousand kW)		154.7	158.3	155.8	151.4	142.2	142.1	135.4	130.1				*-4%*	*-12%*
		SCF	23.8	23.9	23.4	22.6	22.7	22.2	22.4	22.1				*-1%*	*-4%*
		LSF	95.7	119.5	117.9	89.2	105.5	103.0	103.8	98.8				*-5%*	*-6%*
		DWF	23.1			25.6									*-100%*
Total employed	(person)		2,068	1,529	1,744	1,639	1,752	1,647	1,605	1,532	*1,538*	*1,498*		*-5%*	*-11%*
		SCF	1,031	559	847	869	876	777	798	747	*737*	*724*		*-6%*	*-9%*
		LSF	1,037	970	897	770	876	870	807	785	*801*	*775*		*-3%*	*-12%*
		DWF													
FTE	(#)		1,615	1,238	1,365	1,258	1,372	1,281	1,253	1,202	*1,200*	*1,219*		*-4%*	*-10%*
		SCF	790	464	654	664	668	597	608	570	*560*	*514*		*-6%*	*-10%*
		LSF	825	774	711	594	704	684	645	632	*640*	*706*		*-2%*	*-10%*
		DWF													
Days at sea	(thousand day)		139.8	129.0	115.9	109.8	119.4	108.0	111.1	106.1	*104.1*	*101.5*		*-5%*	*-11%*
		SCF	88.8	79.5	71.1	73.7	76.0	66.9	70.1	66.6	*65.3*	*59.9*		*-5%*	*-11%*
		LSF	51.0	49.5	44.8	36.1	43.4	41.0	41.0	39.4	*38.8*	*41.6*		*-4%*	*-10%*
		DWF													
Fishing days	(thousand day)		142.7	132.9	118.5	112.5	123.4	111.8	114.4	110.7				*-3%*	*-9%*
		SCF	93.6	84.4	74.6	77.9	81.1	71.2	74.2	71.5				*-4%*	*-10%*
		LSF	49.2	48.5	44.0	34.6	42.3	40.6	40.2	39.3				*-2%*	*-8%*
		DWF													
Live weight of landings	(thousand tonne)		258.0	228.5	220.6	207.8	198.5	219.0	226.9	238.5	*228.2*	*262.6*		*5%*	*7%*
		SCF	12.2	9.6	7.9	6.5	8.0	8.1	7.2	7.7	*7.9*	*8.2*		*8%*	*-9%*
		LSF	98.1	218.9	212.8	71.6	190.5	210.9	219.7	230.8	*220.4*	*254.5*		*5%*	*32%*
		DWF	147.8			129.7									
Value of landings	(million €)		231.5	190.9	209.5	199.1	209.4	209.3	205.3	215.8	*233.9*	*234.1*		*5%*	*4%*
		SCF	11.8	8.4	8.3	7.8	9.0	8.8	8.1	8.3	*8.4*	*7.6*		*2%*	*-7%*
		LSF	155.6	182.5	201.2	123.6	200.4	200.5	197.2	207.5	*225.5*	*226.5*		*5%*	*15%*
		DWF	64.0			67.7									
Revenue	(million €)		165.8	136.4	150.3	133.5	154.6	147.1	134.6	147.2	*155.0*	*159.9*		*9%*	*1%*
		SCF	12.1	9.0	9.1	8.0	9.9	9.1	8.6	8.6	*7.8*	*7.9*		*0%*	*-9%*
		LSF	153.7	127.4	141.2	125.6	144.7	138.0	126.0	138.6	*147.2*	*152.0*		*10%*	*1%*
Gross Value Added	(million €)		66.2	65.1	79.5	58.3	75.7	81.3	71.0	82.1	*92.9*	*92.9*		*16%*	*16%*
		SCF	4.9	2.5	3.9	2.0	3.5	2.8	3.8	3.6	*3.1*	*3.4*		*-6%*	*7%*
		LSF	61.3	62.6	75.7	56.3	72.2	78.4	67.0	78.6	*89.8*	*89.6*		*17%*	*16%*
Gross profit	(million €)		20.6	16.6	30.7	13.2	25.3	34.4	23.7	32.1	*39.6*	*36.7*		*35%*	*37%*
		SCF	1.7	- 1.1	1.5	- 0.8	0.5	- 0.3	1.4	1.0	*0.8*	*1.1*		*-29%*	*147%*
		LSF	18.9	17.7	29.3	14.0	24.7	34.7	22.0	31.1	*38.8*	*35.7*		*41%*	*35%*
Net profit	(million €)		- 8.2	- 12.4	4.6	- 8.9	6.2	13.3	6.4	7.1	*13.9*	*12.9*		*11%*	*5050%*
		SCF	- 0.2	- 3.1	- 0.6	- 2.5	- 1.0	- 1.8	- 0.0	- 0.6	- *0.7*	- *0.4*		*-15079%*	*52%*
		LSF	- 8.0	- 8.9	5.3	- 6.4	7.1	15.1	6.2	7.7	*14.7*	*13.3*		*25%*	*417%*
Return on fixed tangible assets	(%)		- 5.7	- 7.4	5.8	- 8.6	6.2	13.3	8.1	6.3	*11.1*	*9.0*		*-22%*	*272%*
		SCF	- 0.8	- 34.6	- 6.1	- 32.6	- 14.2	- 26.7	0.3	- 8.7	- *11.5*	- *7.4*		*-3044%*	*47%*
		LSF	- 6.4	- 6.0	7.3	- 7.1	8.5	18.1	8.9	7.6	*12.4*	*10.0*		*-15%*	*128%*
GVA per FTE	(thousand €)		41.0	52.6	58.3	46.3	55.2	63.4	56.7	68.3	*77.4*	*76.2*		*21%*	*28%*
		SCF	6.2	5.3	5.9	3.0	5.3	4.8	6.2	6.3	*5.5*	*6.6*		*1%*	*19%*
		LSF	74.3	80.9	106.4	94.7	102.6	114.6	103.8	124.3	*140.2*	*126.9*		*20%*	*28%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Greece

In 2016, the Greek fishing fleet consisted of 15 226 registered vessels, with a combined capacity of 72 thousand GT and 431 thousand kW. The average age of the vessels is 30 years. The number of vessels, gross tonnage and total power of the Greek fishing fleet continues to decline steadily. The majority of vessels 13 567 (94%) are small-scale with a combined capacity of 26 thousand GT and 252 thousand kW. There are 847 large-scale vessels with a combined capacity of 44 thousand and 159 thousand kW.

Total employment in the sector is estimated at 25 407 jobs corresponding to 23 431 FTEs in 2015. The average wage per FTE and employed is very low (€6.8 thousand and €6.2 thousand, respectively). The SSCF employs a total of 18 490 FTEs, thus contributing 79% of the total national employment in the sector.

The SSCF mainly exploits the extensive Greek coastline, using polyvalent passive gears (mainly nets, longlines, pots, and traps). The vessels in this segment are mainly family-owned and are characterized by low invested capital. On the other hand, the large-scale fleet comprises both bottom trawlers and purse seiners. The bottom trawl segment includes around 2% of the Greek fishing fleet (282 vessels) and employs 7.1% of the total, national, FTEs. The purse seiner segment comprises 252 vessels equal to 2% of the Greek fishing fleet and employs 10% of the total, national, FTEs.

The Greek fishing fleet spent an estimated 2.6 million days at sea in 2015; an average of 181 days per vessel. The SSCF contributed 2.44 million days (an average of 180 days per vessel), while the large-scale fleet contributed 160 thousand days (an average of 189 days per vessel). The Greek fishing fleet consumed approximately 107 million litres of fuel.

The main cost items are energy costs and wages as well as the imputed value of unpaid labour. For small-scale vessels the main cost item is the imputed value of unpaid labour, followed by energy costs. Moreover, small-scale coastal vessels do not have the opportunity to benefit from the reduced price of fuel due to cash flow limitations that prevent them from buying fuel in advance. On the other hand, the most important cost items of the large-scale vessels are other variable costs, wages and salaries and energy costs.

Estimation of the Greek fishing fleet's economic performance is limited for this year because landings referred to a three-month period. However, data indicates that the activity yields a positive income for fishers, since the value of landings covers all expenses except the imputed value of unpaid labour, which is estimated as the opportunity cost of labour using the average daily wage per fishers. It should be emphasised that in many cases the opportunity cost of labour is low or even zero. This is due to poor local labour demand made more intense by the ongoing financial recession in Greece.

For the small-scale segment, landings are generally sold at higher prices and are mainly directed to the market through very short supply-chains. Despite the fact that these vessels are small, they are crucial to local economies and usually offer income and employment in poor and isolated areas with very few alternative economic activities. Therefore, the sector contributes significantly to the maintenance of the social and economic sustainability of the coastal communities.

		2008	2009	2010	2011	2012	2013	2014	2015	2016	Trend 2011-2016	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	17.248	17.168	17.047	16.542	16.063	15.954	14.755	15.624	15.226		6%	-5%
Number of inactive vessels_ms	(#)					1.531	1.202	1.155	1.210			5%	-7%
Vessel tonnage	(thousand GT)	83,4	83,1	83,0	79,9	76,2	75,6	72,8	74,7	71,8		3%	-6%
Engine power	(thousand kW)	497,2	494,7	493,9	473,8	455,6	454,6	431,2	446,2	431,3		3%	-5%
Total employed	(person)					27.559	24.486	23.232	25.407	24.759		9%	1%
FTE	(#)					23.945	22.546	20.780	23.431			13%	4%
Wages and salaries of crew	(million €)					70,94	102,81	66,54	77,35			16%	-3%
Unpaid labour value	(million €)					88,08	78,07	74,24	82,05			11%	2%
Energy costs	(million €)					105,45	105,51	91,43	84,43			-8%	-16%
Repair & maintenance costs	(million €)					38,82	42,10	33,93	35,64			5%	-7%
Other variable costs	(million €)					81,14	75,68	73,22	78,25			7%	2%
Other non-variable costs	(million €)					7,49	6,58	7,06	6,48	6,32		-8%	-8%
Annual depreciation costs	(million €)					51,74	57,22	26,55	24,21	23,59		-9%	-46%
Rights costs	(million €)					-	-	-	-				
Opportunity cost of capital	(million €)	-	-	-	-	46,54	26,15	9,52	10,87	8,13		14%	-7%

Ireland

The overall economic performance of the Irish fleet deteriorated in 2015. Revenue (€248.5 million) down 22%, GVA (€114.4 million) down 32%, Gross profit (€33.8 million) down 61%; and Net profit (-€14.8 million) down 130%.

The value of landings in 2015 (€237.4 million) was 19% lower than the previous year. This is explained by reduced quotas for some key stocks, particularly mackerel, which resulted in lower landings and a decrease in their overall value. For example, Ireland's quota for Atlantic mackerel in 2015 was estimated to be worth €54 million less than the corresponding figure in 2014.

The principle difference between the fleet's Gross Profit (€33.8 million) and Net Profit (-€14 million) is the larger than expected (+63%) depreciation accrued in 2015. It should be noted that the 2015 depreciation figure is heavily influenced by the TM VL2440 segment, which alone saw depreciation estimates increase by €13 million. Taking into account the reduction in mackerel quota and the reduced mackerel prices, a more conservative estimate for depreciation and capital value, the net profit of the industry in 2015 is believed to be around €30 million which is broadly in line with 2013 figures.

Production decreased 13% in 2015 with landings down from 276 thousand tonnes (valued at €293 million) in 2014 to 240.9 thousand tonnes (valued at €237 million) in 2015. Provisional figures for 2016 indicate that total landings will be 227.39 thousand tonnes with an associated value of €286 million, however these figures do not include landings for vessels under 10 metres.

Production trends are highly influenced by quota changes for pelagic species, particularly mackerel. Indeed, many of the historical fluctuations in the value and weight of landings have been driven by mackerel. The 2014 mackerel quota, 104 thousand tonnes, included an increase of 46.56 thousand tonnes worth an estimated €59 million. The 2015 mackerel quota, 89 thousand tonnes, resulted in landings of 88.7 thousand tonnes worth an estimated €49 million. In 2016, the quota was further reduced to 75 thousand tonnes worth an estimated €47 million. *Nephrops* remained the top landed species by value in 2015 worth €49.7 million with associated landings of 8.3 thousand tonnes.

In 2015, the Irish fleet recorded a gross profit of €33.8 but a negative net profit of -€15 million, changing the positive trend recorded between 2012 and 2014. It should be noted that this figure is strongly influenced by data from larger pelagic vessels (TM VL2440), in particular the value assigned to depreciation. When raised to the fleet level, large within-year depreciation charges against even one or a small number of large pelagic vessels can introduce bias in the subsequent point estimate of overall fleet net profit. This is particularly the case when an owner charges a large percentage of the lifetime depreciation of a vessel to a single year. This overestimation coupled with a reduction in landings, influenced strongly by the reduction on pelagic TACs, has influenced this exaggerated decline in net profit.

Fleet employment in 2015 was estimated at 3 451 jobs. This corresponds to 2 522 FTEs and an average of 3.36 and 1.05 FTE per vessel for the large and small-scale fleets respectively. Indicative figures from the national annual employment survey suggests that 23% of active fishers were aged 50 years and over in 2016, an increase from 20% in 2015. The majority, 22%, of the remaining 77% are in the 36-40 years' cohort.

There are concerns about the landings obligations and Brexit which have the capacity to greatly affect the Irish fishing industry. Regarding the landing obligation there is concern over choke species, a situation where a lack of quota for one particular species may prevent fishers from going to sea or they run the risk of exhausting this quota and ceasing fishing. Therefore, to continue fishing throughout the year, it will be vital to have either enough quota available or adapting fishing strategies (technical conservation methods). Ireland is committed to investing, through EMFF funding, in gear technological research to assist fishers to develop more selective gears. Brexit also presents a major challenge in itself, but is also likely to interact with consequences of the landing obligation in terms of available quota and possibilities to adapt fishing strategies such as changing effort allocation.

Ireland															
			2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		1,939	1,977	2,038	2,074	2,106	2,140	2,095	2,048	*1,435*	*1,352*		*-2%*	*0%*
		SCF	1,030	806	750	786	879	862	898	901	*891*	*887*		*0%*	*5%*
		LSF	400	450	393	429	430	438	445	466	*544*	*465*		*5%*	*9%*
Vessel tonnage	(thousand GT)		74	67	66	67	60	60	60	59				*-1%*	*-9%*
		SCF	3.8	3.2	2.4	2.5	2.7	2.6	2.7	2.7				*1%*	*-3%*
		LSF	63.1	56.0	55.4	50.3	50.4	51.0	51.1	51.4				*0%*	*-5%*
Engine power	(thousand kW)		205.2	186.0	184.1	189.2	184.2	183.9	181.6	179.2				*-1%*	*-5%*
		SCF	31.1	25.5	22.6	23.3	24.9	24.0	24.9	25.2				*1%*	*0%*
		LSF	140.8	122.9	120.5	120.2	124.1	125.2	126.5	127.9				*1%*	*2%*
Total employed	(person)		4,485	4,889	4,423	3,243	3,121	3,087	3,154	3,451	*3,612*	*3,429*		*9%*	*-9%*
		SCF	2,425	2,705	2,460	1,372	1,278	1,282	1,140	1,360	*1,305*	*1,340*		*19%*	*-25%*
		LSF	2,060	2,184	1,962	1,872	1,844	1,805	2,014	2,091	*2,308*	*2,088*		*4%*	*7%*
FTE	(#)		3,404	3,692	3,479	2,688	2,709	2,717	2,395	2,522	*2,642*	*2,684*		*5%*	*-16%*
		SCF	1,667	1,958	1,859	1,067	1,077	1,142	763	953	*953*	*955*		*25%*	*-30%*
		LSF	1,738	1,734	1,621	1,622	1,632	1,575	1,632	1,569	*1,689*	*1,729*		*-4%*	*-5%*
Days at sea	(thousand day)		48.8	48.5	52.9	48.8	53.6	53.6	54.4	72.6	*77.7*	*78.2*		*34%*	*41%*
		SCF	6.9	8.0	8.6	7.6	8.4	7.5	7.3	25.2	*25.8*	*25.9*		*247%*	*226%*
		LSF	41.8	40.6	44.2	41.2	45.2	45.9	46.9	47.4	*51.9*	*52.4*		*1%*	*8%*
Fishing days	(thousand day)		40.0	40.0	44.0	40.6	43.3	42.8	43.5	62.0				*43%*	*48%*
		SCF	6.3	7.5	8.2	7.2	7.9	6.9	6.7	24.6				*269%*	*240%*
		LSF	33.7	32.5	35.8	33.5	35.4	35.8	36.7	37.4				*2%*	*8%*
Live weight of landings	(thousand tonne)		195.5	250.5	274.3	199.4	262.2	244.2	276.4	240.9	*243.4*	*264.5*		*-13%*	*-1%*
		SCF	3.1	4.1	4.8	4.6	5.1	10.6	10.5	15.2	*16.3*	*15.3*		*45%*	*148%*
		LSF	192.4	246.3	269.5	194.8	257.1	233.6	265.9	225.7	*227.1*	*249.2*		*-15%*	*-5%*
Value of landings	(million €)		223.9	167.7	172.2	209.5	243.2	258.9	293.1	237.4	*304.2*	*241.4*		*-19%*	*6%*
		SCF	7.2	6.3	7.0	6.9	5.8	13.4	16.4	19.7	*22.4*	*19.6*		*20%*	*119%*
		LSF	216.7	161.3	165.2	202.5	237.4	245.5	276.8	217.7	*281.8*	*221.8*		*-21%*	*1%*
Revenue	**(million €)**		245.6	182.0	193.9	239.7	275.2	280.0	320.6	248.5	*315.5*	*252.6*		*-22%*	*0%*
		SCF	12.9	15.4	23.7	29.6	26.2	31.7	29.3	25.5	*28.2*	*25.4*		*-13%*	*6%*
		LSF	224.1	160.3	170.2	210.2	249.0	248.2	291.3	223.0	*287.3*	*227.2*		*-23%*	*1%*
Gross Value Added	**(million €)**		132.9	69.7	67.7	105.1	142.7	134.8	168.1	114.4	*182.5*	*113.3*		*-32%*	*-2%*
		SCF	9.1	8.9	17.8	11.6	16.4	20.8	19.0	14.9	*17.9*	*14.9*		*-22%*	*1%*
		LSF	115.7	54.9	49.8	90.4	117.8	107.7	148.2	89.4	*155.8*	*88.9*		*-40%*	*-9%*
Gross profit	**(million €)**		93.2	23.5	10.5	41.9	50.2	69.4	86.5	33.8	*77.0*	*31.0*		*-61%*	*-37%*
		SCF	4.1	5.5	17.1	13.4	4.2	16.5	12.9	5.3	*6.8*	*5.4*		*-59%*	*-50%*
		LSF	76.7	10.7	- 7.0	31.4	34.9	45.7	72.5	18.4	*61.5*	*16.3*		*-75%*	*-51%*
Net profit	**(million €)**		52.9	- 49.4	- 60.6	- 35.1	0.7	33.9	49.4	- 14.8	*30.2*	- *11.3*		*-130%*	*-1164%*
		SCF	3.8			2.3	- 3.2	13.1	10.4	- 0.6	*0.3*	- *0.9*		*-106%*	*-112%*
		LSF	38.5	- 56.9	- 70.2	- 35.6	- 16.7	11.6	30.0	- 31.1	*13.7*	- *26.9*		*-204%*	*-119%*
Return on fixed tangible assets	(%)		11.5	- 1.4	- 2.4	2.6	4.3	10.7	11.6	- 2.0	*7.5*	- *2.4*		*-117%*	*-137%*
		SCF	80.9			35.6	- 44.6	326.7	315.9	- 21.3	*12.5*	- *28.9*		*-107%*	*-115%*
		LSF	10.0	- 4.0	- 6.4	0.7	0.7	6.2	8.3	- 5.5	*4.0*	- *6.0*		*-166%*	*-350%*
GVA per FTE	(thousand €)		39.1	18.9	19.5	39.1	52.7	49.6	70.2	45.3	*69.1*	*42.2*		*-35%*	*10%*
		SCF	6.2	5.2	9.7	10.9	15.2	18.2	25.2	15.6	*18.7*	*15.6*		*-38%*	*21%*
		LSF	76.7	36.1	31.7	57.1	76.7	70.2	91.8	61.4	*98.7*	*54.7*		*-33%*	*-2%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Italy

In 2016, the Italian fleet capacity continued to decline, with a total of 12 311 vessels (-1% on 2015), having a combined gross tonnage (GT) of 158 thousand tonnes and engine power of 994 thousand kilowatts (kW). In 2015, employment was estimated at 25 787 jobs, decreasing by 4.3% on 2014, corresponding to 21 459 FTEs; an average of 1.3 and 3 FTE per vessel for small-scale and large-scale fisheries respectively.

Effort remained relatively stable in 2015 with an estimated 1 438 thousand sea days. Energy consumption increased by 24% over the same period as a result of a change in fishing activity. The reduced fuel price encouraged to fish in areas more distant from the coast and use more energy-consuming fishing systems.

Following a long period of stagnation, the Italian fishing fleet's economic performance showed improvement in 2015, generating a net profit of €106 million, an increase of almost 100% on 2014 and signalling the best performance since 2010. Revenue, increased by 9%, while operating costs by just 4%. The total amount of Gross Value Added and gross profit increased by 20% and 22%, respectively. GVA as a proportion of revenue was estimated at 61.4%, the highest level since 2009.

The limited increase in operating costs is mainly due to the energy costs, which decreased following the significant drop in fuel prices that began in late 2014 and continued throughout 2015. The price of fuel fell from 0.75 €/l in 2013 to 0.53 €/l in 2015. This led to a proportional reduction in the cost of fuel, which represents one of the two biggest items of expenditure of the Italian fishing fleet along with labour costs.

Small-scale coastal fleet, i.e. vessels of less than 12 metres' length overall using passive gears, is estimated in 7 409 vessels accounting for 60% of the total number of vessels and for 9% of total vessel tonnage in 2016. The large-scale fleet, with 3 816 vessels estimated in 2016, accounts for 31% of total number of vessels and for 83% of total vessel tonnage.

The recovery in the economic performance of the Italian SSCF continued in 2015, driven by higher revenue and lower fuel costs. Revenue benefited by a better landing composition in favour of more valuable stocks. However, the number of employees in the SSCF continues to decrease thus showing the lack of generational turnover in this sector.

In 2015, the Italian large-scale fleet generated the highest net profit of the past five years. Both landings weight and value increased by around 10% compared to 2014. However, between 2008 and 2015 this fleet registered an average reduction of 7.3% in the number of vessels and a reduction of 9.3% in terms of total employed.

The limited increase in operating costs lead to general economic improvements in terms of profits and labour costs for the Italian fishing fleet. The recovery of production levels is probably due to changes in fishing activity allowed by the reduced fuel price and an improvement in the average productivity. Technical and fishery management provisions, especially those managed through national management plans, together with containment policies of fishing capacity are providing the first results in terms of recovery of fish stocks and, in fact, the first encouraging signals come from biological indicators related to the exploitation of some fish species.

However, employment continues to decline in line with the reduction in fishing capacity. Average first sale prices did not significantly increase, despite the reduction in landings. Another factor of weakness is the low level of investment, which implies inefficiency and higher operating costs.

Italy														
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		**13,518**	**13,359**	**13,348**	**13,285**	**12,942**	**12,746**	**12,689**	**12,426**	***11,234***	***11,212***		-2.1%	-5.3%
		SCF	7,885	7,846	7,837	7,866	7,689	7,638	7,611	7,430	*7,409*	*7,387*		-2.4%	-4.3%
		LSF	4,452	4,386	4,351	4,286	4,099	3,894	3,944	3,895	*3,816*	*3,816*		-1.2%	-7.3%
		DWF	18	18	7	7	5			9	*9*	*9*			-18.2%
Vessel tonnage	(thousand GT)		**197.5**	**193.0**	**191.8**	**179.2**	**171.2**	**164.6**	**163.9**	**163.6**				-0.2%	-9.2%
		SCF	14.9	14.8	14.9	15.3	14.8	14.7	14.7	13.9				-5.8%	-6.6%
		LSF	164.4	161.1	155.2	149.4	142.2	135.0	135.5	135.5				0.0%	-9.0%
		DWF	10.5	10.5	3.6	3.6	2.7			6.2					0.9%
Engine power	(thousand kW)		**1,147.3**	**1,122.9**	**1,121.2**	**1,088.1**	**1,047.4**	**1,023.9**	**1,023.8**	**1,013.5**				-1.0%	-6.3%
		SCF	219.9	220.1	223.2	228.3	221.1	219.6	219.6	210.4				-4.2%	-5.1%
		LSF	848.1	831.7	807.6	790.5	753.2	723.2	731.8	732.0				0.0%	-6.6%
		DWF	21.8	21.8	7.4	7.4	5.3			13.1					2.5%
Total employed	(person)		**29,604**	**29,222**	**29,222**	**28,964**	**28,292**	**26,758**	**26,932**	**25,787**	***25,485***	***25,455***		-4.3%	-9.3%
		SCF	13,722	13,698	14,094	14,050	13,856	13,275	13,114	12,559	*12,536*	*12,506*		-4.2%	-8.2%
		LSF	15,627	15,269	14,888	14,675	14,361	13,483	13,819	13,208	*12,929*	*12,929*		-4.4%	-9.5%
		DWF	255	255	240	240	75			20	*20*	*20*			-90.6%
FTE	(#)		**21,456**	**21,414**	**21,169**	**20,740**	**20,693**	**19,749**	**20,694**	**21,459**	***21,176***	***21,154***		3.7%	2.9%
		SCF	9,384	9,757	9,865	10,036	9,779	9,706	9,379	9,858	*9,845*	*9,824*		5.1%	1.6%
		LSF	11,923	11,559	11,242	10,638	10,890	10,043	11,315	11,581	*11,311*	*11,311*		2.4%	4.5%
		DWF	148	97	63	66	25			20	*20*	*20*			-75.3%
Days at sea	(thousand day)		**1,590.8**	**1,782.9**	**1,668.7**	**1,749.3**	**1,556.3**	**1,493.7**	**1,432.6**	**1,438.2**	***1,425.5***	***1,422.9***		0.4%	-10.7%
		SCF	988.8	1,151.7	1,070.0	1,177.9	1,033.0	985.9	930.5	953.8	*951.4*	*948.8*		2.5%	-9.0%
		LSF	599.7	629.9	597.8	570.5	523.0	507.8	502.1	483.9	*473.6*	*473.6*		-3.6%	-13.8%
		DWF	2.3	1.4	0.8	0.9	0.4			0.5	*0.5*	*0.5*			-59.3%
Fishing days	**(thousand day)**		**1,530.1**	**1,751.5**	**1,646.3**	**1,715.3**	**1,538.5**	**1,581.1**	**1,530.4**	**1,526.9**				-0.2%	-5.4%
		SCF	967.1	1,151.6	1,069.9	1,167.1	1,033.0	1,078.1	1,028.5	1,032.7				0.4%	-3.6%
		LSF	563.0	599.9	576.4	548.2	505.5	503.0	501.9	494.2				-1.5%	-8.9%
		DWF													
Live weight of landings	(thousand tonne)		**227.0**	**242.4**	**224.8**	**212.4**	**196.8**	**172.6**	**176.8**	**192.2**	***186.1***	***186.1***		8.7%	-7.4%
		SCF	32.8	38.6	33.7	36.7	31.1	27.2	28.2	27.5	*27.4*	*27.4*		-2.6%	-15.8%
		LSF	183.7	195.5	189.3	173.6	164.7	145.4	148.6	161.3	*155.2*	*155.2*		8.5%	-6.0%
		DWF	10.4	8.4	1.8	2.0	0.9			3.5	*3.5*	*3.5*			-26.5%
Value of landings	(million €)		**1,223.1**	**1,319.4**	**1,204.0**	**1,155.3**	**944.6**	**834.1**	**813.3**	**894.0**	***902.2***	***896.5***		9.9%	-16.5%
		SCF	285.9	333.4	298.6	311.9	246.0	196.1	203.3	213.3	*219.1*	*217.4*		4.9%	-20.4%
		LSF	911.3	960.7	892.3	832.2	694.1	637.9	610.0	676.6	*678.9*	*674.9*		10.9%	-14.5%
		DWF	25.9	25.3	13.1	11.2	4.5			4.1	*4.2*	*4.2*			-74.4%
Revenue	**(million €)**		**1,235.4**	**1,329.8**	**1,213.1**	**1,164.0**	**953.5**	**841.6**	**822.1**	**899.1**	***907.0***	***901.1***		9.4%	-16.7%
		SCF	290.2	338.5	303.4	317.0	250.2	199.8	207.3	215.6	*221.3*	*219.5*		4.0%	-20.8%
		LSF	919.3	966.0	896.6	835.8	698.8	641.8	614.8	679.4	*681.5*	*677.5*		10.5%	-14.7%
		DWF	25.9	25.3	13.1	11.2	4.5			4.1	*4.2*	*4.2*			-74.4%
Gross Value Added	**(million €)**		**653.6**	**847.9**	**714.2**	**619.2**	**486.7**	**435.8**	**458.9**	**552.2**	***634.5***	***607.0***		20.3%	-8.3%
		SCF	188.2	242.6	206.5	199.7	153.9	101.4	146.0	158.4	*170.9*	*166.9*		8.5%	-10.5%
		LSF	447.2	584.2	497.6	411.7	329.7	334.4	312.9	392.6	*461.9*	*438.7*		25.5%	-5.8%
		DWF	8.9	16.1	10.1	7.8	3.2			1.2	*1.7*	*1.4*			-86.8%
Gross profit	**(million €)**		**359.6**	**452.0**	**371.4**	**325.7**	**254.9**	**197.2**	**223.9**	**274.1**	***352.6***	***326.9***		22.4%	-12.2%
		SCF	105.2	133.2	112.7	111.8	88.1	34.9	65.4	69.7	*79.6*	*76.4*		6.5%	-25.1%
		LSF	238.1	299.1	249.5	207.0	163.9	162.2	158.5	204.0	*272.1*	*250.0*		28.7%	-3.4%
		DWF	7.1	14.7	9.2	6.9	2.9			0.4	*0.8*	*0.5*			-95.4%
Net profit	**(million €)**		**148.9**	**211.4**	**144.9**	**105.1**	**68.1**	**27.6**	**53.5**	**106.4**	***189.0***	***172.2***		98.7%	-2.0%
		SCF	68.5	92.0	67.3	66.2	47.2	- 3.2	28.5	33.7	*43.6*	*42.3*		18.4%	-35.6%
		LSF	69.9	108.3	77.2	38.2	21.7	33.1	26.9	73.4	*145.2*	*129.9*		172.9%	36.9%
		DWF	1.9	8.0	3.3	2.0	0.3			- 0.1	*0.2*	*0.0*			-102.9%
Return on fixed tangible assets	(%)		**16.7**	**25.2**	**17.1**	**14.1**	**10.8**	**6.9**	**10.3**	**17.1**	***31.6***	***28.9***		65.4%	18.6%
		SCF	51.6	68.6	43.7	43.0	33.8	0.6	24.3	27.2	*34.8*	*33.9*		11.8%	-28.4%
		LSF	10.9	18.2	13.8	8.2	5.9	9.6	8.1	16.0	*31.7*	*28.5*		98.0%	49.8%
		DWF	5.8	22.2	15.2	12.1	5.1			- 0.6	*2.8*	*0.8*			-105.3%
GVA per FTE	(thousand €)		**30.5**	**39.6**	**33.7**	**29.9**	**23.5**	**22.1**	**22.2**	**25.7**	***30.0***	***28.7***		16.0%	-10.6%
		SCF	20.1	24.9	20.9	19.9	15.7	10.4	15.6	16.1	*17.4*	*17.0*		3.2%	-11.8%
		LSF	37.5	50.5	44.3	38.7	30.3	33.3	27.7	33.9	*40.8*	*38.8*		22.6%	-9.5%
		DWF	59.8	165.2	161.2	118.7	128.5			61.5	*86.5*	*70.0*			-51.5%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Latvia

In 2015, the Latvian Baltic Sea fishing fleet consisted of 309 registered vessels including 59 inactive vessels, with a combined gross tonnage of 7.3 thousand tonnes, a total engine power of 20.6 thousand kilowatts and an average age of 27 years. The gross tonnage declined by 25% while the total engine power of the fleet declined by 22% during the period analysed from 2008 to 2015. The reason for the changes is connected to vessel scrapping which according to the multi-annual management plan aims to achieve a better balance between fishing capacity and the available resources.

The fleet employed around 620 fishers corresponding 345 FTEs in 2015. A wage growth per FTE of 29% was observed between 2014 and 2015. However, FTE decreased by 5% during the same period.

Latvian fleet is separated into several segments by the length, gears and different operational areas: The Baltic Sea fleet (segment trawlers VL2440 metres), mid-sized vessels operating predominantly in the Gulf of Riga (segment trawlers VL1218 metres), the SSCF operating in the coastal zone (segment with polyvalent fishing gears VL0010 metres) and a distant water fleet (segment trawlers VL40XX metres) operating in the Atlantic NAFO (area 27), NEAFC (Barents Sea) and CECAF (area 34) areas. The distant water fleet underwent significant changes between 2013 and 2016. Nine vessels with an average length of 60 metres were included in the Fleet register. The main reason for the changes was an unlimited fishery in NEAFC area and high stock for crabs in the Barents Sea.

The Latvian Baltic Sea fishing fleet spent a total of around 18.3 thousand days at sea in 2015, 16.3 thousand of which were fishing days. The total weight landed by the fleet in 2015 was 62.1 thousand tonnes of fish with a landed value of €19.8 million. In 2015, European sprat achieved the highest landed value €9.2 million for the national fleet, followed by herring €6.3 million and then cod €2.4 million. The sprat, herring and cod, accounted for 46%, 32% and 12% respectively of the total landings value in 2015 and contributed to 49%, 41% and 4%, to total landed weight. The Latvian fishing fleet economic efficiency is largely dependent on the quota received for the target species. Latvia fulfils the European sprat and Baltic herring fishing quotas assigned thereto almost completely.

The revenue improved by 2% (€20.7 million) between 2014 and 2015 and the Baltic Sea fleet remained in a net profit making position in 2015. The expenditure for the Latvian fleet in 2015 was €14.9 million and amounting to 72% of revenue. In terms of profitability the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Latvian national fleet in 2015 were €11.4 million, €7.5 million and €5.8 million, respectively.

Landings in weight per unit of effort (in days at sea) increased significantly by 35% since 2008 and by 10% between 2014 and 2015. The average fuel price per litre has decrease by 22% between 2014 and 2015 whilst the average fuel consumed per vessel increased by 20%. The average revenue and average wage per FTE have followed an increasing trend in 2015 by 13% and 29% respectively.

Latvia															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		858	814	771	407	356	351	365	309	265	243		-15%	-45%
		SCF	736	708	687	245	207	202	221	190	206	188		-14%	-56%
		LSF	122	106	84	74	72	65	57	60	59	55		5%	-28%
Vessel tonnage	(thousand GT)		12.9	12.4	9.8	10.1	8.4	7.8	7.0	7.3				5%	-25%
		SCF	1.2	1.1	1.0	0.5	0.4	0.3	0.4	0.4				-13%	-48%
		LSF	11.6	11.3	8.7	8.0	8.0	7.3	6.5	6.9				6%	-22%
Engine power	(thousand kW)		34.2	32.7	26.7	26.7	22.8	21.3	19.8	20.6				4%	-22%
		SCF	7.2	6.5	5.9	2.8	2.2	2.2	2.6	2.5				-7%	-42%
		LSF	27.0	26.2	20.8	19.5	19.8	18.5	16.6	17.6				6%	-17%
Total employed	(person)		1,621	1,666	1,619	712	643	678	607	620	633	582.0		2%	-42%
		SCF	992.0	1,110.0	1,175.0	321.0	258.0	325.0	301.0	233.0	252.6	231.1		-23%	-64%
		LSF	629	556	444	391	385	353	306	387	380	351		26%	-12%
FTE	(#)		664	548	521	378	353	414	362	345	298	289		-5%	-25%
		SCF	373.0	329.0	329.0	202.0	154.0	228.0	214.0	131.0	104.2	97.6		-39%	-50%
		LSF	291	219	192	176	199	186	148	214	194	191		45%	6%
Days at sea	(thousand day)		44.2	48.0	43.6	19.6	19.5	19.4	19.2	18.3	15.4	14.7		-5%	-40%
		SCF	30.4	37.3	34.2	10.8	10.9	11.3	12.8	10.6	8.4	7.9		-17%	-50%
		LSF	13.8	10.7	9.4	8.8	8.6	8.0	6.4	7.6	6.9	6.8		19%	-19%
Fishing days	(thousand day)		35.9	38.2	35.6	17.4	17.3	17.2	17.1	16.3				-5%	-36%
		SCF	23.7	28.6	27.0	9.4	9.4	9.7	10.9	9.0				-17%	-47%
		LSF	12.2	9.6	8.5	8.1	8.0	7.5	6.3	7.3				16%	-16%
Live weight of landings	(thousand tonne)		86.5	78.5	74.0	63.1	57.5	60.9	59.2	62.1	60.0	64.1		5%	-9%
		SCF	2.8	2.7	2.6	3.3	2.8	3.6	4.5	2.6	3.8	2.2		-43%	-20%
		LSF	83.6	75.8	71.5	59.8	54.6	57.3	54.7	59.5	56.2	61.9		9%	-9%
Value of landings	(million €)		25.4	18.9	22.8	22.3	23.6	22.3	19.5	19.8	19.6	18.0		1%	-11%
		SCF	0.9	0.8	1.3	1.3	1.5	1.3	1.7	1.4	2.4	1.3		-17%	15%
		LSF	24.5	18.1	21.4	21.1	22.1	20.9	17.8	18.3	17.2	16.8		3%	-12%
Revenue	(million €)		26.9	21.8	23.7	23.2	25.0	23.9	20.3	20.7	20.5	18.9		2%	-12%
		SCF	0.9	0.9	1.4	1.3	1.5	1.3	1.7	1.5	2.5	1.4		-13%	18%
		LSF	26.0	20.9	22.3	21.9	23.5	22.6	18.6	19.2	18.1	17.5		3%	-14%
Gross Value Added	(million €)		15.6	12.0	12.3	10.9	8.5	8.2	7.2	11.4	12.3	10.8		58%	7%
		SCF	0.7	0.7	1.2	1.2	1.3	1.3	1.7	1.3	2.3	1.2		-20%	16%
		LSF	14.9	11.3	11.1	9.7	7.2	6.9	5.5	10.0	10.0	9.6		81%	5%
Gross profit	(million €)		11.0	8.5	8.8	7.5	4.6	3.9	4.1	7.5	8.5	7.4		84%	9%
		SCF	0.5	0.6	1.1	1.1	1.2	1.2	1.6	1.0	1.7	0.9		-37%	-4%
		LSF	10.5	7.9	7.7	6.4	3.4	2.7	2.5	6.5	6.8	6.5		159%	11%
Net profit	(million €)		14.7	2.0	1.6	6.2	3.0	1.7	2.4	5.8	6.9	6.0		146%	29%
		SCF	1.4	- 0.6	- 0.4	1.1	1.2	1.2	1.5	1.0	1.7	0.9		-37%	24%
		LSF	13.2	2.6	2.0	5.2	1.9	0.5	0.8	4.9	5.2	5.1		491%	30%
Return on fixed tangible assets	(%)		14.0	12.2	15.0	48.2	30.5	20.7	28.2	54.3	65.0	60.9		93%	125%
		SCF	3.7	4.2	8.8	832	622	2,690	2,320	1,490	2,412	1,245.6		-36%	61%
		LSF	16.4	14.5	17.1	54.7	20.0	8.7	11.1	45.8	49.4	52.3		314%	125%
GVA per FTE	(thousand €)		23.4	21.9	23.6	28.8	24.1	19.7	19.9	32.9	41.4	37.4		66%	43%
		SCF	1.9	2.3	3.6	6.0	8.5	5.6	7.8	10.3	22.1	12.4		31%	102%
		LSF	51.1	51.5	57.9	55.0	36.3	36.9	37.3	46.8	51.8	50.3		25%	0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Lithuania

In 2015, Lithuanian fishing fleet consisted from 151 registered vessels and compare to 2014 increased 5.6% following a further increase in 2016 to 154 vessels. The total combined gross tonnage and engine power in 2015 was 53.6 thousand GT and 57.0 thousand kW with annual increase of 10% and 16.3% respectively. Employment figures for 2015 shows that number of persons employed by the sector decreased by 7.9%, compare to 2014 and total employment in 2015 was estimated at 691 jobs corresponding to 463 FTEs. Employment figures decreased in both total employed and especially FTE with the lowest value ever observed. The largest decline was observed in distant water fleet.

In 2015, weight of landings decreased by 43.9% compare to 2014, but recovered by 24.6% in 2016. The distant water fleet covered 78% of total landed weight. Concerning fisheries in the Baltic Sea and coastal area weight of landings increased by 29.5% between 2014 and 2015 with a further increase by 6.8% in 2016. In 2015, landings of European sprat from Baltic Sea and its coastal area generated €2.2 million, whereas Baltic cod landings were valued at €1.3 million.

Gross value added (GVA) and gross loss reported by the national fleet in 2015 were -€6.3 million and -€13.3 million, respectively. Negative profitability in 2015 were obtained for the first time since 2008. In 2015, the fleet had a record high fleet capital value, which increased by 41% compared to 2014 and accounted for €134.4 million. Large increase in capital was influenced by the distant water fleet.

Small-scale coastal fleet: In 2015 the SSCF consisted of 71 vessels and compare to 2014 increased by 11%, whereas in 2016 it returned to the same level. In the long-term perspective, starting from 2008 this fleet has had a tendency to decline to stabilise in 2014 following a slight increase. Other capacity indicators as vessel tonnage and engine power also had a moderate increase indicating that current capacity is sufficient taking into account availability of stocks and marked demand. Effort, expressed in days at sea remained at the same level during 2014 and 2015, but a significant decline was observed in 2016, when days at sea decreased from 6.2 thousand days to 4.1 thousand. Nevertheless, other effort indicators did not change significantly and even improved, for instance fishing trips. Higher number of fishing trips and increased weight of landings indicates more efficient use of effort. Landings remained stable during 2014 and 2015, but increased in 2016 (+52%) from 0.54 to 0.83 thousand tonnes. Economic indicators for this fleet are characterised

by high annual volatility and strongly depends on vessels larger than 10 m. In 2015 SSCF GVA increased by 12%, but higher crew wages decreased net profitability. Negative profitability in 2015 was driven by larger fixed netters.

Distant water fleet: In 2015, the DWF consisted from 11 vessels and with total vessel tonnage of 47.9 thousand tonnes, reaching the highest value since 2008. In 2016, capacity decreased to 10 vessels and 44.8 thousand tonnes. Effort considering fishing days, in 2015 increased by 114% from 2014 when the lowest value of effort was recorded since 2008. In 2016 effort tended to increase and fishing days improved to 1.9 thousand days. Compared to 2014, value of landings in 2015 declined by 37% but recovered by 45.6% in 2016. Significant increase in capacity raised a size of capital and it value. For example, value of tangible assets in 2015 was €125 million, compared to €86 million in 2014 and €29 million in 2013. Such gradual increase in capital value raised capital depreciation costs and other capital related costs as interest, opportunity costs of capital, etc.. Thus, with a decrease in value of landings, the fleet performed in negative profitability values in 2015. Economic efficiency in terms of GVA to revenue demonstrated significant decline from 2013 to 2015. The fleet employed 298 FTE in 2015 and compared to 2014 declined by 28%. In 2015 labour productivity considering GVA per FTE was -€28 thousand with a significant decline and compare to 2014.

Lithuania															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		**250**	**219**	**193**	**171**	**151**	**152**	**143**	**151**	***99***	***95***		*6%*	*-17%*
		SCF	89	91	74	69	69	65	64	71	*66*	*64*		*11%*	*-5%*
		LSF	24	22	22	24	25	25	24	23	*23*	*21*		*-4%*	*-3%*
		DWF	12	11	8	10	10	7	9	11	*10*	*10*		*22%*	*15%*
Vessel tonnage	(thousand GT)		**61.0**	**50.5**	**49.3**	**46.0**	**45.0**	**44.0**	**48.5**	**53.6**				*10%*	*9%*
		SCF	0.5	0.5	0.4	0.4	0.2	0.2	0.2	0.3				*68%*	*-6%*
		LSF	3.5	3.3	3.2	3.4	3.5	3.8	3.7	3.6				*-3%*	*3%*
		DWF	39.5	38.7	36.5	39.7	38.8	30.9	42.2	47.9				*13%*	*26%*
Engine power	(thousand kW)		**68.9**	**59.8**	**56.4**	**54.4**	**54.2**	**52.4**	**49.0**	**57.0**				*16%*	*1%*
		SCF	2.6	2.7	2.2	2.0	1.7	1.7	1.8	2.2				*22%*	*4%*
		LSF	7.5	7.0	6.5	6.9	7.1	7.6	7.4	7.2				*-2%*	*1%*
		DWF	40.6	39.0	35.2	40.0	40.3	31.3	35.7	43.8				*23%*	*17%*
Total employed	(person)		**1,046**	**712**	**706**	**768**	**732**	**763**	**750**	**691**	***643***	***633***		*-8%*	*-12%*
		SCF	370	158	152	154	149	140	142	171	*154*	*157*		*20%*	*-5%*
		LSF	132	240	228	231	228	265	195	185	*184*	*171*		*-5%*	*-15%*
		DWF	544	314	326	383	355	358	413	335	*305*	*305*		*-19%*	*-13%*
FTE	(#)		**617**	**544**	**512**	**574**	**566**	**491**	**573**	**463**	***411***	***414***		*-19%*	*-16%*
		SCF	208	55	49	37	49	39	46	51	*43*	*41*		*11%*	*-26%*
		LSF	87	175	155	169	162	156	114	113	*97*	*102*		*-1%*	*-22%*
		DWF	322.0	314.0	307.8	368.4	355.5	296.1	413.0	298.2	*271.1*	*271.1*		*-28%*	*-12%*
Days at sea	(thousand day)		**9.8**	**9.7**	**9.0**	**10.0**	**11.0**	**9.8**	**8.4**	**9.2**	***8.1***	***8.2***		*10%*	*-5%*
		SCF	4.7	4.9	4.8	4.3	5.6	5.7	5.9	4.6	*4.1*	*4.0*		*-23%*	*-11%*
		LSF	1.9	1.8	2.5	2.7	3.0	2.8	1.7	2.7	*2.2*	*2.4*		*54%*	*14%*
		DWF	3.2	3.0	1.7	3.0	2.4	1.3	0.8	2.0	*1.8*	*1.8*		*161%*	*-10%*
Fishing days	**(thousand day)**		**7.7**	**7.9**	**7.5**	**8.1**	**8.8**	**8.7**	**6.8**	**7.2**				*5%*	*-9%*
		SCF	4.5	4.8	4.6	4.2	5.6	5.6	4.7	3.9				*-16%*	*-19%*
		LSF	1.5	1.5	1.6	2.3	2.0	1.9	1.5	1.8				*22%*	*4%*
		DWF	1.7	1.7	1.3	1.6	1.2	1.2	0.7	1.4				*114%*	*7%*
Live weight of landings	(thousand tonne)		**180.8**	**209.1**	**108.1**	**114.5**	**58.0**	**89.7**	**146.4**	**82.2**	***102.4***	***103.7***		*-44%*	*-37%*
		SCF	0.6	0.8	0.7	0.6	0.6	0.6	0.5	0.5	*0.8*	*0.4*		*3%*	*-12%*
		LSF	27.8	28.4	15.4	17.7	16.3	16.4	13.3	17.4	*18.3*	*20.0*		*30%*	*-10%*
		DWF	152.5	180.0	92.0	96.2	41.2	72.7	132.6	64.3	*83.3*	*83.3*		*-51%*	*-41%*
Value of landings	(million €)		**96.1**	**156.8**	**77.0**	**76.7**	**40.6**	**64.3**	**95.3**	**62.4**	***89.4***	***87.5***		*-34%*	*-28%*
		SCF	0.8	0.8	0.8	0.6	0.6	0.6	0.5	0.5	*0.6*	*0.5*		*13%*	*-19%*
		LSF	7.0	6.7	5.9	6.2	6.6	6.6	3.7	4.4	*5.1*	*4.8*		*18%*	*-28%*
		DWF	88.4	149.3	70.2	69.8	33.5	57.2	91.1	57.5	*83.7*	*82.3*		*-37%*	*-28%*
Revenue	**(million €)**		**92.2**	**61.2**	**46.0**	**48.8**	**43.7**	**66.4**	**100.3**	**58.8**	***89.8***	***88.2***		*-41%*	*-10%*
		SCF	0.8	0.9	0.8	0.6	0.7	0.6	0.5	0.6	*0.7*	*0.5*		*15%*	*-13%*
		LSF	7.1	7.6	7.0	7.7	6.9	6.7	4.0	4.6	*5.1*	*5.1*		*16%*	*-31%*
		DWF	84.3	52.8	38.2	40.5	36.2	59.1	95.8	53.6	*84.0*	*82.6*		*-44%*	*-8%*
Gross Value Added	**(million €)**		**19.4**	**14.7**	**5.1**	**13.4**	**13.0**	**18.0**	**14.4**	**- 6.3**	***32.9***	***33.1***		*-144%*	*-145%*
		SCF	0.3	0.5	0.4	0.3	0.4	0.4	0.3	0.3	*0.4*	*0.3*		*12%*	*-18%*
		LSF	1.8	2.5	2.0	2.7	2.7	1.7	0.3	1.6	*2.6*	*2.5*		*463%*	*-16%*
		DWF	17.3	11.7	2.8	10.4	10.0	15.9	13.9	- 8.2	*29.8*	*30.4*		*-159%*	*-170%*
Gross profit	**(million €)**		**10.1**	**8.8**	**0.3**	**7.8**	**8.6**	**12.1**	**5.2**	**- 13.3**	***23.2***	***23.6***		*-357%*	*-276%*
		SCF	0.1	0.4	0.2	0.1	0.2	0.2	0.1	- 0.0	*0.1*	*0.0*		*-107%*	*-104%*
		LSF	0.2	1.3	0.9	1.6	1.6	0.4	- 0.7	0.5	*1.4*	*1.2*		*167%*	*-36%*
		DWF	9.8	7.1	- 0.8	6.1	6.8	11.5	5.8	- 13.8	*21.7*	*22.4*		*-338%*	*-308%*
Net profit	**(million €)**		**11.1**	**1.5**	**- 4.5**	**4.8**	**5.5**	**9.3**	**- 2.0**	**- 23.9**	***15.8***	***18.9***		*-1126%*	*-749%*
		SCF	0.1	0.3	0.1	0.0	0.1	0.2	0.1	- 0.0	*0.1*	*0.0*		*-152%*	*-129%*
		LSF	0.2	0.4	0.4	1.2	1.2	- 0.1	- 1.0	0.1	*1.1*	*1.0*		*112%*	*-62%*
		DWF	9.9	1.8	- 4.8	3.6	4.2	9.3	- 0.9	- 23.9	*14.6*	*17.8*		*-2540%*	*-824%*
Return on fixed tangible assets	(%)		**12.9**	**12.0**	**- 3.9**	**9.7**	**12.7**	**24.0**	**0.5**	**- 15.8**	***13.6***	***15.2***		*-3090%*	*-262%*
		SCF	5.3	57.2	21.2	5.1	30.6	58.4	25.3	- 6.1	*25.0*	*4.4*		*-124%*	*-121%*
		LSF	- 1.6	15.7	10.4	20.0	20.6	1.4	- 17.7	4.7	*22.7*	*21.8*		*127%*	*-33%*
		DWF	22.6	14.0	- 6.6	9.1	11.8	34.6	1.5	- 17.1	*13.2*	*14.9*		*-1219%*	*-238%*
GVA per FTE	(thousand €)		**31.4**	**27.1**	**10.0**	**23.3**	**23.0**	**36.6**	**25.2**	**- 13.7**	***80.0***	***79.9***		*-154%*	*-154%*
		SCF	1.6	9.4	7.4	8.0	7.5	9.5	5.7	5.7	*10.1*	*6.8*		*1%*	*-18%*
		LSF	20.2	14.0	12.6	16.0	16.4	10.8	2.5	14.2	*27.0*	*24.2*		*467%*	*8%*
		DWF	53.7	37.4	9.0	28.2	28.1	53.8	33.6	- 27.6	*110.1*	*112.0*		*-182%*	*-179%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Malta

The majority of the Maltese fishing fleet consists of small-scale fishing vessels. The number of vessels continued to fall steadily from 1 316 in 2008 to 1 014 in 2016, but total gross tonnage remained the same. The level of employment increased between 2008 and 2014 from 1 019 jobs to 1 463 jobs. The latter corresponds to 872 FTEs or an average of 1.1 FTE per vessel. 78% of the total jobs were employed on the small-scale fishing vessels. Days at sea and fishing days have decreased by 40% and 43% respectively between 2008 and 2015. The value of landings showed an increase of 11% between 2008 and 2016. The main exploited species include swordfish, common dolphinfish, Atlantic bluefin tuna and a number of additional species, some of which although caught in smaller quantities have a high commercial value such as red shrimps.

Although the national fleet remained in a net loss making position in 2015, its economic performance has improved when compared to previous years. The trend is expected to improve further in 2016, as fuel prices continued to decrease while the average landed prices of the key species remained relatively high.

The Maltese national fleet consisted of 20 active (DCF) fleet segments in 2015 and 5 inactive fleet segments consisting of 258 vessels. These vessels are classed as inactive if they did not land any catch in 2015. Out of nine large-scale fishing segments, six generated a net profit during 2015. On the other hand, out of eleven small-scale fishing segments, only one segment made a net profit in 2015. This means that seven of the active fleet segments made a net profit in 2015 while thirteen suffered losses. This shows that the economic performance of all the active fleet segments of the small-scale fishery (except for one segment) is very week.

Small-scale coastal fleet: The SSCF (defined as vessels below 12 meters using non-towed gears), represented more than 91% of the active vessels or 65% of the whole Maltese fishing fleet. 44% of the small-scale fishing vessels work on a full time basis in the fishing industry whilst 56% fish on a part time basis. The small-scale fishing sector has an overall increasing trend in jobs for the period analysed. The landings value of the small-scale fishery increased by 8% from 2014 to 2015 but decreased again by 10% in 2016 when compared to the previous year. The landings value of the small-scale fishery in 2016 was the lowest since 2010 (€3.6 million). In terms of profitability, in 2015, the economic performance has improved since it registered a gross loss of €0.6 million in 2015 from a gross loss of €2.7 million in 2014. Same trend was followed for the net profit as it registered a net loss of €1.7 million in 2015 from a net loss of €3.9 million in 2014.

Large-scale fleet: The number of large-scale fishing vessels that were active during 2016 amounted to 68. This represents 9% of the active Maltese fleet. All large-scale fishing vessels work on a full time basis in the fishing industry. In 2015, 22% of the total jobs (325 employees) worked with the large-scale fishing vessels, corresponding to 305 FTEs. In 2015, there was an increase of 2% in the total jobs of the large-scale fishing vessels. The large-scale fishing sector followed an overall increasing trend in jobs since 2008. The landings value increased by 12% between 2014 and 2015 but decreased again by 18% in 2016. The revenue of this segment contributes to 67% to total revenue. In 2015, the large-scale fishery reported a net profit of €0.9 million. In terms of profitability, Gross Value Added (GVA) and gross profit increased by 12% and 50% respectively between 2014 and 2015. These results indicate that the economic performance of the large-scale fishery has been improving in previous years since the net loss for 2014 was the lowest since 2008 while in 2015 they reported a net profit for the first time since 2008.

In 2015, the economic performance of the small- scale fishing vessels (-€1.7 million) was far worse than the large-scale fishing vessels who reported a net profit of €0.9 million. The GVA of the SSCF was €1.4 million while for large-scale fishing vessels was €4.5 million. The large-scale fishing vessels had a gross profit of €3 million while the SSCF had a gross loss of -€0.6 million. Although both fishing activities showed an improvement in the economic performance of 2015, it is clear that the large-scale fishery had a very good economic performance while the small-scale fishery had a poor year.

Malta															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		**1,316**	**1,111**	**1,112**	**1,087**	**1,060**	**1,040**	**1,045**	**1,039**	***731***	***668***		*-1%*	*-6%*
		SCF	622	679	760	533	708	707	648	721	*663*	*603*		*11%*	*8%*
		LSF	81	93	82	101	74	67	61	60	*68*	*65*		*-2%*	*-25%*
Vessel tonnage	(thousand GT)		**7.5**	**8.3**	**12.3**	**12.1**	**8.0**	**7.8**	**7.7**	**7.5**				*-3%*	*-18%*
		SCF	1.6	1.7	1.8	1.4	1.7	1.7	1.5	1.7				*12%*	*3%*
		LSF	3.5	4.0	4.7	5.1	4.4	4.5	3.6	3.4				*-5%*	*-19%*
Engine power	(thousand kW)		**87.5**	**82.2**	**85.5**	**83.4**	**77.9**	**76.1**	**75.5**	**76.1**				*1%*	*-6%*
		SCF	35.9	38.3	43.3	30.6	40.4	41.3	36.2	41.4				*14%*	*9%*
		LSF	18.8	20.4	21.2	24.6	20.3	18.8	16.7	16.3				*-2%*	*-19%*
Total employed	(person)		**1,019**	**1,172**	**1,222**	**988**	**1,234**	**1,201**	**1,418**	**1,463**	***1,392***	***1,283***		*3%*	*24%*
		SCF	850	863	925	670	956	911	1,098	1,138	*1,043*	*949*		*4%*	*27%*
		LSF	169	309	297	318	278	290	320	325	*349*	*334*		*2%*	*15%*
FTE	(#)		**830**	**884**	**887**	**734**	**410**	**784**	**1,116**	**872**	***843***	***783***		*-22%*	*8%*
		SCF	696	713	765	594	289	648	804	567	*516*	*470*		*-29%*	*-12%*
		LSF	134	171	122	139	121	135	312	305	*327*	*313*		*-2%*	*89%*
Days at sea	(thousand day)		**47.0**	**48.3**	**63.5**	**41.2**	**33.7**	**28.4**	**31.3**	**25.0**	***23.3***	***21.4***		*-20%*	*-40%*
		SCF	43.1	43.6	59.9	35.9	28.3	22.6	26.6	20.4	*18.5*	*16.8*		*-23%*	*-45%*
		LSF	3.9	4.7	3.6	5.3	5.4	5.8	4.7	4.6	*4.8*	*4.6*		*-2%*	*-4%*
Fishing days	(thousand day)		**47.0**	**48.2**	**63.5**	**39.6**	**32.3**	**25.3**	**28.6**	**23.3**				*-19%*	*-43%*
		SCF	43.1	43.6	59.9	35.7	28.0	21.4	26.1	19.9				*-24%*	*-46%*
		LSF	3.9	4.6	3.6	3.9	4.3	3.8	2.4	3.4				*40%*	*-10%*
Live weight of landings	(thousand tonne)		**1.3**	**1.6**	**1.8**	**1.9**	**2.2**	**2.4**	**2.4**	**2.4**	***2.3***	***2.2***		*1%*	*26%*
		SCF	0.4	0.3	0.8	0.8	0.7	0.7	0.6	0.6	*0.6*	*0.5*		*5%*	*2%*
		LSF	0.9	1.2	1.1	1.1	1.5	1.7	1.8	1.8	*1.7*	*1.7*		*0%*	*37%*
Value of landings	(million €)		**8.8**	**9.3**	**10.5**	**12.1**	**13.0**	**12.5**	**10.5**	**11.6**	***9.8***	***8.8***		*11%*	*6%*
		SCF	2.8	2.2	4.4	4.6	4.5	3.8	3.7	4.0	*3.6*	*3.1*		*8%*	*6%*
		LSF	6.0	7.1	6.0	7.5	8.6	8.7	6.8	7.6	*6.2*	*5.8*		*12%*	*5%*
Revenue	(million €)		**9.1**	**10.0**	**10.5**	**14.3**	**13.5**	**15.0**	**11.7**	**12.5**	***10.7***	***9.6***		*7%*	*4%*
		SCF	2.8	2.2	4.4	4.6	4.6	5.2	3.7	4.1	*3.7*	*3.2*		*11%*	*4%*
		LSF	6.3	7.8	6.0	9.7	9.0	9.8	8.0	8.4	*7.0*	*6.5*		*5%*	*4%*
Gross Value Added	(million €)		**- 0.1**	**2.6**	**2.3**	**6.6**	**5.7**	**7.7**	**5.3**	**5.9**	***4.8***	***4.1***		*13%*	*38%*
		SCF	- 0.1	- 0.9	1.0	2.2	1.3	2.9	1.2	1.4	*1.5*	*1.2*		*14%*	*28%*
		LSF	0.1	3.5	1.2	4.0	4.4	4.5	4.0	4.5	*3.0*	*2.6*		*12%*	*46%*
Gross profit	(million €)		**- 4.1**	**- 9.2**	**- 8.5**	**- 2.1**	**1.5**	**5.0**	**- 0.8**	**2.1**	***1.4***	***1.1***		*352%*	*182%*
		SCF	- 2.4	- 8.5	- 5.6	- 3.3	- 0.6	2.0	- 2.7	- 0.6	*- 0.4*	*- 0.5*		*77%*	*79%*
		LSF	- 1.6	- 0.7	- 2.9	0.8	2.2	2.6	1.8	2.8	*1.5*	*1.2*		*50%*	*759%*
Net profit	(million €)		**- 7.6**	**- 16.1**	**- 15.9**	**- 9.3**	**- 4.0**	**- 0.7**	**- 5.1**	**- 0.9**	***- 1.4***	***- 1.2***		*83%*	*90%*
		SCF	- 3.7	- 10.3	- 7.7	- 4.6	- 2.2	0.4	- 3.9	- 1.7	*- 1.3*	*- 1.2*		*56%*	*62%*
		LSF	- 3.9	- 4.9	- 8.0	- 3.6	- 1.5	- 0.9	- 0.8	0.9	*- 0.4*	*- 0.4*		*219%*	*127%*
Return on fixed tangible assets	(%)		**- 9.3**	**- 14.9**	**- 15.4**	**- 5.0**	**- 3.1**	**1.4**	**- 5.3**	**- 1.0**	***- 3.1***	***- 3.4***		*81%*	*86%*
		SCF	- 21.3	- 53.5	- 31.4	- 28.5	- 10.1	4.8	- 26.5	- 11.0	*- 9.9*	*- 10.9*		*58%*	*54%*
		LSF	- 10.5	- 8.1	- 11.7	- 4.9	- 1.9	0.2	- 0.4	3.3	*- 1.2*	*- 1.5*		*855%*	*162%*
GVA per FTE	(thousand €)		**- 0.1**	**3.0**	**2.6**	**9.0**	**13.9**	**9.9**	**4.7**	**6.8**	***5.7***	***5.2***		*44%*	*11%*
		SCF	- 0.2	- 1.2	1.4	3.7	4.4	4.5	1.5	2.5	*2.8*	*2.5*		*62%*	*22%*
		LSF	0.5	20.5	10.1	28.6	36.5	33.9	13.0	14.8	*9.1*	*8.4*		*15%*	*-27%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Netherlands

Within the last 9 years the size of the Dutch fishing fleet fluctuated between 713 and 739 vessels. The Dutch fishing fleet improved its economic performance substantially over the last years. Especially the net profit of the large-scale demersal fleet targeting flatfish, shrimps and round fish/*Nephrops* improved. Gross Value Added (GVA), gross profit and net profit generated by the national fleet in 2015 were estimated at €184 million, €69 million and €33 million, respectively. GVA increased by 7%, gross profit and net profit increased by 6% and 60%. These results indicate a highly improved economic situation compared to previous years. Total income in 2015 slightly decreased compared to 2014, but operational costs decreased substantially. This was mainly due to a 31% decrease in energy costs because of decreasing fuel prices and fuel saving (e.g. pulse) techniques in the flatfish fleet. Crew costs increased by 10% and represented 29% of the value of landings in 2015. Total employment in 2015 was estimated at around 2 000 jobs, corresponding to around 1 620 FTEs. 20-25% of the jobs come from the small-scale coastal fleet, while the rest comes from the large-scale fleet.

The total landings weight decreased by 14% to reach 331 thousand tonnes, while the landings value remained stable at €375 million in 2015. The decrease in weight is mainly caused by the decreased landings weight of pelagic fish species. The total landings of pelagic fish fluctuate from year to year. Due to increased fish prices for the most important demersal fish species there was only a slight decrease in landings value. Landings per unit of effort and energy consumption per day at sea show a decreasing trend between 2008 and 2015.

Due to higher average fish prices, increased fishing opportunities and lower fuel costs it is expected that profitability in 2016 will reach historical high values. Projections for 2016 show an overall increase of 11% in landed weight and a 24% increase in landed value. Together with a decrease in most notably fuel costs (-33%), gross profits and net profits are expected to increase considerably. These gains in 2016 are in a lesser extend also expected for 2017 if fish and fuel prices do not fluctuate too much in the 2nd half of the year. However, there are different future drivers that could influence the performance of the fisheries. Dutch fisheries are highly dependent on the UK waters. It is still very unclear

what the UK exit will imply, however, the most important fleet segments are getting up to 60% of their landings value from fishing areas in UK waters. Therefor it is not unreasonable to expect that Brexit may potentially have large negative consequences on the current Dutch fishing fleet.

Beside Brexit it is still not clear if fishing with pulse technique will be permitted in the future. If (a part of) the fleet needs to fall back on the traditional way of fishing (conventional beam trawl fisheries), these vessels fuel consumption (and amount of unwanted bycatch) shall increase again (up to 60%) and will influence the fleet performance especially in years with high fuel prices.

Another important driver that could influence the performance of Dutch fisheries is the landing obligation. The implementation of this new regulation could have an impact on costs (increased crew costs, storage costs, etc.) and revenues (losing catches of species where quota is still available due to choke species).

Netherlands															
			2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	***2016****	***2017****	**Trend 2008-2017**	**Δ 2015 to 2014**	**Δ 2015 to avg. 08-14**
Total number of vessels	(#)		**727**	**713**	**725**	**737**	**735**	**739**	**735**	**718**	***518***	***521***		*-2%*	*-2%*
		SCF	155	174	175	163	176	184	178	171	*175*	*176*		*-4%*	*-1%*
		LSF	391	387	395	382	369	347	357	344	*343*	*344*		*-4%*	*-8%*
Vessel tonnage	(thousand GT)		**155.4**	**138.8**	**137.2**	**130.5**	**135.5**	**128.7**	**134.1**	**125.8**				*-6%*	*-8%*
		SCF	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4				*-3%*	*-6%*
		LSF	143.7	131.2	130.5	123.3	128.7	119.4	124.7	110.2				*-12%*	*-14%*
Engine power	(thousand kW)		**338.4**	**296.0**	**294.0**	**288.8**	**287.9**	**276.2**	**280.1**	**266.0**				*-5%*	*-10%*
		SCF	8.6	12.2	12.7	13.5	16.3	17.5	16.9	18.9				*12%*	*35%*
		LSF	291.6	260.7	260.0	250.0	247.7	225.8	231.2	211.1				*-9%*	*-16%*
Total employed	(person)		**2,212**	**2,087**	**2,116**	**2,051**	**2,035**	**2,095**	**2,014**	**1,966**	***1,938***	***1,988.0***		*-2%*	*-6%*
		SCF	352.1	301.8	323.8	301.9	335.3	383.3	320.6	361.9	*371.2*	*373.3*		*13%*	*9%*
		LSF	1,860	1,785	1,793	1,749	1,700	1,712	1,694	1,604	*1,567*	*1,614*		*-5%*	*-9%*
FTE	(#)		**1,884**	**1,964**	**1,815**	**1,707**	**1,724**	**1,742**	**1,679**	**1,619**	***1,731***	***1,831***		*-4%*	*-9%*
		SCF	135	235	125	76	109	105	88	98	*117*	*121*		*11%*	*-21%*
		LSF	1,749	1,729	1,690	1,631	1,615	1,637	1,590	1,521	*1,615*	*1,709*		*-4%*	*-9%*
Days at sea	(thousand day)		**50.9**	**54.3**	**51.3**	**47.0**	**51.8**	**50.7**	**48.7**	**49.0**	***52.4***	***54.8***		*1%*	*-3%*
		SCF	2.5	2.6	2.7	2.4	2.9	2.8	2.9	3.0	*3.6*	*3.7*		*4%*	*13%*
		LSF	48.4	51.7	48.6	44.6	48.9	47.9	45.7	46.0	*48.8*	*51.1*		*0%*	*-4%*
Fishing days	**(thousand day)**		**44.6**	**47.7**	**45.0**	**41.1**	**45.6**	**44.6**	**42.9**	**43.2**				*1%*	*-3%*
		SCF	2.4	2.4	2.5	2.2	2.7	2.6	2.7	2.8				*3%*	*13%*
		LSF	42.2	45.3	42.5	38.9	42.9	42.0	40.1	40.4				*1%*	*-4%*
Live weight of landings	(thousand tonne)		**416.0**	**355.8**	**386.8**	**353.3**	**343.7**	**345.1**	**382.4**	**330.5**	***367.5***	***396.9***		*-14%*	*-10%*
		SCF	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.5	*0.4*	*0.6*		*19%*	*2%*
		LSF	415.5	355.3	386.2	352.8	343.2	344.6	382.0	330.0	*367.1*	*396.3*		*-14%*	*-10%*
Value of landings	(million €)		**421.2**	**365.4**	**378.8**	**360.4**	**368.4**	**368.6**	**374.8**	**375.0**	***466.8***	***405.1***		*0%*	*0%*
		SCF	3.4	3.1	3.6	3.7	3.9	3.3	3.1	3.3	*3.4*	*3.7*		*5%*	*-6%*
		LSF	417.9	362.3	375.3	356.7	364.5	365.3	371.7	371.7	*463.4*	*401.4*		*0%*	*0%*
Revenue	**(million €)**		**429.3**	**369.9**	**384.2**	**368.7**	**373.2**	**371.8**	**384.7**	**378.6**	***470.6***	***408.6***		*-2%*	*-1%*
		SCF	9.1	5.6	4.8	4.7	6.1	5.1	4.3	4.6	*4.7*	*5.0*		*7%*	*-18%*
		LSF	420.2	364.2	379.4	364.0	367.1	366.7	380.3	374.0	*465.8*	*403.5*		*-2%*	*-1%*
Gross Value Added	**(million €)**		**162.2**	**150.7**	**133.0**	**114.6**	**132.2**	**151.2**	**171.7**	**184.2**	***287.4***	***209.0***		*7%*	*27%*
		SCF	5.5	3.7	2.2	3.0	3.9	2.7	2.7	3.3	*3.3*	*3.5*		*21%*	*-3%*
		LSF	156.7	147.0	130.8	111.6	128.4	148.5	169.0	180.9	*284.0*	*205.6*		*7%*	*28%*
Gross profit	**(million €)**		**53.4**	**49.8**	**37.7**	**21.3**	**32.9**	**48.6**	**64.8**	**68.6**	***140.8***	***84.5***		*6%*	*56%*
		SCF	2.8	2.3	1.3	2.1	2.1	1.4	1.6	2.5	*2.6*	*2.7*		*54%*	*31%*
		LSF	50.6	47.6	36.5	19.2	30.8	47.2	74.3	66.0	*138.2*	*81.8*		*-11%*	*51%*
Net profit	**(million €)**		**- 8.4**	**- 6.3**	**- 18.3**	**- 34.2**	**- 10.4**	**- 5.1**	**20.7**	**33.1**	***108.3***	***54.4***		*60%*	*474%*
		SCF	0.6	1.0	- 0.4	1.1	1.2	0.6	0.8	1.8	*1.8*	*2.0*		*124%*	*158%*
		LSF	- 8.8	- 6.5	- 17.2	- 35.1	- 11.8	- 5.8	31.4	31.5	*106.5*	*52.4*		*0%*	*510%*
Return on fixed tangible assets	(%)		**0.2**	**1.4**	**- 1.7**	**- 7.9**	**- 3.9**	**- 2.5**	**7.7**	**11.6**	***41.4***	***19.6***		*50%*	*1297%*
		SCF	4.6	10.7	- 0.9	9.3	8.9	4.6	9.2	17.9	*17.7*	*17.8*		*95%*	*169%*
		LSF	- 0.1	1.2	- 1.9	- 9.1	- 4.8	- 3.0	12.5	12.1	*42.4*	*19.7*		*-3%*	*1768%*
GVA per FTE	(thousand €)		**86.1**	**76.7**	**73.3**	**67.2**	**76.7**	**86.8**	**102.3**	**113.8**	***166.0***	***114.2***		*11%*	*40%*
		SCF	40.4	15.9	17.6	39.9	35.3	25.6	30.6	33.3	*28.5*	*28.7*		*9%*	*13%*
		LSF	89.6	85.0	77.4	68.4	79.5	90.7	106.2	119.0	*175.9*	*120.3*		*12%*	*40%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Poland

The Polish fleet consisted of 875 vessels in 2016, having a combined gross tonnage (GT) of 34.2 thousand tonnes and engine power of 81.5 thousand kilowatts (kW). In 2016, the number of vessels increased by 2 compared to 2015. 63 vessels reported no landings in 2016 and are thus considered inactive. Since 2008, the number of vessels increased 1.2%. In 2015, 611 vessels and 617 in 2016 were assigned to the small-scale coastal fleet according to the European definition (vessels under 12m using passive gears). 192 in 2015 and in 2016 193 active vessels were assigned to the large-scale fleet. Three large-scale vessels are assigned to the high seas fleet. Employment was estimated at 2 491 jobs, corresponding to 2 280 FTEs or an average of 2.8 FTE per vessel in 2015.

The Polish SSCF operates exclusively in the Baltic Sea and two brackish water lagoons, targeting mainly herring, cod, flounder and various kinds of freshwater species. The large-scale fleet (vessels under 40 meters' length) operated in the Baltic Sea. Deep sea trawlers fished in the North Atlantic and African waters.

Total available quota for the Polish Baltic fleet in 2015 was 130.2 thousand tonnes, 14% more compared to 2014 (114.6 thousand tonnes). The 2016 and 2017 quotas amounted to 127.8 and 137.3 thousand tonnes respectively.

The total landings weight (188 thousand tonnes) and value (€49 million - only Baltic Sea landings) increased by 10% and 2% respectively in 2015. The main species in the Baltic are sprat, herring, cod, and flounder. In terms of weight sprat is by far the dominant species (60.4 thousand tonnes), whereas the highest revenue was generated by herring in 2016 (€14.7 million and 38 thousand tonnes) followed by sprat (€12.9 million).

An estimated 71.8 thousand days were spent at sea in 2015, a slight decrease (4%) on 2014, while the amount of energy consumed decreased by 5%. Lower energy consumption was observed in for the SSCF as well as for vessels belonging to 12-18 DFN segment. These fleet segments reduced effort in 2015 to limit negative net profits.

Gross Value Added (GVA), gross profit in 2015 were estimated at €28 million, €13.5 million respectively. GVA increased 19%, gross profit increased by 70%. These results indicate an improved economic situation compared to previous years mainly due to higher weight and value of fish landed and lower energy costs.

In 2015 the SSCF generated a GVA of €6 million, 13% less than in 2014. The sector maintains negative gross and net profits of €1.1 and 2.5 million respectively. The number of people working in the fleet decreased in 2015 by 7% compared to 2014 but was still higher by 4% on 2008-2014 average.

The large-scale fleet generated GVA €22 million, produced €14.6 million gross and €8.1 million net profit. All economic parameters improved remarkably, GVA by 32%, gross profit by 79%, and net profit by 213%.

Poland																
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		**864**	**832**	**806**	**793**	**790**	**798**	**838**	**873**	***812***	***774***		*4%*	*7%*
		SCF	563	509	517	518	545	553	595	611	*617*	*605*		*3%*	*13%*
		LSF	259	211	187	188	205	200	199	192	*193*	*169*		*-4%*	*-7%*
		DWF	1	3	3	3	2	2	2	2	*2*			*0%*	*-13%*
Vessel tonnage	(thousand GT)		**30.0**	**41.0**	**38.2**	**37.3**	**33.4**	**33.4**	**33.9**	**34.0**				*0%*	*-4%*
		SCF	2.7	2.3	2.3	2.4	2.6	2.6	2.7	2.7				*-1%*	*6%*
		LSF	22.8	16.5	14.1	13.8	14.6	14.8	15.4	15.0				*-3%*	*-6%*
		DWF	3.9	19.4	19.5	19.5	15.6	15.6	15.4	15.4				*0%*	*-1%*
Engine power	(thousand kW)		**96.6**	**99.0**	**90.7**	**86.9**	**82.9**	**81.9**	**81.4**	**81.5**				*0%*	*-8%*
		SCF	23.8	20.3	19.8	19.7	21.1	20.9	21.3	21.0				*-1%*	*0%*
		LSF	67.0	53.7	46.5	44.7	47.5	46.6	46.8	45.2				*-3%*	*-10%*
		DWF	3.2	14.4	15.0	15.0	11.8	11.8	11.2	11.2				*0%*	*-5%*
Total employed	(person)		**3,026**	**2,699**	**2,590**	**2,548**	**2,601**	**2,515**	**2,703**	**2,491**	***2,515***	***2,208.9***		*-8%*	*-7%*
		SCF	1,379.0	1,313.0	1,264.0	1,301.0	1,372.0	1,389.0	1,519.0	1,417.0	*1,437.0*	*1,397.0*		*-7%*	*4%*
		LSF	1,377	1,116	1,056	977	1,049	946	1,003	899	*903*	*812*		*-10%*	*-16%*
		DWF	270.0	270.0	270.0	270.0	180.0	180.0	180.0	175.0	*175.0*			*-3%*	*-24%*
FTE	(#)		**2,822**	**2,552**	**2,433**	**2,400**	**2,487**	**2,361**	**2,550**	**2,280**	***2,336***	***1,809***		*-11%*	*-9%*
		SCF	1,201.0	1,202.0	1,121.0	1,163.0	1,271.0	1,290.0	1,420.0	1,267.0	*1,343.4*	*1,113.0*		*-11%*	*2%*
		LSF	1,351	1,093	1,043	966	1,036	934	990	866	*845*	*697*		*-13%*	*-18%*
		DWF	270.0	258.0	270.0	270.0	180.0	137.0	140.0	147.0	*147.0*			*5%*	*-33%*
Days at sea	(thousand day)		**66.4**	**62.1**	**58.1**	**58.7**	**67.2**	**71.3**	**74.6**	**71.8**	***74.4***	***63.4***		*-4%*	*10%*
		SCF	45.6	42.8	39.5	40.0	43.5	48.1	51.2	49.4	*52.2*	*46.5*		*-4%*	*11%*
		LSF	20.3	18.4	17.8	17.9	23.3	22.7	22.8	22.0	*21.5*	*16.9*		*-4%*	*8%*
		DWF	0.5	0.9	0.9	0.8	0.5	0.5	0.5	0.4	*0.7*			*-28%*	*-43%*
Fishing days	**(thousand day)**		**62.5**	**59.8**	**55.5**	**56.8**	**64.1**	**68.1**	**71.2**	**68.7**				*-4%*	*10%*
		SCF	45.0	42.4	38.7	39.5	42.6	47.4	50.5	48.8				*-3%*	*12%*
		LSF	17.3	16.8	16.3	16.7	21.1	20.3	20.3	19.6				*-4%*	*6%*
		DWF	0.3	0.7	0.5	0.6	0.4	0.5	0.4	0.3				*-30%*	*-40%*
Live weight of landings	(thousand tonne)		**126.2**	**212.1**	**170.8**	**179.5**	**179.2**	**195.0**	**171.3**	**187.9**	***198.6***	***155.5***		*10%*	*7%*
		SCF	9.9	11.5	11.0	11.4	12.6	13.0	12.8	12.7	*12.4*	*12.9*		*-1%*	*8%*
		LSF	90.2	124.1	104.5	104.2	112.8	127.9	113.3	129.3	*133.1*	*142.5*		*14%*	*16%*
		DWF	26.1	76.5	55.4	63.9	53.8	54.1	45.3	45.9	*53.1*			*1%*	*-14%*
Value of landings	(million €)		**40.0**	**41.3**	**43.1**	**47.4**	**55.4**	**56.5**	**47.9**	**48.7**	***51.2***	***48.8***		*2%*	*3%*
		SCF	10.4	10.7	10.4	11.3	12.0	12.0	11.1	10.0	*11.4*	*10.0*		*-10%*	*-10%*
		LSF	29.6	30.6	32.7	36.1	43.4	44.6	36.8	38.7	*39.8*	*38.7*		*5%*	*7%*
		DWF													
Revenue	**(million €)**		**40.9**	**41.8**	**43.3**	**47.8**	**55.6**	**56.6**	**48.1**	**49.6**	***52.1***	***49.6***		*3%*	*4%*
		SCF	10.7	10.8	10.5	11.4	12.0	12.0	11.2	10.3	*11.7*	*10.3*		*-8%*	*-8%*
		LSF	30.2	30.9	32.8	36.4	43.6	44.6	36.9	39.3	*40.4*	*39.2*		*6%*	*8%*
Gross Value Added	**(million €)**		**15.1**	**23.8**	**24.0**	**23.0**	**27.3**	**28.3**	**23.5**	**28.0**	***31.9***	***30.2***		*19%*	*18%*
		SCF	6.4	7.6	7.3	7.5	7.8	7.3	6.9	6.0	*7.4*	*6.7*		*-13%*	*-18%*
		LSF	8.7	16.2	16.7	15.5	19.6	21.0	16.7	22.0	*24.5*	*23.5*		*32%*	*35%*
Gross profit	**(million €)**		**3.9**	**13.6**	**11.8**	**8.4**	**9.6**	**9.2**	**7.9**	**13.5**	***16.2***	***15.7***		*70%*	*47%*
		SCF	0.5	5.1	3.7	1.1	0.7	- 0.8	- 0.3	- 1.1	- *0.7*	- *0.5*		*-347%*	*-178%*
		LSF	- 1.5	8.5	8.1	7.2	8.9	10.0	8.2	14.6	*16.9*	*16.2*		*79%*	*108%*
Net profit	**(million €)**		**- 0.1**	**9.1**	**6.7**	**4.3**	**4.9**	**2.3**	**0.9**	**5.6**	***8.3***	***9.8***		*508%*	*39%*
		SCF	0.2	4.1	2.5	0.3	0.0	- 2.1	- 1.6	- 2.5	- *2.1*	- *1.3*		*-62%*	*-594%*
		LSF	- 4.7	5.4	4.7	4.2	5.0	4.4	2.6	8.1	*10.4*	*11.1*		*213%*	*164%*
Return on fixed tangible assets	(%)		**1.7**	**8.3**	**9.3**	**6.5**	**6.2**	**5.5**	**4.3**	**9.4**	***11.9***	***12.3***		*115%*	*56%*
		SCF	4.5	14.6	12.9	3.2	1.3	- 4.3	- 2.1	- 5.5	- *4.0*	- *3.2*		*-165%*	*-229%*
		LSF	- 3.7	7.9	10.1	9.0	8.6	9.9	7.2	15.7	*18.6*	*19.2*		*117%*	*124%*
GVA per FTE	(thousand €)		**5.4**	**9.3**	**9.9**	**9.6**	**11.0**	**12.0**	**9.2**	**12.3**	***13.7***	***16.7***		*33%*	*29%*
		SCF	5.4	6.3	6.5	6.5	6.1	5.7	4.8	4.7	*5.5*	*6.0*		*-2%*	*-20%*
		LSF	6.8	15.4	16.7	16.7	19.6	23.4	17.5	26.4	*30.2*	*35.4*		*51%*	*59%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Portugal

The national fleet consisted of 8 205 fishing vessels in 2015, of which 4 344 were inactive. The remaining 3 871 active vessels were made up of: 3 044 small-scale coastal vessels, 807 large-scale vessels and 20 distant water vessels. The total revenue generated in 2015 was estimated at €357 million. Total costs, including capital costs, incurred by the fleet reached €280 million. Crew costs and energy costs, the two main cost items, decreased in 2015 by 2% and 25% respectively. Employment was estimated at 16 086 jobs, corresponding to 8 130 FTE. Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €254.2 million, €121.1 million and €76.5 million, respectively. All economic indicators improved in 2015 due to better fish prices and decreasing costs, in particular energy costs and as a result of lower fuel prices and improved efficiency. While overall the fleet was profitable, variations are observed in different fleet segments, with some experiencing difficulties, namely the 24-40 m longliner fleet in the Azores and Madeira.

Small-scale coastal fleet: In 2015, the SSCF numbered 3 044 vessels corresponding to 79% of the total active fleet. The total amount of GVA, gross profit and net profit generated by the SSCF in 2015 were €64.4 million, €31.9 million and €22.1 million, respectively. The performance of the fleet improved consistently since 2012. Furthermore, this part of the national fleet contributes significantly to the economic and social sustainability of local fishing communities. The cost structure of the fleet remained stable over the period 2008-15 with wages and salaries of the crew being the major cost and highly linked to the income from landings.

Large-scale fleet: The large-scale fleet comprised 807 vessels, representing 21% of the active Portuguese fleet. The majority of large-scale fleet use mobile gears (purse seine, demersal trawl and dredges) and in 2015 generated 7 234 jobs. The economic performance improved compared to previous years, with GVA, gross profit and net profit increasing due to the amount of subsidies received, the low fuel costs and a slight reduction on crew costs. Net profit margin increased to 21%. Investments have increased over the years showing a will for the sector to remain in business.

Distant water fleet: The distant water fleet comprised 20 vessels in 2015 and generated 327 jobs. Comparing 2015 to 2014, there was a decrease in fleet activity. In terms of economic performance, the fleet showed some improvements in 2015 with an estimated GVA, gross profit and net profit of €10.3 million, €7.4 million and €4.3 million, respectively.

Portugal															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		**8,770**	**8,731**	**8,655**	**8,507**	**8,399**	**8,311**	**8,256**	**8,205**	***3,862***	***3,380***		*-1%*	*-4%*
		SCF	3,792	3,665	3,540	3,338	3,230	3,185	3,097	3,044	*3,049*	*2,613*		*-2%*	*-11%*
		LSF	922	923	898	874	819	812	822	807	*771*	*722*		*-2%*	*-7%*
		DWF	40	38	39	35	34	27	26	20	*42*	*44*		*-23%*	*-41%*
Vessel tonnage	(thousand GT)		**107.2**	**107.7**	**104.4**	**102.2**	**101.1**	**100.1**	**100.4**	**100.3**				*0%*	*-3%*
		SCF	7.9	7.8	7.7	7.5	7.5	7.4	7.4	7.2				*-2%*	*-5%*
		LSF	63.8	65.6	63.2	63.0	60.9	61.7	61.3	55.8				*-9%*	*-11%*
		DWF	13.5	12.0	12.7	11.5	11.1	9.1	8.9	6.7				*-25%*	*-41%*
Engine power	(thousand kW)		**389.2**	**393.2**	**383.6**	**374.9**	**371.2**	**368.0**	**368.1**	**367.7**				*0%*	*-3%*
		SCF	107.9	108.1	107.2	103.7	102.9	101.0	99.9	98.1				*-2%*	*-6%*
		LSF	177.8	179.4	171.6	169.7	164.1	166.1	165.5	158.2				*-4%*	*-7%*
		DWF	26.5	24.4	25.0	22.5	21.8	18.0	17.2	12.5				*-27%*	*-44%*
Total employed	(person)		**17,239**	**17,860**	**16,583**	**18,258**	**16,754**	**17,867**	**16,992**	**16,086**	***15,710***	***14,158.4***		*-5%*	*-7%*
		SCF	9,397.0	9,321.0	8,523.0	10,075.0	8,862.0	9,857.0	8,957.0	8,522.0	*8,539.4*	*7,352.9*		*-5%*	*-8%*
		LSF	7,431	8,124	7,651	7,751	7,478	7,668	7,653	7,234	*6,781*	*6,432*		*-5%*	*-6%*
		DWF	411.0	415.0	410.0	433.0	416.0	345.0	381.0	327.0	*388.9*	*373.7*		*-14%*	*-19%*
FTE	(#)		**9,155**	**9,260**	**9,155**	**9,614**	**9,241**	**9,748**	**8,515**	**8,130**	***7,911***	***9,379***		*-5%*	*-12%*
		SCF	3,246.0	3,063.0	2,827.0	3,370.0	3,022.0	3,413.0	2,967.0	2,923.0	*2,926.9*	*2,919.7*		*-1%*	*-7%*
		LSF	5,537	5,835	5,949	5,835	5,825	6,037	5,199	4,928	*4,651*	*6,152*		*-5%*	*-14%*
		DWF	371.0	362.0	381.0	410.0	396.0	301.0	348.0	278.0	*332.9*	*306.5*		*-20%*	*-24%*
Days at sea	(thousand day)		**441.1**	**425.0**	**402.3**	**390.9**	**385.4**	**368.8**	**335.6**	**352.5**	***345.7***	***375.1***		*5%*	*-10%*
		SCF	285.1	272.0	253.6	245.8	248.5	236.4	213.8	225.6	*225.9*	*225.7*		*6%*	*-10%*
		LSF	146.5	144.5	138.9	136.4	130.2	126.7	116.4	122.4	*114.3*	*144.5*		*5%*	*-9%*
		DWF	9.4	8.4	9.8	8.7	6.7	5.6	5.4	4.5	*5.4*	*4.9*		*-17%*	*-42%*
Fishing days	**(thousand day)**		**399.6**	**383.7**	**362.1**	**351.9**	**348.9**	**331.5**	**321.5**	**338.2**				*5%*	*-5%*
		SCF	264.8	253.7	236.2	228.4	231.2	218.8	212.1	225.3				*6%*	*-4%*
		LSF	127.8	123.7	118.9	116.7	111.5	107.5	104.5	108.8				*4%*	*-6%*
		DWF	7.0	6.3	7.1	6.8	6.2	5.2	4.9	4.1				*-18%*	*-35%*
Live weight of landings	(thousand tonne)		**193.9**	**171.6**	**194.7**	**197.7**	**189.1**	**196.0**	**163.4**	**183.4**	***184.5***	***203.3***		*12%*	*-2%*
		SCF	22.0	19.4	21.9	17.8	20.5	22.1	20.2	20.5	*20.5*	*20.5*		*1%*	*-1%*
		LSF	162.5	142.7	160.4	168.3	155.7	166.3	134.5	156.4	*156.1*	*175.6*		*16%*	*0%*
		DWF	9.5	9.5	12.4	11.6	11.5	7.5	8.7	6.5	*8.0*	*7.2*		*-25%*	*-35%*
Value of landings	(million €)		**400.8**	**361.0**	**399.2**	**408.9**	**386.8**	**367.7**	**353.4**	**351.9**	***347.7***	***340.8***		*0%*	*-8%*
		SCF	95.8	76.6	79.6	76.6	76.7	76.1	82.3	81.6	*81.8*	*80.6*		*-1%*	*1%*
		LSF	277.5	253.5	278.3	295.4	273.7	265.4	249.2	252.4	*243.9*	*260.2*		*1%*	*-7%*
		DWF	27.5	30.9	41.3	36.9	30.5	25.8	21.9	18.0	*22.0*			*-18%*	*-41%*
Revenue	**(million €)**		**404.2**	**368.1**	**406.0**	**416.5**	**386.0**	**364.7**	**364.9**	**356.7**	***354.1***	***344.3***		*-2%*	*-8%*
		SCF	97.6	79.2	80.6	76.9	76.9	75.8	83.0	81.7	*81.9*	*80.7*		*-2%*	*0%*
		LSF	279.0	256.2	281.7	300.3	280.1	259.6	256.4	254.3	*246.9*	*263.5*		*-1%*	*-7%*
		DWF	27.5	32.7	43.7	39.2	29.0	29.4	25.5	20.6	*25.3*			*-19%*	*-36%*
Gross Value Added	**(million €)**		**252.1**	**232.6**	**253.8**	**263.6**	**233.2**	**223.5**	**235.5**	**254.2**	***261.3***	***251.2***		*8%*	*5%*
		SCF	77.3	61.1	61.6	58.5	58.3	57.7	65.3	64.4	*65.8*	*64.9*		*-1%*	*2%*
		LSF	168.7	156.9	173.8	187.8	164.4	153.2	157.9	179.6	*181.4*	*186.3*		*14%*	*8%*
		DWF	6.1	14.6	18.4	17.3	10.5	12.6	12.4	10.3	*14.1*			*-17%*	*-22%*
Gross profit	**(million €)**		**94.7**	**91.8**	**103.0**	**105.7**	**79.8**	**87.6**	**99.5**	**121.1**	***130.9***	***116.5***		*22%*	*28%*
		SCF	35.5	26.1	26.9	24.2	20.3	24.5	29.4	31.9	*33.3*	*32.9*		*8%*	*19%*
		LSF	58.3	55.8	64.8	71.0	53.9	55.9	62.7	81.7	*86.9*	*83.6*		*30%*	*35%*
		DWF	0.9	9.8	11.4	10.5	5.7	7.1	7.4	7.4	*10.7*			*0%*	*-2%*
Net profit	**(million €)**		**40.5**	**11.8**	**32.2**	**28.3**	**-2.0**	**19.0**	**39.9**	**76.5**	***87.7***	***81.4***		*92%*	*216%*
		SCF	25.5	12.3	14.2	10.5	5.6	11.3	17.9	22.1	*23.1*	*24.1*		*24%*	*59%*
		LSF	22.5	3.8	18.9	22.7	3.1	13.3	23.9	52.6	*58.1*	*57.2*		*120%*	*241%*
		DWF	-5.4	2.1	3.8	2.3	-2.3	0.9	2.7	4.3	*6.8*			*56%*	*622%*
Return on fixed tangible assets	(%)		**10.4**	**7.4**	**10.4**	**12.2**	**7.1**	**9.9**	**12.7**	**18.9**	***30.1***	***34.1***		*49%*	*88%*
		SCF	36.7	20.6	21.9	20.7	15.2	21.6	30.2	36.1	*38.2*	*45.5*		*20%*	*51%*
		LSF	11.2	6.5	11.2	15.1	8.8	11.1	13.7	24.7	*29.0*	*30.9*		*80%*	*122%*
		DWF	-10.4	10.0	12.4	11.6	2.0	8.6	13.5	22.0	*33.5*			*63%*	*223%*
GVA per FTE	(thousand €)		**27.5**	**25.1**	**27.7**	**27.4**	**25.2**	**22.9**	**27.7**	**31.3**	***33.0***	***26.8***		*13%*	*19%*
		SCF	23.8	20.0	21.8	17.3	19.3	16.9	22.0	22.0	*22.5*	*22.7*		*0%*	*9%*
		LSF	30.5	26.9	29.2	32.2	28.2	25.4	30.4	36.4	*39.0*	*30.6*		*20%*	*26%*
		DWF	16.5	40.4	48.3	42.3	26.6	41.7	35.5	36.9	*42.3*			*4%*	*3%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Romania

In 2015, the Romanian fishing fleet consisted of 151 registered vessels, with a combined gross tonnage of 0.9 thousand GT, a total engine power of 6.0 thousand kW and an average age of 18 years. The size of the fishing fleet decreased between 2008 and 2015, with the number of vessels falling by 66% and GT and kW by 63% and 31% respectively.

The level of employment decreased between 2008 and 2015, with total employed decreasing 60% while the number of FTEs increased by 5% over the period. The Romania fleet spent a total of around 4 thousand days at sea in 2015. The total number of days at sea increased by 9% between 2008 and 2015, while fishing days increased 1%.

The total weight landed in 2015 was 4.8 thousand tonnes of seafood, with a landed value of €4.3 million. The total weight and value of landings in 2015 increased significantly compared to previous years. Thomas' rapa whelk generated the highest landed value by the national fleet - around €3.5 million, followed by turbot (€27 thousand). In terms of landings weight, Thomas' rapa whelk amounted to 4.5 thousand tonnes, European sprat and anchovy, both at 11 tonnes.

The amount of revenue generated by the national fleet from landings in 2015 was €4.3 million. Total income increased 363% between 2014 and 2015. Total operating costs incurred by the fleet equated to €1.66 million, amounting to only 37% of total income. Crew cost and fuel costs, the two major fishing expenses, were €51 and €52 thousand, respectively.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the fleet in 2015 were €3.5 million, €3 million and €2.7 million respectively. GVA, gross profit and net profit all increased significantly in 2015.

Small-scale coastal fleet: this segment represents the principal part of the national fleet. In 2015, there were 113 active SSCF vessels (-71% from 2008). The amount of income generated in 2015 was €1.6 million, increasing 313% compared to 2008. In terms of economic performance, the amount of GVA, gross profit and net profit generated by the SSCF in 2015 were €1.2 million, €1 million and €0.9 million, respectively.

Romania															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		441	440	429	488	261	196	158	151	121	125		-4%	-56%
		SCF	395	153	205	197	179	106	111	113	104	108		2%	-41%
		LSF	10	7	1	3	4	6	12	14	17	17		17%	128%
Vessel tonnage	(thousand GT)		2.3	2.3	1.0	1.0	0.7	0.6	0.8	0.9				11%	-31%
		SCF	0.4	0.2	0.2	0.2	0.3	0.2	0.2	0.2				5%	-16%
		LSF	0.8	0.5	0.1	0.4	0.3	0.4	0.5	0.7				19%	56%
Engine power	(thousand kW)		8.7	8.2	5.4	7.0	5.9	6.2	6.1	6.0				-1%	-11%
		SCF	3.1	1.2	1.7	3.4	3.5	3.2	2.4	2.1				-10%	-19%
		LSF	2.4	1.6	0.3	1.1	1.2	2.1	3.2	3.7				15%	115%
Total employed	(person)		875	289	444	454	471	304	330	352	343	355		7%	-22%
		SCF	790	242	436	434	445	278	279	290	266	278		4%	-30%
		LSF	85	47	8	20	26	26	51	62	77	77		22%	65%
FTE	(#)		42	31	38	28	39	37	38	44	50	51		17%	22%
		SCF	31	28	38	26	35	27	24	21	19	20		-14%	-31%
		LSF	11	4	0	3	4	10	14	24	31	31		67%	266%
Days at sea	(thousand day)		3.7	4.1	4.3	2.6	3.3	2.8	2.8	4.0	4.1	4.2		46%	20%
		SCF	3.4	3.9	4.3	2.6	3.2	2.5	2.2	3.1	2.9	3.0		42%	-1%
		LSF	0.3	0.1	0.0	0.1	0.1	0.4	0.6	0.9	1.2	1.2		62%	325%
Fishing days	(thousand day)		3.7	3.9	4.1	2.5	3.3	2.7	2.7	3.7				35%	13%
		SCF	3.4	3.8	4.1	2.5	3.2	2.4	2.2	2.8				29%	-9%
		LSF	0.2	0.1	0.0	0.1	0.1	0.3	0.6	0.9				58%	339%
Live weight of landings	(thousand tonne)		0.4	0.3	0.2	0.5	0.8	1.6	2.2	4.8	6.8	6.9		120%	453%
		SCF	0.1	0.2	0.2	0.4	0.7	1.0	1.0	1.6	1.6	1.6		61%	199%
		LSF	0.3	0.1	0.0	0.1	0.1	0.6	1.2	3.2	5.2	5.2		169%	858%
Value of landings	(million €)		0.9	0.7	0.6	1.5	1.0	1.5	2.5	4.3	3.9	3.9		74%	248%
		SCF	0.4	0.6	0.6	1.4	0.9	1.0	1.2	1.6	1.2	1.3		36%	87%
		LSF	0.5	0.1	0.0	0.1	0.1	0.5	1.3	2.7	2.6	2.7		109%	620%
Revenue	(million €)		0.9	0.7	0.6	1.5	1.0	1.5	2.5	4.3	3.9	3.9		74%	248%
		SCF	0.4	0.6	0.6	1.4	0.9	1.0	1.2	1.6	1.2	1.3		36%	87%
		LSF	0.5	0.1	0.0	0.1	0.1	0.5	1.3	2.7	2.6	2.7		109%	620%
Gross Value Added	(million €)		0.6	0.6	0.2	0.9	0.6	0.8	1.5	3.5	3.2	3.1		137%	373%
		SCF	0.3	0.5	0.2	0.9	0.6	0.6	0.7	1.2	0.9	0.9		73%	134%
		LSF	0.3	0.1	- 0.0	0.0	0.0	0.3	0.8	2.3	2.2	2.2		198%	971%
Gross profit	(million €)		- 0.0	0.3	0.0	0.4	0.3	0.3	0.4	3.0	2.7	2.6		568%	1127%
		SCF	- 0.1	0.3	0.0	0.4	0.3	0.2	0.2	1.0	0.8	0.7		365%	476%
		LSF	0.1	0.0	- 0.0	0.0	0.0	0.1	0.2	2.0	2.0	1.9		754%	2720%
Net profit	(million €)		- 0.1	- 0.0	- 0.1	0.2	0.1	0.1	0.1	2.7	2.4	2.3		1913%	4682%
		SCF	- 0.1	0.3	- 0.0	0.3	0.2	0.1	0.1	0.9	0.6	0.6		809%	751%
		LSF	0.1	- 0.1	- 0.0	- 0.0	- 0.0	0.0	0.0	1.8	1.7	1.7		4600%	61072%
Return on fixed tangible assets	(%)		- 0.7	3.4	- 0.4	7.0	5.4	5.1	7.3	119.2	85.1	81.9		1541%	2991%
		SCF	- 8.8	42.7	- 1.2	31.0	19.7	14.7	37.7	528.8	418.1	399.3		1303%	2625%
		LSF	2.5	0.3	- 0.5	0.1	0.2	2.6	4.4	88.3	66.4	63.6		1905%	6331%
GVA per FTE	(thousand €)		14.2	18.1	6.4	31.6	15.4	22.5	39.2	79.7	64.2	61.2		103%	279%
		SCF	8.9	18.2	6.4	32.8	15.8	21.5	30.3	60.6	50.1	47.5		100%	217%
		LSF	28.7	17.1	- 1.3	18.5	11.1	25.2	54.1	96.4	72.8	69.8		78%	340%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Slovenia

In 2016, the Slovenian fishing fleet consisted of 171 registered vessels, with a combined gross tonnage of 590 GT, a total power of 8.5 thousand kW and an average age of 38.3 years. The size of the fleet decreased between 2008 and 2016; number of vessels by 6% and GT and kW by 40% and 20%, respectively. The major factors causing the fleet to decrease include the scrapping of vessels, including two of the largest vessels.

The Slovenian fleet is nationally divided into a small-fleet segment (87% of all active vessels in 2016) with an engine power of 3.0 thousand kW and a large-fleet segment (13% of all active vessels in 2016) with an engine power of 1.5 thousand kW. The number of SSCF vessels increased by 20% from 2008-2016, while the number of large-scale vessels decreased 56% during the same period. Scrapping is the major factor for the decrease of the LSF. On the other hand, those fishers who lost their jobs because of scrapping, starts to fish on their own, resulting in more small-scale vessels.

Total employment in 2015 was estimated at 119 jobs, corresponding to 84 FTEs. The level of employment increased between 2008 and 2015, with total employed and FTE increasing by 9%.

The total weight of seafood landed in 2015 was around 200 tonnes, with a landed value of €1.27 million. The total weight and value of landings decreased by 70% and 45%, respectively, over the period analysed. The major factor causing this decrease, especially for anchovy and sardine, include scrapping of fishing vessels. In the last quarter of 2011, the two largest vessels were scrapped (pelagic trawlers 24-40m); these vessels targeted mainly sardine and anchovy and represented around 50% of the Slovenian landed weight.

The amount of income generated by the national fleet in 2015 was €2.35 million. This consisted of €1.27 million in landings value, €0.76 million in non-fishing income and €0.32 in subsidies. The fleet's landings income decreased 45% between 2008 and 2015, while other income increased 9% during the same period. Due to reduced landings, fishers are looking for the opportunity to generate earnings in other industries, such as tourism, aquaculture etc.

In terms of economic performance, the amount of Gross Value Added (GVA), gross profit and net profit generated by the Slovenian fleet in 2015 were €1.56 million, €0.6 million and €0.24 million, respectively. Between 2008 and 2015, GVA, gross profit and net profit decreased 22%, 37% and 63%, respectively. The major factors causing the deteriorated trend in economic performance in 2015 included lower income from landings and lower income from other sources. The Slovenian fleet was in a poor economic condition because of old and poorly equipped fleet and reduced catches.

Small-scale coastal fleet: In 2015, there were 83 active vessels of which around 72 (87% of all active vessels) are classified as small-scale (an increase for 20% from 2008). The majority of these vessels operate in Slovenian coastal waters. Income generated by the SSCF in 2015 was €1.33 million, consisting of €0.74 million in landings value, €0.40 million in non-fishing income and €0.19 million in direct subsidies. Landings income increased 90% between 2008 and 2015, while other income increased by more than 100% during the same period. Due to reduced landings, fishers are looking for opportunities to generate earnings in other related industries, such as tourism, aquaculture etc. In terms of economic performance, the amount of GVA, gross profit and net profit generated by the SSCF in 2015 were €0.86 million, €0.27 million and €0.01 million, respectively. Between 2008 and 2015, profitability indicators followed a positive trend although a substantial fall was recorded in 2015. The major factors causing the improvement in economic performance in period analysed included increases in landing income and income from other sources while, on the other hand, operation costs remain relative stabile during the period analysed.

Large-scale fleet: 11 vessels (13% of all active vessels) represent the large-scale sector in 2015. The amount of income generated by the LSF in 2015 was €1.02 million. This consisted of €0.53 million in landings value, €0.14 million in direct subsidies and €0.36 million in non-fishing income. Landings income decreased 73% between 2008 and 2015. The major factor for decreased value of landing is scrapping of some vessels and in the last few years a crisis in PS segment. In terms of economic performance, the amount of GVA, gross profit and net profit generated by the large-scale fleet in 2015 were €0.7 million, €0.33 million and €0.27 million, respectively. Between 2008 and 2015, GVA, gross profit and net profit increased 55%, 62% and 65% respectively, while the GVA decreased for 55%. The major factor causing for this decrease is lower income from landings of the PS sector and scrapping of some vessels.

Slovenia															
			2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		**181**	**185**	**185**	**186**	**181**	**171**	**170**	**169**	***83***	***84***		*-1%*	*-6%*
		SCF	60.0	62.0	67.0	62.0	67.0	69.0	77.0	76.0	*72.0*	*73.9*		*-1%*	*15%*
		LSF	25	25	24	22	22	14	14	12	*11*	*10*		*-14%*	*-42%*
Vessel tonnage	(thousand GT)		**1.0**	**1.0**	**1.0**	**1.0**	**0.8**	**0.6**	**0.6**	**0.6**				*0%*	*-31%*
		SCF	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2				*-10%*	*10%*
		LSF	0.6	0.6	0.6	0.6	0.5	0.2	0.2	0.2				*-5%*	*-60%*
Engine power	(thousand kW)		**10.7**	**11.0**	**11.0**	**10.9**	**10.1**	**8.5**	**8.5**	**8.5**				*0%*	*-15%*
		SCF	2.5	2.5	3.0	2.5	2.7	4.0	4.3	3.8				*-13%*	*23%*
		LSF	4.6	4.4	4.4	4.1	3.6	1.9	1.9	1.8				*-8%*	*-50%*
Total employed	(person)		**109**	**117**	**116**	**114**	**107**	**107**	**126**	**119**	***113***	***113.0***		*-6%*	*5%*
		SCF	67.0	64.0	72.0	62.0	68.0	71.0	89.0	90.0	*85.8*	*88.0*		*1%*	*28%*
		LSF	42	53	44	52	39	36	37	29	*27*	*25*		*-22%*	*-33%*
FTE	(#)		**77**	**82**	**81**	**77**	**63**	**75**	**80**	**84**	***80***	***80***		*4%*	*9%*
		SCF	47.7	45.0	48.8	41.6	43.9	50.4	60.0	65.9	*63.3*	*65.0*		*10%*	*37%*
		LSF	29	37	32	35	19	25	20	18	*17*	*15*		*-12%*	*-37%*
Days at sea	(thousand day)		**6.8**	**6.9**	**7.7**	**7.7**	**7.6**	**7.6**	**8.6**	**8.7**	***7.8***	***7.9***		*1%*	*15%*
		SCF	4.8	4.7	5.4	5.7	6.2	6.4	7.4	7.6	*6.8*	*6.9*		*2%*	*31%*
		LSF	2.0	2.2	2.4	2.0	1.4	1.3	1.2	1.1	*1.0*	*0.9*		*-6%*	*-38%*
Fishing days	(thousand day)		**6.8**	**6.9**	**7.7**	**7.7**	**7.6**	**7.6**	**8.6**	**8.7**				*1%*	*15%*
		SCF	4.8	4.7	5.4	5.7	6.2	6.4	7.4	7.6				*2%*	*31%*
		LSF	2.0	2.2	2.4	2.0	1.4	1.3	1.2	1.1				*-6%*	*-38%*
Live weight of landings	(thousand tonne)		**0.7**	**0.9**	**0.8**	**0.7**	**0.3**	**0.2**	**0.3**	**0.2**	***0.2***	***0.1***		*-23%*	*-65%*
		SCF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	*0.1*	*0.1*		*27%*	*46%*
		LSF	0.6	0.8	0.7	0.7	0.3	0.2	0.2	0.1	*0.1*	*0.1*		*-40%*	*-77%*
Value of landings	(million €)		**2.3**	**2.4**	**2.1**	**2.1**	**1.5**	**1.2**	**1.3**	**1.3**	***1.1***	***1.1***		*0%*	*-31%*
		SCF	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	*0.7*	*0.7*		*22%*	*50%*
		LSF	1.9	1.9	1.6	1.6	1.0	0.7	0.7	0.5	*0.5*	*0.4*		*-21%*	*-61%*
Revenue	(million €)		**3.0**	**2.9**	**3.5**	**3.6**	**2.4**	**2.6**	**2.7**	**2.0**	***1.9***	***1.8***		*-26%*	*-32%*
		SCF	0.6	0.7	1.3	1.4	0.9	1.2	1.5	1.1	*1.1*	*1.1*		*-22%*	*4%*
		LSF	2.5	2.1	2.1	2.2	1.5	1.4	1.3	0.9	*0.8*	*0.7*		*-31%*	*-53%*
Gross Value Added	(million €)		**1.7**	**1.7**	**1.9**	**2.6**	**1.8**	**2.0**	**2.3**	**1.6**	***1.5***	***1.4***		*-31%*	*-22%*
		SCF	0.2	0.4	0.9	1.2	0.6	1.0	1.2	0.9	*0.9*	*0.9*		*-29%*	*7%*
		LSF	1.5	1.3	1.0	1.4	1.2	1.0	1.0	0.7	*0.6*	*0.6*		*-33%*	*-42%*
Gross profit	(million €)		**0.8**	**0.5**	**0.7**	**1.4**	**0.8**	**1.1**	**1.3**	**0.6**	***0.6***	***0.6***		*-55%*	*-37%*
		SCF	- 0.1	0.1	0.5	0.8	0.2	0.4	0.7	0.3	*0.3*	*0.3*		*-63%*	*-26%*
		LSF	0.9	0.4	0.2	0.6	0.7	0.7	0.6	0.3	*0.3*	*0.3*		*-46%*	*-44%*
Net profit	(million €)		**0.7**	**0.1**	**0.4**	**1.1**	**0.6**	**0.7**	**1.0**	**0.2**	***0.3***	***0.3***		*-75%*	*-63%*
		SCF	- 0.1	0.0	0.4	0.7	0.1	0.2	0.5	0.0	*0.1*	*0.1*		*-98%*	*-96%*
		LSF	0.8	0.2	0.0	0.5	0.5	0.6	0.5	0.3	*0.3*	*0.2*		*-47%*	*-39%*
Return on fixed tangible assets	(%)		**14.0**	**6.2**	**9.4**	**21.7**	**15.1**	**19.9**	**27.6**	**8.1**	***14.1***	***13.1***		*-71%*	*-50%*
		SCF	- 12.0	6.6	33.6	62.0	8.6	14.3	35.8	3.2	*6.7*	*6.5*		*-91%*	*-85%*
		LSF	27.1	10.3	2.8	17.3	36.6	55.7	43.3	23.9	*23.7*	*22.5*		*-45%*	*-13%*
GVA per FTE	(thousand €)		**22.7**	**20.4**	**23.3**	**34.3**	**28.5**	**26.4**	**28.2**	**18.6**	***18.7***	***17.9***		*-34%*	*-29%*
		SCF	5.1	9.6	19.2	28.8	14.3	19.2	20.2	13.1	*13.4*	*13.3*		*-35%*	*-21%*
		LSF	51.4	33.5	29.6	40.8	61.9	41.0	51.6	39.3	*38.4*	*37.3*		*-24%*	*-11%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Spain

The number of vessels in the Spanish fleet continues to decrease year after year. In 2016, the total number of vessels amounted to 9 459 (8 349 active during 2016): 4 123 small-scale coastal vessels (SSCF), 4 018 large-scale vessels (LSF) (according to the European definition, which is not the same that Spanish definition) and 208 distant water or high sea vessels (DWF). In order to achieve the balance between fleet capacity and fishing opportunities, vessel tonnage, as with the number of vessel, has decreased, and this trend is also reflected on the engine power, with 842.1 thousand kW for the total fleet: 111 kW thousand SSCF, 453 thousand kW LSF, and 225 thousand kW DWF, over the last years, there has been a decrease of 12% in the engine power of the Spanish fleet.

In 2015, the Spanish fleet spent 1 078 thousand days at sea, (-4% than in 2014), with 1 031 thousand fishing days. This decrease is mainly due to the LSF, which saw a 5% reduction in the number of days at sea. The quantity of fuel consumed in 2015 was 709 million litres (+11% from 2014). The SSCF has increased its energy consumption, from 22.8 million of litres to 30.2 million (+32%). The average age of this fleet increases year after year, reaching 29.6 years old in 2015, which may impact the efficiency of the fleet. For the LSF segment, consumption has decreased (-14% on 2014) while consumption of the DWF increased by 41%, due mainly to a greater number of trips as fuel consumption is higher as the vessel enters or leaves the port. In terms of vessel tonnage, 367 thousand GT is the combined gross tonnage of the total Spanish fleet: 11.5 thousand GT to the SSCF, 172.5 thousand GT to the LSF and 161.7 thousand GT to DWF.

In terms of employment, the estimated total number of employed during 2015 was 32 059, with 7 902 fishers employed by the SSCF, 19 151 by the LSF, and 5 007 by the DWF. The Full Time Equivalent (FTE) results for 2015 are 30 015 for the total fleet, which shows a 5% increase from the previous year. The main increases are for the DWF (+ 13%). The LSF had an increase of 3%, and SSCF had also an increase of 2%.

In terms of live weight and value at landings the main species caught by the Spanish fleet are: highly migratory stocks (skipjack tuna, yellowfin tuna, big eye tuna) landed by 30 freezer purse seiners that belong to the DWF, and hake by LSF trawlers and seiners, small pelagic species (pilchard and anchovy) which are mainly fished by purse seiners of Spanish waters in fishing grounds of north Atlantic and Mediterranean. The DWF, with 2.3% of the number of vessels, accounted for 52.2% of the landings.

In terms of economic performance, the amount of revenue was €1 976 million, a 2% decrease from 2014, mainly due to the 9% decrease in the DWF. On the other hand, the SSCF saw its revenues increase 20%, while the revenue generated by the LSF amounted to €956 million, 2% more than in 2014. The total amount of Gross Value Added generated by the Spanish fleet was €970.4 million: €107.9 million for the SSCF, €568.1 million for LSF, and €294.4 million for the DWF.

Spain															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	**(#)**		**13,115**	**11,501**	**11,209**	**10,900**	**10,544**	**10,167**	**9,921**	**9,686**	***8,349***	***8,312***		*-2%*	*-12%*
		SCF	6,420	6,315	7,102	4,214	4,188	4,215	4,156	4,129	*4,123*	*4,045*		*-1%*	*-21%*
		LSF	3,089	3,101	2,956	4,622	4,486	4,340	4,307	4,150	*4,018*	*4,058*		*-4%*	*8%*
		DWF	294	267	297	280	264	240	230	222	*208*	*210*		*-3%*	*-17%*
Vessel tonnage	**(thousand GT)**		**470.1**	**459.5**	**439.7**	**415.4**	**400.1**	**384.9**	**379.4**	**366.7**				*-3%*	*-13%*
		SCF	14.4	14.1	15.1	13.1	11.6	11.5	11.5	11.5				*0%*	*-12%*
		LSF	268.0	262.8	237.2	202.9	189.7	185.3	178.0	172.5				*-3%*	*-21%*
		DWF	176.6	173.4	179.4	169.3	174.0	162.7	163.6	161.7				*-1%*	*-6%*
Engine power	**(thousand kW)**		**1,067.9**	**1,027.3**	**983.2**	**937.7**	**903.6**	**873.9**	**867.0**	**842.1**				*-3%*	*-12%*
		SCF	139.0	135.5	146.9	115.2	109.0	109.8	110.5	110.9				*0%*	*-10%*
		LSF	624.5	609.6	556.7	513.4	487.7	472.3	465.2	453.2				*-3%*	*-15%*
		DWF	252.4	245.9	255.3	237.6	240.5	225.5	228.8	225.0				*-2%*	*-7%*
Total employed	**(person)**		**36,765**	**38,045**	**39,281**	**35,808**	**34,399**	**33,129**	**33,121**	**32,059**	***30,519***	***30,937***		*-3%*	*-10%*
		SCF	11,785	11,797	12,697	8,803	8,601	9,484	8,251	7,902	*7,857*	*7,703*		*-4%*	*-23%*
		LSF	19,982	20,714	19,524	21,545	21,085	18,991	19,809	19,151	*17,980*	*18,596*		*-3%*	*-5%*
		DWF	4,905	5,534	7,060	5,460	4,713	4,654	5,061	5,007	*4,682*	*4,638*		*-1%*	*-6%*
FTE	**(#)**		**34,921**	**35,844**	**33,678**	**33,210**	**30,302**	**28,782**	**28,629**	**30,015**	***29,214***	***31,728***		*5%*	*-7%*
		SCF	7,059	7,261	8,222	6,695	5,378	7,317	5,546	5,662	*5,645*	*5,655*		*2%*	*-17%*
		LSF	21,266	21,266	17,140	19,802	19,033	16,110	17,179	17,693	*17,241*	*19,786*		*3%*	*-6%*
		DWF	6,596	7,317	8,316	6,713	5,891	5,355	5,905	6,661	*6,327*	*6,287*		*13%*	*1%*
Days at sea	**(thousand day)**		**1,105.0**	**1,122.3**	**1,208.9**	**1,150.7**	**1,149.1**	**1,096.9**	**1,117.7**	**1,078.0**	***1,054.0***	***1,091.7***		*-4%*	*-5%*
		SCF	515.1	532.2	624.3	393.1	392.2	391.1	406.7	402.0	*399.2*	*399.3*		*-1%*	*-14%*
		LSF	514.0	516.5	504.8	680.0	684.9	640.5	647.3	613.0	*594.9*	*632.0*		*-5%*	*2%*
		DWF	75.9	73.7	79.8	77.6	72.0	65.3	63.7	63.0	*59.9*	*60.4*		*-1%*	*-13%*
Fishing days	**(thousand day)**		**1,049.9**	**1,068.0**	**1,153.6**	**1,100.0**	**1,102.3**	**1,049.0**	**1,073.4**	**1,030.8**				*-4%*	*-5%*
		SCF	515.1	532.1	624.2	392.7	392.2	390.9	406.5	401.8				*-1%*	*-14%*
		LSF	469.9	473.0	460.7	639.7	647.6	600.9	610.7	574.7				*-6%*	*3%*
		DWF	64.9	62.9	68.7	67.6	62.6	57.1	56.1	54.3				*-3%*	*-14%*
Live weight of landings	**(thousand tonne)**		**775.9**	**798.9**	**873.4**	**861.0**	**871.1**	**898.1**	**932.7**	**923.3**	***877.2***	***898.9***		*-1%*	*8%*
		SCF	25.9	25.3	28.1	25.5	28.5	26.0	29.6	26.9	*26.2*	*26.6*		*-9%*	*0%*
		LSF	431.5	477.6	442.3	400.3	394.7	390.0	409.5	414.3	*410.2*	*450.5*		*1%*	*-2%*
		DWF	318.5	296.0	403.0	435.0	447.8	482.2	493.6	482.1	*440.8*	*421.8*		*-2%*	*17%*
Value of landings	**(million €)**		**1,864.4**	**1,907.0**	**1,885.0**	**1,861.6**	**1,942.4**	**1,970.0**	**2,074.8**	**1,885.0**	***1,838.8***	***1,951.0***		*-9%*	*-2%*
		SCF	129.9	128.2	137.9	112.2	100.9	94.7	104.4	104.4	*105.9*	*106.8*		*0%*	*-10%*
		LSF	1,075.8	1,158.8	1,048.4	947.2	895.6	855.1	869.4	954.0	*943.0*	*1,052.1*		*10%*	*-3%*
		DWF	658.7	620.1	698.7	799.4	945.9	1,020.2	1,100.9	826.5	*789.9*	*792.0*		*-25%*	*-1%*
Revenue	**(million €)**		**1,526.3**	**1,988.2**	**1,884.9**	**2,081.5**	**1,921.0**	**1,897.5**	**2,020.9**	**1,976.5**	***1,929.1***	***2,036.6***		*-2%*	*4%*
		SCF	121.1	195.6	199.9	130.1	113.2	158.9	126.2	151.2	*152.4*	*153.8*		*20%*	*1%*
		LSF	915.0	1,200.8	930.0	1,089.6	980.2	883.1	941.5	956.0	*939.6*	*1,040.2*		*2%*	*-4%*
		DWF	490.3	591.7	754.9	861.8	827.6	855.4	953.3	869.3	*837.1*	*842.6*		*-9%*	*14%*
Gross Value Added	**(million €)**		**585.8**	**884.4**	**849.9**	**910.7**	**891.2**	**879.0**	**1,059.6**	**970.4**	***1,076.1***	***1,160.5***		*-8%*	*12%*
		SCF	75.7	128.1	123.5	81.4	72.7	99.9	86.7	107.9	*111.1*	*111.8*		*24%*	*13%*
		LSF	375.1	599.6	476.4	508.8	516.6	434.1	526.6	568.1	*596.3*	*671.3*		*8%*	*16%*
		DWF	135.0	156.7	250.0	320.5	301.8	345.0	446.3	294.4	*368.8*	*377.4*		*-34%*	*5%*
Gross profit	**(million €)**		**35.9**	**86.0**	**178.2**	**259.4**	**310.1**	**285.7**	**444.8**	**355.3**	***471.8***	***504.2***		*-20%*	*55%*
		SCF	- 7.5	- 14.0	1.2	- 21.2	1.9	- 14.9	- 4.4	32.2	*34.7*	*34.8*		*828%*	*482%*
		LSF	9.1	74.9	89.7	111.9	142.7	89.2	125.0	178.8	*211.9*	*236.7*		*43%*	*95%*
		DWF	34.3	25.1	90.0	168.0	165.5	208.6	321.5	144.3	*225.2*	*232.8*		*-55%*	*0%*
Net profit	**(million €)**		**- 155.4**	**- 168.9**	**22.5**	**112.4**	**165.8**	**166.5**	**332.6**	**217.5**	***350.8***	***395.5***		*-35%*	*220%*
		SCF	- 14.9	- 25.2	- 4.6	- 29.9	1.0	- 20.7	- 12.2	26.1	*28.4*	*29.1*		*313%*	*271%*
		LSF	- 112.6	- 91.0	8.7	22.2	50.1	30.5	63.9	115.6	*157.3*	*186.5*		*81%*	*2960%*
		DWF	- 28.6	- 51.7	30.5	119.9	114.2	154.3	276.3	74.0	*163.4*	*177.8*		*-73%*	*-16%*
Return on fixed tangible ass	**(%)**		**- 15.6**	**- 15.5**	**5.6**	**23.3**	**35.4**	**36.3**	**70.7**	**45.7**	***82.7***	***93.6***		*-35%*	*128%*
		SCF	- 30.4	- 45.5	- 7.2	- 92.7	7.1	- 66.3	- 38.3	87.1	*94.9*	*96.7*		*327%*	*323%*
		LSF	- 18.1	- 13.9	4.7	10.1	23.2	14.5	31.0	54.9	*80.5*	*94.1*		*77%*	*646%*
		DWF	- 9.5	- 14.2	15.5	66.1	63.2	92.5	145.4	36.6	*86.1*	*96.2*		*-75%*	*-29%*
GVA per FTE	**(thousand €)**		**16.8**	**24.7**	**25.2**	**27.4**	**29.4**	**30.5**	**37.0**	**32.3**	***36.8***	***36.6***		*-13%*	*18%*
		SCF	10.7	17.6	15.0	12.2	13.5	13.7	15.6	19.1	*19.7*	*19.8*		*22%*	*36%*
		LSF	17.6	28.2	27.8	25.7	27.1	26.9	30.7	32.1	*34.6*	*33.9*		*5%*	*22%*
		DWF	20.5	21.4	30.1	47.7	51.2	64.4	75.6	44.2	*58.3*	*60.0*		*-42%*	*-1%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

Sweden

The national fleet consisted of 1 258 vessels, including 284 inactive vessels in 2016. An estimated 73.4 thousand days were spent at sea during 2015, a 6% decrease compared to 2014, while the live weight of landings increased by 22%. The total weight landed in 2015 was 203 thousand tonnes of seafood (197 thousand tonnes in 2016), with a landed value of €116 million (€124 million in 2016). The fleet targets both pelagic and demersal species, with herring remaining the dominant species, generating the highest landed value with €35 million and representing about 30% of the total landings value in 2015.

The Swedish fleet went from a net loss to a net profit making position in 2015, due to increased quotas. The economic performance could have been even better if prices for some species had not decreased, such as herring, sprat, and cod. The positive trend is expected to have continued into 2016 and 2017, since landings still remained high and some fish prices increased, and as costs remained low. The Swedish fleet's income is dominated by trawlers, both pelagic and demersal. As trawling is typically fuel intensive, fluctuations in fuel prices are therefore a key driver of the fleet's profitability. The increased landings had a positive impact on profitability in 2015. Preliminary results for 2016 and 2017 suggest high landed values due to a stable high level of landed weight, matched by an 8% and 29% increase in value compared to 2015 due to higher prices. Projections suggest that decreases in fuel consumption translated in part to a decrease in operating costs, together with a reduction in capital costs, will make 2016 and 2017 to better years compared to 2015.

Small-scale coastal fleet: The number of small-scale vessels decreased from 819 in 2008 to 758 in 2015, a decrease of 9%. Close to half of this decrease between 2008-2015 stems from vessels with main income from fishing European eel. The Swedish authorities, through different management actions, such as permits, have tried to diminish effort in the threatened European eel fishery. Ban of salmon fishing with driftnets and hooks is another important reason for the decline in number of vessels.

The numbers employed in small-scale coastal fisheries follows the same decreasing trend as the fleet in general over the period 2008-2015 (-17%), with FTE decreasing more rapidly (-35%), indicating a larger portion of part-time fishers of the remaining. Vessel tonnage has decreased slightly but power has remained stable over the period. These figures indicate that the new vessels entering have more engine power perhaps going for higher speed.

Overall, the SSCF is not profitable, generating a negative net margin of 38% in 2015 and hasn't ever been over the period 2008-2015. Gross value added is positive but relatively low per FTE at €28 thousand. As tangible assets are, in most cases, probably paid off, these vessels can afford to continue to fish. Low GVA estimates signal that there are other reasons for fishing than just profit, such as part-time employment or a way of life. Additionally, increased seal populations along the Swedish coastline are heavily affecting both income, by taking and eating fish directly from the gears, and costs, by destroying gears as well as creating extra work.

Large-scale fleet: For the large-scale fleet, the number of vessels decreased from 329 in 2008 to 244 in 2015, a decrease of nearly 26%. More than half of this decrease stems from vessels with main income from the Norwegian lobster fishery. The Swedish authorities have promoted fishing lobster with passive gears and as cod populations are in bad conditions, mixed fisheries with cod and lobster are no longer a profitable option. Vessels fishing for cod as main source of income have also decreased. Some of these vessels also target pelagic species and after the introduction of fishing-rights in the pelagic fishery they sold their rights and left the fishery.

The numbers employed in the large-scale fisheries follows the same decreasing trend as the fleet in general, but with FTE decreasing less the numbers employed, indicating a decreasing portion of part-time fishers, meaning more fishers doing just fishing. Vessel tonnage and power has decreased heavily but seems to have stabilised over the last three years.

The weight and value of landings for the large-scale vessels from 2008 to 2015 is more dependent on the quotas than the same measure for the SSCF. The landings weight increased substantially 2015. The landing values follows but with more variation due to changes in fish prices and currencies. Despite, the large-scale fleet seems to perform fairly well in general but the variation is large. Vessels fishing pelagic species and those that fish in the north Baltic for vendance rom are performing very well while those fishing for cod, northern prawn and Norwegian lobster are performing poorly. The large-scale fleet has slightly increased their operational costs and capital costs; one exception is energy (lower fuel prices). The increase in landing incomes together with increase in other incomes accedes the loss from higher costs resulting in higher net profits in 2015 compared to 2014. But, even higher net profits can be expected for 2016 and 2017 since landing values has increased due to higher prices.

Sweden															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		**1,507**	**1,471**	**1,415**	**1,359**	**1,322**	**1,299**	**1,266**	**1,298**	***974***	***962***		*3%*	*-6%*
		SCF	819.0	818.0	776.0	754.0	754.0	729.0	731.0	758.0	*737.0*	*730.5*		*4%*	*-1%*
		LSF	329	314	288	277	265	255	247	244	*237*	*231*		*-1%*	*-14%*
Vessel tonnage	(thousand GT)		**43.0**	**41.7**	**38.6**	**32.9**	**29.5**	**30.5**	**29.0**	**30.8**				*6%*	*-12%*
		SCF	3.8	3.8	3.6	3.5	3.6	3.5	3.3	3.3				*0%*	*-6%*
		LSF	33.7	32.4	29.5	26.6	24.8	25.4	23.6	24.8				*5%*	*-12%*
Engine power	(thousand kW)		**211.8**	**207.9**	**196.4**	**178.1**	**169.1**	**170.7**	**163.9**	**167.9**				*2%*	*-9%*
		SCF	53.7	53.9	51.8	51.6	53.3	52.7	51.8	52.4				*1%*	*-1%*
		LSF	128.9	125.1	113.0	104.6	98.5	98.0	92.5	94.8				*2%*	*-13%*
Total employed	(person)		**1,980**	**1,758**	**1,765**	**1,679**	**1,663**	**1,577**	**1,568**	**1,487**	***1,437***	***1,414.0***		*-5%*	*-13%*
		SCF	1,073.1	929.5	951.2	924.8	919.7	902.0	913.9	890.9	*865.6*	*858.3*		*-3%*	*-6%*
		LSF	907	829	813	754	743	675	655	596	*572*	*556*		*-9%*	*-22%*
FTE	(#)		**1,133**	**1,019**	**990**	**974**	**942**	**886**	**845**	**792**	***790***	***774***		*-6%*	*-18%*
		SCF	470.1	382.6	383.7	367.3	340.1	320.9	331.7	306.7	*306.6*	*279.1*		*-8%*	*-17%*
		LSF	663	636	606	606	602	565	513	485	*483*	*494*		*-6%*	*-19%*
Days at sea	(thousand day)		**102.7**	**96.6**	**85.1**	**83.7**	**78.9**	**77.7**	**77.7**	**73.4**	***73.5***	***69.6***		*-6%*	*-15%*
		SCF	66.5	63.4	56.2	53.6	49.3	48.1	50.4	48.0	*47.8*	*43.6*		*-5%*	*-13%*
		LSF	36.3	33.2	28.9	30.1	29.6	29.6	27.3	25.3	*25.6*	*26.0*		*-7%*	*-17%*
Fishing days	**(thousand day)**		**102.7**	**96.6**	**85.1**	**83.7**	**78.9**	**77.7**	**77.7**	**73.4**				*-6%*	*-15%*
		SCF	66.5	63.4	56.2	53.6	49.3	48.1	50.4	48.0				*-5%*	*-13%*
		LSF	36.3	33.2	28.9	30.1	29.6	29.6	27.3	25.3				*-7%*	*-17%*
Live weight of landings	(thousand tonne)		**213.2**	**199.3**	**204.4**	**173.3**	**136.5**	**177.6**	**166.1**	**202.7**	***197.3***	***181.4***		*22%*	*12%*
		SCF	6.6	6.6	5.4	5.1	5.2	4.5	4.7	4.4	*4.4*	*4.3*		*-5%*	*-18%*
		LSF	206.6	192.7	199.0	168.2	131.3	173.1	161.4	198.2	*192.8*	*177.1*		*23%*	*13%*
Value of landings	(million €)		**120.4**	**101.7**	**113.0**	**125.6**	**122.4**	**126.4**	**106.7**	**116.0**	***123.8***	***134.2***		*9%*	*-1%*
		SCF	17.2	14.2	14.0	14.7	16.0	14.9	14.3	15.0	*14.9*	*19.5*		*5%*	*0%*
		LSF	103.2	87.5	99.0	110.9	106.4	111.6	92.3	101.0	*108.9*	*114.7*		*9%*	*-1%*
Revenue	**(million €)**		**125.7**	**119.7**	**152.1**	**134.4**	**128.1**	**143.9**	**112.0**	**129.4**	***136.4***	***145.7***		*15%*	*-1%*
		SCF	21.2	16.8	17.0	20.7	19.0	17.6	16.2	17.9	*17.7*	*22.2*		*10%*	*-2%*
		LSF	104.5	102.9	135.2	113.7	109.1	126.3	95.8	111.5	*118.7*	*123.4*		*16%*	*-1%*
Gross Value Added	**(million €)**		**61.3**	**51.8**	**79.9**	**62.1**	**53.8**	**71.5**	**53.9**	**67.9**	***81.6***	***89.9***		*26%*	*9%*
		SCF	12.1	8.3	7.9	9.4	8.5	7.7	7.0	8.4	*8.9*	*13.7*		*21%*	*-3%*
		LSF	49.2	43.4	72.0	52.7	45.3	63.8	46.9	59.5	*72.6*	*76.1*		*27%*	*12%*
Gross profit	**(million €)**		**31.1**	**25.6**	**50.9**	**32.8**	**23.1**	**38.0**	**21.4**	**38.0**	***50.7***	***53.8***		*78%*	*19%*
		SCF	1.3	- 0.3	- 1.8	- 0.6	- 1.3	- 2.2	- 4.0	- 1.6	- *0.8*	*1.1*		*59%*	*-29%*
		LSF	29.8	25.8	52.8	33.3	24.4	40.2	25.4	39.7	*51.5*	*52.7*		*56%*	*20%*
Net profit	**(million €)**		**- 5.9**	**- 8.4**	**20.7**	**1.5**	**- 0.2**	**10.3**	**- 0.8**	**15.1**	***29.8***	***35.3***		*1906%*	*519%*
		SCF	- 7.5	- 8.6	- 7.3	- 5.8	- 4.9	- 6.4	- 8.0	- 6.8	- *5.7*	- *3.4*		*15%*	*2%*
		LSF	1.6	0.4	28.0	7.4	4.7	16.8	7.3	21.9	*35.5*	*38.8*		*202%*	*132%*
Return on fixed tangible assets	(%)		**- 2.8**	**- 3.7**	**13.6**	**2.1**	**0.5**	**8.7**	**0.8**	**10.9**	***23.9***	***31.1***		*1234%*	*299%*
		SCF	- 17.8	- 20.4	- 27.1	- 21.4	- 25.8	- 29.6	- 39.7	- 26.8	- *23.8*	- *15.6*		*32%*	*-3%*
		LSF	1.9	1.7	22.8	6.7	5.1	15.6	9.3	21.1	*35.8*	*43.8*		*128%*	*134%*
GVA per FTE	(thousand €)		**54.1**	**50.8**	**80.8**	**63.8**	**57.1**	**80.7**	**63.8**	**85.8**	***103.3***	***116.1***		*35%*	*33%*
		SCF	25.8	21.8	20.6	25.7	25.0	24.1	21.1	27.5	*29.1*	*49.2*		*31%*	*18%*
		LSF	74.1	68.2	118.9	86.8	75.3	112.9	91.4	122.6	*150.3*	*154.0*		*34%*	*37%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices, 2015.
*projections. Number of vessels in 2016 and 2017 include active vessels only.

United Kingdom

The number of vessels continues to fall steadily from 6 973 in 2008 to 6 420 in 2015, for active vessels there was a fall of 7% between these years. The fall in FTEs from 9 573 in 2009 – there was a decommissioning scheme in 2008 which distorts the impression for that year - to 8 135 in 2015 suggests that the cost of labour is continuing to cause substitution of capital for labour but the magnitude of the trend is not unduly strong. Total engine power and gross tonnage of the UK fleet was static with minimal changes in the overall make-up of the fleet.

When adjusted for inflation, the value of landings of the UK fleet has increased by 14% from 2008 to 2015. This is largely due to a large increase in mackerel landings over the time period as a result of increased quota and is in spite of a small decrease in average landed price for the species. In 2015, decreased value of landings compared to 2014 was driven by a combination of lower weight of landings and lower prices for key pelagic species and is in spite of increased average landed prices for key demersal and shellfish species. Preliminary data for 2016 indicates a further 10% decrease in weight of landings of Atlantic mackerel but a small increase in overall value of landings thanks largely again to strong prices.

While overall the fleet is profitable, with 17% of income being retained as net profit, there are considerable variations within the fleet segments. The large pelagic trawlers (Pelagic trawl > 40m) have generated the highest share of this profit in 2015 despite the decrease in mackerel quota. Gross value added (GVA) decreased by 3% down to €567 million although GVA as a percentage of revenue remained stable at just over 50%.

The UK's decision to leave the EU and how its relationship is now redefined could potentially have a significant impact on the economic performance of the UK fishing fleet as well as the rest of the UK fishing industry. In 2015, UK vessels landed 292 thousand tonnes of fish abroad. Of this, 134 thousand tonnes of mostly mackerel were landed into Norway. Seventy-two thousand tonnes were landed by UK vessels into the Netherlands and 39 thousand tonnes into Denmark. Over 80% of fish landed abroad were pelagic species. In the same year, 46 thousand tonnes of fish were landed into

the UK by foreign vessels, less than half the amount landed in 2012. This decrease is largely a result of decreases in landings for blue whiting and herring.

Small-scale coastal fleet: In 2015, there were 3 156 active vessels belonging to the 'small-scale coastal fleet'. Estimates suggest the fleet remained profitable in 2015 with gross profit remaining stable despite a 12% decrease in the weight of landings. In fact, the estimated value of landings increased slightly due to strong prices for a number of key shellfish species. Total FTE jobs remained stable from 2014 to 2015 after a significant increase between 2013 and 2014.

Large-scale fleet: In 2015, there were 1 420 vessels belonging to the 'large-scale fleet'. Despite the decrease in mackerel quota, total weight of landings for this fleet fell by just 6% and total value of landings by 1%. However, decreasing landings coupled with increasing costs ensured that gross profit fell by 14%. Wages and salaries of crew increased despite the fact revenue did not: this is indicative of the fact many of the crew working in this fleet are contractors rather than working for a crew share.

United Kingdom															
			2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ 2015 to 2014	Δ 2015 to avg. 08-14
Total number of vessels	(#)		**6,973**	**6,780**	**6,715**	**6,595**	**6,543**	**6,502**	**6,436**	**6,420**	***4,607***	***4,589***		*-0.2%*	*-3.4%*
		SCF	3,271	3,256	3,277	3,338	3,320	3,205	3,149	3,156	*3,227*	*3,177*		*0.2%*	*-3.2%*
		LSF	1,628	1,582	1,497	1,460	1,442	1,425	1,416	1,420	*1,380*	*1,412*		*0.3%*	*-4.9%*
Vessel tonnage	(thousand GT)		**220.9**	**213.1**	**220.9**	**209.1**	**204.0**	**204.0**	**203.3**	**200.3**				*-1.5%*	*-5.0%*
		SCF	13.6	13.3	13.3	13.5	13.2	13.0	13.5	13.0				*-3.7%*	*-2.4%*
		LSF	185.0	179.7	190.9	176.9	177.3	172.4	170.2	169.6				*-0.3%*	*-5.2%*
Engine power	(thousand kW)		**891.9**	**860.8**	**866.6**	**836.3**	**818.2**	**818.3**	**815.0**	**805.4**				*-1.2%*	*-4.6%*
		SCF	195.2	195.0	194.1	199.9	198.1	197.6	196.4	194.0				*-1.2%*	*-1.3%*
		LSF	554.5	532.9	547.3	516.1	513.2	505.0	499.4	495.4				*-0.8%*	*-5.5%*
Total employed	(person)		**12,614**	**12,212**	**12,703**	**12,405**	**12,445**	**12,235**	**11,845**	**12,107**	***12,125***	***12,060***		*2.2%*	*-2.0%*
		SCF	5,372	5,567	5,927	5,998	5,688	5,863	5,737	5,732	*5,884*	*5,768*		*-0.1%*	*-0.1%*
		LSF	7,242	6,645	6,776	6,407	6,757	6,372	6,108	6,375	*6,242*	*6,292*		*4.4%*	*-3.6%*
FTE	(#)		**8,720**	**9,573**	**9,222**	**8,995**	**8,604**	**7,689**	**7,737**	**8,135**	***8,248***	***8,155***		*5.1%*	*-5.9%*
		SCF	1,816	2,014	2,045	2,063	1,839	1,794	2,036	2,089	*2,023*	*1,986*		*2.6%*	*7.5%*
		LSF	6,904	7,559	7,177	6,933	6,764	5,895	5,701	6,046	*6,225*	*6,170*		*6.0%*	*-9.8%*
Days at sea	(thousand day)		**456.2**	**433.3**	**429.2**	**420.0**	**411.6**	**401.3**	**428.2**	**431.3**	***425.9***	***420.1***		*0.7%*	*1.3%*
		SCF	239.5	221.1	224.8	228.2	221.3	215.4	238.8	244.5	*233.9*	*229.7*		*2.4%*	*7.7%*
		LSF	216.7	212.3	204.4	191.7	190.3	185.9	189.4	186.7	*192.0*	*190.4*		*-1.4%*	*-6.0%*
Fishing days	(thousand day)		**377.5**	**348.4**	**343.2**	**337.3**	**337.2**	**323.4**	**325.1**	**304.0**				*-6.5%*	*-11.0%*
		SCF	183.5	158.1	159.8	166.1	169.6	160.8	163.3	147.3				*-9.8%*	*-11.2%*
		LSF	194.1	190.2	183.5	171.2	167.6	162.6	161.8	156.7				*-3.1%*	*-10.9%*
Live weight of landings	(thousand tonne)		**575.0**	**582.8**	**608.4**	**603.7**	**634.4**	**628.5**	**758.9**	**708.8**	***698.6***	***736.6***		*-6.6%*	*13.0%*
		SCF	40.1	39.2	42.7	44.6	48.9	50.7	50.3	44.3	*49.6*	*44.3*		*-11.9%*	*-2.0%*
		LSF	534.9	543.7	565.7	559.2	585.5	577.7	708.5	664.5	*648.9*	*692.3*		*-6.2%*	*14.1%*
Value of landings	(million €)		**932.7**	**880.3**	**938.7**	**1,026.8**	**1,010.6**	**887.8**	**1,072.1**	**1,067.9**	***1,114.5***	***1,132.9***		*-0.4%*	*10.8%*
		SCF	133.7	110.3	119.5	123.4	128.1	116.3	129.2	132.8	*142.0*	*131.9*		*2.8%*	*8.0%*
		LSF	799.0	769.9	819.2	903.4	882.5	771.6	943.0	935.1	*972.5*	*1,001.0*		*-0.8%*	*11.2%*
Revenue	(million €)		**983.6**	**898.2**	**967.2**	**1,047.7**	**1,032.3**	**928.2**	**1,119.8**	**1,113.7**	***1,158.9***	***1,176.1***		*-0.5%*	*11.7%*
		SCF	140.8	112.3	122.2	124.1	135.0	120.8	135.9	136.9	*146.3*	*136.2*		*0.7%*	*7.5%*
		LSF	842.7	785.9	845.0	923.6	897.3	807.4	983.9	976.8	*1,012.6*	*1,039.9*		*-0.7%*	*12.4%*
Gross Value Added	(million €)		**416.2**	**423.3**	**432.6**	**463.2**	**460.0**	**413.0**	**584.7**	**567.1**	***640.9***	***640.7***		*-3.0%*	*24.3%*
		SCF	77.0	62.3	64.1	57.9	62.5	58.0	67.7	69.6	*82.6*	*72.3*		*2.8%*	*8.3%*
		LSF	339.1	361.0	368.5	405.3	397.5	355.0	517.1	497.5	*558.2*	*568.5*		*-3.8%*	*26.9%*
Gross profit	(million €)		**155.6**	**183.5**	**203.8**	**223.3**	**214.4**	**201.2**	**318.6**	**277.5**	***338.5***	***334.7***		*-12.9%*	*29.4%*
		SCF	20.7	19.2	19.5	16.0	16.4	16.4	19.8	19.7	*29.2*	*22.7*		*-0.4%*	*7.7%*
		LSF	134.9	164.3	184.4	207.3	198.0	184.8	298.8	257.8	*309.3*	*312.0*		*-13.7%*	*31.5%*
Net profit	(million €)		**75.2**	**107.8**	**135.7**	**160.9**	**153.2**	**137.3**	**243.1**	**188.2**	***259.5***	***270.8***		*-22.6%*	*30.0%*
		SCF	8.8	8.4	11.5	9.1	6.7	6.3	7.9	6.3	*16.5*	*11.7*		*-19.9%*	*-24.9%*
		LSF	67.0	100.0	124.2	151.0	146.0	130.8	235.5	182.8	*243.0*	*259.1*		*-22.4%*	*34.1%*
Return on fixed tangible assets	(%)		**11.6**	**18.9**	**21.2**	**26.9**	**29.8**	**27.7**	**39.1**	**25.4**	***35.6***	***36.7***		*-35.1%*	*1.3%*
		SCF	10.4	11.7	14.3	10.3	7.4	6.2	9.3	8.5	*17.6*	*10.7*		*-9.4%*	*-14.8%*
		LSF	13.3	22.3	24.4	33.0	38.7	35.8	47.7	29.8	*38.3*	*40.8*		*-37.7%*	*-3.3%*
GVA per FTE	(thousand €)		**47.7**	**44.2**	**46.9**	**51.5**	**53.5**	**53.7**	**75.6**	**69.7**	***77.7***	***78.6***		*-7.8%*	*30.8%*
		SCF	42.4	30.9	31.4	28.1	34.0	32.3	33.2	33.3	*40.9*	*36.4*		*0.2%*	*0.3%*
		LSF	49.1	47.8	51.3	58.5	58.8	60.2	90.7	82.3	*89.7*	*92.1*		*-9.3%*	*38.3%*

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). *projections. Number of vessels in 2016 and 2017 include active vessels only.

REPORT TO THE STECF

EXPERT WORKING GROUP OF THE 2017 ANNUAL ECONOMIC REPORT ON THE EU FISHING FLEET

EWG-17-01 & 17-06

DUBLIN, IRELAND, 3-7 APRIL & VARESE, ITALY 19-23 JUNE 2017

This report does not necessarily reflect the view of the STECF and the European Commission and in no way anticipates the Commission's future policy in this area.

3 EU FLEET OVERVIEW

* Due to incomplete data from the member state, the EU Fleet Overview and Regional Analysis (chapter 4) omit Greece from a number of tables, figures and overall indicators (unless otherwise indicated). In addition, to ensure confidentiality, data on some fleet segments have not been provided by some member states and these too have been omitted.

Fleet Capacity

- In 2015, the EU fishing fleet numbered around 84 420 vessels with a combined gross tonnage (GT) of 1.6 million tonnes and engine power of 6.4 million kilowatts (kW). There were 20 444 inactive vessels, bringing the number of active vessels to over 63 976. Of the active vessels, 74% were small-scale coastal vessels, 25% large-scale and 1% distant water vessels.
- EU fleet capacity has continued to decrease steadily, with an average annual decrease of 2% in terms of vessel numbers and kW and 3% in terms of GT.
- Excluding Greece, the EU fleet* numbered 68 796 vessels of which 19 234 vessels were inactive.

*Employment and wages**

- The EU fleet directly employed circa 152.7 thousand fishers, corresponding to 114 863 FTEs.
- Average annual wage (including crew wages and unpaid labour) per FTE was estimated at €24.8 thousand, ranging from €74.9 thousand for Belgian fishers to €1.4 thousand for Cypriot fishers.

*Effort and landings**

- The EU fleet spent 4.8 million days at sea and consumed 2.3 billion litres of fuel.
- The EU fleet covered landed 5 million tonnes of seafood in 2015, amounting to a reported value of just under €7 billion.
- Landings per day at sea (LPUE), for the EU fleet as a whole, were estimated at 1 012 kg per day in 2015. Compared to 2008, average LPUE in 2015 increased 16%.

*Economic performance**

- Total revenue (income from landings + other income) earned by the EU fleet in 2015 was estimated at €7.27 billion.
- The amount of GVA, gross profit and net profit (all excl. subsidies and fishing rights) generated by the fleet in 2015 was just over €3.9 billion, €1.6 billion and €798 million, respectively.
- GVA to revenue was estimated at 54%; gross profit margin at 23%, and 11% of the revenue was retained as net profit.
- While overall the EU was profitable, six out of the 22 MS evaluated generated net losses in 2015.

In 2015, the fleet had an estimated replacement value of €5.6 billion and in-year investments amounted to €406 million.

*EU Small-scale coastal fleet (SSCF)**

- Comprised 47 545 vessels and covered 8% of the gross tonnage and 31% of the engine power.
- Employed 77 708 fishers or 47 788 FTEs (51% and 43% of the EU total, respectively), with an average annual wage per FTE of €14 300.
- Contributed 5% of the weight landed and produced 12% of the landed value.
- Generated €617 million in GVA, €214 million in gross profit and €92 million in net profit.
- In relative terms, this amounted to 65% GVA to revenue, 23% gross profit margin and 10% net profit margin.

*EU Large-scale fleet (LSF)**

- Comprised 16 146 vessels and covered 73% of the gross tonnage and 62% of the engine power.
- Employed 68 593 fishers or 59 116 FTEs (45% and 51% of the total, respectively), with an average annual wage per FTE of €30 800.
- Contributed 81% to landings in weight and 74% to landings in value.
- Generated €2.9 billion in GVA, €1.3 billion in gross profit and €629 million in net profit
- In relative terms, this amounted to 56% GVA to revenue, 25% gross profit margin and 12% net profit margin.

*EU Distant water fleet (DWF)**

- Comprised 285 vessels and covered 19% of the total gross tonnage and 7% of the engine power.
- Employed 6 417 fishers or 7 957 FTEs (4% and 7%% of the total, respectively), with an average annual wage per FTE of €25 400
- Contributed 14% to landings in weight and 14% to landings in value.
- Generated €331 million in GVA, €133 million in gross profit and €54 million in net profit.
- In relative terms, this amounted to 31% GVA to revenue, 13% gross profit margin and 6% net profit margin.

Background

The EU overview chapter provides a summary of the structure and economic performance of the EU fishing fleet in 2015 and highlights some key trends over the period 2008-2016, based on data submitted by MS under the 2017 DCF fleet economic data call. All monetary values have been adjusted for inflation to 2015 constant prices and therefore data prior to 2015 and for 2016 may not necessarily equate to the data submitted by MS.

Due to incomplete data submissions from several Member States, it is not possible to produce a complete overview of the entire EU fleet as well as trend analyses on the economic performance for the EU fleet over the period 2008-2017.

Croatia officially joined the EU in 2013 and so was only able to provide DCF data from the year 2012 onwards. Greece provided only partial landings, effort and economic data for 2014 and 2015. More details on data availability are included in the chapter on quality and checking procedures (Section 7 and annex 3).

For analyses at the EU and MS levels, national level datasets were used, whereas fleet segment level data were used to compile results by main type of fishing activity (i.e. small-scale, large-scale and distant water fleets). Results for 2015 at the EU and fishing activity levels include all Member States fleets with the exclusion of Greece or unless otherwise stated.

Normalised trends in indicator values at the EU level for the period 2008-2017 are presented relative to 2008 (based on 2008=100) and unless otherwise stated, exclude Greece and Croatia and should not be considered as a complete EU overview.

While in theory, both the national and fleet segment datasets submitted by each Member State should be internally consistent, this is not always the case. Discrepancies can arise for several reasons including missing or incomplete datasets at the fleet segment level. In some cases, such discrepancies occur due to commercial confidentiality issues. To avoid issues of commercial confidentiality, Member State may combine such fleet segments into "clusters" and provide data at a more aggregated level. In other cases, commercially-sensitive data are not provided at the fleet segment level, but are included at the national total level, resulting in inconsistencies between the two datasets.

To provide the most reliable, complete and up-to-date information as possible, this chapter includes:

- A snapshot of the EU fishing fleet in 2015, by Member State and main type of fishing activity, i.e. small-scale, large-scale and distant water fleets (also see data summary tables);
- A section with projected figures for 2016 and forecast results for 2017 (nowcasts) on the economic performance of MS fleets where possible (based on fleet segment level data);
- A short description of the main drivers and trends that may have contributed to the economic performance of the EU fleet over recent years;
- Summary data tables by MS and main fishing activity with percentage change relative to 2014.

The three main types of fishing activity used in the AER are defined as:

- ***Small-scale coastal fleet (SSCF)*** - includes all vessels under 12m using static gears. According to the DCF gear definitions these include: 'drift and/or fixed netters', 'pots and/or traps', 'hooks', 'passive gears only', 'other passive gears', 'polyvalent passive gears only', 'active and passive gears'.

- ***Large-scale fleet (LSF)*** - segment includes all vessels over 12 meters using static gears and all vessels using towed gears. According to the DCF gear definitions these include: 'dredgers', 'demersal trawlers and/or demersal seiners', 'other active gears', 'polyvalent active gears only', 'purse seiners', 'beam trawlers', 'pelagic trawlers'.

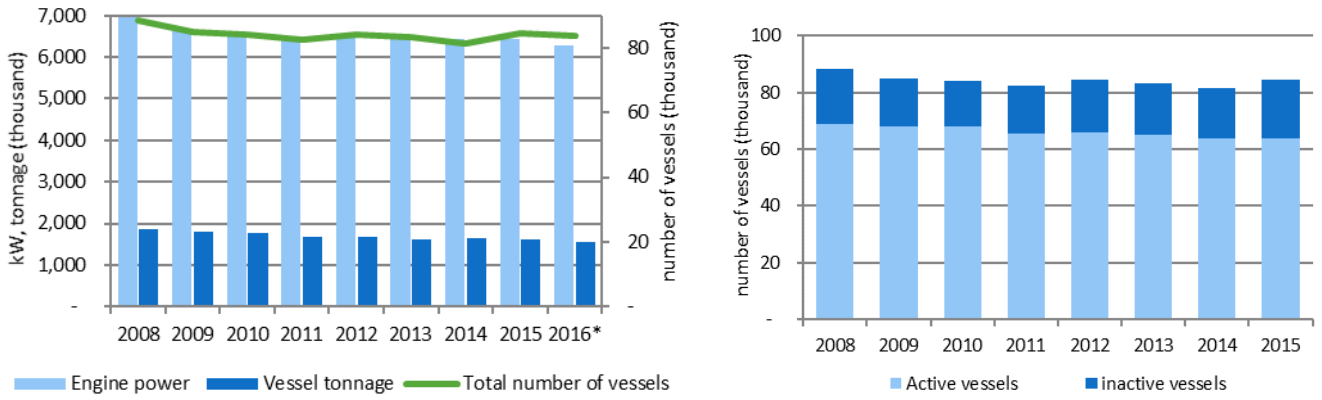
- ***Distant water fleet (DWF)*** - includes EU registered vessels over 24 metres operating in 'other fishing regions' including EU outermost regions.

3.1 Overview of the EU Fishing Fleet in 2015

Fleet Capacity and structure

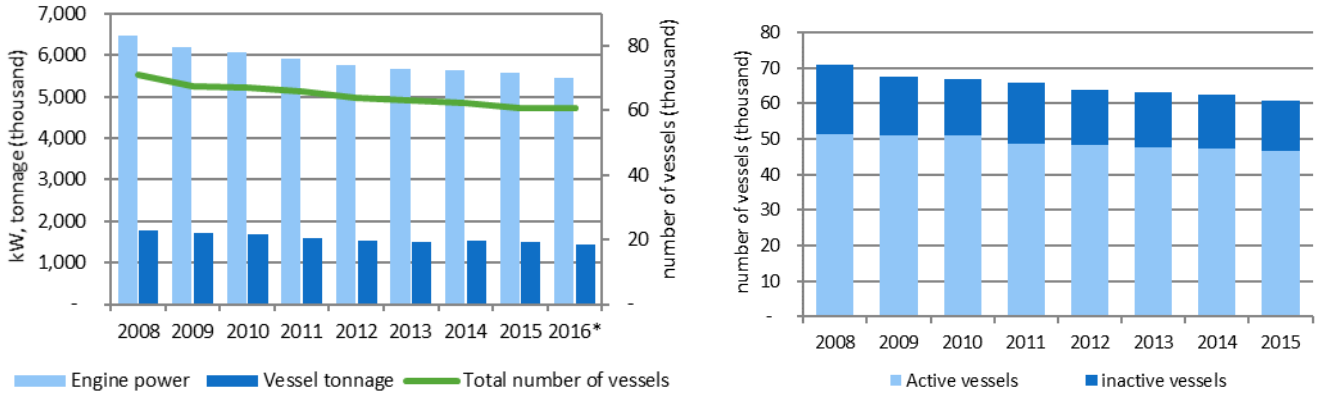
The EU fleet numbered 84 420 vessels in 2015, with a combined gross tonnage (GT) of 1.62 million tonnes and engine power of 6.44 million kilowatts (kW). Of the total number of vessels, 63 976 were active and 20 444 were inactive in 2015 (Figure 3.1).

For the purpose of comparison, when the national fleet of Greece is excluded, the remaining EU fleet consisted of 68 796 vessels, 1.55 million gross tonnes and 5.99 million kW (Figure 3.2, Table 3.7). Of these, 19 234 vessels were inactive in 2015, representing 28% of the EU fleet.



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)). * preliminary data

Figure 3.1 Left: Trends in EU total fleet capacity in number, engine power (kW) and gross tonnage; Right: EU fleet capacity by number of active and inactive vessels (include Greece and Croatia)

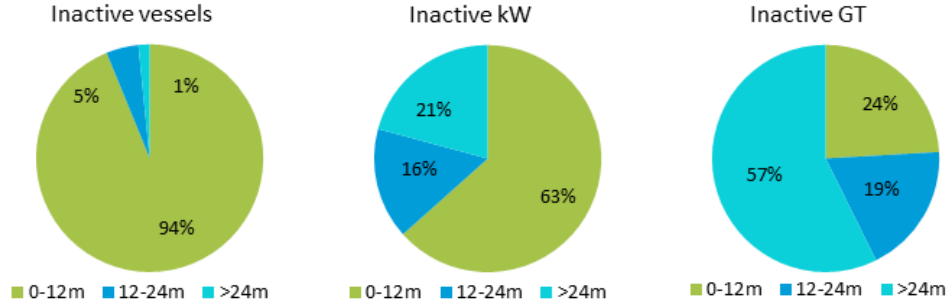


Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)). *preliminary data

Figure 3.2 Left: Trends in EU fleet capacity in number, engine power (kW) and gross tonnage; Right: fleet capacity by number of active and inactive vessels (exclude Greece and Croatia)

Note: exclude Greece and Croatia

The EU inactive fleet represented 24% of the total EU fleet in number but only 9% of the gross tonnage and 14% of the engine power, indicating that most of the inactive capacity is small-scale in nature (Table 3.4). In fact, 94% of the inactive vessels are under 12m in length while vessels between 12 and 24m account for 5% and vessels over 24m, 1% of the inactive fleet (Figure 3.3).



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 3.3 EU inactive fleet capacity by vessel length group, 2015

Greece maintains the largest fleet within the EU (by vessel number) with 15 624 vessels, equivalent to 18.5% of the total. Thereafter, Italy with 12 426 vessels (15%), Spain with 9 686 vessels (11.5%) and Portugal with 8 205 vessels (10%) are the largest fleets by member state. Belgium, with 79 vessels, six of which were inactive in 2015, operated the smallest fleet by number (Table 3.7).

The Spanish fishing fleet was the largest in terms of tonnage (367 thousand GT, 23% of the EU total), followed by the UK (200 thousand GT, 12%), French (172 thousand GT, 11%) and Italian (164 thousand GT, 10%) fleets. Slovenia, with 169 registered vessels, operated the smallest fleet by gross tonnage (600 GT) (Table 3.7).

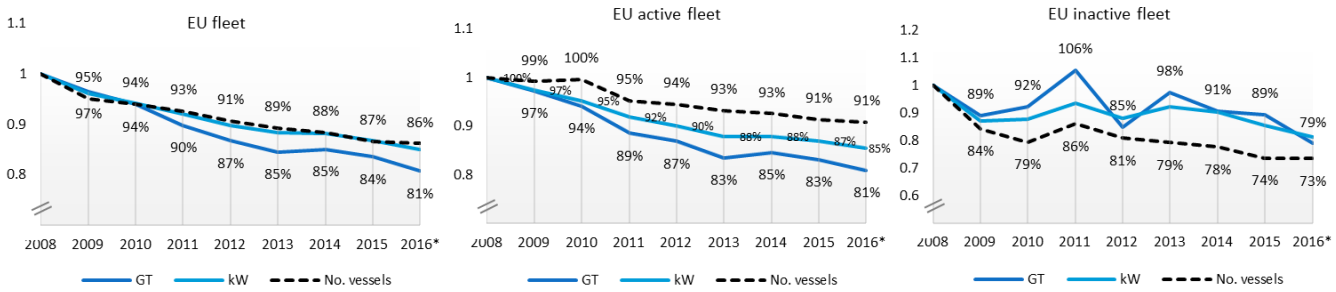
In terms of engine power, the Italian fleet, with just over 1 million kW, covered 16% of the total, followed by France (16%) and Spain (13%). Romania, with 151 vessels, operated the smallest fleet by engine power (6 thousand kW) (Table 3.7).

Croatia, with 5 026 inactive vessels, accounted for almost a quarter (25%) of the EU inactive fleet in 2015. With 4 334 inactive vessels, Portugal possessed the second largest latent capacity (21% of the EU inactive fleet and more than half of the Portuguese fleet in number), followed by the UK with 1 844 vessels (9% of the EU inactive fleet in number) (Table 3.7).

In terms of gross tonnage, the Portuguese fleet possessed the largest inactive GT (21% of the EU inactive fleet), followed by Croatia and Spain (each accounting for 14.5% of the inactive GT) (Table 3.7).

In terms of engine power Croatia held the most inactive engine power (21% of the inactive kW), followed by France (14%) and the UK (13%) (Table 3.7).

Overall, the capacity of the EU fleet[1] decreased gradually between 2008 and 2016; on average 2% p.a. in number and engine power (kW) and 3% in tonnage (GT). Since 2008, the EU fleet declined 13% in number, 15% in kW and 19% in GT. On average, the number of inactive vessels decreased 3% p.a. and 2% in kW and 1% in GT (Figure 3.4).



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 3.4 Variations in EU total fleet capacity, by active and inactive vessels (based on 2008 = 100)

Note: Due to incomplete time series, variations exclude Croatia (2008-2011) and Denmark (2016)

Figure 3.5 provides variation in capacity over the period 2008 - 2016 for the active fleet by vessel length groups. The number of active vessels, under 12 m, decreased by 5% (0.7% p.a.) over the period with a corresponding reduction in both capacity (GT) of 5% (0.6% p.a.) and engine power (kW) 0.1%in GT (0.1% p.a.). Active vessels 12-24 m in length declined by 3% p.a. in number, GT and kW (19% for all variables since 2008). Active vessels between 24-40 m decreased the most, on average 4% p.a. in number, GT and kW (or roughly 28% since 2008). Active vessels over 40 m, decreased 3.5% p.a. in number, 1.8% in GT and 2% in kW (or 25%, 14% and 16%, respectively since 2008).

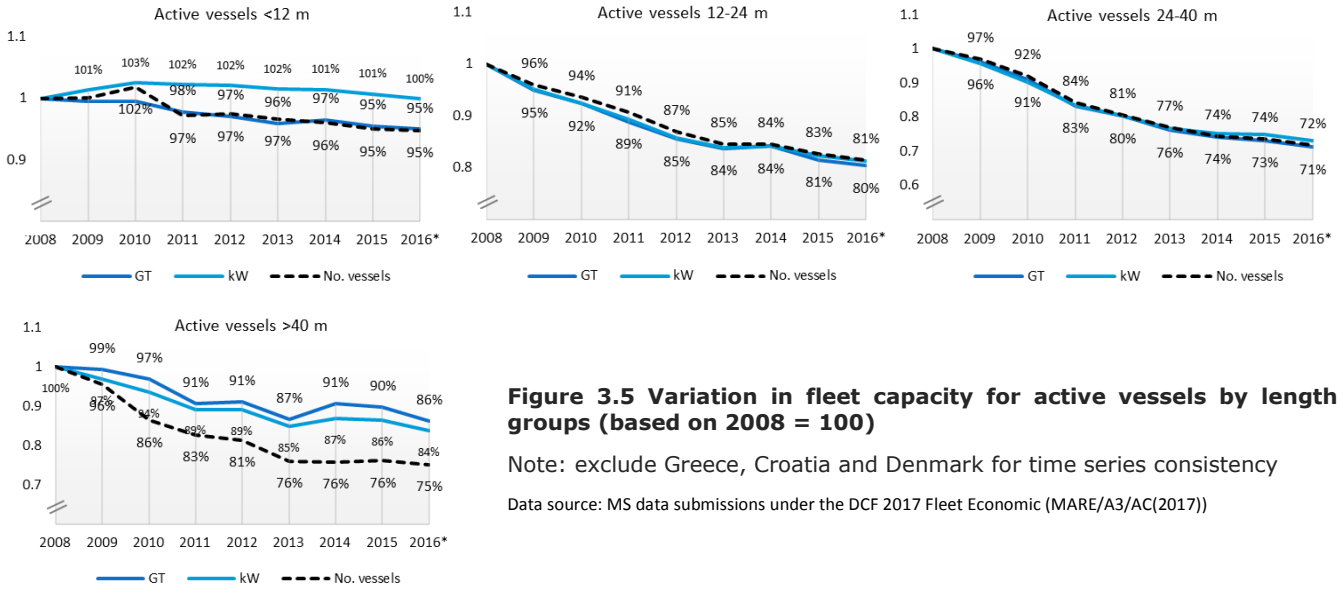


Figure 3.5 Variation in fleet capacity for active vessels by length groups (based on 2008 = 100)

Note: exclude Greece, Croatia and Denmark for time series consistency

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017))

[1] Variations exclude Greece, Croatia and Denmark for time-series consistency

Capacity and structure by scale of fishing activity

A comparison of the active fleet by main fishing activity indicates that the small-scale coastal fleet (SSCF) comprised 47 545 vessels, 74% of the total EU fleet in number, 8% in gross tonnage (120 thousand GT) and 31% in engine power (1.8 million kW) (Table 3.10, Figure 3.6).

The distant water fleet (DWF), although comprising only 1% of the total number of vessels (n=285), represented 19% of the total gross tonnage (281 thousand GT) and 7% of the engine power (376 thousand kW) (Table 3.16, Figure 3.5).

The large-scale fleet (LSF) represented the remaining 25% of the fleet in number (16 146), 73% of the gross tonnage (1.1 million GT) and 62% of the engine power (3.4 million kW) (Table 3.13, Figure 3.5).

Composition of the EU fleet by main fishing activity has remained relatively stable over the period 2008-2015 (Figure 3.7).

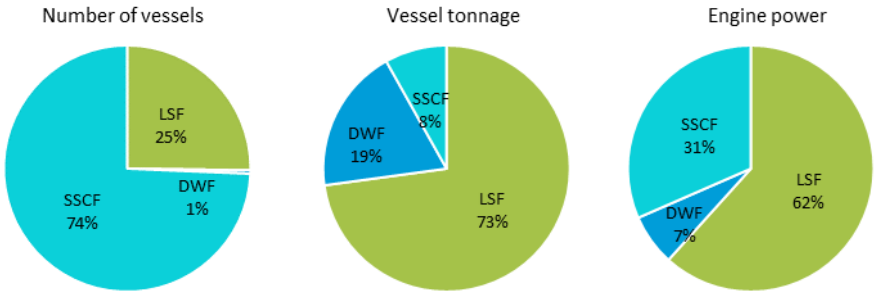
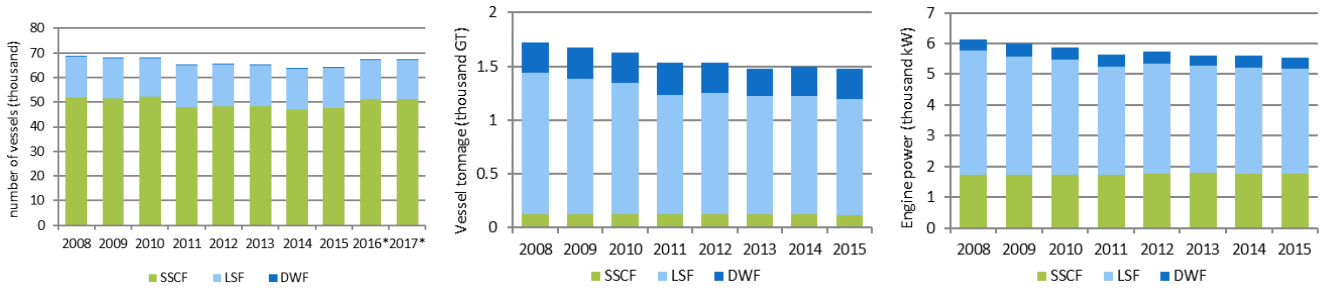


Figure 3.6 EU fleet capacity by main type of fishing activity as a percentage of the EU fleet, 2015

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017))



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)). * preliminary data

Figure 3.7 Trends on the EU fishing fleet capacity by main type of fishing activity

Employment and average wage

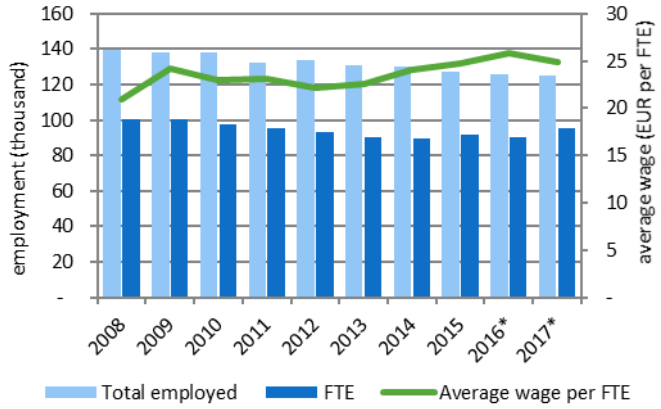
In 2015, 152 720 fishers were directly employed in the EU fishing fleet (including Greece), corresponding to 114 863 FTEs. Six MS fleets employed 82% of the EU total, with the Spanish fleet employing 21% of the total, followed by the Italian (17%), Greek (16.6%), Portuguese (10.5%), French (9%) and UK (8%) fleets (Table 3.7).

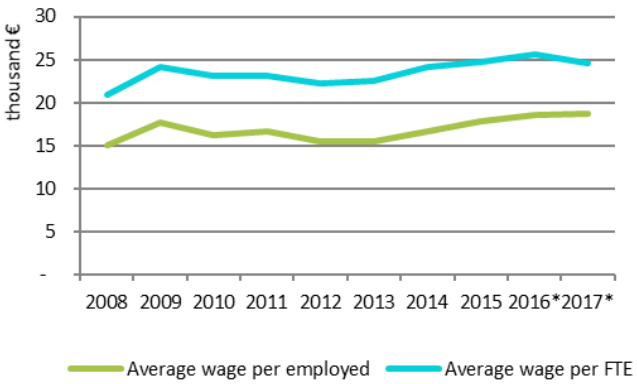
In terms of FTEs, the same six MS fleets employed 85% of the EU total, with the Greek fleet surpassing the Italian fleet, indicating more part-time fishers in Italy (Table 3.7).

Total employed and employment in FTE (excluding Greece and Croatia) decreased on average 1.3% p.a. (or overall since 2008 by 9%).

On the other hand, average wage per FTE, estimated at €24.8 thousand in 2015, increased on average 2.7% p.a. representing an overall increase of 18.6% since 2008 (Figure 3.8).

At €74.9 thousand, Belgian (FTE) fishers earned the highest annual wages on average, followed by Danish (€72.8 thousand) and Dutch fishers (€71.4 thousand). Cypriot fishers received the lowest average wage (€1.4 thousand), followed by Bulgarian (€3.9 thousand), Maltese (€4.3 thousand) and Polish (€6.3 thousand) fishers (Table 3.9).





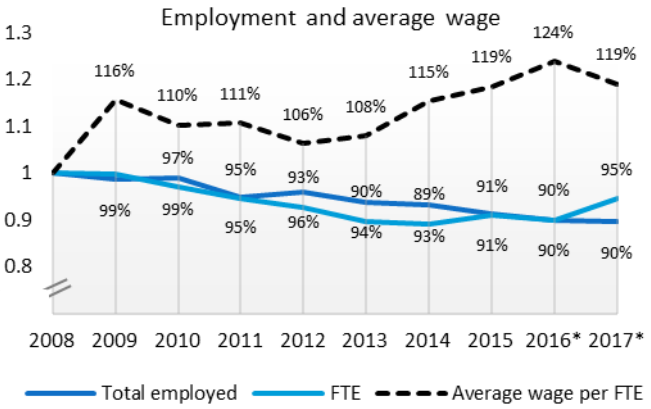


Figure 3.8 Left: EU fleet employment (in total employed and FTE) and average wage per FTE; Right: variation in employment and average wage per FTE (based on 2008=100)

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)) * projections

Employment and average age by scale of fishing activity

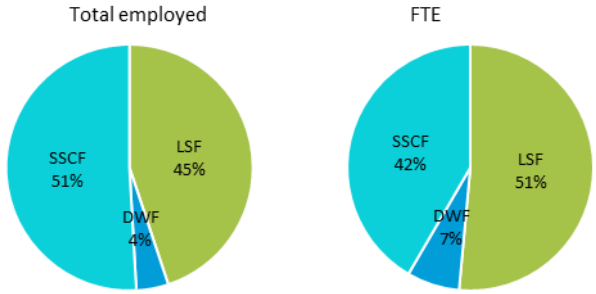
In 2015, the SSCF employed 77 708 fishers (51% of the total), corresponding to 47 788 FTEs (42% of the total) (Table 3.10). The large-scale fleet employed 68 593 fishers (45%), corresponding to 59 116 FTEs (51%) (Table 3.13), while the distant water fleet employed 6 417 fishers (4%), corresponding to 7 957 FTEs (7%) (Table 3.16, Figure 3.9).

In general, average wage per FTE in the SSCF has decreased while for the LSF and DWF, average wage per FTE has increased over the period 2008-2015 (Figure 3.10).

Average wage per FTE (excluding Greece) in 2015 in the SSCF was estimated at €14 300, a decrease of 3.3% compared to 2014. The highest earners were French SSCF fishers (€61 800) followed by Danish (€59 000) and Swedish fishers (€32 900) (Table 3.12).

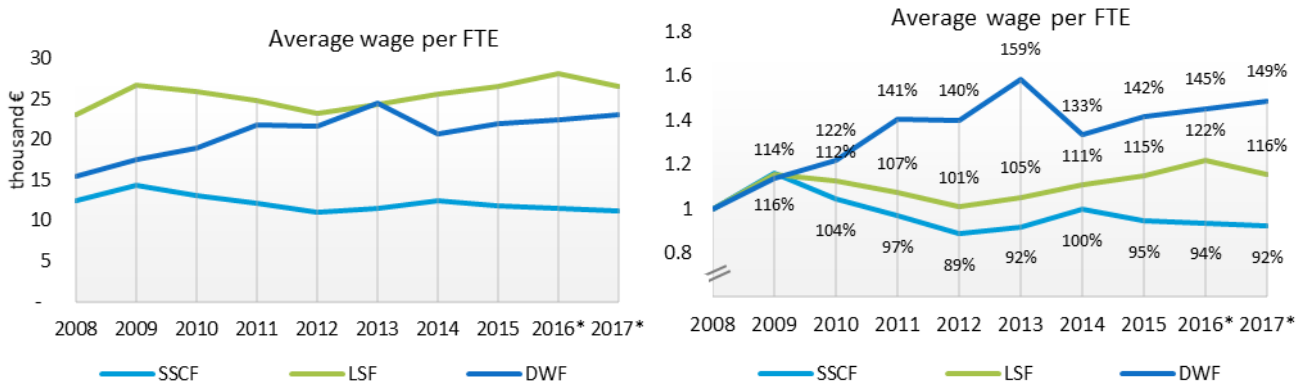
Average wage per FTE (excluding Greece) in 2015 in the large-scale fleet was €30 800, an increase of 5% compared to 2014. The highest earners were French LSF fishers (€77 600) followed by Dutch (€75 600), Danish (€75 000) and Belgian (€74 900) (Table 3.15).

Average wage per FTE in the EU distant water fleet was €25 400, an increase of 1.3% on 2014 results. The highest earners were French DWF fishers, earning on average €70 100 (Table 3.18).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017))

Figure 3.9 Employment by fishing activity as a percentage of the EU fleet, 2015



Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015). *projections

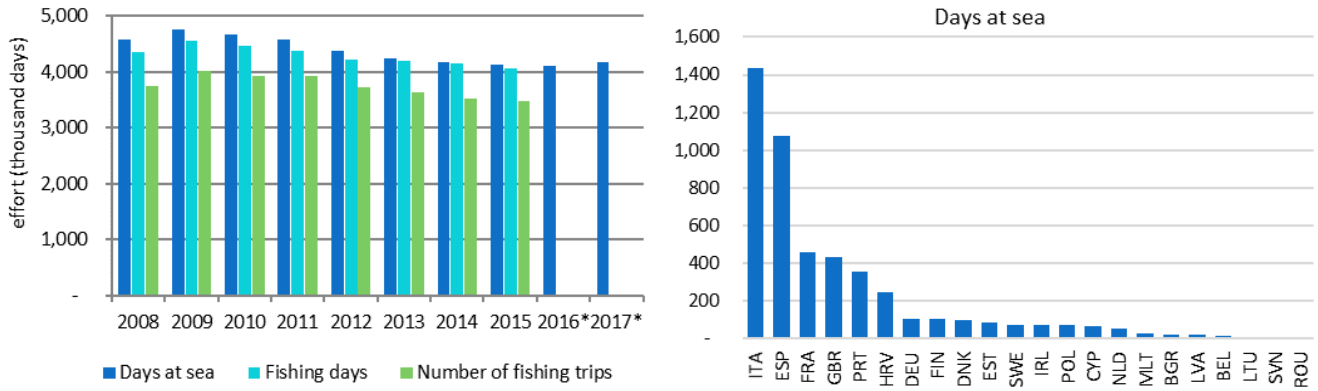
Figure 3.10 Left: average wage per FTE by main fishing activity and Right: variation in average wage per FTE (based on 2008=100)

Fishing effort and fuel consumption

In 2015 the EU fleet spent almost 4.8 million days at sea, a decreased of 1% on the previous year; while consumed 2.3 billion litres of fuel oil, a 6% increase on 2014 (Table 3.7) (Figure 3.11).

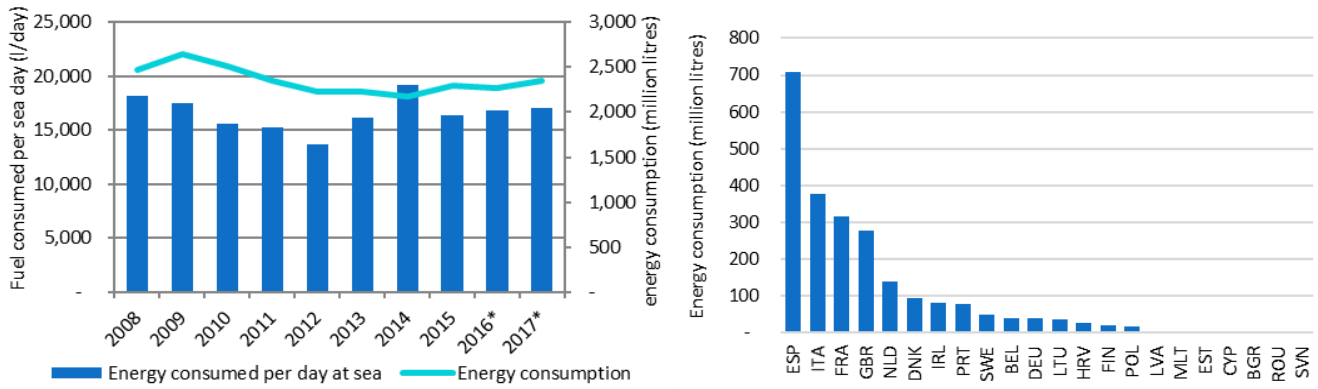
Italy reported by far the highest number of sea days (1.4 million or 30% of the total), followed by Spain (1 million), France (455 thousand) and the UK (430 thousand days) (Figure 3.11). Together, these four MS accounted for 71% of the total registered days at sea in 2015 (Table 3.7).

The Spanish fleet consumed the most fuel (709 million litres or 30% of total), followed by the Italian (378 million litres) and French (317 million litres) fleets (Table 3.7, Figure 3.12).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); * projections

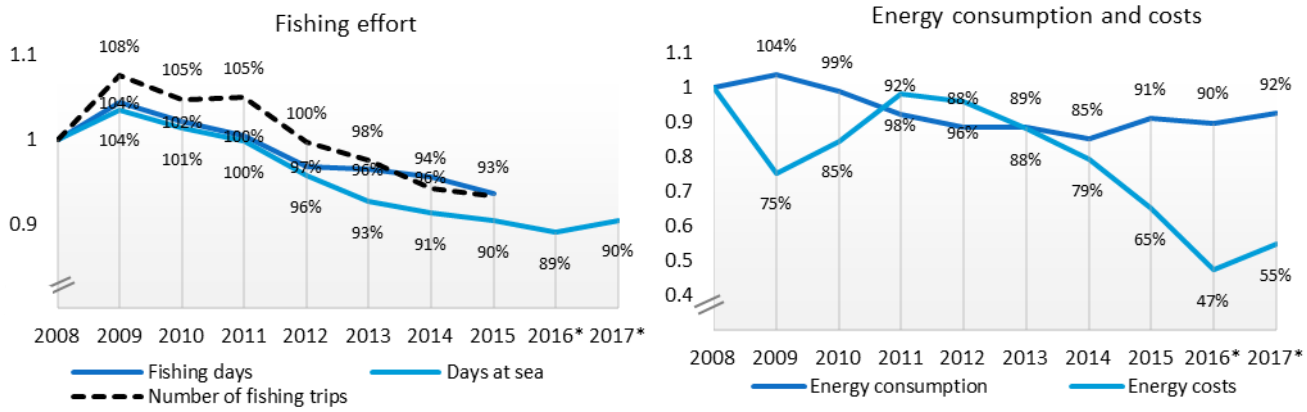
Figure 3.11 Left: Trends on fishing effort of the EU fleet; Right: Days at sea by MS fleet, 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015). * projections

Figure 3.12 Left: Trends on energy consumption and average fuel consumed per day at sea; Right: energy consumption by MS fleet, 2015

The total effort (days at sea) deployed by EU fishing fleets has declined each year since 2009 (-1.4% p.a. and -9.7% compared to 2008) (Figure 3.13). Energy consumption too decreased through much of the period but increased in 2015 (-1.2% on average p.a., or -9% compared to 2008). Energy costs show a more complex pattern reflecting significant changes in the average price of fuel over the period. On average, energy costs in 2015 were 35% lower in 2015 compared to 2008 (Figure 3.13).

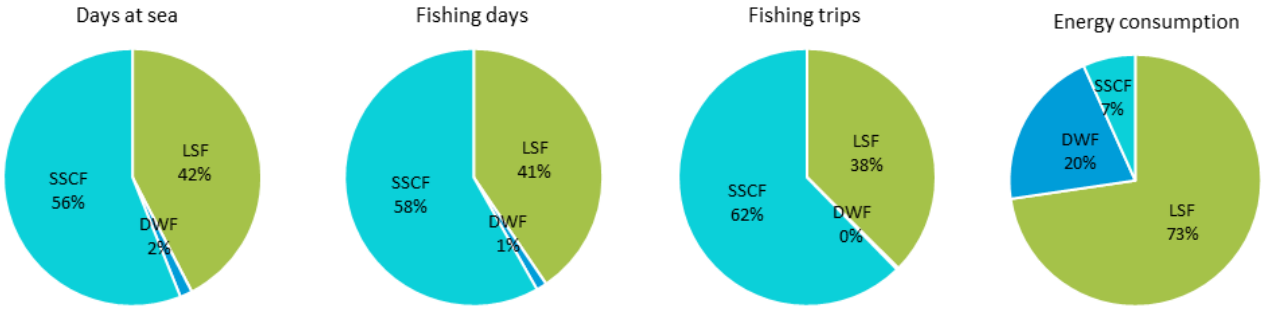


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015). *projections

Figure 3.13 Variation in fishing effort, fuel consumption and fuel costs (based on 2008=100)

Fishing effort and fuel consumption by scale of fishing activity

In 2015 the small-scale coastal fleet accounted for more than half of the total fishing effort deployed (56% of all days at sea) but consumed just 7% of the fuel. The large-scale fleet on the other hand accounted for 42% of days at sea and consumed 73% of the fuel consumed while the distant water fleet deployed 2% of days at sea and 20% of the fuel consumed (Figure 3.14).



Data source: EU Fleet register and Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

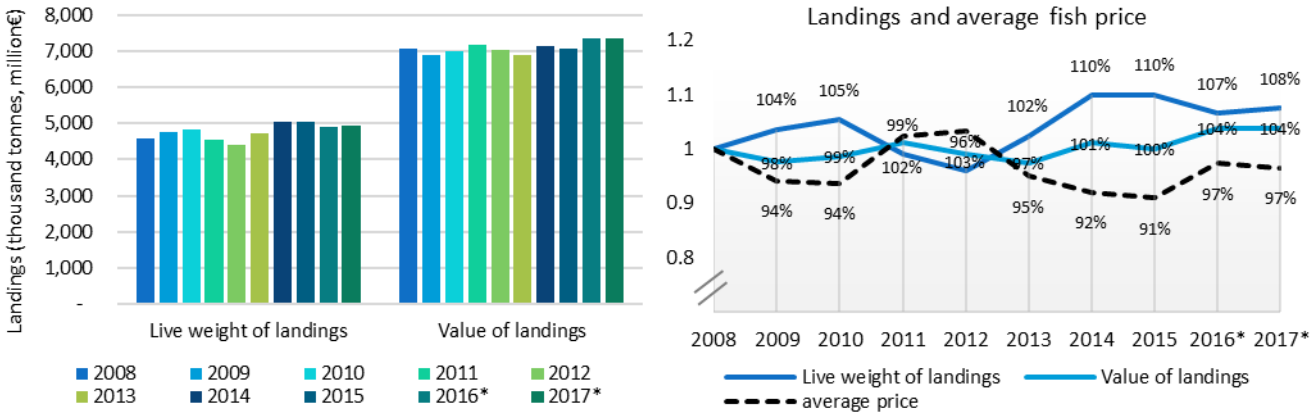
Figure 3.14 Effort by fishing activity as a percentage of the EU fleet, 2015

Landings

Excluding Greece, the EU fleet landed 5 million tonnes of seafood in 2015 (+0.1% on 2014) valued at more than €7 billion (-1.1%) (Table 3.7, Figure 3.15). While landings have grown each year since 2012 and are now some 10% greater than 2008, these figures now include Croatia and are not directly comparable.

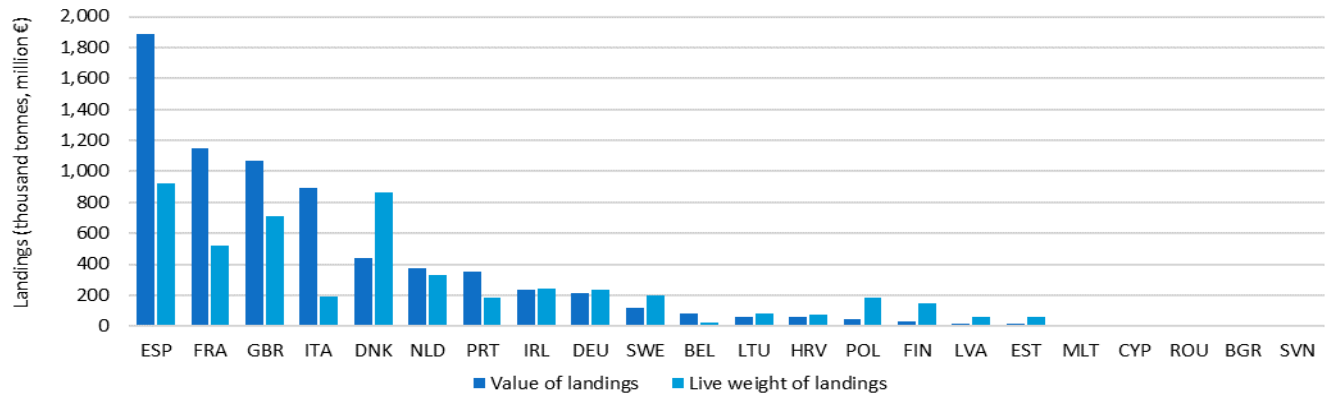
Despite changes in the weight of fish landed between 2008 and 2015 their total value varied little. This is reflected in the average fish price over the period with periods of increased landings associated with lower average price (Figure 3.15).

Landings by member state are shown in figure 3.16. The Spanish fleet accounted for 26.6% of the total value of fish landed during 2015 (18.3% by weight), followed by France (16.2% by value, 10.2% by weight), the United Kingdom (15.1% by value, 14.0% by weight), Italy (12.6% by value, 3.8% by weight) and Denmark (6.2% by value, 17.1% by weight) (Table 3.7, Figure 3.16).



Data source: data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015). *projections

Figure 3.15 Left: Trends on landings weight and value by the EU fleet; Right: variation in landings and average price (based on 2008=100)



Data source: data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 3.16 Landings in weight and value by Member State fleet, 2015

Top species and average landed prices

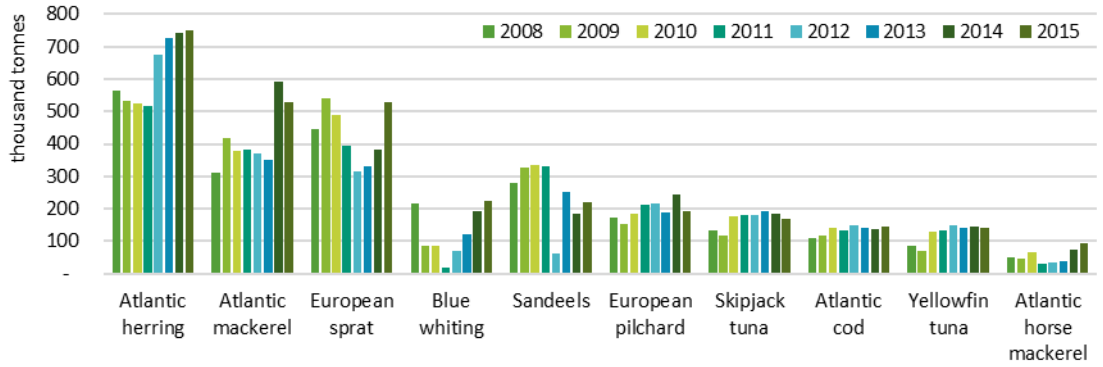
At 751 thousand tonnes, Atlantic herring was the most important species (by weight) weight landed in 2015, followed by Atlantic mackerel (530 thousand tonnes), European sprat (529 thousand tonnes) and blue whiting (223 thousand tonnes) (Figure 3.17, top).

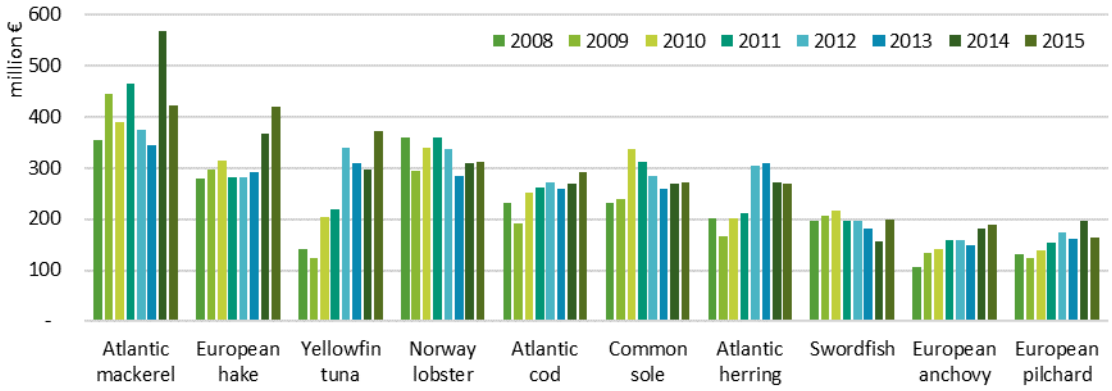
At €422 million, landings of Atlantic mackerel generated the most value, followed by European hake (€419 million), yellowfin tuna (€372 million) and Norway lobster (€310 million) (Figure 3.17, bottom).

Landings of Atlantic mackerel, which increased 52%, from 350 thousand tonnes in 2013 to 591 thousand tonnes in 2014, decreased 10% (530 thousand tonnes) in 2015. Landed weight of European pilchard (-21%) and skipjack tuna (-10%) also decreased in 2015 compared to 2014.

On the other hand, landings of European sprat increased further (+38%), from 383 thousand tonnes in 2014 to 529 thousand tonnes in 2015. Landed weight of Atlantic horse mackerel (+30%), sandeels (+18%), blue whiting (+16%) and Atlantic cod (+6%) also increased in 2015 compared to 2014.

In terms of landed value, landings of yellowfin tuna (+25%), swordfish (+28%) and European hake (+14%) increased in 2015. Conversely, landings of European pilchard decreased 16% compared to 2014.





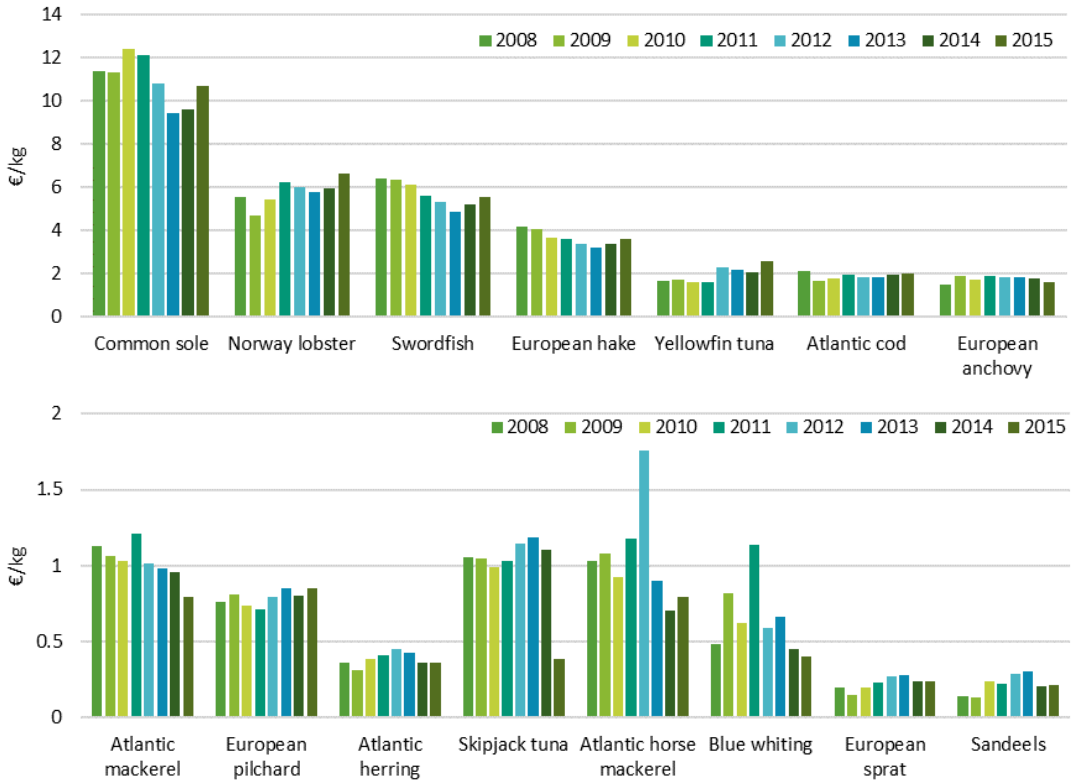
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 3.17 Trends on top ten species landed by the EU fleet in weight (top) and value (bottom)

At €10.7 per kg, common sole achieved by far the highest average first-sale price of the top ten species in weight and value landed in 2015, followed by Norway lobster (€6.6 per kg), swordfish (€5.6 per kg), European hake (€3.6 per kg), yellowfin tuna (€2.6 per kg) and Atlantic cod (€2 per kg) (Figure 3.18).

The average landed price obtained for several key species targeted by the EU fleet increased in 2015 compared to 2014. Yellowfin tuna (+28%), Atlantic horse mackerel (+12%), common sole and Norway lobster (+11%), European hake (+8%), swordfish (+7%), European pilchard and sandeels (+6%) all recorded increases in 2015. Conversely, the average landed price of skipjack tuna (-65%), Atlantic mackerel (-17%), European anchovy and blue whiting (-11%) all decreased in 2015 (Figure 3.19).

Compared to the average over the period 2008-2014, the landed price of several top species saw significant increases. Yellowfin tuna (+39%), Norway lobster (+17%), European pilchard (+9%), Atlantic cod (+7%), and European sprat (+4%) all recorded increases in 2015. Conversely, the average landed price of skipjack tuna (-64%), blue whiting (-41%), Atlantic horse mackerel (-27%), Atlantic mackerel (-25%), European anchovy (-12%), and Atlantic herring (-7%) all decreased in 2015 (Figure 3.19).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 3.18 Average real price of the top species landed in terms of weight and/or value

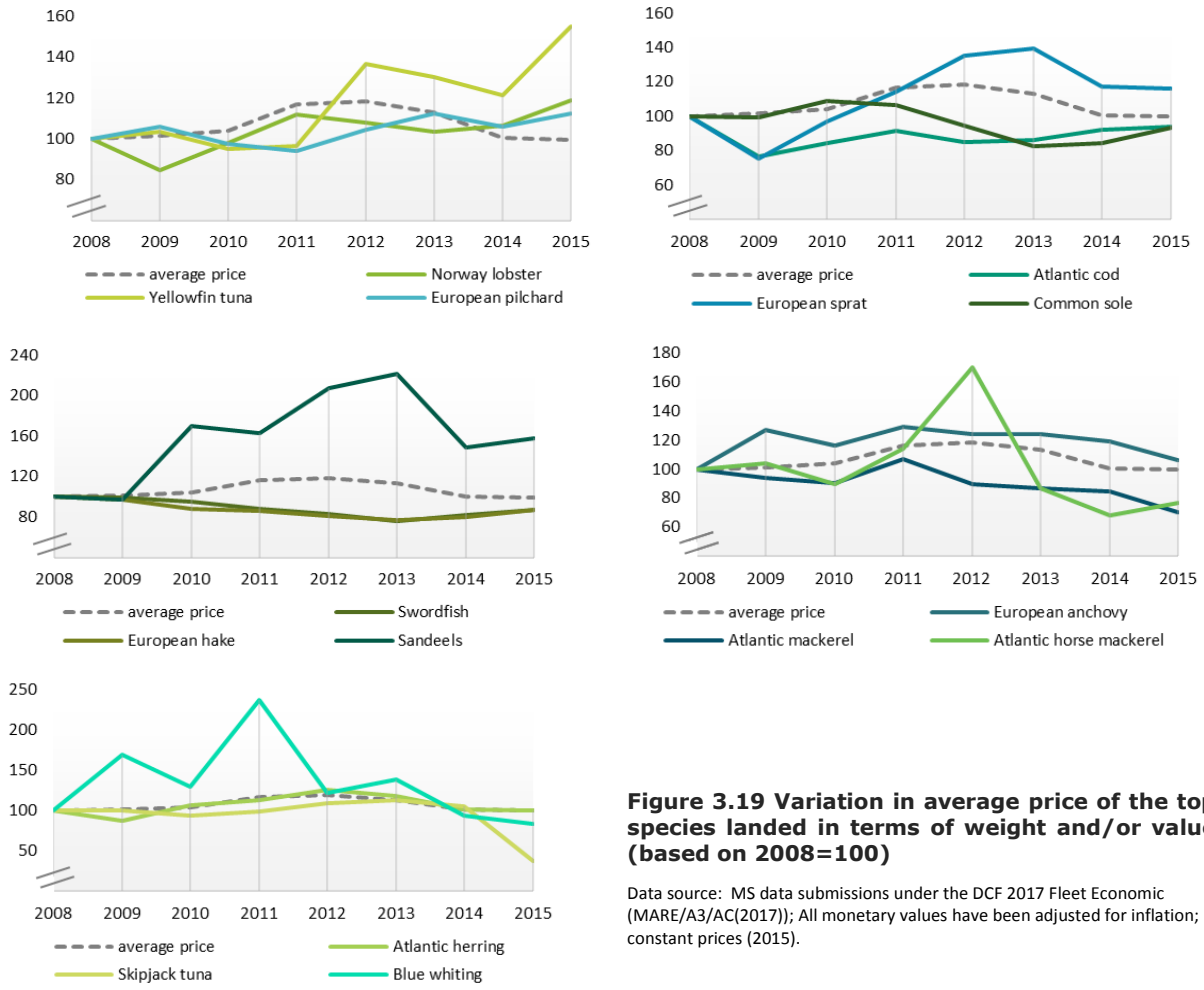


Figure 3.19 Variation in average price of the top species landed in terms of weight and/or value (based on 2008=100)

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Landings by scale of fishing activity

The large-scale fleet contributed 81% to landings in weight and 74% to landings in value. The SSCF landed 5% of the weight and produced 12% of the landed value, indicating that when compared to its larger counterparts, the SSCF on average obtains higher first sale prices (Figure 3.20).

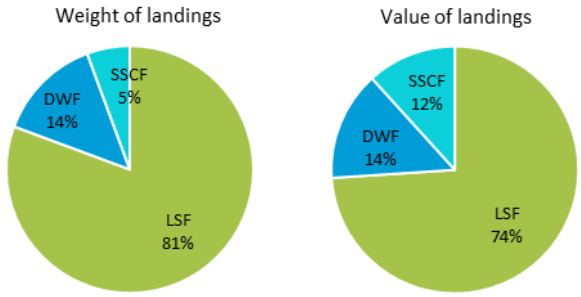


Figure 3.20 Landings by fishing activity as a percentage of the EU fleet, 2015

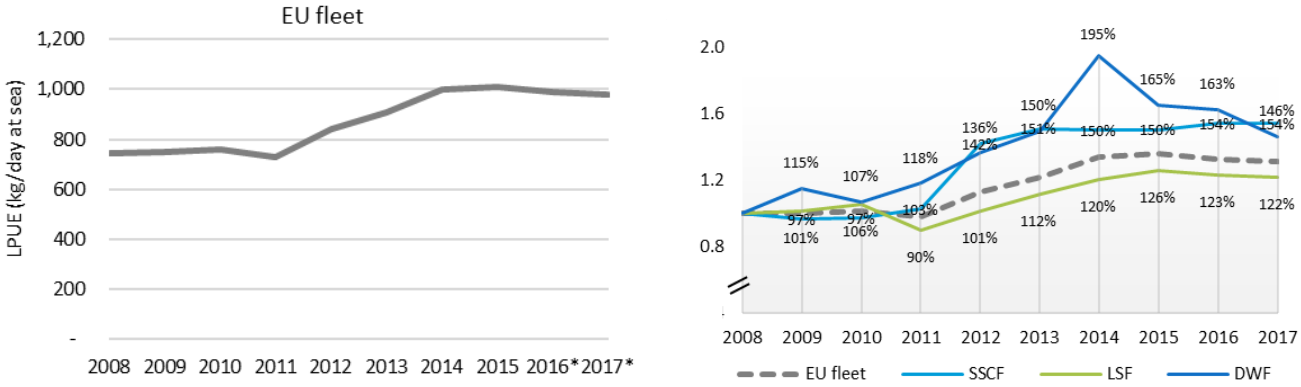
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017))

Landings per unit of effort

Landing per day at sea, for the EU fleet as a whole, was estimated at 1 012 kg per day at sea in 2015. Compared to 2008, average LPUE in 2015 increased 16%. For the EU fleet as a whole, landed weight per sea day (LPUE) increased on average 2% p.a. After a decrease in 2011 and 2012, average LPUE followed an increasing trend (Figure 3.21).

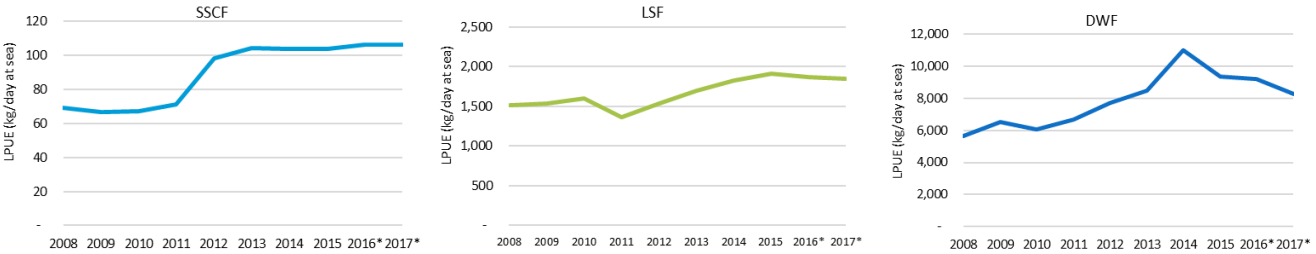
Landings per day at sea (LPUE) for the SSCF was estimated at 104 kg per day in 2015. For the LSF, LPUE was estimated at 1.9 tonnes per day while for the DWF, LPUE was estimated at 9.3 tonnes (Figure 3.22).

For the SSCF, landings per day at sea increased on average 5% p.a. For the LSF, LPUE increased on average 0.3% p.a. and for the DWF increased on average 6% p.a. between 2008 and 2015. Yet a decrease in LPUE is observed in 2015 for the DWF (Figure 3.21).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); *projections

Figure 3.21 Left: Trends on landings per unit of effort (LPUE) for the EU fleet; Right: Variation in landings per unit of effort for the EU fleet on average and by fishing activity (based on 2008=100)



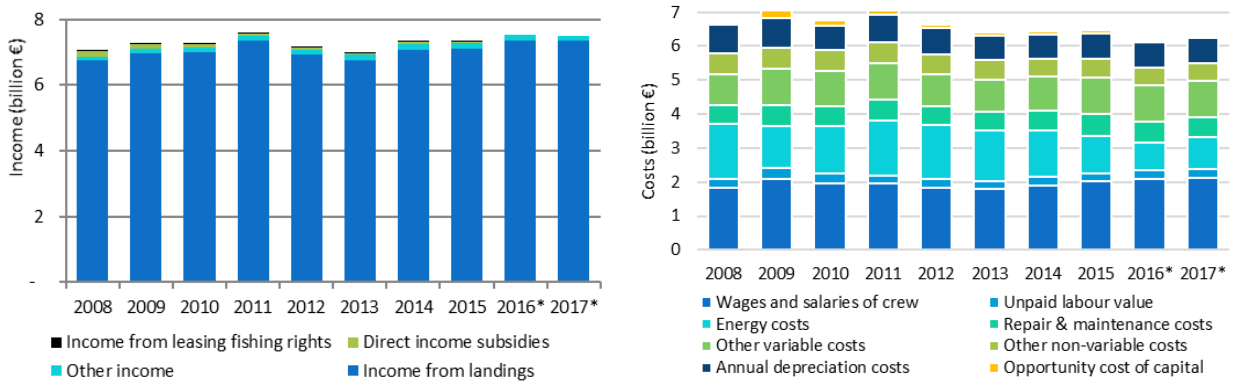
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)). * projections

Figure 3.22 Trends on landings per unit of effort (LPUE) by main fishing activity

Income and Costs

In 2015 the total revenue[2] generated by the EU fishing fleet (excluding Greece) was €7.27 billion (Table 3.1) of which €7.114 billion was generated by the sale of fish and €155 million from non-fishing income (Figure 3.23).

Revenue (income form fishing and other income) has varied little over the period 2008 – 2015 (Figure 3.23). After increasing between 2008 and 2011, revenue declined in 2012 and 2013, and increased in 2014 and 2015 (Figure 3.25).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); *projections

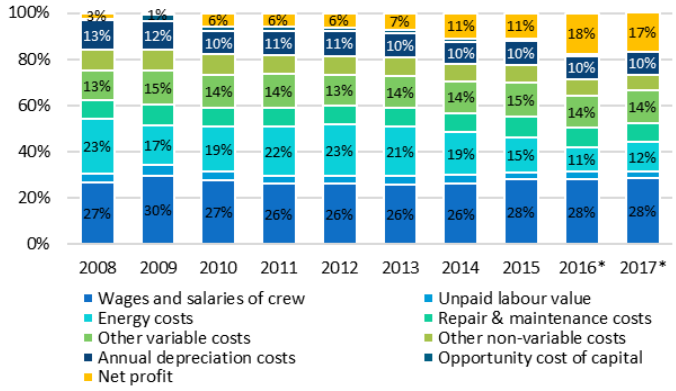
Figure 3.23 Trends on income (left) and costs (right) generated by the EU fleet

Total costs[3] followed a similar pattern, peaking in 2011 and steadily decreasing thereafter. Total costs fell from almost 99% (of revenue) in 2009 to 89% in 2014 and 2015 (Figure 3.24 right and 3.25).

With the exclusion of Greece, costs incurred by the EU fishing fleet in 2015 amounted to 6.47 billion[4], 13% of which consisted of capital costs (€761 million in annual depreciation and €87 million in opportunity costs of capital) and 87% of operating costs[5]. The latter mainly consisted of labour costs (35% of total costs: €2 billion in crew wages and €231 million in unpaid labour) and fuel costs (€1.1 billion, 17% of total costs).

Other costs linked to production amounted to €1.08 billion; while other non-variable (or fixed) costs and repair costs amounted to €542 million and €643 million, respectively. Total costs represented 89.02% of the revenue generated by the fleet in 2015 (Table 3.1 and 3.8, Figure 3.24).

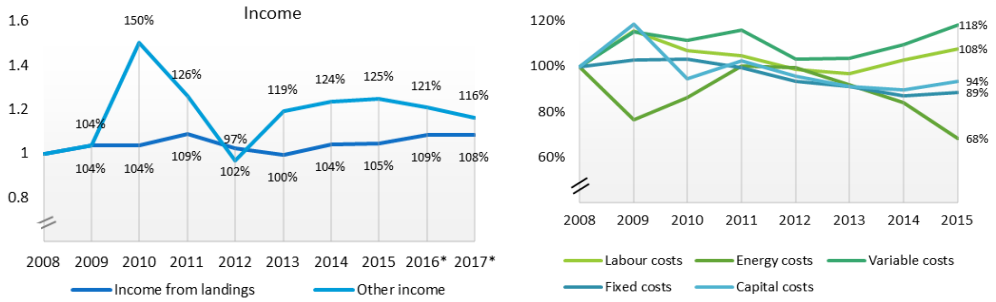
At €1.98 billion, Spain generated 27% of the EU fleet revenue, followed by France (€1.2 billion, 16%), the UK (€1.1 billion, 15%) and then Italy (€899 million, 12%). These four MS fleets accounted for over 71% of the revenue generated by the EU fleet in 2015 and 74% of the labour costs and 73% of the energy costs (Table 3.8).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015).*projections

Figure 3.24 Trends on costs as a % of revenue

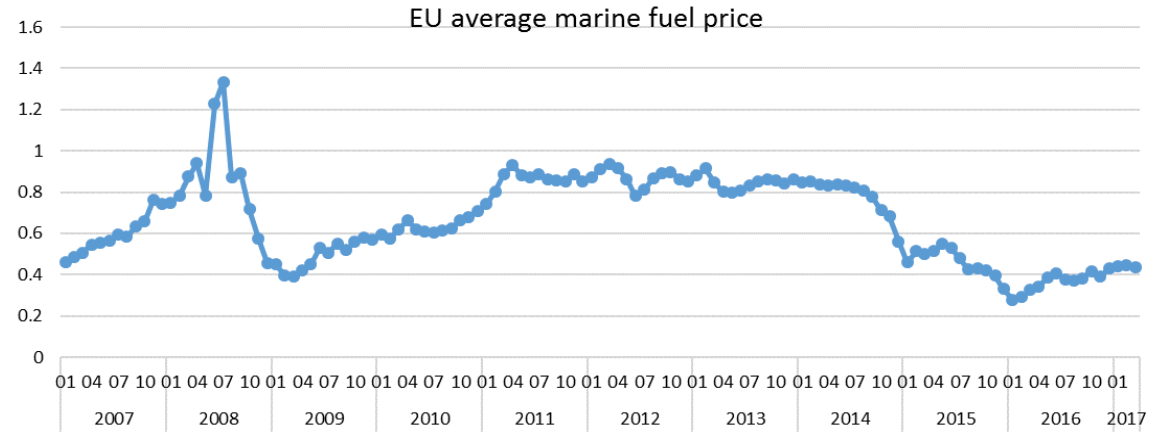
[2] Direct income subsidies and income from leasing out fishing rights excluded from the economic analyses.
[3] Total costs include crew wage costs, unpaid labour, energy costs, repair costs, other variable costs, other non-variable costs, annual depreciation and opportunity cost of capital (capital costs).
[4] Fishing rights costs excluded for methodological reasons.
[5] Total operating costs include: crew wage costs, unpaid labour, energy costs, other variable costs, repair costs, and other non-variable costs.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015).*projections

Figure 3.25 Left: Variations in revenue and costs for the EU fleet (based on 2008=100)

Figure 3.26 provides average marine fuel price for the period 2008-2017. While average prices remained relatively low during 2009 and early 2010, they increased steadily throughout late 2010 and remained so until mid-2014, decreasing again in 2015. These fluctuations in fuel prices had a significant impact on the performance of the fleet. The data suggest that as international fuel prices fluctuated throughout the period so too did the consequential energy costs of the fishing fleet. Thus, energy costs in 2015 (represented 15% of the operating costs) are significantly lower than those recorded in the period 2011 – 2013 (representing 22%, 23%, 21%, respectively) or 2008 (23%).



Data source: adapted/corrected from EUMOFA

Figure 3.26 Average EU marine fuel price (€/litre)

Income and costs by scale of fishing activity

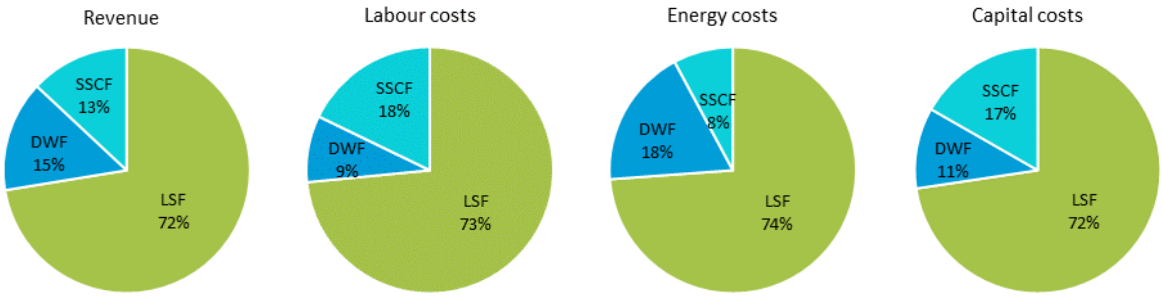
Revenue and costs by fishing activity are shown in figure 3.27 as proportions of the EU totals in 2015 and trends in figure 3.28.

The large-scale fleet generated 72% of the total EU fleet revenue and accounted for 73% of the labour costs and 74% of the energy costs whereas the SSCF generated 13% of the revenue and accounted for 18% of the labour costs and 8% of the energy costs. The distant water fleet generated the remaining 15% of the revenue and contributed 9% to labour and 18% to energy costs.

Over the period 2010-2014 the revenue generated by the SSCF had shown a negative trend with an average annual decrease of about 3%. However, revenue in 2015, while 16% lower than the maximum generated in 2009, were marginally higher than 2014. Total costs to revenue ranged from 90% in 2015 to 99% in 2013.

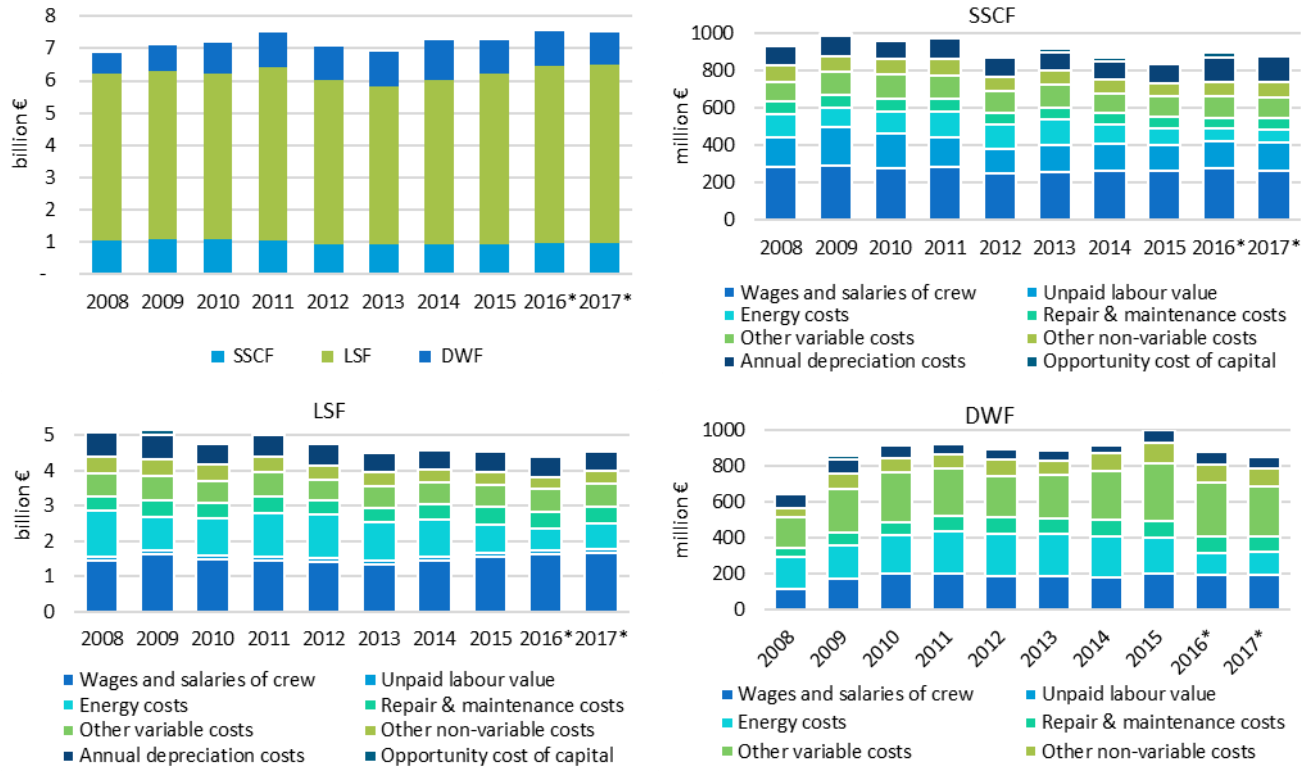
Over the period 2008-2014 the revenue generated by the LSF has varied without any clear trend, although it has increased each year from 2013 to 2015. Over the same period average total costs have decreased (1.4% p.a.). Total costs to revenue generally decreased over the period, ranging from 99% in 2009 to 88% in 2015 indicating improving performance.

For the DWF, revenue increased 12% from 2013 to 2014 but at the same time, total costs increased by 4%. The DWF suffered a 12% drop in revenue in 2015, while costs increased 9%. Total costs to revenue have fluctuated over the years, from 106% in 2009 to 74% in 2014.



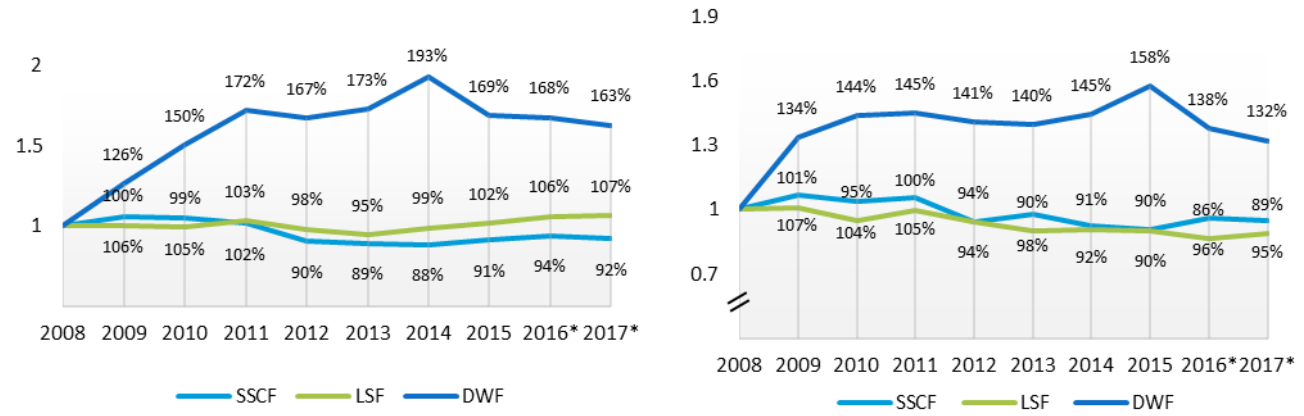
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 3.27 Cost items by fishing activity as a percentage of the EU fleet, 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015).*projections

Figure 3.28 Trends on revenue (top) and cost structure by main type of fishing activity



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 3.29 Variations in revenue (left) and cost structure (right) by main type of fishing activity. *projections

3.2 Economic Performance indicators

Situation in 2015

Economic performance indicators are listed by MS and for the EU fleet as a whole are shown in Tables 3.8 and 3.9.

The amount of Gross Value Added (GVA), Gross profit and Net profit (excluding subsidies) generated by the EU fishing fleet (excluding Greece) in 2015 was €3.9 billion (3.7% increase on 2014), €1.6 billion (2.2% increase) and €798 million, respectively (Table 3.8, Figure 3.30).

In relative terms, and once again excluding Greece, GVA to revenue was 54%, 23% of revenue was retained as gross profit and, after deducting capital costs, 11% of revenue was retained as net profit (Table 3.9, Figure 3.30).

An analysis of the 2015 economic performance by Member State revealed a mixed picture. The data suggest that two (Cyprus and Lithuania) out of the 22 MS fleets (Greece excluded) suffered gross losses while six generated net losses (Croatia, Finland, Ireland and Malta in addition to Cyprus and Lithuania).

Results indicate that the Spanish fleet generated by far the highest revenue (€2 billion), GVA (€970 million), gross profit (€355) and net profit (€218 million).

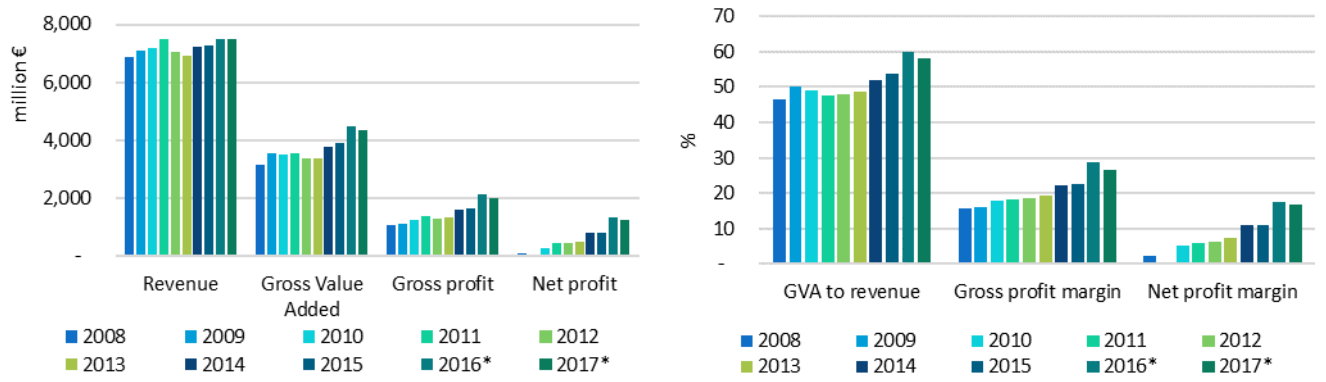
The French fleet generated almost €1.2 billion in revenue and €651 in GVA, followed by the UK fleet, with €1.1 billion in revenue and €567 million in GVA.

The UK fleet was more efficient than the French one in converting revenue into profit, generating €278 million in gross profit and €188 million in net profit compared to €193 in gross profit and €97 million in net profit.

In relative terms, the Romanian fleet generated the highest level of GVA relative to revenue (82%), followed by Slovenia (77%), Portugal (71%) and Denmark (69%).

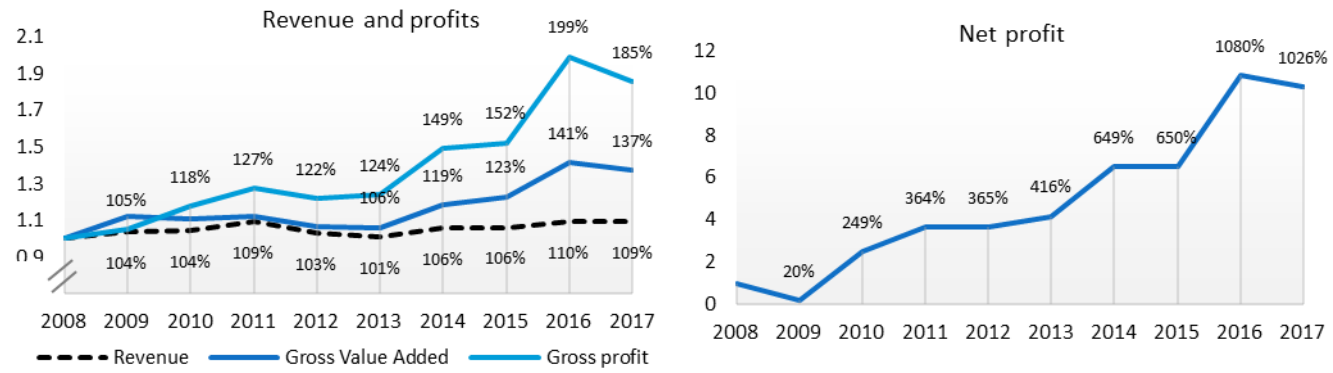
The Romanian fleet also generated the highest gross profit margin (69%), followed by the Denmark (44%), Latvia (36%) and Portugal (34%).

Finally, the Romanian fleet also generated the highest net profit margin (63%), followed by Latvia (28%) and Denmark (24%).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 3.30 Trends on EU fleet economic performance indicators. * projections



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015).*projections

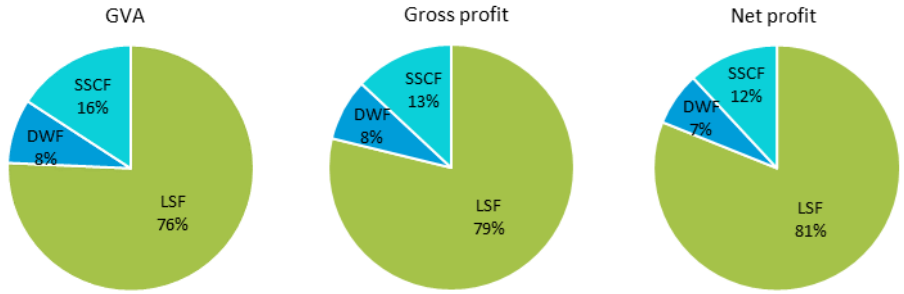
Figure 3.31 Variations in EU fleet economic performance indicators (based on 2008=100)

Economic performance by scale of fishing activity

The data indicate that in 2015, the SSCF generated net profits of €92 million, a significant improvement on 2013 and 2014. Yet, this fleet component generated net losses in ten MS in 2015 (Table 3.11).

The EU large-scale fleet accounted for 76% of the total GVA generated by the EU fleet, 79% of the gross profits and 81% of net profits (Table 3.14, Figure 3.31). The large-scale fleet generated net profits in 18 out of 22 MS, with net losses reported by Cyprus, Croatia, Finland and Ireland (Table 3.14). Overall, net profit generated by this part of the fleet amounted to €629 million in 2015, up from €464 million in 2014.

The distant water fleet contributed 8% to both GVA and gross profit and 7% to net profit, generating an overall net profit of €54 million, a substantial drop from the €278 million generated in 2014 (Table 3.17).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 3.32 Economic performance by fishing activity as a proportion of the EU fleet, 2015

In relative terms, the small-scale coastal fleet generated the highest GVA as a percentage of revenue (65%), followed by the large-scale fleet (56%) and the distant water fleet (31%) (Tables 3.12, 3.15 and 3.18).

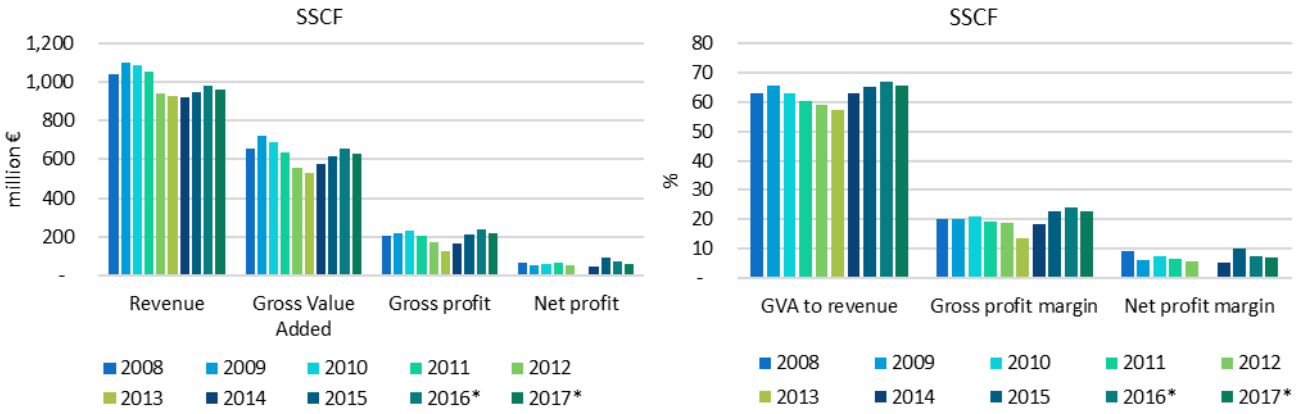
The large-scale fleet generated the highest gross profit margin (25%), followed by the small-scale coastal fleet (23%) and the distant water fleet (13%) (Tables 3.12, 3.15 and 3.18).

The large-scale fleet generated the highest net profit margin (12%), followed by the small-scale coastal fleet (10%) and the distant water fleet (6%) (Tables 3.12, 3.15 and 3.18). Trends in the main economic performance indicators for the SSCF, LSF and DWF are shown in Figures 3.32 to 3.34, respectively.

For the EU small-scale coastal fleet, all indicators show a decline in performance over the period 2008-2013, with improvements in 2014 and 2015. The proportional change in indicator values between 2014 and 2015, suggests that revenue increased 3%, GVA 6.5%, gross profit 28% and net profit 98%, finally surpassing 2008 results. Net profit in 2015 was estimated €92 million, the highest reported value since 2008 (€70 million).

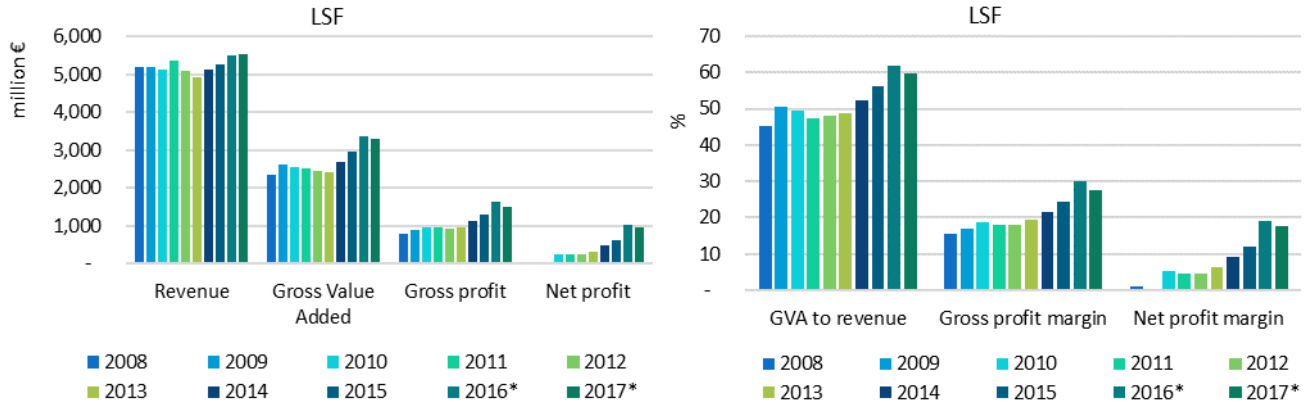
For the EU large-scale fleet, all indicators show an improved performance since 2012. The proportional change in indicator values between 2014 and 2015, suggests that revenue increased 3%, GVA 11%, gross profit 16% and net profit 35%. Net profit in 2015 was estimated €629 million, a record high over the period analysed.

Conversely, the DWF suffered general deterioration in 2015, after years of improved performance. The decreases in GVA, gross profit and net profit from 2014 to 2015 were 37%, 61% and 80%. Net profit in 2015 was estimated €54 million, a record low since 2011.



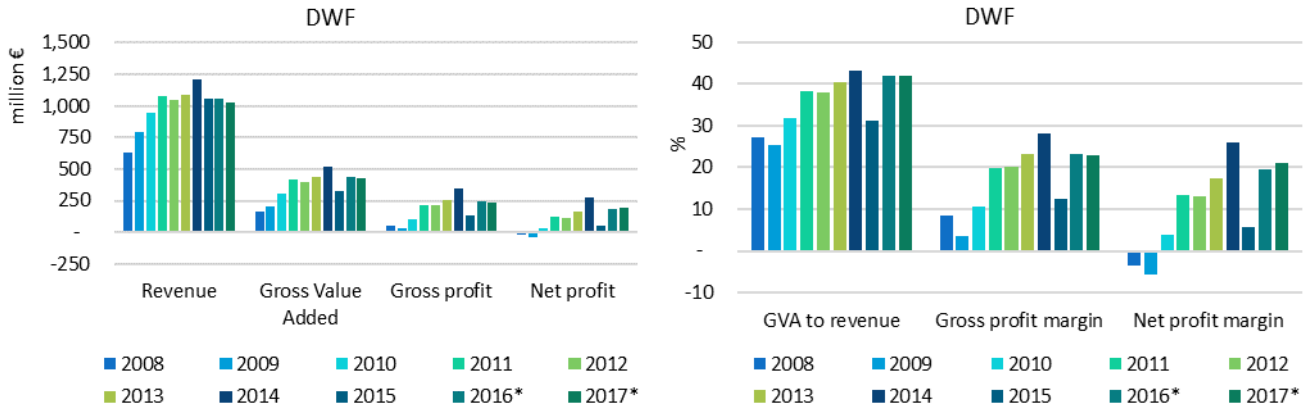
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 3.33 Trends on fleet economic performance indicators for the EU SSCF. *projections



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015).*projections

Figure 3.34 Trends on fleet economic performance indicators for the EU LSF



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015).*projections

Figure 3.35 Trends on fleet economic performance indicators for the EU DWF

Capital value and investments

In 2015, the EU fleet (excluding Greece) had an estimated (depreciated) replacement value of €5.6 billion. In-year investments amounted to €406 million; a decrease of 3.2% compared to 2014. The UK fleet was estimated to have the highest (depreciated) replacement value amounting to some €797 million, followed by those of Italy (€685 million) and Denmark (€607 million).

In terms of investment, the UK fleet invested €102 million in 2015, followed by those of Spain (€65 million) and Germany (€50 million) (Table 3.3).

Capital value and investment by scale of fishing activity

The small-scale coastal fleet (SSCF) had a depreciated replacement value of €689 million in 2015 (13.5% of the EU fleet). Of this, the Italian SSCF accounted for 19% of the total (EU SSCF), followed by the French fleet with 16% of the total. Excluding the Greek SSCF, in-year investment in the small-scale coastal segment amounted to €61 million (14% of the EU total).

The highest depreciated replacement value and in-year investments corresponded to the large-scale fleet (73% and 77% of the total, respectively) (Tables 3.12 and 3.15).

The (depreciated) replacement value of the EU distant water fleet amounted to €367 million; however, this figure is under-estimated as it excludes several MS high seas vessels. In some cases, data were omitted to preserve confidentiality while data for some French and Polish fleets were missing.

The amount of in-year investment in the EU distant water fleet, again under-reported for the reasons stated above, was €37 million in 2015 (Table 3.14).

Labour and Capital Productivity

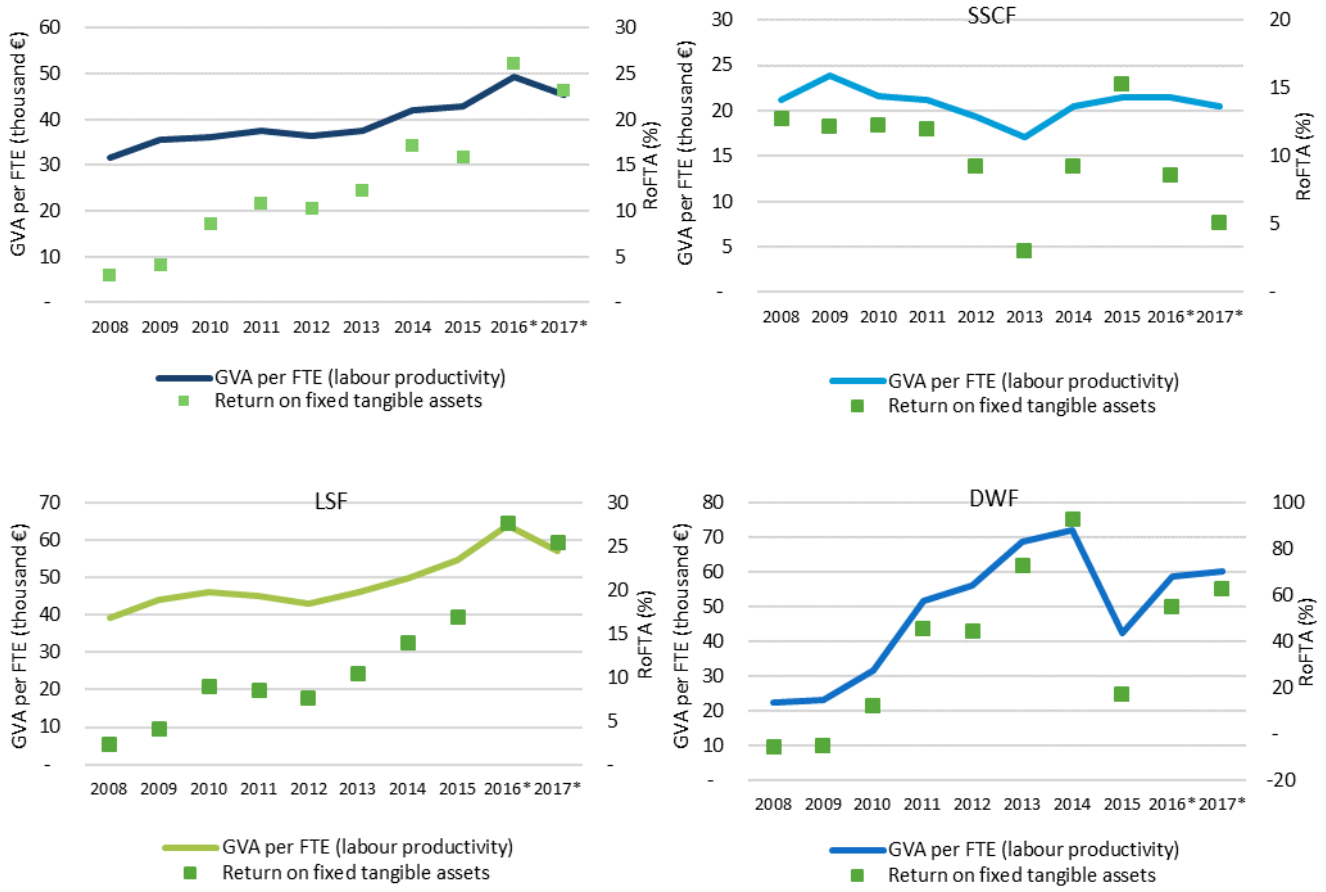
Labour productivity, defined as gross value added per FTE (GVA/FTE), gives an indication of the economic growth in the sector, while capital productivity measures profit per unit of capital invested. Apart from a small decline between 2011 and 2012, both the labour and capital productivity of the EU fishing fleet has generally increased since 2008 (Figure 3.37).

In 2015, labour productivity was estimated at €42.8 thousand, a 1.7% increase on 2014 with the Danish fleet reporting the highest level (€200 thousand), followed by the fleets of the Netherlands (€114 thousand) and Belgium (€103 thousand) (Table 3.9). The capital productivity was 15.9%, measured as the return on fixed tangible assets (RoFTA). This was 7% less than 2014.

Labour and capital productivity by scale of fishing activity

Figure 3.35 shows that labour productivity is lowest in the SSCF and decreased steadily between 2008 and 2013 before rebounding in 2014 and 2015 to the 2008 level. Capital productivity in the SSCF followed a similar trend.

Labour and capital productivity for the LSF and DWF show generally increasing trends over the entire period, with that of the DWF being the most pronounced albeit with a significant drop in 2015.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015). *projections

Figure 3.36 Trends on labour (GVA per FTE) and capital productivity (RoFTA) for the EU fleet and by fishing activity

Energy use – fuel efficiency and intensity

The quantity of fuel used by the EU fishing fleet is influenced by a number of factors, including the type of fishing operation, gear, species targeted and Catch Per Unit of Effort (CPUE).

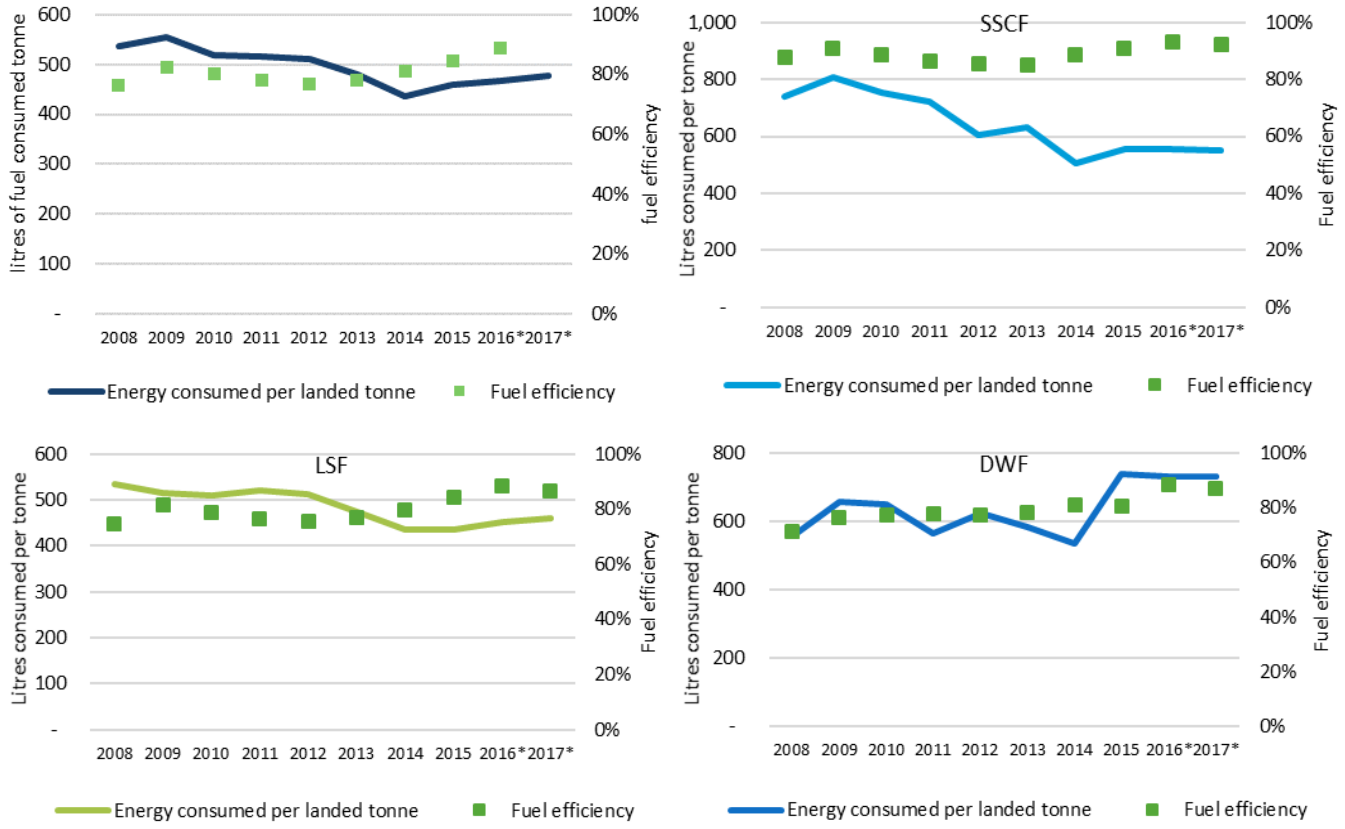
Fuel use in the EU fleet was measured in terms of fuel intensity, measured as the quantity of fuel consumed per quantity of fish landed (litre/tonne) and in terms of fuel efficiency, calculated as the 1- ratio between fuel costs and the income from landings, and expressed as percentage (%).

Based on the data submitted by MS, the results indicate that overall the EU fleet has become more fuel efficient over the period 2012-2015, with fuel costs as a proportion of income from landings was an estimated 15.4% in 2015, down from 19% in 2014, and lower than 17.6% reported in 2009. Improvement in fleet performance in 2015 and 2016 can largely be attributed

to the lower fuel prices. Conversely, fuel intensity – the amount of fuel consumed per landed tonne, increased after a declining trend and a record low in 2014 (Figure 3.36).

Fuel use and efficiency by scale of fishing activity

By fishing activity, results show that small-scale coastal vessels are more fuel intensive, consuming on average 553 litres per tonne landed in 2015, compared to 434 litres for the LSF. On the other hand, at 9% in 2015, down from 11% in 2014, the SSCF has the lowest fuel cost to income ratio. On average, 16% of income from landings generated by large-scale vessels is spent on fuel, while this figure is estimated at around 19% for the distant water fleet. Compared to 2014, fuel efficiency in the SSCF improved 2.4% and 5.9% in the LSF, while the DWF was slightly less fuel efficient (-0.6%) in 2015.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values adjusted for inflation; constant prices (2015).*projections

Figure 3.37 Trends on fuel use, measured as fuel costs to income from landings (fuel efficiency) and litres of fuel consumed per tonne landed (fuel intensity) for the EU fleet and by main fishing activity

3.3 Assessment for 2016 and 2017

The 2017 call for economic data on the EU fishing fleet requested transversal data (effort, landings and capacity) from MS up to 2016 and economic data up to 2015. Hence, the submitted data has a one to two-year time lag in relation to the publication date of the Annual Economic Report. This lag occurs because data is collected, processed and quality checked at the MS level before submission to the DCF. In order to have data for a particular year, for example 2015, it is necessary to wait until the end of the year (e.g. 2016) to collect it.

Yet, in order to properly inform the management of EU fisheries, the most recent information on the EU fishing fleet is required. The lag in data processing thus presents a major challenge. To address this issue, the economic performance of the EU fishing fleet for t+1 (2016) and t+2 (2017) were estimated using 'nowcasting' techniques.

This approach has been used in several editions of the AER. To further develop the methodology used in previous editions, different transversal variables (e.g. number of vessels, days at sea, and value of landings) were investigated by a modelling sub-group for their explanatory power of other, generally 'economic' variables that are reported (e.g. employment, income and cost items). Where no 2016 or 2017 data were reported by MS, those explanatory variables that provided the most robust estimates were used to generate nowcasts.

For most variables, the same nowcasting methodology was used for the Northeast Atlantic (A27), the Mediterranean and Black Sea (A37) and Other Fishing Regions (OFR). However, for some variables (e.g. landings weight, energy cost, other variable costs, FTE employment) different relationships were used for the A27 fleet segments to those in A37 and OFR. The reason for this divergence in methodology is that total allowable catches (TACs), a key driver for fishing behaviour in the Northeast Atlantic, are reported for both t+1 and t+2. This extra information, as well as biomass estimates for t+1 for TAC species, are used to improve the nowcasting capacities for the Northeast Atlantic. Where there was no significant difference in explanatory power then a consistent methodology was used across the regions.

This report marks the first year that the nowcasting methodology used in the different regions has been joined-up. See section 6.7 for more details on the methodology used to produce the nowcasts for the 2017 AER.

Projected results for 2016 and 2017 for all the main analyses are provided throughout each of the chapters. This section reports a summary of the nowcast results on the economic performance of the EU fleet for 2016 and 2017:

- Preliminary results forecast a 3.4% decrease in landed weight, with a 3.6% increase in landed value for 2016 (excluding Greece).
- Projections suggest that low fuel prices translated in part to a 4.8% decrease in total operating costs, and, together with an 2.5% reduction in capital costs fostered further economic performance improvements in 2016: GVA (+15%), gross profit (+31%) and net profit (+66%).
- Results suggest that the EU fleet operated at a profit in 2016, with an estimated net profit margin of 17.7%.
- Positive economic developments can also be seen in the performance indicators - GVA to revenue (60%) and gross profit margin (29%).
- The 2016 gains are offset slightly in 2017 as a modest increase in landings (+1%) is counteracted by lower prices, resulting in a 0.03% decrease in revenue.
- With fuel costs increasing in 2017 (+16%) the fleet remains profitable with gross and net profit margins of 27% and 16.8%, respectively.
- By Member State, projected results for 2016 and 2017 suggest that all fleets analysed generated gross profits.
- With the exception of Bulgaria, Croatia, Cyprus, Finland and Malta, all MS generated net profits as well in 2016.
- In 2017, Croatia, Cyprus, Finland, Ireland and Malta are forecasted to suffer net losses.

Table 3.1 Revenue and total costs for 2015 and projections for 2016 and 2017 by Member State

	Revenue					Total costs				
	2015	2016	Δ 2016-2015	2017	Δ 2017-2016	2015	2016	Δ 2016-2015	2017	Δ 2017-2016
BEL	86.3	95.9	11%	84.3	-12%	83.5	82.5	-1%	79.5	-4%
BGR	7.1	7.4	3%	7.3	-1%	6.0	7.6	28%	6.5	-15%
CYP	7.6	6.9	-9%	7.1	3%	14.1	12.1	-14%	10.8	-11%
DEU	147.2	155.0	5%	159.9	3%	140.1	141.0	1%	147.0	4%
DNK	450.9	448.6	-1%	446.5	0%	344.9	339.3	-2%	333.4	-2%
ESP	1,976.5	1,941.7	-2%	2,039.7	5%	1,759.0	1,585.3	-10%	1,641.5	4%
EST	14.7	14.8	1%	14.7	-1%	13.0	11.9	-8%	11.8	-1%
FIN	36.1	36.2	0%	37.5	4%	44.3	41.9	-5%	45.7	9%
FRA	1,194.8	1,212.9	2%	1,238.3	2%	1,097.7	1,077.0	-2%	1,103.0	2%
GBR	1,113.7	1,158.9	4%	1,176.1	1%	925.4	899.3	-3%	905.3	1%
HRV	74.6	65.3	-12%	60.9	-7%	89.0	95.6	7%	94.8	-1%
IRL	248.5	315.5	27%	252.6	-20%	263.3	285.3	8%	263.9	-7%
ITA	899.1	907.0	1%	901.1	-1%	792.8	718.0	-9%	729.0	2%
LTU	58.8	89.8	53%	88.2	-2%	82.8	73.9	-11%	69.3	-6%
LVA	20.7	20.5	-1%	18.9	-8%	14.9	13.6	-8%	12.9	-6%
MLT	12.5	10.7	-14%	9.6	-10%	13.3	12.0	-10%	10.9	-10%
NLD	378.6	470.6	24%	408.6	-13%	345.5	362.2	5%	354.1	-2%
POL	49.6	52.1	5%	49.6	-5%	44.0	43.7	-1%	39.8	-9%
PRT	356.7	354.1	-1%	344.3	-3%	280.2	266.4	-5%	262.9	-1%
ROU	4.3	3.9	-9%	3.9	1%	1.6	1.5	-5%	1.6	5%
SVN	2.0	1.9	-8%	1.8	-3%	1.8	1.5	-14%	1.5	-2%
SWE	129.4	136.4	5%	145.7	7%	114.2	106.6	-7%	110.3	4%
Total	7,270	7,506	3%	7,496.4	0%	6,471	6,178.5	-5%	6,235.3	1%

Table 3.2 Profit indicator results for 2015 and projections for 2016 and 2017 by Member State

	GVA (million EUR)						Gross profit (million EUR)						Net profit (million EUR)					
	2015	2016	Δ% 2016-2015		2017	Δ% 2017-2016	2015	2016	Δ% 2016-2015		2017	Δ% 2017-2016	2015	2016	Δ% 2016-2015		2017	Δ% 2017-2016
BEL	41.6	54.7	31%	↗	41.8	-23%	↘	11.2	20.6	84%	↗	11.9	-42%	↘	2.9	13.4	367%	↗	4.8	-64% ↘
BGR	4.7	4.3	-8%	↘	4.9	14%	↗	2.3	0.8	-67%	↘	1.4	82%	↗	1.2	-0.3	-122%	↘	0.8	-431% ↘
CYP	1.1	1.3	19%	↗	1.4	10%	↗	-0.0	0.2	-614%	↘	0.2	48%	↗	-6.5	-5.2	-20%	↘	-3.7	-30% ↘
DEU	82.1	92.9	13%	↗	92.9	0%	↔	32.1	39.6	23%	↗	36.7	-7%	↘	7.1	13.9	96%	↗	12.9	-8% ↘
DNK	313.5	320.2	2%	↗	314.2	-2%	↘	199.2	202.2	2%	↗	195.1	-4%	↘	106.1	109.3	3%	↗	113.1	3% ↗
ESP	970.4	1,085.2	12%	↗	1,164.5	7%	↗	355.3	477.8	34%	↗	506.0	6%	↗	217.5	356.4	64%	↗	398.2	12% ↗
EST	9.4	10.3	10%	↗	10.0	-3%	↘	3.7	4.7	27%	↗	4.3	-7%	↘	1.7	2.9	68%	↗	2.9	-1% ↘
FIN	14.9	16.5	11%	↗	14.6	-12%	↘	7.8	9.5	23%	↗	7.1	-26%	↘	-8.2	-5.7	-30%	↘	-8.2	43% ↗
FRA	650.7	696.4	7%	↗	699.5	0%	↔	193.0	228.4	18%	↗	222.5	-3%	↘	97.1	135.9	40%	↗	135.3	0% ↔
GBR	567.1	640.9	13%	↗	640.7	0%	↔	277.5	338.5	22%	↗	334.7	-1%	↘	188.2	259.5	38%	↗	270.8	4% ↗
HRV	39.4	39.1	-1%	↘	30.5	-22%	↘	16.2	27.7	71%	↗	20.0	-28%	↘	-14.5	-30.3	109%	↗	-33.9	12% ↗
IRL	114.4	182.5	60%	↗	113.3	-38%	↘	33.8	77.0	128%	↗	31.0	-60%	↘	-14.8	30.2	-304%	↘	-11.3	-137% ↘
ITA	552.2	634.5	15%	↗	607.0	-4%	↘	274.1	352.6	29%	↗	326.9	-7%	↘	106.4	189.0	78%	↗	172.2	-9% ↘
LTU	-6.3	32.9	-620%	↘	33.1	1%	↗	-13.3	23.2	-274%	↘	23.6	2%	↗	-23.9	15.8	-166%	↘	18.9	19% ↗
LVA	11.4	12.3	9%	↗	10.8	-12%	↘	7.5	8.5	13%	↗	7.4	-14%	↘	5.8	6.9	18%	↗	6.0	-13% ↘
MLT	5.9	4.8	-19%	↘	4.1	-14%	↘	2.1	1.4	-35%	↘	1.1	-22%	↘	-0.9	-1.4	57%	↗	-1.2	-9% ↘
NLD	184.2	287.4	56%	↗	209.0	-27%	↘	68.6	140.8	105%	↗	84.5	-40%	↘	33.1	108.3	227%	↗	54.4	-50% ↘
POL	28.0	31.9	14%	↗	30.2	-5%	↘	13.5	16.2	20%	↗	15.7	-3%	↘	5.6	8.3	49%	↗	9.8	18% ↗
PRT	254.2	261.3	3%	↗	251.2	-4%	↘	121.1	130.9	8%	↗	116.5	-11%	↘	76.5	87.7	15%	↗	81.4	-7% ↘
ROU	3.5	3.2	-9%	↘	3.1	-3%	↘	3.0	2.7	-9%	↘	2.6	-4%	↘	2.7	2.4	-12%	↘	2.3	-2% ↘
SVN	1.6	1.5	-4%	↘	1.4	-4%	↘	0.6	0.6	3%	↗	0.6	-8%	↘	0.2	0.3	40%	↗	0.3	-3% ↘
SWE	67.9	81.6	20%	↗	89.9	10%	↗	38.0	50.7	33%	↗	53.8	6%	↗	15.1	29.8	97%	↗	35.3	19% ↗
Total	3,912	4,496	15%	↗	4,368	-3%	↘	1,647	2,154	31%	↗	2,003	-7%	↘	798.4	1327.3	66%	↗	1261.13	-5% ↘

Table 3.3 Variation in cost items by Member state projected for 2016 and 2017

	Wages and salaries of crew		Unpaid labour value		Energy costs		Repair & maintenance costs		Other variable costs		Other non-variable costs		Annual depreciation costs	
	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
BEL	12%	-12%	10%	-11%	-17%	12%	-6%	-2%	2%	-2%	-6%	-2%	-4%	-2%
BGR	47%	-1%	65%	-1%	45%	-34%	1%	1%	1%	0%	1%	0%	-3%	0%
CYP	9%	5%	-15%	3%	-27%	1%	-7%	1%	-8%	2%	-3%	1%	-8%	1%
DEU	6%	8%	9%	-6%	-20%	26%	1%	-1%	2%	13%	2%	-1%	6%	-1%
DNK	1%	0%	9%	2%	-21%	16%	-3%	-4%	5%	3%	-2%	-5%	1%	-4%
ESP	-1%	9%	-1%	2%	-34%	14%	-7%	-3%	-5%	0%	-11%	-4%	-10%	-4%
EST	-3%	3%	12%	-12%	-35%	15%	-1%	1%	-16%	1%	-3%	0%	-3%	0%
FIN	1%	5%	-8%	14%	-16%	33%	0%	2%	2%	18%	-1%	1%	0%	3%
FRA	2%	2%			-17%	16%	0%	-2%	0%	3%	0%	-1%	0%	-2%
GBR	4%	1%	5%	-5%	-20%	12%	-1%	-3%	0%	5%	-1%	-2%	0%	-3%
HRV	-52%	-8%	-38%	-6%	-60%	2%	-26%	7%	-28%	8%	53%	33%	115%	39%
IRL	32%	-23%	13%	-11%	-10%	14%	1%	-2%	7%	4%	0%	-2%	-1%	-1%
ITA	1%	-1%	3%	-1%	-36%	20%	-1%	-3%	-2%	-3%	-1%	-3%	-2%	-3%
LTU	39%	-2%	20%	-27%	-23%	5%	-8%	-6%	-10%	-5%	-9%	-6%	-9%	-6%
LVA	-4%	-5%	65%	-46%	-30%	11%	-2%	-8%	-10%	0%	-2%	-10%	-2%	-10%
MLT	-16%	-9%	-6%	-12%	-21%	8%	-3%	-13%	-5%	-13%	1%	-11%	-2%	-12%
NLD	25%	-14%	50%	-30%	-14%	27%	-6%	1%	4%	8%	-3%	1%	-6%	1%
POL	7%	-6%	13%	-12%	-20%	4%	3%	-4%	2%	-15%	3%	-5%	1%	-4%
PRT	-2%	3%	0%	-1%	-21%	12%	-2%	-19%	0%	3%	-4%	-16%	-2%	-18%
ROU	-13%	1%	-21%	1%	-16%	31%	7%	0%	8%	1%	5%	0%	10%	0%
SVN	-10%	-1%	-7%	1%	-36%	12%	-5%	-4%	-4%	-3%	-8%	-5%	-2%	-2%
SWE	7%	9%	-3%	31%	-23%	17%	-5%	-8%	-1%	1%	-4%	-6%	-5%	-9%
Total	3.3%	1.2%	4.1%	-0.7%	-26.2%	15.6%	-3.2%	-2.9%	-2.0%	1.9%	-3.2%	-1.9%	-0.3%	-1.7%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projections.

Table 3.4 Main performance indicators by Member State in 2015 and projection results for 2016 and 2017

	GVA to revenue (%)						Gross profit margin (%)						Net profit margin (%)					
	2015	2016	Δ% 2016-2015		2017	Δ% 2017-2016	2015	2016	Δ% 2016-2015		2017	Δ% 2017-2016	2015	2016	Δ% 2016-2015		2017	Δ% 2017-2016
BEL	48.2	57.0	18%	↗	49.7	-13%	↘	13.0	21.5	66%	↗	14.1	-34%	↘	3.3	13.9	320%	↗	5.7	-59% ↘
BGR	65.8	58.5	-11%	↘	67.3	15%	↗	32.7	10.6	-68%	↘	19.4	84%	↗	16.2	- 3.5	-121%	↘	11.5	-434% ↘
CYP	14.6	19.0	31%	↗	20.2	6%	↗	- 0.4	2.2	-662%	↘	3.1	43%	↗	- 86.1	- 75.6	-12%	↘	- 51.5	-32% ↘
DEU	55.8	59.9	7%	↗	58.1	-3%	↘	21.8	25.5	17%	↗	23.0	-10%	↘	4.8	9.0	87%	↗	8.1	-10% ↘
DNK	69.5	71.4	3%	↗	70.4	-1%	↘	44.2	45.1	2%	↗	43.7	-3%	↘	23.5	24.4	4%	↗	25.3	4% ↗
ESP	49.1	55.9	14%	↗	57.1	2%	↗	18.0	24.6	37%	↗	24.8	1%	↗	11.0	18.4	67%	↗	19.5	6% ↗
EST	63.5	69.6	10%	↗	67.9	-2%	↘	24.9	31.3	26%	↗	29.3	-6%	↘	11.7	19.5	67%	↗	19.5	0% ↔
FIN	41.2	45.7	11%	↗	38.9	-15%	↘	21.5	26.4	22%	↗	18.8	-28%	↘	- 22.6	- 15.8	-30%	↘	- 21.8	38% ↗
FRA	54.5	57.4	5%	↗	56.5	-2%	↘	16.2	18.8	17%	↗	18.0	-5%	↘	8.1	11.2	38%	↗	10.9	-2% ↘
GBR	50.9	55.3	9%	↗	54.5	-1%	↘	24.9	29.2	17%	↗	28.5	-3%	↘	16.9	22.4	33%	↗	23.0	3% ↗
HRV	52.9	59.9	13%	↗	50.2	-16%	↘	21.7	42.3	95%	↗	32.9	-22%	↘	- 19.4	- 46.4	138%	↗	- 55.7	20% ↗
IRL	46.0	57.8	26%	↗	44.8	-22%	↘	13.6	24.4	80%	↗	12.3	-50%	↘	- 6.0	9.6	-261%	↘	- 4.5	-147% ↘
ITA	61.4	70.0	14%	↗	67.4	-4%	↘	30.5	38.9	28%	↗	36.3	-7%	↘	11.8	20.8	76%	↗	19.1	-8% ↘
LTU	- 10.8	36.6	-441%	↘	37.5	2%	↗	- 22.6	25.8	-214%	↘	26.8	4%	↗	- 40.7	17.6	-143%	↘	21.4	21% ↗
LVA	54.9	60.2	10%	↗	57.4	-5%	↘	36.4	41.6	14%	↗	39.0	-6%	↘	28.2	33.6	19%	↗	31.9	-5% ↘
MLT	47.5	44.7	-6%	↘	42.5	-5%	↘	17.2	13.0	-24%	↘	11.3	-13%	↘	- 6.9	- 12.7	83%	↗	- 12.8	1% ↗
NLD	48.7	61.1	26%	↗	51.2	-16%	↘	18.1	29.9	65%	↗	20.7	-31%	↘	8.8	23.0	163%	↗	13.3	-42% ↘
POL	56.4	61.3	9%	↗	60.9	-1%	↘	27.2	31.0	14%	↗	31.7	2%	↗	11.3	16.0	42%	↗	19.8	24% ↗
PRT	71.3	73.8	4%	↗	73.0	-1%	↘	33.9	37.0	9%	↗	33.8	-8%	↘	21.5	24.8	15%	↗	23.6	-5% ↘
ROU	82.2	82.2	0%	↔	78.9	-4%	↘	69.4	69.9	1%	↗	66.5	-5%	↘	62.9	61.3	-3%	↘	59.7	-3% ↘
SVN	76.8	79.8	4%	↗	78.9	-1%	↘	29.5	33.0	12%	↗	31.0	-6%	↘	12.1	18.4	52%	↗	18.3	0% ↔
SWE	52.5	59.8	14%	↗	61.7	3%	↗	29.4	37.2	26%	↗	36.9	-1%	↘	11.7	21.8	87%	↗	24.3	11% ↗
Total	54%	60%	11%	↗	58%	-3%	↘	23%	29%	27%	↗	27%	-7%	↘	11.0%	17.7%	61%	↗	16.8%	-5% ↘

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * The EU Small-scale coastal fleet (SSCF)

3.4 EU small-scale coastal fleet (SSCF)

Findings for the EU small-scale coastal fleet are provided throughout each chapter, including projected results for 2016 and 2017. This section provides a summary of the main findings for the EU SSCF:

- The number of active small-scale coastal vessels (including Greece) totalled 47 545 in 2015, employing 77 708 fishers or 47 789 in FTE. When excluding Croatia and compared to 2008, the number of small-scale coastal vessels in 2015 decreased by 11.7%, engine power by 3.3% and gross tonnage by 10%.
- When excluding Croatia and Greece due to incomplete time-series data, FTE in the SSCF in 2015 decreased 12% compared to 2010, effort in days at sea by -7%, energy consumption by -18% and energy costs by -29%.
- While landings in weight increased by 14%, income from landings decreased 13% over the same period.
- With other income also decreasing by 51.5% in 2015, the EU SSCF saw revenues fall by 14.4% compared to 2010. Furthermore, according to the reported figures, direct income subsidies were 12% less than in 2010.
- Lower energy costs in 2015 were offset by lower revenue, and the SSCF suffered an 11% decrease in GVA, and an 8.6% decrease in gross profit compared to 2010. Yet, with lower capital costs due to reduced capacity, the SSCF saw a 62% increase in net profit.
- Net profit increased from €58.2 million in 2010 to €92 million in 2015 (excluding Greece).
- In 2016, the number of SSCF vessels increased (+7%) mainly a result of a significant increase in licenced Croatian SSCF vessels (from 1 771 registered vessels in 2015 to 4 292 in 2016 and 5 155 in 2017), while FTE increased by 2.6%.
- Effort, in days at sea, decreased by 2.3% in 2016; reduced effort combined with low fuel prices, indicate that energy costs decreased by 22%.
- Landed weight is projected to remain stable at around 284 thousand tonnes while landed value, estimated at €851 million, increased 2.6%, increasing revenue by around the same order.
- These findings suggest that in 2016 the EU SSCF generated €650 million in GVA, an increase of 5.4% compared to 2015 results.
- Gross profit was estimated at €237 million in 2016, a 10.8% increase on 2015.
- Positive economic developments can also be seen in the performance indicators - GVA to revenue (67%) and gross profit margin (24%) in 2016.
- With increased capital costs, net profit was estimated at €72.3 million in 2016, a decrease of 21.6% compared to 2015, year with the highest net profit (€92 million) observed over the period analysed (2008-2015). Net profit margin moves from 10.1% in 2015 to 7.7% in 2016
- The 2016 gains are offset slightly in 2017 with fuel costs increasing 10.3%. The SSCF remains profitable with gross and net profit margins of 23% and 7%, respectively.
- While the EU SSCF as a whole was profitable over the time period analysed, results at the regional and Member State level are mixed.
- At the regional level, results suggest that the North Sea, Northeast Atlantic, Mediterranean & Black Sea and Outermost region SSCF were profitable in 2015, generating 2.8%, 8.4%, 6.6% and 8% net profit margins respectively. Conversely, the SSCF operating in the Baltic Sea suffered losses, posting €18.37 million in net losses in 2015.
- The Danish, Finnish, Polish and Swedish Baltic SSCF were the most unprofitable, collectively suffering around €18 million in net losses in 2015.
- By Member State, projected results suggest that five MS SSCFs suffered gross losses in 2015 and 2016. In 2017, the number falls to three, as the Danish and Swedish SSCF recover to post gross profits.
- The Croatian SSCF, generating gross profits in 2015, is projected to suffer losses in 2016 and 2017.
- Conversely, the Lithuanian SSCF, suffering gross losses in 2015, is projected to have recovered in 2016, posting gross and net profits; situation which is expected to continue into 2017.
- In 2016, eight MS SSCF are projected to have suffered net losses. The Irish SSCF, which was only marginally profitable in 2016, is expected to revert to posting net losses in 2017, similar to its situation in 2015; bringing the number of MS SSCF suffering net losses to nine in 2017.

Table 3.5 Main indicators for the EU small-scale coastal fleet 2008-2015 and projections for 2016 and 2017

	2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017
Total number of vessels	35,980	35,885	36,404	32,854	34,743	34,616	34,220	33,978	36,399	36,743	
Full-time equivalent (national)	31,518	31,217	32,375	30,719	29,115	31,556	28,756	29,299	30,070	30,211	
Days at sea	2,875	2,952	2,768	2,563	2,825	2,763	2,713	2,704	2,641	2,621	
Energy consumption	174.2	194.2	188.5	191.8	170.5	186.2	145.7	156.6	155.4	153.2	
Energy costs	122.9	100.6	118.6	142.3	131.3	134.1	101.2	85.9	67.2	74.1	
Live weight of landings	194.9	196.7	247.5	259.0	276.1	294.7	287.8	284.0	284.3	281.5	
Value of landings	755.9	742.1	899.5	928.0	846.1	782.9	815.0	829.7	851.2	833.7	
Direct income subsidies	24.3	18.7	12.1	13.3	17.0	13.0	10.2	10.7			
Income from landings	1,012.9	1,072.9	1,048.9	1,024.6	909.9	895.6	885.6	920.5	944.2	926.8	
Other income	24.9	27.1	38.4	30.3	26.7	30.1	31.7	25.1	25.0	23.8	
Revenue	1,037.8	1,099.9	1,087.3	1,055.0	936.6	925.7	917.3	945.6	969.2	950.6	
Gross Value Added	653.8	723.7	686.6	636.4	553.9	532.4	579.1	616.9	650.4	625.0	
GVA to revenue	63.0	65.8	63.2	60.3	59.1	57.5	63.1	65.2	67.1	65.8	
GVA per FTE (labour productivity)	21.2	23.8	21.6	21.2	19.4	17.1	20.4	21.4	22.0	21.1	
Gross profit	204.9	221.2	229.9	203.4	173.6	125.2	166.5	213.6	236.7	218.3	
Gross profit margin	20.0	20.2	21.2	19.3	18.6	13.6	18.2	22.6	24.4	23.0	
Net profit	69.7	52.2	58.2	69.3	52.7	5.9	46.4	92.1	72.3	64.6	
Net profit margin	9.1	6.4	7.3	6.8	5.9	0.7	5.2	10.1	7.7	7.1	

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projections. Includes Croatia, excludes Greece

Table 3.6 Main profitability indicators for the small-scale coastal fleet by Member State in 2015 and projections for 2016 and 2017

	Revenue			Gross Value Added			Gross profit			Gross profit margin			Net profit			Net profit margin		
	2015	2016*	2017*	2015	2016*	2017*	2015	2016*	2017*	2015	2016*	2017*	2015	2016*	2017*	2015	2016*	2017*
BGR	3.7	4.4	4.4	2.9	3.7	3.6	1.5	1.3	1.3	41.2	29.9	30.7	1.1	0.9	1.1	30.6	21.0	25.0
CYP	4.6	3.8	4.0	0.8	0.8	0.9	0.5	0.6	0.6	12.0	14.5	15.9	-3.6	-2.7	-1.7	-79.1	-70.5	-44.0
DEU	8.6	7.8	7.9	3.6	3.1	3.4	1.0	0.8	1.1	12.0	10.4	13.3	-0.6	-0.7	-0.4	-7.3	-9.6	-4.8
DNK	23.3	25.3	26.1	12.1	14.0	14.7	-0.9	-0.1	0.1	-3.7	-0.3	0.5	-4.4	-3.5	-2.6	-18.7	-13.7	-10.1
ESP	151.2	152.2	152.6	107.9	110.9	111.0	32.2	34.7	34.5	21.3	22.8	22.6	26.1	28.3	28.9	19.5	21.0	21.3
EST	5.6	5.8	5.3	3.1	3.6	3.0	1.2	1.7	1.3	21.5	29.1	24.4	0.7	1.2	1.0	12.2	21.1	18.1
FIN	9.6	8.3	10.1	4.7	3.7	4.8	3.0	2.2	3.0	30.8	25.9	29.4	-4.1	-4.7	-4.5	-42.3	-56.0	-44.6
FRA	223.2	227.3	222.8	143.6	150.0	144.9	43.6	49.8	46.5	19.6	21.9	20.9	24.8	31.6	29.3	11.1	13.9	13.1
GBR	136.9	146.3	136.2	69.6	82.6	72.3	19.7	29.2	22.7	14.4	20.0	16.7	6.3	16.5	11.7	4.6	11.3	8.6
HRV	14.5	13.1	10.8	8.3	-2.2	-8.5	3.4	-6.6	-12.2	23.2	-51.2	-114.3	-1.9	-57.0	-61.3	-13.5	-440.1	-574.1
IRL	25.5	28.2	25.4	14.9	17.9	14.9	5.3	6.8	5.4	20.9	24.1	21.1	-0.6	0.3	-0.9	-9.7	3.8	-13.6
ITA	215.6	221.3	219.5	158.4	170.9	166.9	69.7	79.6	76.4	32.3	36.0	34.8	33.7	43.6	42.3	15.6	19.7	19.3
LTU	0.6	0.7	0.5	0.3	0.4	0.3	-0.0	0.1	0.0	-1.2	16.2	6.3	-0.04	0.1	0.02	-6.0	13.6	4.4
LVA	1.5	2.5	1.4	1.3	2.3	1.2	1.0	1.7	0.9	65.5	70.1	65.8	1.0	1.7	0.9	63.8	69.0	63.9
MLT	4.1	3.7	3.2	1.4	1.5	1.2	-0.6	-0.4	-0.5	-15.4	-11.0	-14.1	-1.7	-1.3	-1.2	-42.0	-36.3	-37.7
NLD	4.6	4.7	5.0	3.3	3.3	3.5	2.5	2.6	2.7	54.8	54.5	53.5	1.8	1.8	2.0	37.8	38.2	39.8
POL	10.3	11.7	10.3	6.0	7.4	6.7	-1.1	-0.7	-0.5	-10.8	-6.0	-4.4	-2.5	-2.1	-1.3	-24.6	-17.9	-12.9
PRT	81.7	81.9	80.7	64.4	65.8	64.9	31.9	33.3	32.9	39.0	40.6	40.7	22.1	23.1	24.1	27.1	28.2	29.9
ROU	1.6	1.2	1.3	1.2	0.9	0.9	1.0	0.8	0.7	61.7	60.6	58.0	0.9	0.6	0.6	54.9	52.4	50.1
SVN	1.1	1.1	1.1	0.9	0.9	0.9	0.3	0.3	0.3	23.7	29.6	28.4	0.0	0.1	0.1	1.0	7.5	8.9
SWE	17.9	17.7	22.2	8.4	8.9	13.7	-1.6	-0.8	1.1	-9.2	-4.8	5.0	-6.8	-5.7	-3.4	-37.9	-32.1	-15.4

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projections

3.5 Main drivers and trends affecting the economic performance of the EU fleet

Compared to 2014, the economic performance of the EU fleet showed a modest improvement in 2015, and is expected to have improved further in 2016 but forecasted to decline slightly in 2017.

The overall the improved economic situation of the fleet is largely a result of lower operating costs, mainly due to decreasing fuel prices as income from landings increased by only 0.34%. Overall, while revenue maintained, operating costs decreased by 0.2%.

Economic performance in 2015 by Member State revealed a mixed picture. The data indicate that two of the 22 Member State fleets (Greece excluded) suffered gross losses, and that 16 Member States generated net profits.

Economic performance of the large-scale has steadily improved over the period 2008-2015 while that of the SSCF has been less clear, albeit marked improvements in 2014 and 2015. The situation of the distant water fleet deteriorated significantly after years of improved performance, moving from a 28% gross profit margin in 2014 to 13% in 2015.

With a fleet as diverse as the EU fishing fleet, operating in fishing areas across the globe, it is difficult to define main drivers of economic performance as different factors will have varying levels of impact on different fleets.

However, several factors stand out as the main driving forces behind the overall improvement in the profitability of the EU fleet in general in 2015: **low fuel prices** leading to lower fuel costs, **increased fishing opportunities** and **higher average prices** for some important fish stocks.

More specifically, other factors that may have contributed to improved economic performance, include, but are not limited to the following (in no specific order):

- Increased fishing opportunities leading to higher landings in weight and value for some MS fleets, e.g. Denmark, Sweden, Germany, Italy
- Recovery of some stocks, such as Baltic sprat and herring, North Sea plaice, European hake, bluefin tuna, monkfishes, Atlantic mackerel and blue whiting leading to increased TAC and quotas.
- Small pelagic species in the Baltic (sprat, herring) were in sound condition, combined with good market situation, created good perspectives for fleets targeting these species.
- Increased first-sale price and favourable market situations, e.g. brown shrimp in Germany. Fluctuations in fish prices may have significant impacts on individual fleets. Higher average price for sea snails, Mediterranean horse mackerel, red mullet and European anchovy, had particularly positive impacts on the profitability of some fleets in the Black Sea.
- The impact of capacity reduction (decommissioning with or without public support) have played an important role in improving the economic performance of several MS fleets, e.g. Ireland, Latvia, and Estonia.
- Low fuel prices particular benefit MS fleets that are dominated by trawlers (pelagic, demersal and beam trawlers), as trawling is typically fuel intensive. Fluctuations in fuel consumption and fuel prices are therefore key drivers of the fleet's profitability. Introduction of innovative fuel saving fishing gears have also aided the overall improvement in economic performance of some of these MS fleets.
- Implementation of certification schemes and the growing demand for certified products. MSC certification for cod, saithe, haddock and herring fisheries in the North Sea and in Norwegian waters may be extended or re-approved. North Sea and Atlanto-Scandian herring as well as blue whiting fisheries are now certified. Due to the dispute between the EU, Norway, Iceland and Faroes, MSC certification of mackerel was suspended and re-issued only in 2016.
- Research and innovation projects (more selective fishing gears) funded by the European Fishing Fund and national support.

Conversely, factors that may have contributed to poor economic performance include, but are not limited to the following (in no specific order):

- Decreased fishing opportunities in some regions and for some stocks, e.g. yellowfin tuna, Eastern English Channel sole, and Baltic cod.
- Overfishing and poor status of many fish stocks in the Mediterranean Sea. Pressure on stocks augmented by competition with fishing vessels from other countries that do not follow EU legislation and restrictions, such as Turkey.
- Lower average first sale prices for many commercially important species, e.g. cod in Baltic, plaice in the Netherlands, some important stocks for the UK.
- The effects of the global economic crisis that continues to affect internal and international markets for some species and limits access to credit. Cash flow shortage, increased social-security contributions and taxation together with the high value of inputs create unfavourable conditions for fishers particularly in Member States hit harder by the economic crisis. Low average prices of the main target species are also linked to the low spending power of many households because of the ongoing financial crises.
- Russian embargo on EU seafood exports has been noted for multiple MS, particularly impacting the pelagic sector.
- Market saturation and poor marketing to place products on new markets.

- Low abundance and/or low quality of some species. The poor condition of Baltic cod (skinny fish) has been negatively influencing the performance of demersal fleets targeting cod. The situation did not improve in 2015 or 2016. Small-scale fisheries were additionally affected by low abundances of cod in coastal waters.
- Damage to fishing gears caused by marine mammals and other protected species, such as, seals, dolphins, sea turtles, and seabirds for a number of fleets, in particular, in the Baltic, Celtic and Mediterranean seas. These damages increase repair and maintenance costs and negatively affect their overall economic performance, bearing in mind that fishers do not receive compensation for their losses.
- Shortage of local crews as young people in fishing communities are less and less attracted to fishing as a career choice leading to increased crew costs due to supply shortages.
- Severe weather conditions and increase of areas that prohibit or limit specific fishing access/activity due to established restrictions for energy production or temporary closures of areas for stock recovery and nature conservation.
- Competition with an increasing number of recreational fishers, who usually fish in coastal areas and often illegally sell their catch at low prices.
- Delays and/or non-renewals of EU fishery partnership bilateral agreements with third countries as well as decreasing quotas.
- Decreased inflow of transfers and direct subsidies to the fishing sector, significantly affecting direct incomes in some MS (e.g. Poland) as well as funds usually available for repairs and investments. The new EMFF program has not been lunched yet so in 2015 and 2016 most of the funds were not available.

3.6 Summary data tables by Member State and fishing activity (scale of operation)

Table 3.7 Main capacity, employment, effort and landings variables by Member State, 2015

	Total no. of vessels (#)	as % of EU Total	No. of Inactive vessels (#)	as % of EU Total	% of inactive vessels MS fleet	Vessel tonnage (thousand GT)	as % of EU Total	Engine power (thousand kW)	as % of EU Total	Total employed (person)	as % of EU Total	FTE (#)	as % of EU Total	Days at sea (thousand day)	as % of EU Total	Fishing days (thousand day)	as % of EU Total	Energy consumed (million litre)	as % of EU Total	Landed weight (thousand tonne)	as % of EU Total	Landed value (million €)	as % of EU Total
BEL	79	0.1%	6	0.0%	8%	14.6	0.9%	47.6	0.7%	340	0.2%	406	0.4%	15.3	0.3%	15.7	0.3%	41.4	1.8%	24.5	0.5%	82.0	1.2%
BGR	1,979	2.3%	775	3.8%	39%	6.4	0.4%	56.0	0.9%	1,728	1.1%	608	0.5%	22.7	0.5%	22.7	0.5%	2.0	0.1%	8.3	0.2%	3.8	0.1%
CYP	905	1.1%	65			3.6	0.2%	41.2	0.6%	1,285	0.8%	794	0.7%	65.2	1.4%	65.2	1.4%	2.8	0.1%	1.5	0.0%	7.6	0.1%
DEU	1,478	1.8%	404	2.0%	27%	56.5	3.5%	130.1	2.0%	1,532	1.0%	1,202	1.0%	106.1	2.2%	110.7	2.4%	40.2	1.7%	238.5	4.7%	215.8	3.0%
DNK	1,851	2.2%	459	2.2%	25%	66.3	4.1%	208.2	3.2%	1,330	0.9%	1,570	1.4%	96.8	2.0%	91.5	1.9%	93.3	4.0%	865.9	17.1%	440.3	6.2%
ESP	9,686	11.5%	1,185	5.8%	12%	366.7	22.6%	842.1	13.1%	32,059	21.0%	30,015	26.1%	1,078.0	22.3%	1,030.8	22.0%	709.3	30.5%	923.3	18.3%	1,885.0	26.6%
EST	1,534	1.8%	2	0.0%	0%	5.9	0.4%	31.8	0.5%	2,242	1.5%	485	0.4%	84.8	1.8%	151.6	3.2%	3.3	0.1%	59.3	1.2%	14.5	0.2%
FIN	2,717	3.2%	1,140	5.6%	42%	15.8	1.0%	155.7	2.4%	1,668	1.1%	358	0.3%	106.0	2.2%	106.0	2.3%	19.2	0.8%	148.1	2.9%	33.6	0.5%
FRA	6,911	8.2%	1,186	5.8%	17%	171.9	10.6%	999.4	15.5%	13,442	8.8%	6,865	6.0%	454.7	9.4%	418.3	8.9%	316.7	13.6%	518.3	10.2%	1,147.7	16.2%
GBR	6,420	7.6%	1,844	9.0%	29%	200.3	12.4%	805.4	12.5%	12,107	7.9%	8,135	7.1%	431.3	8.9%	304.0	6.5%	278.7	12.0%	708.8	14.0%	1,067.9	15.1%
GRC	15,624	18.5%	1,210	5.9%	8%	74.7	4.6%	446.2	6.9%	25,407	16.6%	23,431	20.4%				0.0%		0.0%		0.0%		0.0%
HRV	7,849	9.3%	5,026	24.6%	64%	53.8	3.3%	429.7	6.7%	5,067	3.3%	2,384	2.1%	242.0	5.0%	206.7	4.4%	25.5	1.1%	72.9	1.4%	60.9	0.9%
IRL	2,048	2.4%	681	3.3%	33%	58.9	3.6%	179.2	2.8%	3,451	2.3%	2,522	2.2%	72.6	1.5%	62.0	1.3%	82.3	3.5%	240.9	4.8%	237.4	3.4%
ITA	12,426	14.7%	1,092	5.3%	9%	163.6	10.1%	1,013.5	15.7%	25,787	16.9%	21,459	18.7%	1,438.2	29.8%	1,526.9	32.5%	378.3	16.3%	192.2	3.8%	894.0	12.6%
LTU	151	0.2%	46	0.2%	30%	53.6	3.3%	57.0	0.9%	691	0.5%	463	0.4%	9.2	0.2%	7.2	0.2%	36.5	1.6%	82.2	1.6%	62.4	0.9%
LVA	309	0.4%	59	0.3%	19%	7.3	0.5%	20.6	0.3%	620	0.4%	345	0.3%	18.3	0.4%	16.3	0.3%	5.7	0.2%	62.1	1.2%	19.8	0.3%
MLT	1,039	1.2%	258	1.3%	25%	7.5	0.5%	76.1	1.2%	1,463	1.0%	872	0.8%	25.0	0.5%	23.3	0.5%	3.7	0.2%	2.4	0.0%	11.6	0.2%
NLD	718	0.9%	203	1.0%	28%	125.8	7.8%	266.0	4.1%	1,966	1.3%	1,619	1.4%	49.0	1.0%	43.2	0.9%	140.2	6.0%	330.5	6.5%	375.0	5.3%
POL	873	1.0%	68	0.3%	8%	34.0	2.1%	81.5	1.3%	2,491	1.6%	2,280	2.0%	71.8	1.5%	68.7	1.5%	17.5	0.8%	187.9	3.7%	48.7	0.7%
PRT	8,205	9.7%	4,334	21.2%	53%	100.3	6.2%	367.7	5.7%	16,086	10.5%	8,130	7.1%	352.5	7.3%	338.2	7.2%	79.6	3.4%	183.4	3.6%	351.9	5.0%
ROU	151	0.2%	24	0.1%	16%	0.9	0.1%	6.0	0.1%	352	0.2%	44	0.0%	4.0	0.1%	3.7	0.1%	0.7	0.0%	4.8	0.1%	4.3	0.1%
SVN	169	0.2%	81	0.4%	48%	0.6	0.0%	8.5	0.1%	119	0.1%	84	0.1%	8.7	0.2%	8.7	0.2%	0.2	0.0%	0.2	0.0%	1.3	0.0%
SWE	1,298	1.5%	296	1.4%	23%	30.8	1.9%	167.9	2.6%	1,487	1.0%	792	0.7%	73.4	1.5%	73.4	1.6%	49.3	2.1%	202.7	4.0%	116.0	1.6%
EU total	**84,420**		**20,444**		**24.2%**	**1,620**		**6,438**		**152,720**		**114,863**											
% Δ to 2014	3.6%		14.6%			-1.0%		0.1%		-0.3%		4.0%											
EU excl. GRC	**68,796**		**19,234**		**28.0%**	**1,545**		**5,991**		**127,313**		**91,432**		**4,825**		**4,695**		**2,326**		**5,059**		**7,082**	
% Δ to 2014	3.1%		15.3%			-1.2%		-0.1%		-2.0%		2.0%		-1.2%		-2.1%		5.7%		0.1%		-1.1%	

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 3.8 Main economic variables by Member State, 2015

	Revenue (million €)	as % of EU Total	Wages and salaries of crew (million €)	as % of EU Total	Unpaid labour value (million €)	as % of EU Total	Energy costs (million €)	as % of EU Total	Repair costs (million €)	as % of EU Total	Other variable costs (million €)	as % of EU Total	Other non-variable costs (million €)	as % of EU Total	Annual depreciation costs (million €)	as % of EU Total	Gross Value Added (million €)	as % of EU Total	Gross profit (million €)	as % of EU Total	Net profit (million €)	as % of EU Total	Tangible asset value (million €)	as % of EU Total	Invest-ments (million €)	as % of EU Total
BEL	86.3	1.2%	28.3	1.4%	2.1	0.9%	17.1	1.6%	7.1	1.1%	12.9	1.2%	7.6	1.4%	8.2	1.1%	41.6	1.1%	11.2	0.68%	2.9	0.4%	53.1	1.0%	6.9	1.7%
BGR	7.1	0.1%	2.0	0.1%	0.4	0.2%	1.4	0.1%	0.6	0.1%	0.2	0.0%	0.3	0.0%	0.4	0.1%	4.7	0.1%	2.3	0.14%	1.2	0.1%	20.2	0.4%	5.7	1.4%
CYP	7.6	0.1%	0.8	0.0%	0.3	0.1%	2.0	0.2%	1.1	0.2%	3.2	0.3%	0.3	0.0%	3.1	0.4%	1.1	0.0%	- 0.03	0.00%	- 6.5	-0.8%	55.2	1.0%	0.1	0.0%
DEU	147.2	2.0%	40.5	2.0%	9.5	4.1%	18.1	1.7%	17.4	2.7%	12.9	1.2%	16.6	3.1%	24.6	3.2%	82.1	2.1%	32.1	1.95%	7.1	0.9%	120.0	2.2%	50.0	12.3%
DNK	450.9	6.2%	79.2	3.9%	35.0	15.2%	42.7	3.9%	41.6	6.5%	33.2	3.1%	20.0	3.7%	90.3	11.9%	313.5	8.0%	199.2	12.10%	106.1	13.3%	607.9	10.9%	40.1	9.9%
ESP	1,976.5	27.2%	536.5	26.4%	78.6	34.0%	300.7	27.4%	137.1	21.3%	433.7	40.3%	134.6	24.8%	125.9	16.5%	970.4	24.8%	355.3	21.57%	217.5	27.2%	501.5	9.0%	65.4	16.1%
EST	14.7	0.2%	4.7	0.2%	1.0	0.4%	1.8	0.2%	1.7	0.3%	1.4	0.1%	0.5	0.1%	1.9	0.2%	9.4	0.2%	3.7	0.22%	1.7	0.2%	19.0	0.3%	2.6	0.6%
FIN	36.1	0.5%	5.2	0.3%	1.9	0.8%	9.5	0.9%	4.1	0.6%	2.7	0.2%	4.9	0.9%	15.3	2.0%	14.9	0.4%	7.8	0.47%	- 8.2	-1.0%	68.8	1.2%	17.6	4.3%
FRA	1,194.8	16.4%	457.7	22.5%	-	0.0%	161.7	14.8%	110.1	17.1%	139.6	13.0%	132.7	24.5%	91.7	12.0%	650.7	16.6%	193.0	11.72%	97.1	12.2%	547.7	9.8%	28.1	6.9%
GBR	1,113.7	15.3%	278.8	13.7%	10.8	4.7%	135.2	12.3%	124.1	19.3%	212.4	19.7%	74.9	13.8%	75.4	9.9%	567.1	14.5%	277.5	16.85%	188.2	23.6%	797.1	14.3%	102.1	25.2%
HRV	74.6	1.0%	21.4	1.1%	1.8	0.8%	14.3	1.3%	6.7	1.0%	7.7	0.7%	6.5	1.2%	14.7	1.9%	39.4	1.0%	16.2	0.98%	- 14.5	-1.8%	419.1	7.5%	7.8	1.9%
IRL	248.5	3.4%	76.5	3.8%	4.1	1.8%	42.0	3.8%	31.9	5.0%	38.9	3.6%	21.3	3.9%	42.9	5.6%	114.4	2.9%	33.8	2.05%	- 14.8	-1.9%	466.0	8.4%	15.8	3.9%
ITA	899.1	12.4%	224.9	11.1%	53.3	23.0%	200.0	18.2%	40.1	6.2%	71.4	6.6%	35.4	6.5%	156.7	20.6%	552.2	14.1%	274.1	16.64%	106.4	13.3%	685.6	12.3%	20.3	5.0%
LTU	58.8	0.8%	7.0	0.3%	0.0	0.0%	15.2	1.4%	9.1	1.4%	20.4	1.9%	20.5	3.8%	7.9	1.0%	- 6.3	-0.2%	- 13.3	-0.81%	- 23.9	-3.0%	134.4	2.4%	0.0	0.0%
LVA	20.7	0.3%	3.6	0.2%	0.2	0.1%	2.9	0.3%	1.1	0.2%	2.6	0.2%	2.8	0.5%	1.6	0.2%	11.4	0.3%	7.5	0.46%	5.8	0.7%	10.9	0.2%	0.2	0.1%
MLT	12.5	0.2%	1.6	0.1%	2.1	0.9%	2.3	0.2%	1.8	0.3%	2.2	0.2%	0.3	0.1%	2.8	0.4%	5.9	0.2%	2.1	0.13%	- 0.9	-0.1%	65.5	1.2%	1.1	0.3%
NLD	378.6	5.2%	107.1	5.3%	8.5	3.7%	54.4	5.0%	63.6	9.9%	34.4	3.2%	42.0	7.8%	34.0	4.5%	184.2	4.7%	68.6	4.16%	33.1	4.1%	298.7	5.4%	18.7	4.6%
POL	49.6	0.7%	10.1	0.5%	4.4	1.9%	9.0	0.8%	4.2	0.7%	4.2	0.4%	4.2	0.8%	4.7	0.6%	28.0	0.7%	13.5	0.82%	5.6	0.7%	94.4	1.7%	1.4	0.4%
PRT	356.7	4.9%	127.8	6.3%	5.3	2.3%	43.1	3.9%	18.8	2.9%	32.4	3.0%	8.3	1.5%	36.0	4.7%	254.2	6.5%	121.1	7.35%	76.5	9.6%	451.3	8.1%	14.4	3.6%
ROU	4.3	0.1%	0.5	0.0%	0.0	0.0%	0.5	0.0%	0.1	0.0%	0.0	0.0%	0.1	0.0%	0.2	0.0%	3.5	0.1%	3.0	0.18%	2.7	0.3%	2.3	0.0%	0.2	0.1%
SVN	2.0	0.0%	0.6	0.0%	0.4	0.2%	0.2	0.0%	0.2	0.0%	0.1	0.0%	0.0	0.0%	0.2	0.0%	1.6	0.0%	0.6	0.04%	0.2	0.0%	4.4	0.1%	0.2	0.0%
SWE	129.4	1.8%	18.6	0.9%	11.3	4.9%	22.6	2.1%	20.8	3.2%	10.1	0.9%	7.9	1.5%	22.8	3.0%	67.9	1.7%	38.0	2.31%	15.1	1.9%	138.5	2.5%	6.9	1.7%
EU total	**7,270**		**2,034**		**231**		**1,097**		**643**		**1,076**		**542**		**761**		**3,912**		**1,647**		**798**		**5,562**		**406**	
% Δ 2014	0.3%		6.8%		-10.3%		-18.7%		7.0%		8.6%		1.7%		8.6%		3.7%		2.2%		0.0%		4.4%		-3.2%	

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 3.9 Main socio-economic performance indicators by Member State, 2015

	GVA to revenue	Gross profit margin	Net profit margin	GVA per FTE	Net Value Added per FTE	Return on fixed tangible assets	Energy consumed per landed tonne	Fuel efficiency	Average wage per FTE
	(%)	(%)	(%)	(thousand €)	(thousand €)	(%)	(litre/tonne)	(%)	(thousand €)
BEL	48.2	13.0	3.3	102.5	82.0	5.6	1,686.7	79.1	74.9
BGR	65.8	32.7	16.2	7.7	5.8	9.4	243.2	72.1	3.9
CYP	14.6	-0.4	-86.1	1.4	-6.8	-5.6	1,904.6	73.6	1.4
DEU	55.8	21.8	4.8	68.3	47.5	6.3	168.5	87.1	41.6
DNK	69.5	44.2	23.5	199.7	140.3	17.9	107.7	90.3	72.8
ESP	49.1	18.0	11.0	32.3	27.7	45.7	768.3	84.6	20.5
EST	63.5	24.9	11.7	19.3	15.3	9.4	55.6	87.8	11.7
FIN	41.2	21.5	-22.6	41.5	-3.0	-11.0	129.4	72.6	19.8
FRA	54.5	16.2	8.1	94.8	80.8	18.5	610.9	86.3	66.7
GBR	50.9	24.9	16.9	69.7	58.7	25.4	393.2	87.3	35.6
HRV	52.9	21.7	-19.4	16.5	3.7	0.4	349.2	76.6	9.8
IRL	46.0	13.6	-6.0	45.3	26.1	-2.0	341.7	82.8	32.0
ITA	61.4	30.5	11.8	25.7	17.9	17.1	1,968.1	77.6	13.0
LTU	-10.8	-22.6	-40.7	-13.7	-36.6	-15.8	444.0	74.1	15.1
LVA	54.9	36.4	28.2	32.9	28.0	54.3	92.1	85.5	11.1
MLT	47.5	17.2	-6.9	6.8	3.3	-1.0	1,515.9	80.4	4.3
NLD	48.7	18.1	8.8	113.8	91.9	11.6	424.3	85.5	71.4
POL	56.4	27.2	11.3	12.3	8.8	9.4	93.2	81.5	6.3
PRT	71.3	33.9	21.5	31.3	25.8	18.9	433.9	87.9	16.4
ROU	82.2	69.4	62.9	79.7	73.5	119.2	146.8	87.9	12.5
SVN	76.8	29.5	12.1	18.6	14.4	8.1	1,218.3	82.7	11.5
SWE	52.5	29.4	11.7	85.8	56.9	10.9	243.2	80.6	37.8
EU excl. GRC	**53.8**	**22.7**	**11.0**	**42.8**	**33.5**	**15.9**	**459.9**	**84.6**	**24.8**
% Δ to 2014	3.4%	1.9%	-0.3%	1.7%	1.5%	-6.8%	5.5%	4.5%	2.8%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 3.10 Main capacity, effort and landings variables for the EU small-scale coastal fleet by MS, 2015

Small Scale Fleet (SSCF)	Number of active vessels (#)	as % of EU SSF	Vessel tonnage (thousand GT)	as % of EU SSF	Engine power (thousand kW)	as % of EU SSF	Total employed (person)	as % of EU SSF	FTE (#)	as % of EU SSF	Days at sea (thousand day)	as % of EU SSF	Fishing days (thousand day)	as % of EU SSF	Energy consumed (million litre)	as % of EU SSF	Live weight of landings (thousand tonne)	as % of EU SSF	Value of landings (million €)	as % of EU SSF
BGR	1,080	2.3%	2	1.5%	23	1.3%	1,429	1.8%	382	0.8%	14	0.5%	14	0.5%	0.3	0.2%	1.8	0.6%	0.7	0.1%
CYP	807	1.7%	2	1.6%	32	1.8%	1,126	1.4%	635	1.3%	62	2.3%	62	2.3%	1.4	0.9%	0.7	0.2%	4.6	0.5%
DEU	787	1.7%	2	1.8%	22	1.3%	747	1.0%	570	1.2%	67	2.5%	71	2.6%	0.9	0.6%	7.7	2.7%	8.3	1.0%
DNK	973	2.0%	4	3.1%	41	2.3%	326	0.4%	219	0.5%	39	1.5%	40	1.4%	2.6	1.7%	10.2	3.6%	22.2	2.7%
ESP	4,129	8.7%	11	9.6%	111	6.3%	7,902	10.2%	5,662	11.8%	402	14.9%	402	14.7%	30.2	19.3%	26.9	9.5%	104.4	12.6%
EST	1,498	3.2%	2	1.8%	22	1.3%	2,075	2.7%	351	0.7%	81	3.0%	148	5.4%	0.7	0.5%	12.0	4.2%	5.4	0.6%
FIN	1,513	3.2%	4	3.0%	70	4.0%	1,513	1.9%	251	0.5%	99	3.7%	99	3.6%	1.5	1.0%	11.1	3.9%	8.9	1.1%
FRA	4,178	8.8%	16	13.0%	414	23.6%	7,003	9.0%	2,152	4.5%	208	7.7%	206	7.5%	25.4	16.2%	81.8	28.8%	183.5	22.1%
GBR	3,156	6.6%	13	10.9%	194	11.1%	5,732	7.4%	2,089	4.4%	245	9.0%	147	5.4%	32.3	20.6%	44.3	15.6%	132.8	16.0%
GRC	13,567	28.5%	26	22.1%	252	14.4%	20,420	26.3%	18,490	38.7%		0.0%		0.0%		0.0%		0.0%		0.0%
HRV	1,771	3.7%	5	4.1%	94	5.4%	2,402	3.1%	745	1.6%	136	5.0%	116	4.3%	2.7	1.7%	1.4	0.5%	8.0	1.0%
IRL	901	1.9%	3	2.3%	25	1.4%	1,360	1.8%	953	2.0%	25	0.9%	25	0.9%	5.2	3.3%	15.2	5.4%	19.7	2.4%
ITA	7,430	15.6%	14	11.6%	210	12.0%	12,559	16.2%	9,858	20.6%	954	35.3%	1,033	37.8%	37.2	23.7%	27.5	9.7%	213.3	25.7%
LTU	71	0.1%	0	0.3%	2	0.1%	171	0.2%	51	0.1%	5	0.2%	4	0.1%	0.2	0.1%	0.5	0.2%	0.5	0.1%
LVA	190	0.4%	0	0.3%	2	0.1%	233	0.3%	131	0.3%	11	0.4%	9	0.3%	0.1	0.0%	2.6	0.9%	1.4	0.2%
MLT	721	1.5%	2	1.4%	41	2.4%	1,138	1.5%	567	1.2%	20	0.8%	20	0.7%	1.4	0.9%	0.6	0.2%	4.0	0.5%
NLD	171	0.4%	0	0.4%	19	1.1%	362	0.5%	98	0.2%	3	0.1%	3	0.1%	0.4	0.3%	0.5	0.2%	3.3	0.4%
POL	611	1.3%	3	2.2%	21	1.2%	1,417	1.8%	1,267	2.7%	49	1.8%	49	1.8%	1.8	1.1%	12.7	4.5%	10.0	1.2%
PRT	3,044	6.4%	7	6.0%	98	5.6%	8,522	11.0%	2,923	6.1%	226	8.3%	225	8.3%	7.6	4.9%	20.5	7.2%	81.6	9.8%
ROU	113	0.2%	0	0.2%	2	0.1%	290	0.4%	21	0.0%	3	0.1%	3	0.1%	0.3	0.2%	1.6	0.6%	1.6	0.2%
SVN	76	0.2%	0	0.2%	4	0.2%	90	0.1%	66	0.1%	8	0.3%	8	0.3%	0.1	0.1%	0.1	0.0%	0.7	0.1%
SWE	758	1.6%	3	2.8%	52	3.0%	891	1.1%	307	0.6%	48	1.8%	48	1.8%	4.4	2.8%	4.4	1.6%	15.0	1.8%
EU SSF	**47,545**		**119.9**		**1,753**		**77,708**		**47,788**											
Δ to 2014	1.2%		-1.4%		-0.2%		2.1%		7.3%											
EU SSF excluding GRC	**33,978**		**93**		**1,501**		**57,288**		**29,299**		**2,704**		**2,731**		**157**		**284**		**830**	
Δ to 2014	-0.7%		-3.5%		-1.2%		-1.1%		1.9%		-0.3%		-1.7%		7.5%		-1.3%		1.8%	
SSF as % of EU total	68.6%		6.7%		29.2%		45.0%		32.0%		56.0%		58.2%		6.7%		5.6%		11.7%	

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 3.11 Main economic variables and indicators for the EU small-scale coastal fleet by MS, 2015

Small Scale Fleet (SSCF)	Revenue (million €)	as % of EU SSF	Wages and salaries of (million €)	as % of EU SSF	Unpaid labour value (million €)	as % of EU SSF	Energy costs (million €)	as % of EU SSF	Repair costs (million €)	as % of EU SSF	Other variable costs (million €)	as % of EU SSF	Other non-variable costs (million €)	as % of EU SSF	Annual depreciation costs (million €)	as % of EU SSF	Opportunity cost of capital (million €)	as % of EU SSF	Gross Value Added (million €)	Gross profit (million €)	Net profit (million €)
BGR	3.67	0.4%	1.1	0.4%	0.3	0.2%	0.3	0.3%	0.2	0.3%	0.1	0.1%	0.1	0.2%	0.2	0.2%	0.2	1.5%	2.9	1.5	1.1
CYP	4.55	0.5%	0.0	0.0%	0.3	0.2%	1.0	1.1%	0.5	0.9%	2.2	2.0%	0.0	0.0%	2.0	2.0%	2.2	16.9%	0.8	0.5	-3.6
DEU	8.56	0.9%	1.4	0.5%	1.2	0.8%	0.6	0.6%	1.2	2.0%	1.3	1.1%	2.0	2.7%	1.6	1.6%	0.0	0.2%	3.6	1.0	-0.6
DNK	23.28	2.5%	2.5	0.9%	10.4	7.5%	1.4	1.6%	3.4	5.8%	3.8	3.4%	2.6	3.6%	3.3	3.3%	0.2	1.2%	12.1	-0.9	-4.4
ESP	151.21	16.0%	35.4	13.4%	40.3	29.1%	12.4	14.4%	8.4	14.3%	16.5	14.9%	6.0	8.2%	3.5	3.5%	0.8	6.4%	107.9	32.2	26.1
EST	5.57	0.6%	0.9	0.3%	1.0	0.7%	0.6	0.7%	1.0	1.7%	0.8	0.7%	0.1	0.1%	0.5	0.5%	0.02	0.2%	3.1	1.2	0.7
FIN	9.58	1.0%	0.6	0.2%	1.1	0.8%	1.0	1.2%	1.4	2.3%	1.0	0.9%	1.5	2.1%	6.8	6.8%	0.2	1.4%	4.7	3.0	-4.1
FRA	223.20	23.6%	99.9	37.7%	0.0	0.0%	13.8	16.1%	11.5	19.6%	26.5	24.0%	27.7	37.8%	18.0	17.9%	0.8	6.5%	143.6	43.6	24.8
GBR	136.87	14.5%	40.8	15.4%	9.1	6.6%	15.7	18.2%	10.2	17.3%	28.2	25.5%	13.2	18.0%	11.8	11.6%	1.6	12.7%	69.6	19.7	6.3
HRV	14.45	1.5%	3.9	1.5%	1.0	0.7%	1.5	1.7%	1.5	2.6%	1.6	1.5%	1.5	2.1%	3.0	3.0%	2.3	17.9%	8.3	3.4	-1.9
IRL	25.46	2.7%	7.3	2.8%	2.2	1.6%	2.6	3.1%	1.9	3.3%	3.7	3.4%	2.3	3.1%	0.1	0.1%	0.0	0.3%	14.9	5.3	-0.6
ITA	215.65	22.8%	36.4	13.8%	52.3	37.8%	22.8	26.5%	9.3	15.8%	13.9	12.6%	11.2	15.3%	33.9	33.5%	2.1	16.4%	158.4	69.7	33.7
LTU	0.61	0.1%	0.3	0.1%	0.0	0.0%	0.1	0.1%	0.0	0.1%	0.1	0.1%	0.1	0.1%	0.0	0.0%	0.01	0.1%	0.3	0.0	0.0
LVA	1.51	0.2%	0.1	0.1%	0.2	0.2%	0.0	0.0%	0.0	0.0%	0.1	0.1%	0.1	0.1%	0.0	0.0%	0.00	0.0%	1.3	1.0	1.0
MLT	4.08	0.4%	0.4	0.1%	1.6	1.2%	1.1	1.2%	0.8	1.3%	0.8	0.7%	0.1	0.2%	1.0	1.0%	0.05	0.4%	1.4	-0.6	-1.7
NLD	4.63	0.5%	0.4	0.1%	0.4	0.3%	0.4	0.5%	0.4	0.8%	0.2	0.2%	0.3	0.4%	0.7	0.7%	0.05	0.4%	3.3	2.5	1.8
POL	10.31	1.1%	4.0	1.5%	3.1	2.3%	1.1	1.3%	0.8	1.3%	1.5	1.4%	0.9	1.3%	0.4	0.4%	1.0	7.5%	6.0	-1.1	-2.5
PRT	81.73	8.6%	27.7	10.5%	4.7	3.4%	6.6	7.7%	3.0	5.0%	6.5	5.9%	1.3	1.8%	8.5	8.4%	1.2	9.6%	64.4	31.9	22.1
ROU	1.60	0.2%	0.2	0.1%	0.0	0.0%	0.2	0.2%	0.1	0.1%	0.0	0.0%	0.1	0.1%	0.1	0.1%	0.01	0.1%	1.2	1.0	0.9
SVN	1.14	0.1%	0.3	0.1%	0.3	0.2%	0.1	0.1%	0.1	0.2%	0.0	0.0%	0.0	0.0%	0.2	0.2%	0.04	0.3%	0.9	0.3	0.0
SWE	17.92	1.9%	1.2	0.5%	8.9	6.4%	2.6	3.1%	3.1	5.2%	1.6	1.5%	2.1	2.9%	5.1	5.1%	0.01	0.1%	8.4	-1.6	-6.8
EU SSF	**945.6**		**264.9**		**138.4**	**1.0**	**85.9**	**1.0**	**58.9**	**1.0**	**110.6**	**1.0**	**73.3**	**1.0**	**101.1**	**1.0**	**12.9**	**1.0**	**616.9**	**213.6**	**92.1**
Δ to 2014	3.1%		0.0%		-4.6%		-15.1%		1.9%		5.1%		-0.8%		0.1%		-16.8%		6.5%	28.2%	98%
SSF as % of EU total	13.0%		13.0%		59.9%		7.8%		9.2%		10.3%		13.5%		13.3%		16.7%		15.8%	13.0%	11.9%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). Greece excluded

Table 3.12 Main economic performance indicators for the EU small-scale coastal fleet by MS, 2015

Small Scale Fleet (SSF)	Tangible asset value (million €)	as % of EU SSF	Invest-ments (million €)	as % of EU SSF	GVA to revenue (%)	Gross profit margin	Net profit margin (%)	GVA per FTE (labour productivity)	Net Value Added per FTE (thousand €)	Return on fixed tangible assets	Energy consumed per landed (litre/tonne)	Fuel efficiency (%)	Average wage per FTE (thousand €)
BGR	5.3	0.8%	1.4	2.3%	80.0	41.2	30.6	7.7	7.2	25.1	187	82.6	3.7
CYP	35.2	5.1%	0.0	0.0%	18.4	12.0	-79.1	1.3	-1.8	-4.0	2,087	78.5	
DEU	6.9	1.0%	1.9	3.2%	41.8	12.0	-7.3	6.3	3.4	-8.7	115	93.1	4.5
DNK	33.2	4.8%	0.0	0.0%	51.8	-3.7	-18.7	55.1	39.8	-12.7	254	93.8	59.0
ESP	34.5	5.0%	2.2	3.6%	71.4	21.3	19.5	19.1	18.4	87.1	1,120	91.8	13.4
EST	7.7	1.1%	1.0	1.6%	55.3	21.5	12.2	8.8	7.4	9.2	61	89.1	5.4
FIN	21.1	3.1%	7.2	11.8%	49.0	30.8	-42.3	18.7	-8.5	-18.4	134	88.6	6.9
FRA	109.7	15.9%	18.9	31.1%	64.3	19.6	11.1	88.8	77.6	23.3	315	93.7	61.8
GBR	93.8	13.6%	9.5	15.6%	50.8	14.4	4.6	33.3	27.7	8.5	729	88.2	23.9
HRV	60.4	8.8%	2.8	4.6%	57.1	23.2	-13.5	11.1	7.0	0.6	1,954	81.3	6.6
IRL	3.7	0.5%	1.5	2.5%	58.4	20.9	-9.7	15.6	15.4	-21.3	341	89.4	10.0
ITA	131.7	19.1%	9.2	15.2%	73.4	32.3	15.6	16.1	12.6	27.2	1,354	89.3	9.0
LTU	0.5	0.1%	0.0	0.0%	47.6	-1.2	-6.0	5.7	5.3	-6.1	284	83.2	5.9
LVA	0.1	0.0%	0.0	0.0%	88.8	65.5	63.8	10.3	10.1	1,490	24	97.8	2.7
MLT	15.2	2.2%	0.7	1.1%	34.1	-15.4	-42.0	2.5	0.6	-11.0	2,198	73.3	3.5
NLD	10.1	1.5%	0.5	0.8%	70.4	54.8	37.8	33.3	25.7	17.9	891	89.0	7.4
POL	28.2	4.1%	0.7	1.1%	57.9	-10.8	-24.6	4.7	4.4	-5.5	140	88.7	5.6
PRT	64.7	9.4%	1.7	2.7%	78.7	39.0	27.1	22.0	19.1	36.1	372	91.9	11.1
ROU	0.2	0.0%	0.2	0.3%	77.7	61.7	54.9	60.6	55.7	528.8	172	87.4	12.5
SVN	1.5	0.2%	0.1	0.2%	75.3	23.7	1.0	13.1	9.7	3.2	1,089	85.5	9.0
SWE	25.3	3.7%	1.3	2.1%	47.2	-9.2	-37.9	27.5	10.8	-26.8	999	82.4	32.9
EU SSF	**688.9**		**60.8**		**65.2**	**22.6**	**10.1**	**21.4**	**17.9**	**15.3**	**553.3**	**90.7**	**14.3**
Δ to 2014	3.0%		-12.3%		3.3%	23.9%	96.3%	5.0%	6.3%	65.3%	9.0%	2.4%	-3.3%
SSF as % of EU total	13.5%		14.3%										

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 3.13 Main capacity, effort and landings variables for the EU large-scale fleet by MS, 2015

Large Scale Fleet (LSF)	Total no. of vessels (#)	as % of EU LSF	Vessel tonnage (thousand GT)	as % of EU LSF	Engine power (thousand kW)	as % of EU LSF	Total employed (person)	as % of EU LSF	FTE (#)	as % of EU LSF	Days at sea (thousand day)	as % of EU LSF	Fishing days (thousand day)	as % of EU LSF	Energy consumed (million litre)	as % of EU LSF	Live weight of landings (thousand tonne)	as % of EU LSF	Value of landings (million €)	as % of EU LSF
BEL	73	0.5%	14	1.3%	45	1.3%	340	0.5%	406	0.7%	15	0.7%	16	0.8%	41	2.4%	25	0.6%	82	1.6%
BGR	124	0.8%	3	0.3%	17	0.5%	299	0.4%	225	0.4%	9	0.4%	9	0.5%	2	0.1%	7	0.2%	3	0.1%
CYP	33	0.2%	1	0.1%	6	0.2%	159	0.2%	159	0.3%	3	0.1%	3	0.1%	1	0.1%	1	0.0%	3	0.1%
DEU	287	1.8%	53	4.9%	99	2.9%	785	1.1%	632	1.1%	39	1.9%	39	2.1%	39	2.3%	231	5.7%	208	4.0%
DNK	419	2.6%	61	5.7%	156	4.5%	1,004	1.5%	1,351	2.3%	57	2.8%	52	2.7%	91	5.4%	856	21.0%	418	8.0%
ESP	4,150	25.7%	172	16.1%	453	13.2%	19,151	27.9%	17,693	29.9%	613	29.9%	575	30.2%	302	17.9%	414	10.2%	954	18.2%
EST	34	0.2%	4	0.3%	9	0.3%	167	0.2%	134	0.2%	4	0.2%	4	0.2%	3	0.2%	47	1.2%	9	0.2%
FIN	64	0.4%	9	0.9%	33	0.9%	155	0.2%	107	0.2%	7	0.3%	7	0.4%	18	1.0%	137	3.4%	25	0.5%
FRA	1,526	9.5%	107	10.0%	388	11.3%	5,885	8.6%	4,159	7.0%	243	11.9%	211	11.1%	238	14.1%	344	8.4%	856	16.3%
GBR	1,420	8.8%	170	15.8%	495	14.5%	6,375	9.3%	6,046	10.2%	187	9.1%	157	8.2%	246	14.6%	664	16.3%	935	17.9%
GRC	847	5.2%	44	4.1%	159	4.6%	4,987	7.3%	4,942	8.4%	97	4.7%	97	5.1%	59	3.5%	15	0.4%	73	1.4%
HRV	1,052	6.5%	28	2.6%	152	4.4%	2,665	3.9%	1,638	2.8%	106	5.2%	90	4.7%	23	1.3%	72	1.8%	53	1.0%
IRL	466	2.9%	51	4.8%	128	3.7%	2,091	3.0%	1,569	2.7%	47	2.3%	37	2.0%	77	4.6%	226	5.5%	218	4.2%
ITA	3,895	24.1%	136	12.6%	732	21.4%	13,208	19.3%	11,581	19.6%	484	23.6%	494	26.0%	334	19.8%	161	4.0%	677	12.9%
LTU	23	0.1%	4	0.3%	7	0.2%	185	0.3%	113	0.2%	3	0.1%	2	0.1%	2	0.1%	17	0.4%	4	0.1%
LVA	60	0.4%	7	0.6%	18	0.5%	387	0.6%	214	0.4%	8	0.4%	7	0.4%	6	0.3%	60	1.5%	18	0.3%
MLT	60	0.4%	3	0.3%	16	0.5%	325	0.5%	305	0.5%	5	0.2%	3	0.2%	2	0.1%	2	0.0%	8	0.1%
NLD	344	2.1%	110	10.3%	211	6.2%	1,604	2.3%	1,521	2.6%	46	2.2%	40	2.1%	140	8.3%	330	8.1%	372	7.1%
POL	192	1.2%	15	1.4%	45	1.3%	899	1.3%	866	1.5%	22	1.1%	20	1.0%	16	0.9%	129	3.2%	39	0.7%
PRT	807	5.0%	56	5.2%	158	4.6%	7,234	10.5%	4,928	8.3%	122	6.0%	109	5.7%	64	3.8%	156	3.8%	252	4.8%
ROU	14	0.1%	1	0.1%	4	0.1%	62	0.1%	24	0.0%	1	0.0%	1	0.0%	0	0.0%	3	0.1%	3	0.1%
SVN	12	0.1%	0	0.0%	2	0.1%	29	0.0%	18	0.0%	1	0.1%	1	0.1%	0	0.0%	0	0.0%	1	0.0%
SWE	244	1.5%	25	2.3%	95	2.8%	596	0.9%	485	0.8%	25	1.2%	25	1.3%	45	2.7%	198	4.9%	101	1.9%
EU LSF	**16,146**		**1,074**		**3,428**		**68,593**		**59,116**											
Δ to 2014	-1.5%		-2.3%		-1.1%		-2.6%		1.0%											
EU LSF excl. GRC	**15,299**		**1,030**		**3,269**		**63,606**		**54,175**		**2,047**		**1,902**		**1,690**		**4,080**		**5,237**	
Δ to 2014	-1.6%		-2.4%		-1.2%		-2.8%		1.2%		-2.6%		-2.6%		1.7%		2.4%		5.0%	
As % of EU total	25.2%		72.8%		61.7%		44.9%		51.5%		37.3%		0.0%		0.0%		80.3%		0.0%	
As % of EU excl. GRC	**30.9%**		**73.3%**		**63.5%**		**50.0%**		**59.3%**		**42.4%**		**40.5%**		**72.7%**		**80.6%**		**74.0%**	

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 3.14 Main economic variables and indicators for the EU large-scale fleet by MS, 2015

Large Scale Fleet (LSF)	Revenue (million €)	as % of EU LSF	Wages and salaries of (million €)	as % of EU LSF	Unpaid labour value (million €)	as % of EU LSF	Energy costs (million €)	as % of EU LSF	Repair & maintenance costs (million €)	as % of EU LSF	Other variable costs (million €)	as % of EU LSF	Other non-variable costs (million €)	as % of EU LSF	Annual depreciation costs (million €)	as % of EU LSF	Opportunity cost of capital (million €)	as % of EU LSF	Gross Value Added (million €)	Gross profit (million €)	Net profit (million €)
BEL	86.3	1.6%	28.3	1.8%	2.1	2.3%	17.1	2.1%	7.1	1.4%	12.9	2.0%	7.6	2.1%	8.2	1.4%	0.1	0.2%	41.6	11.2	2.9
BGR	3.4	0.1%	0.9	0.1%	0.1	0.1%	1.1	0.1%	0.4	0.1%	0.1	0.0%	0.1	0.0%	0.2	0.0%	0.4	0.8%	1.7	0.8	0.2
CYP	3.0	0.1%	0.8	0.1%	-	0.0%	1.0	0.1%	0.5	0.1%	1.0	0.2%	0.2	0.1%	1.1	0.2%	1.2	2.2%	0.3	- 0.6	-2.9
DEU	138.6	2.6%	39.1	2.5%	8.4	9.0%	17.5	2.2%	16.2	3.3%	11.7	1.8%	14.6	4.1%	22.9	3.9%	0.4	0.7%	78.6	31.1	7.7
DNK	427.7	8.1%	76.8	4.9%	24.6	26.5%	41.3	5.1%	38.2	7.8%	29.4	4.6%	17.3	4.9%	87.0	14.9%	2.6	4.7%	301.4	200.1	110.4
ESP	956.0	18.2%	351.2	22.4%	38.2	41.2%	133.4	16.5%	72.4	14.7%	124.5	19.4%	57.6	16.2%	57.2	9.8%	5.2	9.4%	568.1	178.8	115.6
EST	9.2	0.2%	3.8	0.2%	-	0.0%	1.2	0.1%	0.7	0.1%	0.6	0.1%	0.4	0.1%	1.4	0.2%	0.0	0.1%	6.3	2.5	1.0
FIN	26.5	0.5%	4.6	0.3%	0.8	0.8%	8.5	1.0%	2.8	0.6%	1.7	0.3%	3.4	0.9%	8.5	1.5%	0.2	0.4%	10.2	4.8	-3.9
FRA	859.2	16.3%	319.0	20.3%	-	0.0%	122.2	15.1%	72.6	14.8%	107.2	16.7%	83.7	23.5%	73.7	12.6%	3.3	6.0%	473.6	154.6	58.0
GBR	976.8	18.6%	238.0	15.2%	1.7	1.9%	119.5	14.8%	113.8	23.1%	184.2	28.6%	61.7	17.4%	63.6	10.9%	11.4	20.4%	497.5	257.8	182.8
HRV	60.1	1.1%	17.5	1.1%	0.9	0.9%	12.8	1.6%	5.2	1.1%	6.0	0.9%	5.0	1.4%	11.7	2.0%	8.6	15.4%	31.2	12.8	-7.5
IRL	223.0	4.2%	69.1	4.4%	1.9	2.1%	39.3	4.9%	29.9	6.1%	35.1	5.5%	19.1	5.4%	42.8	7.3%	5.6	10.0%	89.4	18.4	-31.1
ITA	679.4	12.9%	187.6	11.9%	1.0	1.1%	175.2	21.6%	30.5	6.2%	57.0	8.9%	24.0	6.8%	122.5	21.0%	8.2	14.7%	392.6	204.0	73.4
LTU	4.6	0.1%	1.1	0.1%	-	0.0%	1.1	0.1%	0.7	0.1%	0.6	0.1%	0.6	0.2%	0.3	0.0%	0.1	0.2%	1.6	0.5	0.1
LVA	19.2	0.4%	3.5	0.2%	-	0.0%	2.8	0.3%	1.1	0.2%	2.6	0.4%	2.7	0.8%	1.6	0.3%	0.1	0.1%	10.0	6.5	4.9
MLT	8.4	0.2%	1.3	0.1%	0.5	0.5%	1.2	0.1%	1.1	0.2%	1.4	0.2%	0.2	0.1%	1.8	0.3%	0.1	0.2%	4.5	2.8	0.9
NLD	374.0	7.1%	106.8	6.8%	8.2	8.8%	53.9	6.7%	63.2	12.8%	34.1	5.3%	41.7	11.7%	33.2	5.7%	1.3	2.3%	180.9	66.0	31.5
POL	39.3	0.7%	6.1	0.4%	1.2	1.3%	7.9	1.0%	3.4	0.7%	2.7	0.4%	3.3	0.9%	4.2	0.7%	2.3	4.1%	22.0	14.6	8.1
PRT	254.3	4.8%	97.2	6.2%	0.6	0.6%	32.0	4.0%	14.3	2.9%	22.0	3.4%	6.5	1.8%	24.7	4.2%	4.4	7.9%	179.6	81.7	52.6
ROU	2.7	0.1%	0.3	0.0%	0.01	0.0%	0.3	0.0%	0.05	0.0%	0.01	0.0%	0.03	0.0%	0.1	0.0%	0.1	0.1%	2.3	2.0	1.8
SVN	0.9	0.0%	0.3	0.0%	0.1	0.1%	0.1	0.0%	0.1	0.0%	0.01	0.0%	0.002	0.0%	0.0	0.0%	0.03	0.1%	0.7	0.3	0.3
SWE	111.5	2.1%	17.4	1.1%	2.4	2.6%	19.9	2.5%	17.7	3.6%	8.5	1.3%	5.8	1.6%	17.7	3.0%	0.0	0.1%	59.5	39.7	21.9
EU LSF	5,264.0		1,570.7		92.6		809.6		492.0		643.2		355.6		584.4		55.8		2,953.5	1,290.3	628.7
Δ to 2014	2.9%		7.8%		-17.5%		-20.9%		9.4%		5.2%		-1.7%		5.8%		-23.3%		10.7%	16.3%	35.4%
As % of EU total	72.4%		77.2%		40.1%		73.8%		76.5%		59.8%		65.6%		76.8%		72.6%		75.7%	78.8%	81.1%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 3.15 Main economic performance indicators for the EU large-scale fleet by MS, 2015

Large Scale Fleet (LSF)	Tangible asset value (million €)	as % of EU LSF	Invest-ments (million €)	as % of EU LSF	GVA to revenue (%)	Gross profit margin (%)	Net profit margin (%)	GVA per FTE (labour productivi (thousand €)	Net Value Added per FTE (thousand €)	Return on fixed tangible (%)	Energy consumed per landed (litre/tonne)	Fuel efficiency (%)	Average wage per FTE (thousand €)
BEL	53.1	1.3%	6.9	2.1%	48.2	13.0	3.3	102.5	82.2	5.6	1,686.7	79.1	74.9
BGR	11.4	0.3%	4.2	1.3%	50.8	23.7	4.7	7.8	6.7	5.1	258.4	67.0	4.1
CYP	20.0	0.5%	0.1	0.0%	8.7	-19.2	-96.7	1.6	-5.2	-8.4	1,744.0	66.3	5.3
DEU	107.7	2.7%	48.0	14.7%	56.7	22.4	5.6	124.3	88.1	7.6	638.5	86.8	75.2
DNK	574.8	14.2%	58.9	18.0%	70.5	46.8	25.8	223.1	158.7	19.7	106.0	90.1	75.0
ESP	221.5	5.5%	27.3	8.4%	59.4	18.7	12.2	32.1	28.9	54.9	728.6	85.9	22.0
EST	11.2	0.3%	1.7	0.5%	68.4	26.9	11.4	46.8	36.4	9.6	54.3	87.0	28.4
FIN	23.8	0.6%	10.4	3.2%	38.4	18.2	-14.7	95.1	15.5	-15.5	129.0	66.8	50.1
FRA	437.9	10.9%	9.2	2.8%	55.1	18.0	7.5	115.2	97.3	14.0	693.3	85.6	77.6
GBR	652.5	16.2%	92.6	28.3%	50.9	26.4	18.7	82.3	71.8	29.8	370.8	87.2	39.6
GRC												49.7	
HRV	225.7	5.6%	5.0	1.5%	51.9	21.3	-12.5	19.0	11.9	0.5	318.6	75.9	11.2
IRL	462.4	11.5%	14.4	4.4%	42.0	8.6	-14.8	61.4	32.0	-5.5	358.1	81.2	48.7
ITA	510.6	12.7%	11.1	3.4%	57.8	30.0	10.8	33.9	23.3	16.0	2,070.6	74.1	16.3
LTU	4.7	0.1%	0.0	0.0%	34.9	10.4	2.7	14.2	12.0	4.7	117.9	76.2	10.0
LVA	10.8	0.3%	0.2	0.1%	52.2	34.1	25.4	46.8	39.3	45.8	95.0	84.6	16.2
MLT	30.4	0.8%	0.4	0.1%	54.1	33.1	10.9	14.8	9.1	3.3	1,275.8	84.1	5.8
NLD	271.5	6.7%	18.2	5.6%	48.4	17.7	8.4	119.0	97.1	12.1	423.6	85.5	75.6
POL	66.2	1.6%	0.8	0.2%	56.0	37.2	20.7	26.4	21.4	15.7	128.1	79.6	8.9
PRT	232.2	5.8%	11.9	3.6%	70.6	32.1	20.7	36.4	31.4	24.7	410.4	87.4	19.9
ROU	2.1	0.1%	0.0	0.0%	85.0	74.0	67.7	96.4	92.8	88.3	134.4	88.2	12.5
SVN	1.3	0.0%	0.0	0.0%	78.8	37.0	30.8	39.3	37.9	23.9	1,313.3	78.8	20.8
SWE	104.0	2.6%	5.6	1.7%	53.4	35.6	19.7	122.6	86.1	21.1	226.4	80.3	40.9
EU LSF	**4,036**		**327.0**		**56.2**	**24.6**	**12.2**	**54.7**	**43.9**	**17.0**	**434.1**	**84.2**	**30.8**
Δ to 2014	5.1%		-6.7%		7.8%	13.2%	31.1%	9.6%	10.8%	21.2%	-0.2%	5.9%	4.9%
As % of EU total	72.5%		77.0%										

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 3.16 Main Capacity, effort and landings variables for the EU distant water fleet by MS, 2015

Distant water Fleet (DWF)	Total number of vessels (#)	as % of EU DWF	Vessel tonnage (thousand GT)	as % of EU DWF	Engine power (thousand kW)	as % of EU DWF	Total employed (person)	as % of EU DWF	Full-time equivalent (national) (#)	as % of EU DWF	Days at sea (thousand day)	as % of EU DWF	Fishing days (thousand day)	as % of EU DWF	Energy consumed (million litre)	as % of EU DWF	Live weight of landings (thousand tonne)	as % of EU DWF	Value of landings (million €)	as % of EU DWF
ESP	222	77.9%	161.7	57.6%	225.0	59.9%	5,007	78.0%	6,661	83.7%	63.0	84.7%	54.3	87.9%	377.3	78.7%	482.1	69.3%	826.5	81.5%
FRA	21	7.4%	42.9	15.3%	70.1	18.7%	553	8.6%	553	6.9%	4.0	5.4%	1.7	2.8%	53.2	11.1%	92.8	13.4%	108.4	10.7%
ITA	9	3.2%	6.2	2.2%	13.1	3.5%	20	0.3%	20	0.2%	0.5	0.6%			7.1	1.5%	3.5	0.5%	4.1	0.4%
LTU	11	3.9%	47.9	17.0%	43.8	11.7%	335	5.2%	298	3.7%	2.0	2.7%	1.4	2.3%	34.3	7.2%	64.3	9.3%	57.5	5.7%
POL	2	0.7%	15.4	5.5%	11.2	3.0%	175	2.7%	147	1.8%	0.4	0.5%	0.3	0.5%			45.9	6.6%		
PRT	20	7.0%	6.7	2.4%	12.5	3.3%	327	5.1%	278	3.5%	4.5	6.0%	4.1	6.6%	7.4	1.5%	6.5	0.9%	18.0	1.8%
EU DWF	**285**		**280.8**		**375.6**		**6,417**		**7,957**		**74.4**		**61.8**		**479.4**		**695.1**		**1,015**	
Δ to 2014	-1.4%		2.0%		2.5%		-3.0%		7.8%		5.1%		-0.8%		21.8%		-10.9%		-25.3%	
As % of EU total	0.4%		19.0%		6.8%		4.2%		6.9%		1.5%		1.3%		20.6%		13.7%		14.3%	

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 3.17 Main economic variables and indicators for the EU distant water fleet by MS, 2015

Distant water Fleet (DWF)	Revenue (million €)	as % of EU DWF	Wages and salaries of (million €)	as % of EU DWF	Unpaid labour value (million €)	as % of EU DWF	Energy costs (million €)	as % of EU DWF	Repair & maintenance costs (million €)	as % of EU DWF	Other variable costs (million €)	as % of EU DWF	Other non-variable costs (million €)	as % of EU DWF	Annual depreciation costs (million €)	as % of EU DWF	Opportunity cost of capital (million €)	as % of EU DWF	Gross Value Added (million €)	Gross profit (million €)	Net profit (million €)
ESP	869.3	82.0%	149.9	75.7%	0.2	100.0%	154.9	77.1%	56.3	60.9%	292.7	90.7%	71.0	62.9%	65.1	85.9%	5.1	62.9%	294.4	144.3	74.0
FRA	112.3	10.6%	38.8	19.6%	-	0.0%	25.7	12.8%	25.9	28.1%	5.9	1.8%	21.3	18.9%					33.5	- 5.3	
ITA	4.1	0.4%	0.8	0.4%	-	0.0%	2.0	1.0%	0.3	0.3%	0.4	0.1%	0.2	0.1%	0.4	0.5%	0.1	0.8%	1.2	0.4	- 0.1
LTU	53.6	5.1%	5.6	2.8%	-	0.0%	14.0	6.9%	8.3	9.0%	19.6	6.1%	19.9	17.6%	7.6	10.0%	2.6	31.4%	- 8.2	- 13.8	- 23.9
POL																					
PRT	20.6	1.9%	2.8	1.4%	-	0.0%	4.4	2.2%	1.5	1.7%	3.9	1.2%	0.5	0.4%	2.7	3.6%	0.4	5.0%	10.3	7.4	4.3
EU DWF	**1,059.9**		**197.9**		**0.2**		**201.0**	**1.0**	**92.4**		**322.5**		**112.8**		**75.8**		**8.2**		**331.1**	**133.0**	**54.3**
Δ to 2014	-12.6%		9.4%		-59.8%		-10.3%		-1.4%		17.6%		16.4%		59.4%		-9.9%		-36.7%	-61.1%	-80%
As % of EU total	14.6%		9.7%		0.1%		18.3%		14.4%		30.0%		20.8%		10.0%		9.3%		8.5%	8.1%	7.0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 3.18 Main economic performance indicators for the EU distant water fleet by MS, 2015

Distant water Fleet (DWF)	Tangible asset value (million €)	as % of EU DWF	Invest-ments (million €)	as % of EU DWF	GVA to revenue (%)	Gross profit margin (%)	Net profit margin (%)	GVA per FTE (labour productivity) (thousand €)	Net Value Added per FTE (thousand €)	Return on fixed tangible (%)	Energy consumed per landed (litre/tonne)	Fuel efficiency (%)	Average wage per FTE (thousand €)
ESP	216.5	59.1%	35.9	97.5%	33.9	16.6	8.5	44.2	34.4	36.6	782.7	81.9	22.5
FRA					29.8	- 4.7		60.6	60.6		573.4	77.1	70.1
ITA	4.0	1.1%	-	0.0%	29.6	9.1	- 2.2	61.5	41.2	- 0.6	2,064.4	51.1	42.5
LTU	124.8	34.0%	-	0.0%	- 15.4	- 25.7	- 44.6	- 27.6	- 53.0	- 17.1	533.3	73.8	18.6
POL													
PRT	21.3	5.8%	0.9	2.5%	49.8	36.0	20.8	36.9	27.1	22.0	1,130.6	78.4	10.2
EU DWF	**366.7**	**1.0**	**36.8**	**1.0**	**31.2**	**12.6**	**5.7**	**42.4**	**32.7**	**17.0**	**738.4**	**80.8**	**25.4**
Δ to 2014	18.6%		75.5%		-27.6%	-55.5%	-77.9%	-41.3%	-50.2%	-81.7%	37.9%	-0.6%	1.3%
As % of EU total	7.2%		8.7%										

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

4 EU FLEET REGIONAL ANALYSIS

* Due to explicit data and methodological limitations, all results provided in this chapter should be considered exploratory rather than a source of factual statements that are considered robust enough to be a basis for policy decisions.

NORTH SEA & EASTERN ARCTIC REGION

- Eleven Member State fleets operated in the region in 2015; with high dependency on the region in terms of landed value for Denmark (87%), the Netherlands (84%), Belgium (72%), Germany (69%) and Sweden (60%).
- Most important species in value: Atlantic mackerel, common sole, Atlantic herring and common shrimp
- Overall MS fleets operating in the region saw declines in capacity and effort deployed over 2010-2014 with an increase in 2015. Employment decreased between 2010 and 2012 but has increased over the last two years, while landings (in value and weight) has increased steadily since 2012.
- Revenue generated was estimated at around €1.9 billion, GVA at €1.1 billion. The fleet made estimate €542 million in gross profit and €317 in net profit.

BALTIC SEA REGION

- Eight Member State fleets operated in the region in 2015; the Finnish fleet is the most important in terms of active vessel number and effort deployed.
- Overall, the fleet saw declines in landed weight over the period 2009-2012, with a slight increase in 2013, while landed value increased steadily since 2009 but suffered a significant drop in 2014. Herring, sprat and cod remain the most important species.
- Revenue generated by the Baltic Sea fleet was estimated at around €230 million, with the Swedish, Polish, Danish and Finnish fleets together contributing 75%.
- GVA was estimated at €116 million, up 19% compared to 2014. After accounting for operating costs, the fleet made an estimated €49 million in gross profit, also a marked decrease (68%) compared to 2014.

NORTHEAST ATLANTIC REGION

- Ten Member State fleets operated in the region in 2015; the most important in terms of active vessel number was the Spanish fleet, followed by the UK and Portuguese fleets.
- Overall, capacity and effort decreased steadily over the period 2010-2014, increasing in 2015 while landed value has increased over the last two years.
- The main species included the small pelagics Atlantic mackerel, blue whiting, chub mackerel, jack and horse mackerels, and European pilchard (sardine) and the demersal species European hake, Norway lobster, monkfish and anglerfish.
- Revenue generated by the NE Atlantic fleet was estimated at €2.5 billion; 87% distributed amongst four MS fleets: France (€758 million), Spain (€604 million), UK (€499 million) and Portugal (€272 million).
- GVA was estimated at €1.4 billion and after accounting for operating costs, the fleet made €478 million in gross profit and €233 million after deducting capital costs.

MEDITERRANEAN & BLACK SEA REGION

- Eleven Member State fleets were involved in Med & Black Sea fisheries in 2015: Nine in the Mediterranean and two in the Black Sea, and all, with the exception of Spain, France, Portugal and Cyprus, totally dependent on the region for their fishery primary production in 2015. Greece is excluded from further analyses.
- The most landed species in value was European anchovy (€115 million), followed by European hake (€110 million), deep-water rose shrimp (€94 million) and European pilchard (€74 million).
- Revenue generated in 2015 was an estimated €1.4 billion, 65% of which was generated by the Italian fleet (€895 million).
- Gross Value Added (GVA) was estimated at €828 million, gross profit at €365 million and net profit amounted to €129 million in 2015, an increase of 158% compared to 2014.

OTHER FISHING REGIONS

- Although the main fishing grounds for the EU fishing fleet are located in the EU waters in Area 27 (NE Atlantic), part of the EU fleet operate in fishing areas much further afield.
- The main sub-regions within OFR are: (1) Other Regions, which cover the South and Central Atlantic, Indian Ocean, Pacific Ocean and Antarctica, where the large distant water fleets exploit tuna among a number of other species; (2) Northwest Atlantic, where redfish, halibut, cod and other demersal species are exploited and (3) Outermost Regions, which refers to territories belonging to EU MS outside Area 27 and include the seven French territories, the Canaries (Spain), and Madeira (Portugal) but not the Azores as it is located in the NE Atlantic (Area27).
- The main fishing nations in the OFR as a whole, include Spain, France, UK, Portugal, the Netherlands, and to a lesser extent, Italy, Lithuania and Germany. Data on the Polish, Latvian and Estonian DWF fleets were not available.
- Results suggest that fishing activity in *Other Fishing Regions* contributed to 15% in weight and 17% in value of the EU fleet total landings in 2015.
- Collectively vessels operating in OFR generated €1.2 billion in revenue; and contributed 11% to the GVA (€420 million) and 10.5% to the gross profit (€167 million) in 2015.
- The most important region in OFR in terms of production is *Other regions*, accounting for 90% of the landed weight and 83% of the landings value in 2015. Fleets operating in this sub-region of OFR generated over €1 billion in revenue and as a whole were profitable; obtaining a 17% gross profit margin and a net profit margin of 8%.

Background

This chapter provides an overview of the MS fleets operating in each fishing region. For each region, data on fleet capacity, employment, fishing effort, landings and economic performance indicators are summarised by Member State, fishing activity and fleet segment in the relevant regional tables.

DCF economic data (employment, income, costs, etc.) are reported by fleet segment at the supra region level (area 27, area 37 or OFR) while transversal data (capacity, effort and landings) are reported by sub-region (FAO level 3 or level 4 for the Baltic and Mediterranean seas). For fleet segments that operate in more than one fishing region, economic data must be estimated for each region (delineated by a set of sub-regions). This is done by apportioning the FTEs, revenue and costs provided by supra-region according to the proportions of effort or landings reported for each fleet segment at the sub-regional level.

For example, a Danish trawl segment that spends half of its time in the Baltic Sea and half of its time in the North Sea will only have economic performance data available at the supra region level FAO Area 27, which includes the Baltic Sea, the North Sea and fishing regions in the Northeast Atlantic. Therefore, to estimate the performance of the Danish North Sea fleet, economic data provided for the fleet segments at the supra-region (FAO area 27) are derived for the region (North Sea) by assuming several correlations with transversal data.

Estimates of the transversal and economic data by fleet segment are derived for each region accordingly, as follows:

- Value of landings to derive *income from landings*;
- Effort (in days at sea and whenever not available, fishing days) to derive the number of *vessels*, *energy costs*, *repair & maintenance costs*, *annual depreciation*, *other variable and other non-variable costs*; capacity (GT, kW) and employment (FTE) indicators;

There are several limitations to this approach, which should be considered exploratory rather than a source of factual statements that are considered robust enough to be a basis for policy decisions.

One example of data/methodology limitation is when a fleet segment that is based in the Baltic Sea but operates predominately in the North Sea will have Effort (days at sea) in the Baltic region (as a result of steaming to and from fishing grounds) with little or no corresponding revenue (landings). This can introduce errors that will negatively affect the performance of the "Baltic fleet" while conversely "improve" the performance of the "North Sea fleet" by underestimating costs (since days spent steaming to get to the North Sea fishing areas will be attributed to the Baltic Sea).

Therefore, regional estimates for fleet segments with less than 30% of effort and/or landings value/weight in a region should be considered with caution.

Regional estimates for all fleet segments and Member States cannot be derived when data sets submitted by MS are incomplete and/or not provided at the correct aggregations levels. Regional estimates for fleet segments that fished in more than one region and for which effort or landings in value were not reported separately by sub-region could not be derived and may have had to be excluded from the regional estimates. On the other hand, for fleet segments for which only landings value or effort were reported for a single region, it was assumed that all fishing activity by such segments occurred in that region. In such cases the fleet segments concerned were included in the analysis.

Due to incomplete data, economic estimates for the Greek fleet are not included in the regional analysis the available information is presented only at the MS level.

See Methodology section for more details on the methods used to derive segment-specific estimates for economic variables at the regional level.

4.1 General Overview

Table 4.1 provides an overview of the EU fleet by main fishing region. Numbers and figures refer to 2015 and do not include the entire EU fleet due to insufficient or confidential data on some active fleet segments. Results for the Greece are provided at the MS level but are excluded entirely at aggregated analyses, for example, by fishing activity. Results for 2014 and percentage variations are provided in Tables 4.2 to 4.4.

The North Sea & Eastern Arctic fleet, covering around 10% of the EU fleet in number and effort deployed, landed 35% of the catch in weight but generated only 26% of the landed value, contributing 28% to GVA (€1.07 billion), 34% to the overall gross profit (€542 million). The main fishing nations are Denmark, the Netherlands, Belgium, Germany, and Sweden, while Spain is the main player in the Eastern Arctic. The most important species for fleets operating in these regions include Atlantic mackerel, cod and herring, as well as common sole, European plaice and common shrimp. The overall performance of fleets operating in the North Sea was positive in 2015, with the most profitable fleets being the large (over 40 m) pelagic trawlers, with average gross profits estimated at around €30 000 million per day at sea.

The Baltic Sea fleet, which comprised almost 13% of the fleet in number, contributed 13% to the landed weight but only 3% to the value, generating 3% (€116 million) to the total GVA and gross profit (€49 million). Gross profit margin was estimated at 22%, an improvement on 2014 results. Overall, this regional fleet posted modest profits, with a net profit of €15 million but a significant improvement on the net loss of €19 million suffered in 2014.

The Mediterranean & Black Sea (excluding Greece) and Northeast Atlantic fleets accounted for 42% and 30% of the vessels in number and collectively accounted for 73% of total employed. The Greek fleet numbered 14 400 vessels in 2015 and employed almost 25.4 thousand fishers. However, due to limited data coverage and some questionable data quality, the Greek fleet was not included in the overall regional analyses.

Fleets operating in the Mediterranean & Black Sea region (excluding Greece) exerted roughly 45% of the total effort deployed in days at sea to generate 8% of the landed weight and 19% of the value. Overall, the fleet operating in the NE Atlantic was more consistent: 32% of the effort for 30% of the landed weight and 35% of the value generated.

The Mediterranean & Black Sea fleet (excluding Greece) accounted for 19% of the revenue (€1.4 billion), 21.5% of the GVA (€828 million) and 23% of the gross profit (€365 million). Net profit was estimated at €130 million, a marked improvement (158% increase) on 2014. Italy is the major player in the Mediterranean region, generating 51% of the landed weight and 67% of the value (excluding Greece), followed by Spain, with 22% of the value, while Croatia generated 20% of the weight but only 5% of the value landed, indicating that the Croatian fleet targets low value species, such as small pelagics (anchovy).

The NE Atlantic fleet reported the highest revenue (€2.5 billion, or 35% of the total) and contributed with 36% of the GVA (€1.3 billion). Overall, with an estimated gross profit of over €478 million and a net profit of €233 million, this regional fleet posted a 19% gross profit margin and 9.4% net margin.

Most MS bordering the Mediterranean & Black Sea are highly or fully dependent (i.e. 100% fishing activity and production) on the region for their fishing activities, with the exception of France and Spain. Contrary to the Mediterranean & Black Sea region, there is some exchange between fleets operating the North Atlantic and the North Sea and between the North Sea and the Baltic, in particular for Sweden, Lithuania, Germany, Denmark, the Netherlands, the UK, France and Belgium.

Vessels operating in Other Fishing Regions, including the NW Atlantic and outermost regions, contributed to 15% of the landings in weight and 17% in value. While displaying high variations within each region, collectively this fleet generated around 17% of the revenue (€1.2 billion), 11% of the GVA (€420 million) and 10.5% of the gross profit (€167 million); a deteriorated situation relative to 2014. The main fishing nations in the OFR as a whole, include Spain, France, UK, Portugal, the Netherlands, and to a lesser extent, Italy, Lithuania Germany. Data on the Polish DWF fleet were not available.

The most important region in OFR in terms of production is *Other regions*, accounting for 90% of the landed weight and 83% of the landings value in 2015. Fleets operating in this sub-region of OFR generated €1 billion in revenue and as a whole were profitable; obtaining a 17%gross profit margin and a net profit margin of 8%.

According to the data provided, other MS fleets, such as Estonia, Finland and Latvia, depend entirely on the Baltic Sea[6]. However, while this may be the case for Finland, it is not for the remaining MS fleets. Estonia and Latvia only provided data on their Baltic Sea fleets in their DCF submissions. Hence, parts of these national fleets (distant water vessels) are missing entirely from the analyses.

The regional analyses are not complete but covered on average 99% of the number of vessels, 97% of the effort (in days at sea), and 96% of the reported landings in weight and value in 2015.

[6] Data not provided on the Estonian and Latvian distant water fleets

Table 4.1 Estimates of main capacity, effort, landings and performance indicators for the EU fleet by region, 2015

		Estimated no. of vessels	% of total no. of vessels	Estimated employed	Estimated FTE	Days at sea	as a % of total DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Revenue	Labour costs	Energy costs	GVA	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA per vessel	GVA per FTE
		(#)	(%)	(person)	(#)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(€K)	(K €)	(K €)	(K €)	(%)	(K €)	(%)	(K €)	(%)	(K €)	(K €)
NS+EA	North Sea & Eastern Arctic	4,955	10.1%	12,266	9,086	484,581	10%	399,585	9%	1,661,134	35%	1,805,820	26%	1,871,479	527,792	229,551	1,069,921	57.2	542,129	29.0	317,032	17.4	215.9	117.8
BS	Baltic Sea	6,192	12.6%	9,039	4,705	426,364	9%	490,650	11%	612,875	13%	217,307	3%	230,027	66,591	39,440	116,007	50.4	49,416	21.5	15	0.01	18.7	24.7
NA	Northeast Atlantic	14,616	29.7%	47,538	32,608	1,500,404	32%	1,395,240	30%	1,430,355	30%	2,408,861	35%	2,528,610	934,031	333,022	1,411,717	56.1	477,781	19.0	232,739	9.4	96.7	43.4
MBS	Mediterranean & Black Sea	20,709	42.1%	45,435	33,868	2,116,350	45%	2,167,104	47%	367,648	8%	1,332,246	19%	1,379,238	462,761	277,365	827,666	60.0	364,905	26.5	128,965	9.4	40.0	24.4
OFR	Other regions	271	0.6%	5,607	7,194	53,507	1.1%	51,580	1.1%	643,022	13.4%	974,294	14.1%	1,019,185	191,400	178,511	363,084	35.6	171,684	16.9	71,193	7.6	1,341.8	50.5
OFR	Outermost regions	2,399	4.9%	5,928	2,772	76,182	1.6%	69,916	1.5%	39,517	0.8%	87,159	1.3%	84,985	34,092	26,049	-4,411	-5.2	-38,503	-45.3	-6,654	-10.0	-5.8	-2.0
OFR	Northwest Atlantic	28	0.1%	591	634	5,669	0.1%	5,596	0.1%	46,554	1.0%	104,700	1.5%	92,906	26,315	10,860	60,441	65.1	34,126	36.7	24,384	26.3	2,154	95.4
OFR	non EU Mediterranean Sea	12	0.0%	62	61	1,226	0.0%	1,233	0.0%	302	0.0%	2,078	0.0%	2,243	710	537	1,013	45.1	303	13.5	-539	-24.0	86	16.5
		49,182		126,466	90,927	4,664,283		4,580,904		4,801,409		6,932,465		7,208,672	2,243,691	1,095,335	3,845,437		1,601,842		767,136			

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.2 Estimates of main capacity, effort, landings and performance indicators for the EU fleet by region, 2014

	Estimated no. of vessels	% of total no. of vessels	Estimated employed	Estimated FTE	Days at sea	as a % of total DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Revenue	Labour costs	Energy costs	GVA	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA per vessel	GVA per FTE
	(#)	(%)	(person)	(#)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(€K)	(K €)	(K €)	(K €)	(%)	(K €)	(%)	(K €)	(%)	(K €)	(K €)
North Sea & Eastern Arctic	4,882	10.0%	12,054	8,820	488,362	10%	427,463	9%	1,546,965	33%	1,716,352	25%	1,744,214	479,720	293,861	939,343	53.9	470,809	27.0	267,965	15.7	192.5	106.5
Baltic Sea	6,429	13.1%	9,321	5,082	469,460	10%	533,714	11%	570,947	12%	217,938	3%	223,242	67,887	47,449	97,275	43.6	29,388	13.2	-19,172	-8.59	15.1	19.1
Northeast Atlantic	14,233	29.0%	47,163	31,584	1,504,547	32%	1,400,146	30%	1,474,984	31%	2,382,444	34%	2,484,886	900,383	422,897	1,323,900	53.3	423,349	17.0	178,273	7.4	93.1	41.9
Mediterranean & Black Sea	20,730	42.3%	47,010	33,044	2,159,579	45%	2,218,622	47%	361,043	8%	1,205,318	17%	1,336,991	447,323	328,543	737,495	55.2	287,492	21.6	49,979	3.8	35.6	22.3
Other regions	272	0.6%	6,101	6,886	51,108	1.1%	50,329	1.1%	700,863	14.8%	1,231,078	17.8%	1,096,749	148,264	221,551	418,049	38.1	269,785	24.6	283,979	26.3	1,536.0	60.7
Outermost regions	2,422	4.9%	5,658	2,459	73,498	1.5%	68,986	1.5%	33,016	0.7%	69,277	1.0%	79,151	34,293	13,394	37,633	47.6	3,340	4.2	-3,255	-4.2	49.5	18.2
Northwest Atlantic	30	0.1%	658	656	5,962	0.1%	5,867	0.1%	41,737	0.9%	104,197	1.5%	92,885	25,454	16,398	48,050	51.7	22,596	24.3	11,499	12.4	1,596	73.3
non EU Mediterranean Sea	10	0.0%	53	50	1,247	0.0%	1,241	0.0%	247	0.0%	2,527	0.0%	3,375	1,053	546	2,184	64.7	1,131	33.5	442	13.1	223	43.8
	49,008		128,018	88,581	4,753,763		4,706,368		4,729,803		6,929,133		7,061,492	2,104,378	1,344,638	3,603,930		1,507,889		769,710			

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.3 Percentage variation for the main capacity, effort, landings and performance indicators for the EU fleet by region, Δ 2015–2014

Δ 2015 -2014	Estimated no. of vessels	Estimated employed	Estimated FTE	Days at sea	Fishing days	Live weight of landings	Value of landings	Income from landings	Revenue	Labour costs	Energy costs	GVA	Gross profit	Net profit	Average GVA per vessel	GVA per FTE
North Sea & Eastern Arctic	1.5%	1.8%	3.0%	-0.8%	-6.5%	7.4%	5.2%	5.2%	7.3%	10.0%	-21.9%	13.9%	15.1%	18.3%	12.2%	10.6%
Baltic Sea	-3.7%	-3.0%	-7.4%	-9.2%	-8.1%	7.3%	-0.3%	-0.3%	3.0%	-1.9%	-16.9%	19.3%	68.2%	-100.1%	23.8%	28.8%
Northeast Atlantic	2.7%	0.8%	3.2%	-0.3%	-0.4%	-3.0%	1.1%	1.1%	1.8%	3.7%	-21.3%	6.6%	12.9%	30.6%	3.9%	3.6%
Mediterranean & Black Sea	-0.1%	-3.3%	2.5%	-2.0%	-2.3%	1.8%	10.5%	10.5%	3.2%	3.5%	-15.6%	12.2%	26.9%	158.0%	12.3%	9.5%
Other regions	-0.6%	-8.1%	4.5%	4.7%	2.5%	-8.3%	-20.9%	-20.9%	-7.1%	29.1%	-19.4%	-13.1%	-36.4%	-74.9%	-12.6%	-16.9%
Outermost regions	-0.9%	4.8%	12.7%	3.7%	1.3%	19.7%	25.8%	25.8%	7.4%	-0.6%	94.5%	-111.7%	-1252.7%	104.4%	-111.7%	-110.9%
Northwest Atlantic	-6.8%	-10.2%	-3.4%	-4.9%	-4.6%	11.5%	0.5%	0.5%	0.0%	3.4%	-33.8%	25.8%	51.0%	112.0%	35.0%	30.2%
non EU Mediterranean Sea	20.7%	16.5%	22.9%	-1.7%	-0.6%	22.1%	-17.8%	-17.8%	-33.5%	-32.6%	-1.6%	-53.6%	-73.2%	-221.9%	-61.6%	-62.3%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.4 Percentage variation for the main capacity, effort, landings and performance indicators for the EU fleet by region, Δ 2015–2010

Δ 2015 -2010	Estimated no. of vessels	Estimated employed	Estimated FTE	Days at sea	Fishing days	Live weight of landings	Value of landings	Income from landings	Revenue	Labour costs	Energy costs	GVA	Gross profit	Net profit	Average GVA per vessel	GVA per FTE
North Sea & Eastern Arctic	-3.4%	-2.5%	-7.3%	-2.6%	-9.1%	17.0%	13.7%	13.7%	21.8%	25.1%	-23.7%	42.3%	64.1%	191.9%	47.2%	53.4%
Baltic Sea	-3.3%	-11.9%	-11.3%	-15.4%	-8.8%	-3.8%	-4.4%	-4.4%	-5.2%	-2.4%	-18.5%	6.5%	21.4%	-100.1%	10.1%	20.0%
Northeast Atlantic	-8.3%	-5.2%	-4.8%	-10.9%	-10.5%	-2.7%	2.5%	2.5%	15.9%	13.6%	-22.3%	44.1%	203.4%	-331.8%	57.2%	51.5%
Mediterranean & Black Sea	8.5%	0.4%	4.2%	-4.5%	-3.6%	12.5%	-13.4%	-13.4%	-11.2%	-12.6%	-21.3%	0.3%	23.3%	692.2%	-8.7%	-3.8%
Other regions	-29.3%	-31.0%	-21.0%	-20.5%	-17.1%	5.2%	8.6%	8.6%	19.8%	6.1%	-6.2%	30.2%	74.4%	333.4%	84.2%	64.9%
Outermost regions	154.1%	105.1%	40.8%	42.0%	32.6%	8.7%	48.7%	48.7%	34.7%	92.1%	74.9%	-139.2%	1028.2%	-18.9%	-148.6%	-134.8%
Northwest Atlantic	-19.9%	-29.2%	-21.8%	-15.4%	-6.0%	9.2%	-10.9%	-10.9%	-17.2%	-14.5%	-52.0%	37.5%	158.9%	-1482.5%	71.6%	75.9%
non EU Mediterranean Sea	62.8%	41.5%	68.1%	32.4%	33.2%	61.4%	-15.7%	-15.7%	-10.3%	-30.6%	12.4%	-33.5%	-39.3%	179.4%	-59.1%	-60.4%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

4.1 North Sea & Eastern Arctic region

At a glance

The main fishing nations dependent on the North Sea region were Denmark, the Netherlands, Belgium, Germany, and Sweden. The main fishing nation in the Eastern Arctic was Spain. In terms of value the most important species for fleets operating in the region included Atlantic mackerel, Atlantic cod, Atlantic herring, common sole, European plaice and common shrimp.

The overall performance of fleets operating in the North Sea was positive in 2015, and improved further compared to previous years. The most profitable fleets were the large (over 40 m) pelagic trawlers, with average gross profits estimated at around €30 000 per day at sea. Only the Irish fleet operating in the region suffered small net losses in 2015, all other MS fleets generated net profits.

In summary:

- The North Sea & Eastern Arctic fleet spent almost 485 thousand days at sea in 2015, to land approximately 1.66 million tonnes of seafood valued at €1.8 billion.
- While effort remained stable, landings increased steadily since 2011.
- GVA was estimated at over €1 billion in 2015, representing an overall increase of 14% compared to the GVA generated in 2014. GVA estimates improved for all MS with the exception of the Irish (-68%), Portuguese (-71%) and UK (-1%) fleets.
- After accounting for operating costs the fleet made almost €542 million in gross profit, a 15% increase on 2014. Net profit was estimated at €317 million, up from the 2014 result of €268 million. Gross profit margin increased from 27% in 2014 to 29% in 2015 while net profit margin went from 15.7% to 17.4% (Figure 4.3).
- Increased landings and lower operating costs (e.g. -22% in fuel costs), have helped the overall performance of the North Sea & Eastern Arctic fleet to improve over the last few years. In fact, all performance indicators have followed an increasing trend over the period 2010 to 2015 (Figure 4.2). Revenue (income from landings and other income) generated in 2015 was estimated at almost €1.9 billion, increasing by 7% compared to 2014.
- Fuel price further decreased in 2016 and remained low in 2017, while most fish prices remained stable or increased compared to 2015 (including common sole, European plaice, common shrimp and *Nephrops*). Therefore, it can be expected that economic performance will further improve as revenues are likely to increase and costs to decrease.

Main drivers affecting fleet performance in the region

The overall changes have been mostly driven by the large-scale fleets, whereas the trends for the SSCF in the North Sea & Eastern Arctic are less clear.

Factors that may have contributed to the positive situation include:

- Recovery of certain stocks, e.g. North Sea common sole, European plaice, Atlantic herring, haddock, saithe stocks have all reached levels that are capable of delivering MSY (North Sea Atlantic cod reached MSY level in 2016).
- Increase in TAC for a number of species such as European plaice, hake, Atlantic cod, *Nephrops*, sandeels and European sprat. TAC for common sole remained comparable to the previous year.
- Higher average prices for some of the main species, such as common sole, European plaice, common shrimp, Atlantic cod and *Nephrops.*
- Decreasing fuel prices resulting in lower energy costs.

Factors that may have hampered economic performance in the region include:

- Reduced TACs and quotas for several key stocks, such as Atlantic mackerel.
- Whilst the consequences of Brexit are unknown, it is to be expected that it could have a large impact on the North Sea. The UK holds a significant portion of the landings. Furthermore, there is a high dependency on UK waters for a number of MS in the region. Belgium, the Netherlands, Germany, Denmark, France, Ireland, Sweden and to a lesser overall extent Spain are expected to be affected.

Socio-economic trends

In terms of socio-economic variables, the fleet operating in the North Sea region displayed the following trends:

- Employment

Over the past years, employment measured in terms of Full Time Equivalents (FTE) showed a decreasing trend between 2010 and 2013, remained stable in 2014 (+1%) and increased in 2015 (+4%). The main contributor to this increase came from the UK, where FTEs went up by 6% in 2015 compared to 2014. Overall, between 2010 and 2015 FTEs decreased by 7%.

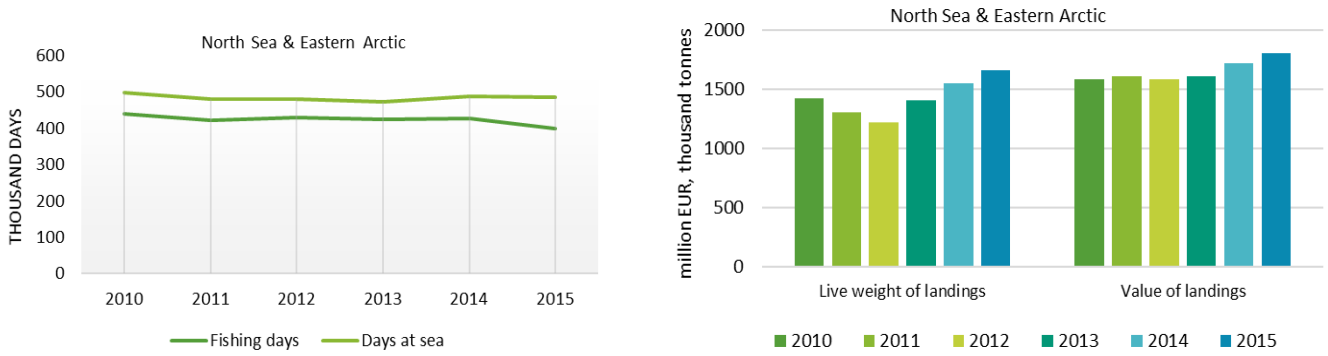
It seems that the overall declining trend in employment has temporarily halted, mainly due to the LSF. FTEs in the SSCF were much lower and remained relatively stable over time.

- Wages and Salaries

The value of landings increased by 15% between 2010 and 2015. Given that employment decreased it could be possible that wages increased, assuming that crew share would remain the same. Wages per FTE indeed increased by 42% in the large-scale fleet and by 9% from 2014 to 2015. In 2015, average wage in the LSF was estimated at €65 000. In the SSCF a trend was less clear: There was an increase of 7% between 2010 and 2015. However, from 2014 to 2015 the average wage per FTE for the SSCF decreased by 3%, fluctuating around €31 000 (Figure 4.3).

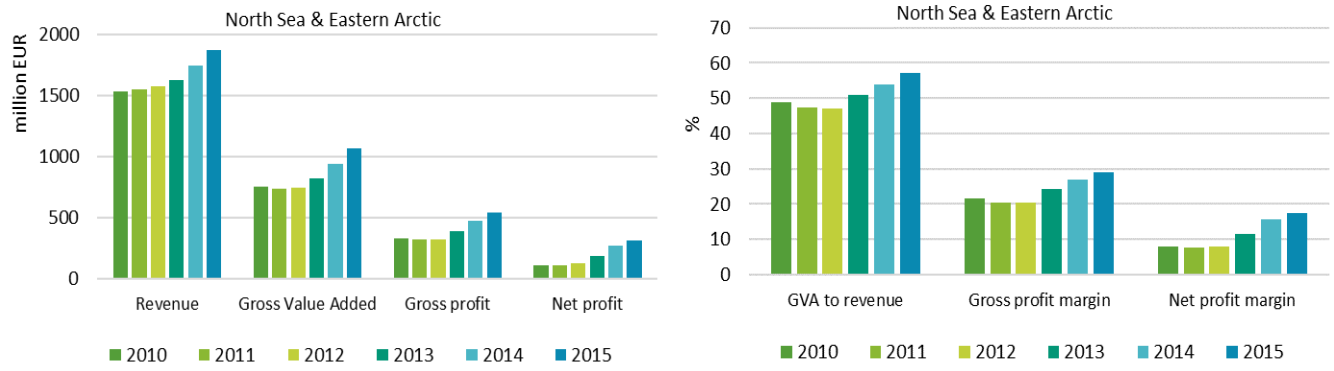
- Labour productivity

On the other hand, the productivity (GVA/FTE) of the large-scale fleet increased considerably between 2010 and 2015 (+63%). This coincided with a decrease in employment. However, since 2014, the impact on the number of jobs ceased. For the SSCF, labour productivity also increased, albeit less dramatically (+18%) (Figure 4.3).



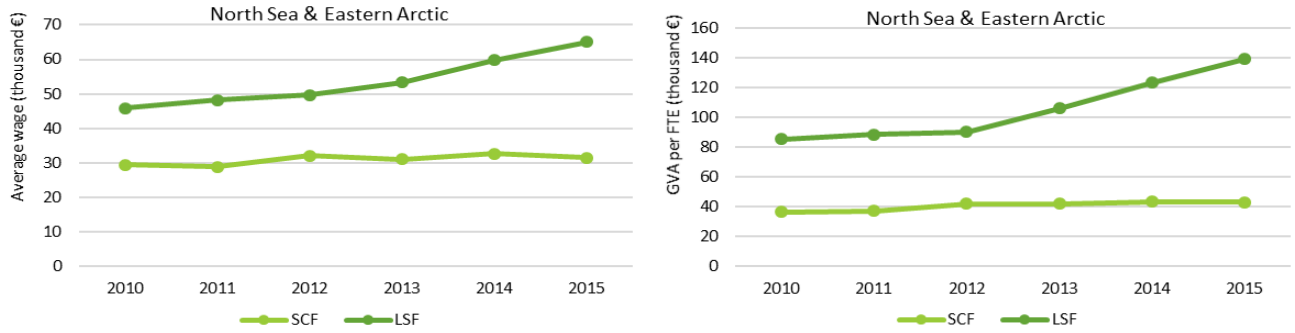
Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.1 Trends on effort and landings for MS fleets operating in the North Sea & Eastern Arctic region



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.2 Trends on revenue and profits for MS fleets operating in the North Sea & Eastern Arctic region



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.3 Trends on average wage and labour productivity (GVA per FTE) by fishing activity for MS fleets operating in the North Sea & Eastern Arctic region

Regional Details

The North Sea & Eastern Arctic region, as defined for this report, comprises ICES areas I, II, IIIa, IV, and VIId.

French data were incomplete and are only included in the analysis from 2010 onwards. In addition, in cases where insufficient data were provided for fleet segments, these may have been excluded from all or some of the analyses. For example, as no data on fishing effort were provided on the German pelagic trawler segment (for confidentiality reasons), this segment is not included in the analysis. Trends and absolute regional figures should therefore be interpreted and considered with care.

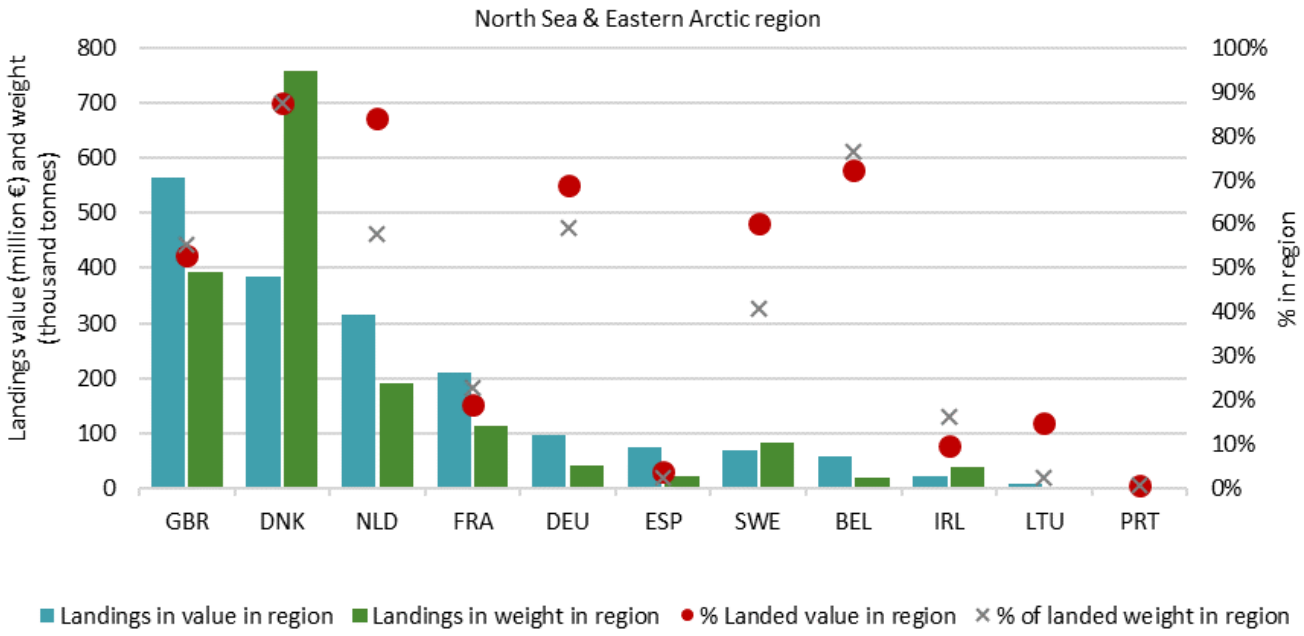
MS fleet activity in the North Sea & Eastern Arctic region: situation in 2015 and recent trends

The analysis includes reported landings from 11 MS fleets: Belgium, Denmark, Germany, France, Ireland, Lithuania, the Netherlands, Portugal, Spain, Sweden and the UK. These MS fleets target high value species including common sole (Netherlands, Belgium, Germany and France), common shrimp (Netherlands, Germany, Denmark and Belgium) and Norway lobster (Denmark, Netherlands, Germany, Sweden and to some extent Belgium). Other important demersal species include Atlantic cod (UK, France, Spain and Denmark) and European plaice (Netherlands, UK, Denmark and Belgium). Furthermore, a number of these MS also target pelagic species such as Atlantic mackerel and Atlantic herring (Denmark, UK, the Netherlands, Germany and Sweden). Table 4.4 to Table 4.11 contain a summary of the economic performance of the North Sea & Eastern Arctic fleet by Member State, main type of fishing activity and fleet segment.

Based on the value of landings, Denmark (87%), the Netherlands (84%), Belgium (72%), Germany (69%) and Sweden (60%) are considerably dependent on the North Sea & Eastern Arctic region (see red dots in Figure 4.4).

In terms of landed weight, Denmark caught 87% of their landings in the North Sea & Eastern Arctic, followed by Belgium (76%), Germany (59%) and then the Netherlands (58% of the weight). The pelagic fisheries influence these ratios to a large extent: The Netherlands target a significant part of their small pelagic species outside the North Sea & Eastern Arctic, which lowers the percentage of landed weight from the & Eastern Arctic compared to the proportion of effort (days at sea).

While the UK fleet was only 50% dependent on its landings from the region, it was the most important fleet in terms of landed value (€564 million), while the Danish fleet was the most important in terms of landed weight (757 thousand tonnes) (Figure 4.4).



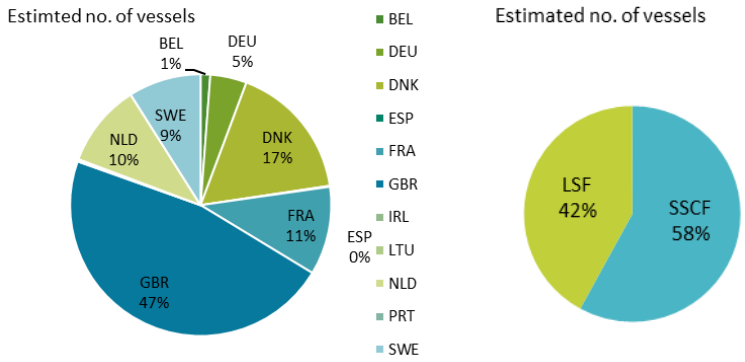
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.4 Importance of the North Sea & Eastern Arctic regions for Member States' fisheries in terms of landings in weight and value, 2015

Fleet capacity and employment

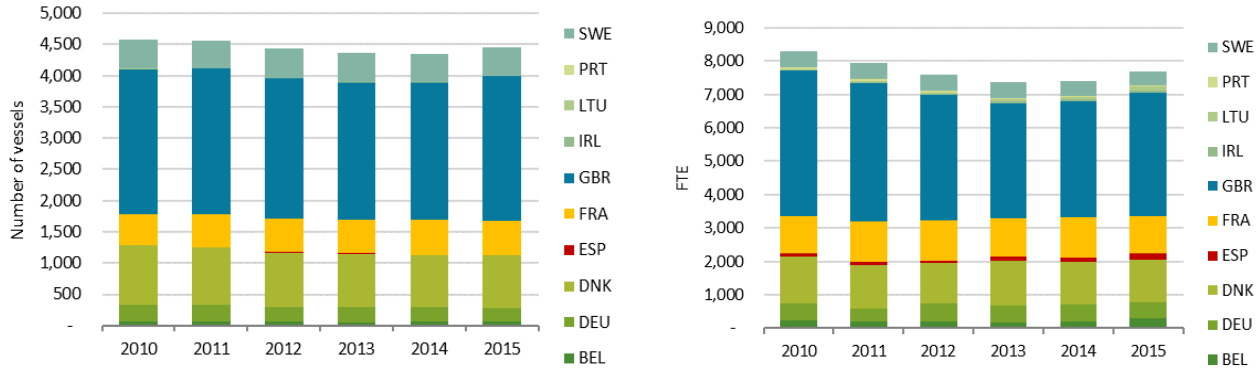
Member State fleets operating in the North Sea region in 2015 numbered 4 955 vessels. The UK North Sea fleet comprised the largest in number (2 317 vessels), accounting for 47% of the total reported for the region and 51% of the national fleet (Figure 4.5, Table 4.5).

Overall the number of vessels operating in the North Sea & Eastern Arctic has followed a decreasing trend between 2010 and 2014, with an increase in 2015, mainly due to more UK vessels. The employment, measured in terms of Full Time Equivalents (FTE) showed a decreasing trend as well between 2010 and 2013, but remained stable in 2014 (+1%) and increased in 2015, in line with the number of vessels (Figure 4.6). In terms of employment, the SSCF generated 4370 mostly part time jobs (1660 FTE) while the LSF generated 7750 jobs (7300 FTE).



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.5 Share of North Sea & Eastern Arctic fleet capacity by MS and fishing activity, 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

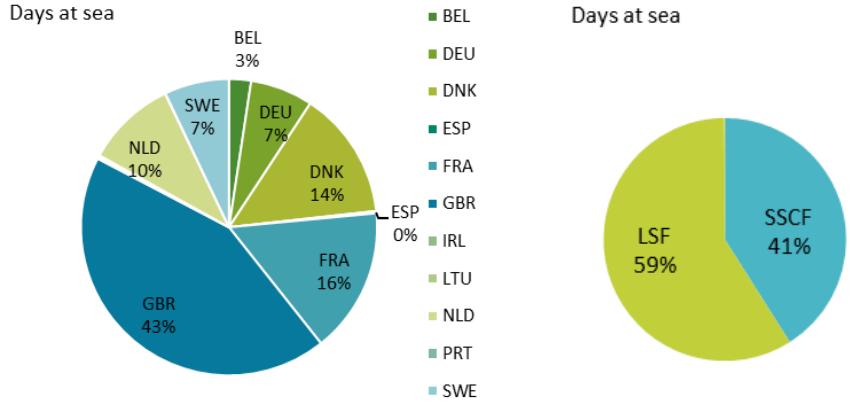
Figure 4.6 Trends on number of vessels and employment (in FTE) for MS fleets operating in the North Sea & Eastern Arctic region

Fishing effort

The pie charts presented in Figure 4.7 indicate the proportion of days at sea attributable to each MS fleet in 2015. Denmark, France and UK together accounted for around 73% of the total days at sea (mostly generated by large-scale fisheries).

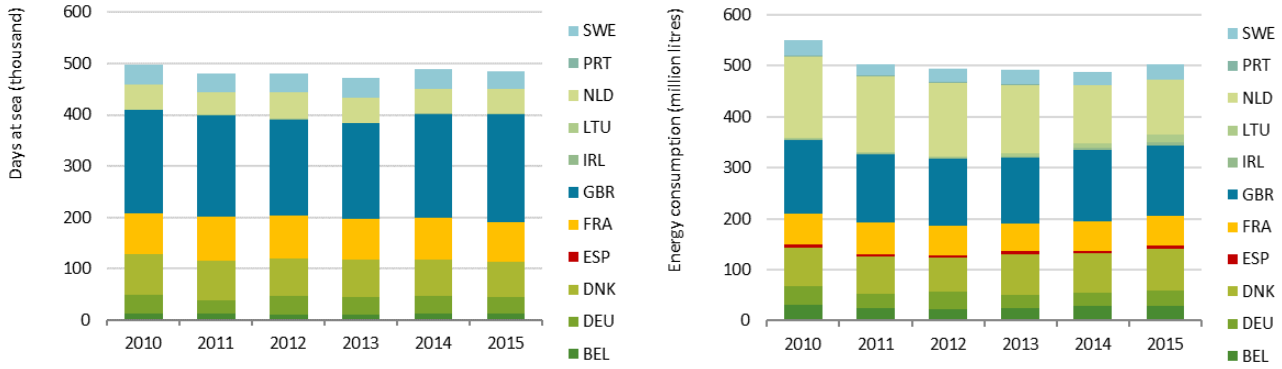
Around 41% of the days at sea were undertaken by small-scale coastal vessels using passive gears. The UK, France and Denmark accounted for 89% of this effort. Large-scale fisheries (LSF) accounted for 59% of the days at sea, of which most were undertaken by the demersal fleet (Table 4.6 and 4.7).

Effort more or less followed the fleet capacity reduction, with an increase in 2014 largely attributed to the UK fleet. Fuel consumption decreased significantly from 2010 to 2011, continuing on a steady decreasing trend until 2014 (Figure 4.8). Fuel consumption increased slightly in 2015 in line with the increased number of vessels and relatively low fuel prices.



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.7 Share of the effort deployed by the North Sea & Eastern Arctic fleet by MS and fishing activity, 2015

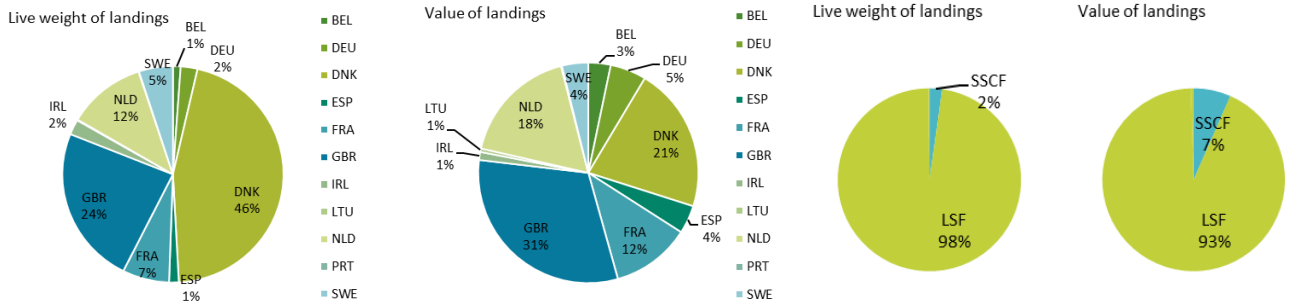


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.8 Trends on fishing effort (in days at sea) and fuel consumption for MS fleets operating in the North Sea & Eastern Arctic region

Landings and top species

The weight and value of landings generated by the fleet amounted to approximately 1.66 million tonnes and €1.8 billion, respectively. The North Sea & Eastern Arctic LSF landed 98% of the total weight and 93% of the total value (Figure 4.7).



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

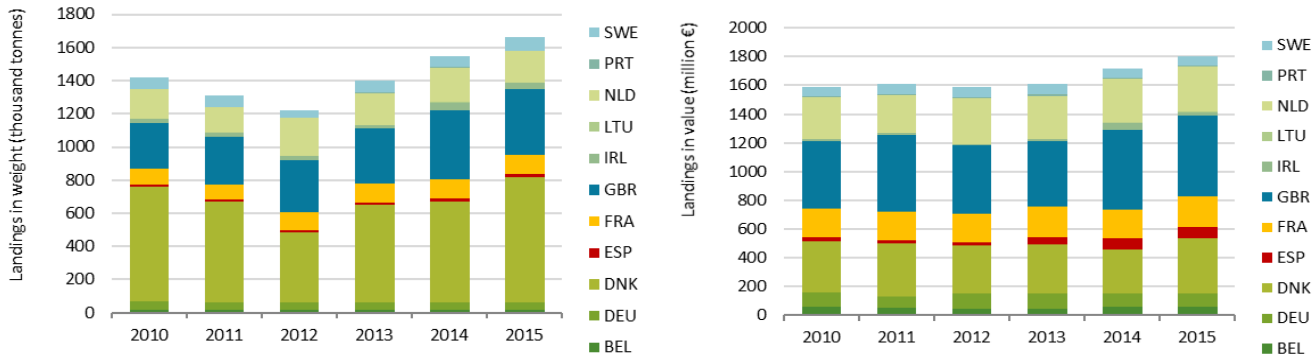
Figure 4.9 Share of landings from the North Sea & Eastern Arctic region by MS and fishing activity, 2015

Note: MS fleets with less than 1% share are not shown

Landings in weight decreased sharply between 2010 and 2012, mainly resulting from reductions in the Danish fleet, to increase steadily from 2013 onwards, again due to the Danish fleet, but also the UK fleet. Landings in value remained rather stable over the period 2010 to 2013, increasing in 2014 and 2015 (Figure 4.10). Weights in the last years increased more rapidly than values mainly due to increased landings of pelagic species such as Atlantic mackerel, European sprat and sandeels.

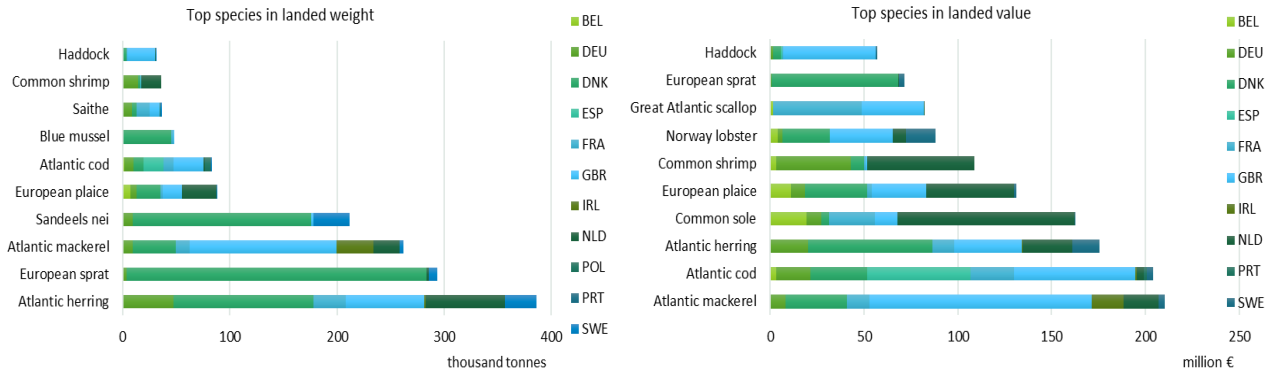
In 2015, Atlantic herring (386 thousand tonnes) was the most important species in terms of weight. Landings of European sprat (293 thousand tonnes), Atlantic mackerel (262 thousand tonnes), sandeels (211 thousand tonnes) and European plaice (88 thousand tonnes) were the next most important species in terms of weight (Figure 4.11, 4.12).

In terms of value, the most important species in 2015 were: Atlantic mackerel (€210 million) followed by Atlantic cod (€204 million), Atlantic herring (€175 million), common sole (€162 million), European plaice (€131 million), common shrimp (€109 million) and Norway lobster (€88 million) (Figure 4.11, 4.12).



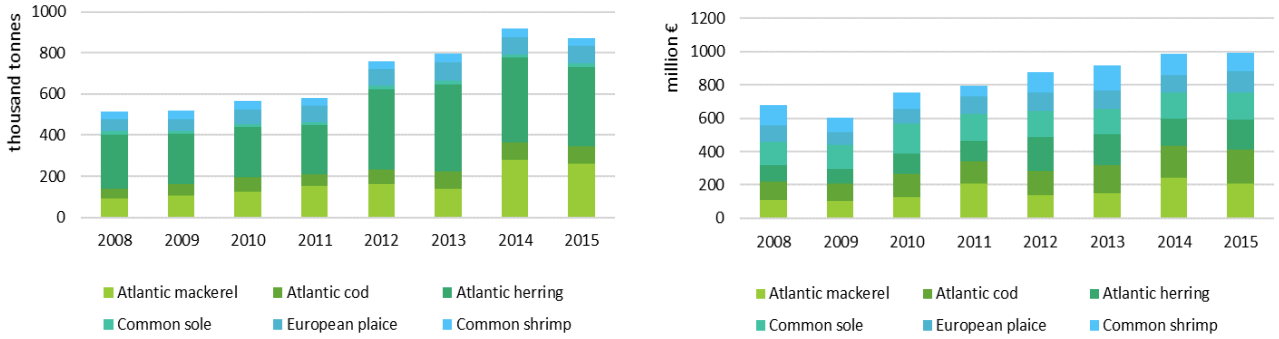
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.10 Trends on landings in weight and value for MS fleets operating in the North Sea & Eastern Arctic region



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.11 List of the top 10 species in terms of landed weight and value by MS fleets operating in the North Sea & Eastern Arctic in 2015.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.12 Trends on landings of the top six species in terms of landed value for MS fleets operating in the North Sea & Eastern Arctic

Socio-Economic performance

The revenue (income from landings and other income) generated by the North Sea & Eastern Arctic fleet in 2015 was estimated at almost €1.9 billion, 82% of which was provided by four Member States - UK (€588 million), Denmark (€394 million), the Netherlands (€318 million) and France (€228 million) (Figure 4.13).

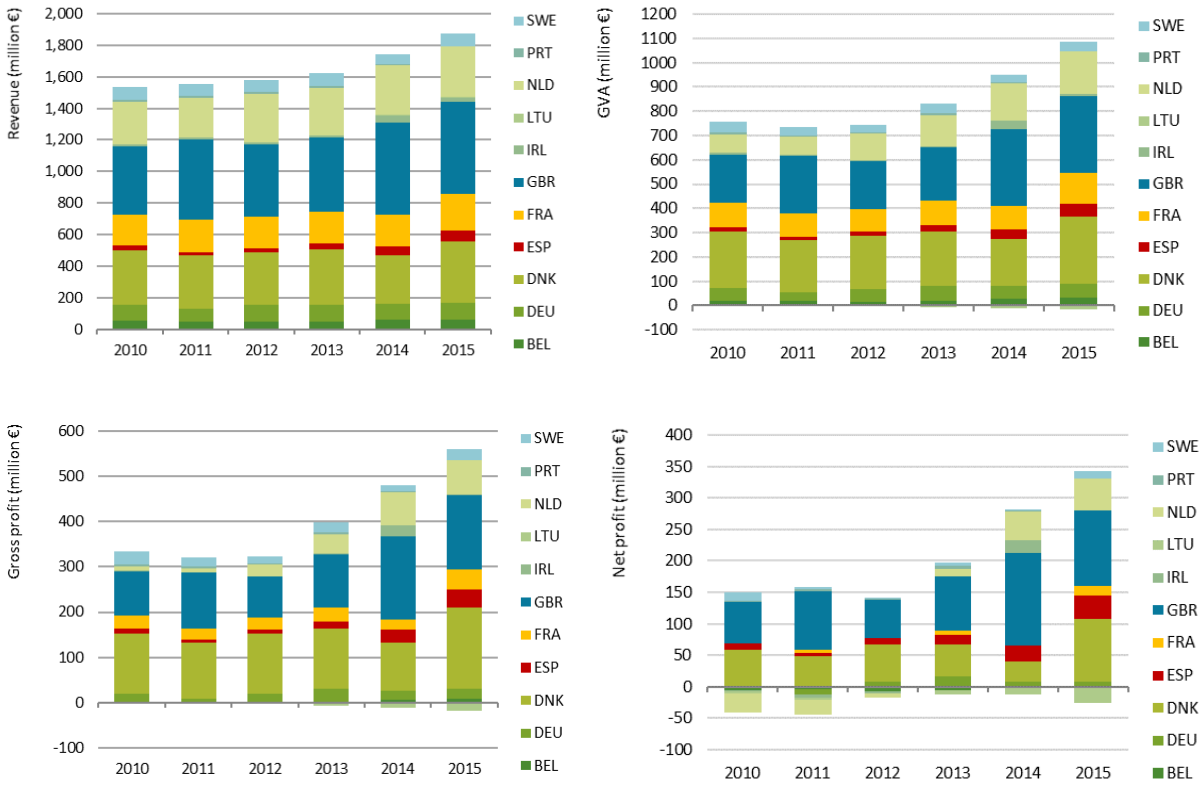
Revenue increased by 7% compared to 2014: Belgium suffered a modest decrease of 1.1% compared to 2014, the Danish and Spanish fleets saw increases of 20% or more, while Germany (+7.5%), France (+11.5%), the UK (+1.6%), the Netherlands (+1.3%) and Sweden (+18%) saw more modest increases.

GVA produced by the North Sea & Eastern Arctic fleet covered in the analysis was estimated at over €1 billion in 2015. This represented an overall increase of 14% compared to the GVA generated in 2014, as the GVA of Belgium (+7%), Denmark (+44%), Germany (+10%), France (+33%), the Netherlands (+15%), Spain (35%) and Sweden (31%), all increased. On the other hand, the UK (-1%) fleet in the region saw a GVA drop compared to 2014. After accounting for operating costs, the fleet made almost €542 million in gross profit, a 15% increase compared to 2014 (Figure 4.13).

By fishing activity, the North Sea & Eastern Arctic SSCF generated €131 million in revenue, a 0.6% decrease on 2014 results, while the LSF generated €1.7 billion in revenue, a 7.5% increase compared to 2014.

There were SSCF of seven MS operating in the North Sea & Eastern Arctic region. Of these, the UK fleet, consisting of 1 687 vessels and employing 1 071 FTEs, generated the highest revenue (€62 million), yet suffered net losses. The French SSCF, with 241 vessels generated revenue of €39.6 million and had the highest net profit (€4.9 million). Overall the SSCF segment was profitable in 2015, posting a net profit margin of 3.7%; six of the seven MS small-scale coastal fleets made gross profits, totalling €19.5 million in gross profit. Two SSCFs (Germany and UK) suffered net losses.

The UK North Sea LSF, consisting of 629 vessels, generated the highest revenue (€526 million), followed by the Danish (€380 million) and Dutch (€314 million) LSF. All North Sea MS LSF generated gross profits in 2015. All except for the Irish LSF generated a positive net profit. However, this negative net profit is due, in part, to an overestimation of net profit loss for some fishing segments (see Irish National Chapter).

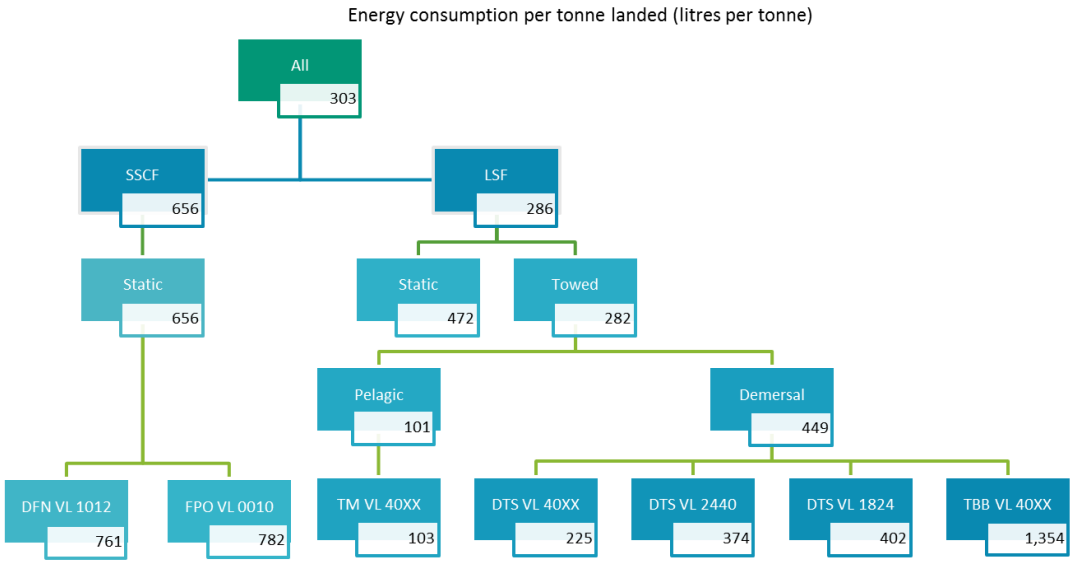


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.13 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) for MS fleets operating in the North Sea & Eastern Arctic region

Productivity

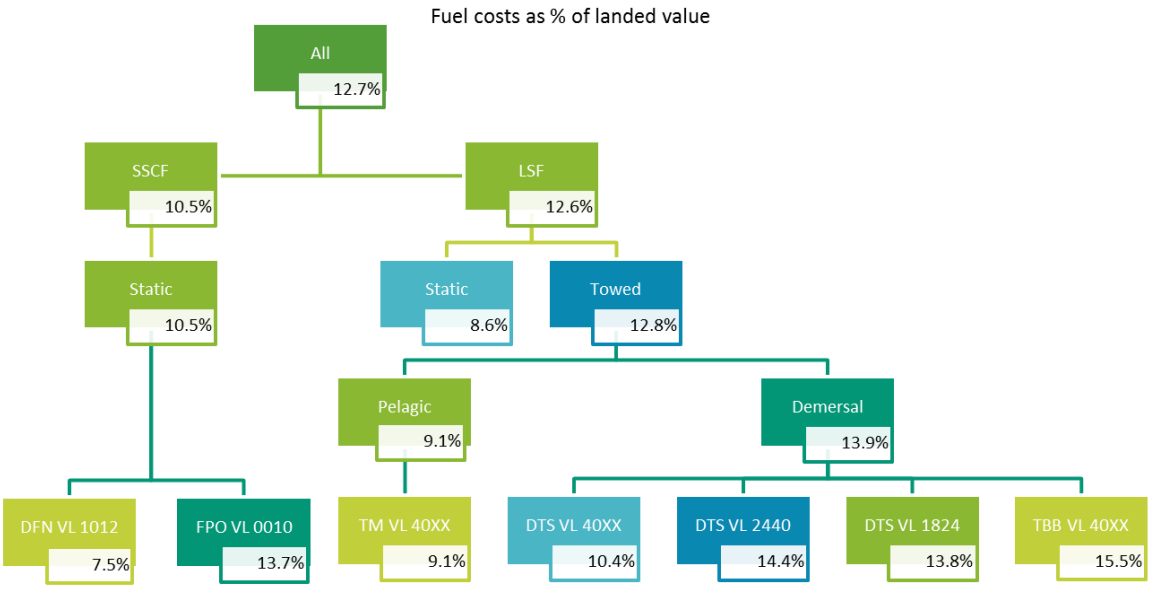
On average, 303 litres of fuel per tonne of landed fish was used in North Sea and Eastern Arctic fisheries in 2015 (Figure 4.14). However, significant differences between fisheries were observed. Pelagic fisheries were the most fuel efficient, consuming 101 litres of fuel per landed tonne while the flatfish fisheries, using large beam trawlers, consumed the most fuel per landed catch (1 354 litres/tonne for TBB VL40XX). Differences in energy consumption per landed tonne were also observed between MS. This was mainly due to different fleet compositions (e.g. a higher proportion of pelagic mid-water trawlers versus more fuel intensive demersal beam trawlers) and target species (e.g. depending on quota availability) within MS.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017))

Figure 4.14 Schematic representation of the amount of fuel consumed per landed weight (litre/tonne) by the various MS fleet components operating in the North Sea & Eastern Arctic, including some important segments

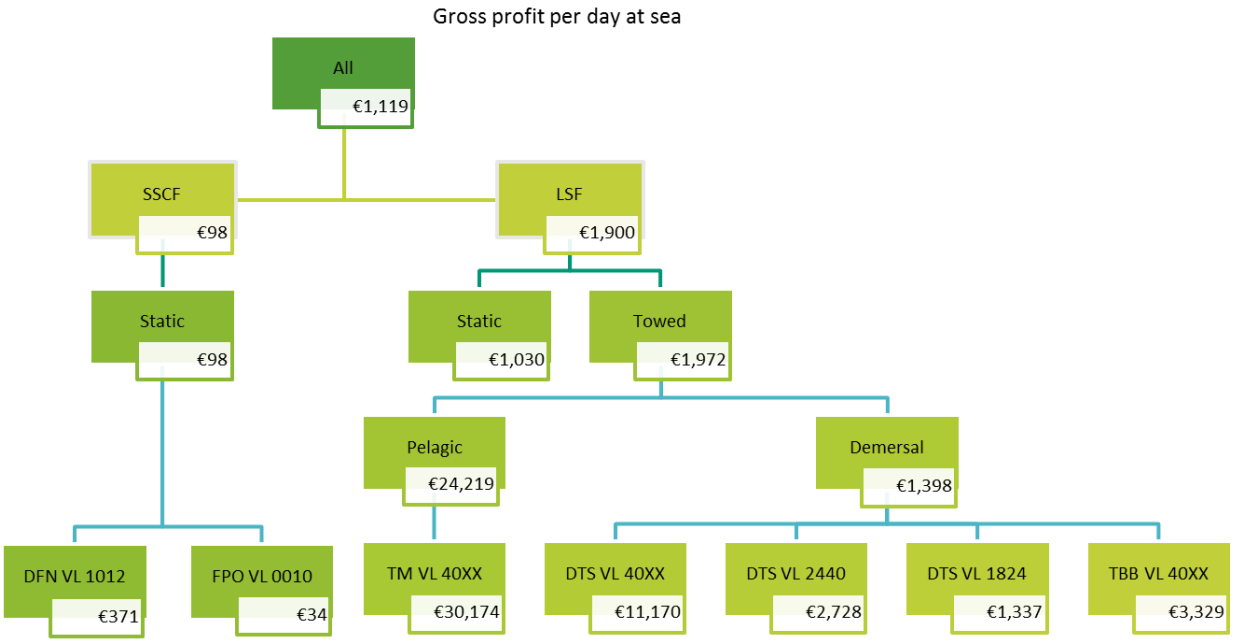
Around 13% of the landed value in the North Sea and Eastern Arctic went to pay for fuel costs in 2015. In total around €230 million were spent on fuel to catch 1.66 million tonnes of fish. In particular, the demersal segments spent high amounts of their landed value on fuel. As trawling is typically fuel intensive, fluctuations in fuel consumption and fuel prices are therefore key drivers of the profitability of these. Innovations in new and lighter fishing gears (to reduce consumption) together with the decreased fuel prices and higher fish prices for the most important target species of these segments helped to reduce the ratio of fuel cost versus revenue for the most important segments in the last years (Figure 4.15).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.15 Schematic representation of the ratio fuel costs to landed value (%) for the various MS fleet components operating in the North Sea & Eastern Arctic, including some important segments

On average, MS fleets operating in the North Sea & Eastern Arctic generated around €1 119 in gross profit per day at sea, with the LSF producing significantly higher profits than the SSCF. Large-scale fisheries' gross profits were almost 19 times higher. Within the LSF, towed gears were also more productive, of which the pelagic fisheries outperformed, generating approx. €24.2 thousand in gross profit per day at sea, while pelagic trawlers over 40 m made an average of €30.2 thousand in gross profit per day at sea (Figure 4.16). UK and Denmark had the highest gross profit per day at sea for the latter fleet segment (TM VL40XX). Other segments with high gross profits were TBB VL40XX (mainly the Dutch flatfish fishery) and DTS VL40XX (the Spanish cod fishery in the Arctic with a TAC of some 13 300 tonnes in I, IIa in 2015)



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.16 Schematic representation of the gross profit per day at sea generated by the various MS fleet components operating in the North Sea & Eastern Arctic, including some important segments

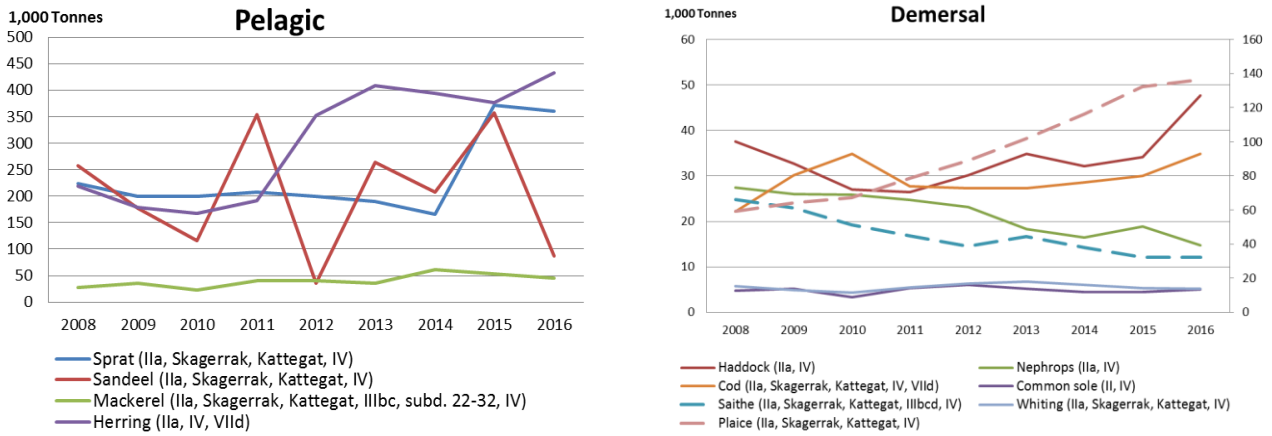
Regulation, fisheries management and stocks status in the region

The management plans in force in 2015 that impacted on the North Sea included:

- Long-term plan for cod stocks and the fisheries exploiting those stocks (Council Regulation (EC) No 1342/2008).
- Multiannual plan for fisheries exploiting stocks of European plaice and common sole in the North Sea (Council Regulation (EC) No 676/2007).
- Recovery plan for the Northern hake stock covering the areas Kattegat, Skagerrak, North Sea, the Channel, West of Scotland, all around Ireland and Bay of Biscay (Council Regulation (EC) No 811/2004).
- Fishing opportunities available in EU waters and, to EU vessels, in certain non- EU waters (Council Regulation (EU) No 40/2013 of Jan 21, 2013), including European Union and Norway bilateral fisheries arrangements.
- Other management measures that may affect economic performance of the fleets operating in the North Sea include marine protected areas and other national legislation.

TAC development of main species

Figure 4.17 shows the EU TACs for 2008 to 2016 for some pelagic and demersal species. It should be noted that in some cases the TAC areas are not limited to the North Sea and include adjacent waters (mainly ICES area IIa). On average, quotas have remained stable or increased over time except for sandeels, *Nephrops* and saithe. The TAC for sandeels, an important species for the Danish fleet, decreased considerably in 2014 compared to 2013, but increased again in 2015. It drastically dropped again in 2016.



Source: Calculated based on 2016 TAC Council Regulations

Figure 4.17 TACs for major pelagic species (left) and demersal species (right, dotted line -> secondary axis) in the North Sea & Eastern Arctic region

Status of important stocks

Haddock & **saithe:** 2016 TACs are again in accordance with MSY. This allowed for a 30% increase for haddock, but required a 6% reduction for saithe.

***Nephrops*:** TAC in the Skagerrak, Fladen grounds, Firth of Forth and Moray Firth will be fished in accordance with MSY. The other stocks are either fished above Fmsy or lack an Fmsy assessment.

Herring: The herring stock in the North Sea (I, II, V, IVa, XIVa) was exploited below sustainable mortality levels (Fmsy) in 2015. The spawning stock biomass has been above the conservation limit (Blim), however the stock is declining and was estimated close to MSY Btrigger in 2016.

Common sole: The sole stock in the North Sea (IV and VIId) was exploited below sustainable mortality levels (Fmsy) in 2015. Its spawning stock biomass has been above the conservation limit (Blim) and even above MSY Btrigger since 2012 and increased in 2013 and 2014. Recruitment in 2012 and 2013 however were among the lowest of the time series.

Plaice: The plaice stock has developed favourably under the current management plan. For the stock in VIId, fishing mortality has declined over time and is presently among the lowest in the time-series and spawning–stock biomass has increased since 2008. A similar situation was observed for the plaice stock in subarea IV and division IIIa. The only consequence of the management plan for the fishing activity was the limitation of quota increase to an annual 15%.

Cod: In spite of the cod management plan being effective for several years, the spawning stock biomass is still below MSY Btrigger. However, cod will be fished for the first time in accordance with MSY in 2016, allowing a 15% increase of the TAC, and the stock is now recovering to levels observed in the mid- 1980s. Fisheries on North Sea cod are often mixed fisheries and the long-term management plan for cod can impact on the exploitation of other stocks within the target assemblage. Days at sea limits have become more of a constraint in this context. The Kattegat cod remains at a low level but the biomass has increased since 2009.

Brown shrimp: Another economically important species is brown shrimp (*Crangon crangon*). This species is currently not under a TAC regime. While a full assessment is not yet available, fishing mortality is considered to be above Fmsy. However, there have been initiatives from the fishing industry to move towards implementing harvest control rules and in 2016

measures were taken to regulate the weekly fishing effort. This was one of the requirements to qualify for an MSC certificate (the fishery is currently under MSC evaluation process).

Landing obligation

In 2015 no major problems occurred. The introduction of the landing obligation could be implemented with little extra effort in the pelagic as well as in the saithe fisheries as these fisheries traditionally have had low bycatch rates. However, more challenges are to be expected for demersal fisheries. Fishers fear that the discard ban will have a large impact on their profitability, mainly due to increased costs. Another concern is related to potential choke species. Particularly in a mixed fishery this could be an issue as many species are caught at the same time and multiple choke species may occur. Ray, plaice, dab, turbot and brill are potential choke species candidates in mixed demersal fisheries (Batsleer, 2016). Therefore, to continue fishing throughout the year, it will be vital to have either enough quota available or adapt fishing strategies (optimal solution has not been discovered thus far).

Description of relevant fisheries in the region

Table 4.10 provides results for the top 40 MS fleet segments in terms of revenue while Table 4.11 provides results for fleet segments that operated 80% or more in the North Sea & Eastern Arctic in 2015. These latter 36 fleet segments accounted for 22% of the number of vessels and 28% of the days at sea deployed in the region; 34% of the FTE; and 52% of the landed weight, estimated at 43% of the landed value. Collectively, these highly 'resident' fleet contributed 47% of the GVA, 51% of the gross profit, and 53% of the net profit.

At fleet segment level, the most important large-scale segments were the UK pelagic trawlers over 40m (€155 million) based on income from landings, followed by the Danish pelagic trawlers over 40m (€132 million), the Dutch beam trawlers over 40m segment (€119 million) and the UK demersal trawlers 24-40m (€113 million). The most important fleets in terms of GVA were again the Danish and UK pelagic trawlers over 40m.

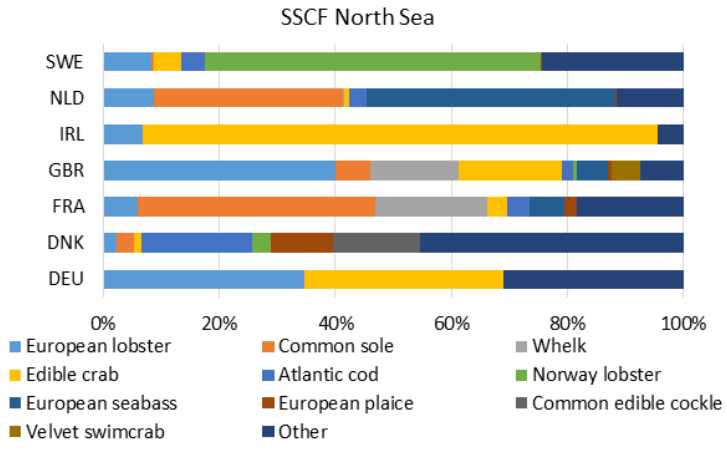
For the small-scale fisheries the most important fleet segments in terms of income from landings were the UK pots and trap vessels under 10m (€36.6 million) and the French drift netters between 10 and 12 m (€17.7 million).

Small-scale coastal fishery

The small-scale coastal fleets from seven member states operate in the North Sea & Eastern Arctic. In terms of vessel numbers, the UK and Denmark have the highest number of active SSCF vessels with 1 687 and 489 respectively. The UK, France and Denmark accounted for 89% of this SSCF effort.

Overall the SSCF in the North Sea & Eastern Arctic was profitable in 2015, generating €71.7 million in GVA and €19.4 million in gross profit, with a gross loss for Germany (-€46 000). The most profitable in terms of gross and net profit was the French SSCF with €8.0 million and €4.9 million, respectively. The UK and German SSCFs suffered net losses of some -€3.38 million and -€0.08 million respectively. All MS in the North Sea and Eastern Arctic demonstrated a lower FTE figure in comparison with total employed indicating that a large majority of those employed in the SSCF are part-time or casual workers. Total employment for the SSCF is highest for the UK and France totalling 3 023 and 490 respectively reflecting the number of active vessels in these MS.

The most important SSCF segment were pots and trap <10m in the UK (FPO VL0010), representing 38% of total SSCF employment and 31% of total value of landings. Another important fleet segment were the French drift netters (DFN 1012), representing 5% of total SSCF employment and 14% of total value.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

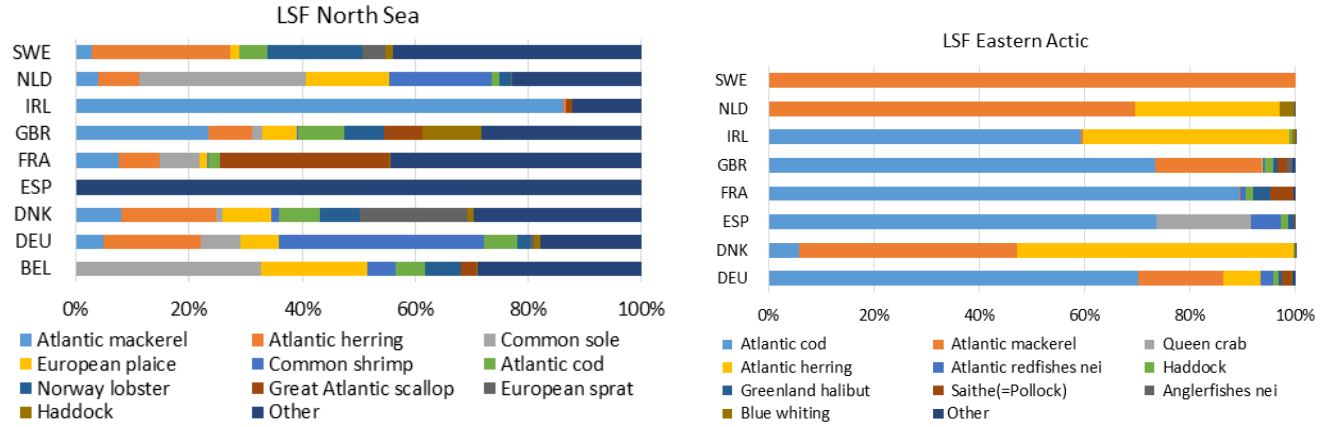
Figure 4.18 Top 10 species (and others) landed in terms of value as a proportion of the total landings in the region by MS large-scale fleets operating in the North Sea and Eastern Arctic, 2015

Landings from the North Sea were valued at €125.9 million in 2015 with five MS responsible for close to 100% of the total value of landings: the UK (47%), France (26%), Denmark (17%), Sweden (8%) and the Netherlands (3%).

- High dependency on one or two main species accounting for at least 50% of total value of landings was observed for the UK (European lobster and edible crab), for France (common sole and whelk), Sweden (Norway lobster and European lobster) and for the Netherlands (European seabass and common sole);
- Low dependency due to a greater diversity of species was observed for Denmark with Atlantic cod as the most important species.

Large-scale fishery

There were nine member states operating important large-scale fleets in the North Sea and Eastern Arctic totalling 2 082 active vessels. The UK, Denmark, the Netherlands and France had the largest number of active vessels in the region with values of 629, 350, 338 and 300, respectively.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.19 Top 10 species (and others) landed in terms of value as a proportion of the total landings in the region by MS large-scale fleets operating in the North Sea and Eastern Arctic, 2015

Overall the LSF was profitable in 2015, generating €1.02 billion in GVA and €542 million in gross profit. The most profitable in terms of gross and net profit was the UK with €160 million and €123 million, and Denmark with €179 million and €100 million, respectively.

The UK large-scale fleet generated the highest revenue (€526 million), followed by the Danish (€380 million) and the Dutch (€314 million) large-scale fleets. All North Sea and Eastern Arctic MS large-scale fleets generated gross profits in 2015 with Denmark generating the highest gross profit of €179 million. All MS LSF made a positive net profit except for Ireland. However, the Irish fleet's net loss is due, in part, to an overestimate of net loss for some of the Irish fleet segments (see the Irish national chapter).

Total employment for the LSF is highest for the UK and the Netherlands totalling 2 871 and 1 386 respectively reflecting the high number of active vessels in these MS. While the SSCF, for all MS, demonstrates a dramatic difference between the total number employed and total FTE, the LSF figures for total employed and FTE are closer in value indicating the high level of full time employment in this segment.

MS can be classed into different categories according to their species dependency which is representative of their large-scale fleet landings composition.

North Sea (total landings €1.54 billion in 2015):

- High dependency on one or two main species accounting for at least 50% of total value of landings: demersal species for Belgium (common sole and plaice), for pelagic species for Ireland (Atlantic mackerel) and both for Germany (common shrimp and Atlantic herring);
- Moderate dependency on four species representing 50% of total value of landings: pelagic and demersal species for the Netherlands (common sole, common shrimp, plaice, Atlantic herring), Denmark (sprat, Atlantic herring, plaice, Atlantic mackerel), France (Atlantic scallops, Atlantic herring, Atlantic mackerel, common sole), Sweden (Atlantic herring, Norway lobster, cod, sprat);
- Low dependency due to a greater diversity of species with pelagic species playing a dominate role in terms of landed value for the UK (Atlantic mackerel) and other species for Spain.

The UK was the most important contributor to the North Sea in terms of value of landings (30%), followed by the Denmark (23%), the Netherlands (21%) and France (10%).

Eastern Arctic (Total landings €0.16 billion in 2015):

- High dependency on only a few main species accounting for at least 50% of total value of landings: pelagic species for Sweden, the Netherlands and Denmark (Atlantic mackerel, Atlantic herring) and demersal species for France, Ireland, UK and Germany (cod) and Spain (cod, queen crab).

Spain was the most important contributor in the Eastern Arctic in terms of value of landings (46%), followed by the UK (21%), France (13%) and Germany (10%).

Pelagic fishery

The pelagic fishery operates both in the North Sea, the Eastern Arctic as well as in the North East Atlantic. MS involved are, in order of importance, Denmark, UK, the Netherlands, Germany, Sweden, France and Ireland. A distinction can be made between industrial and non-industrial fisheries. A large share of the Danish and Swedish landed volume consist of sandeels and European sprat, which are used for industrial purposes (e.g. fishmeal and fish oil). Important target species for human consumption are Atlantic mackerel, Atlantic herring and horse mackerel.

The industrial pelagic fisheries have seen increased catch possibilities as TACs increased considerably in 2015. This is likely to have had an effect on the performance of Danish and Swedish pelagic fleets. The TAC of Atlantic mackerel decreased by 12% in 2015. In addition, the TACs for Atlantic herring and Atlantic horse mackerel decreased in 2015. However, the overall performance of most pelagic fleets was positive in 2015.

The UK pelagic fishery is mainly carried out by vessels using pelagic trawls targeting herring, mackerel and jack mackerel in the northern North Sea and are prosecuted mostly by Scottish large pelagic trawlers (>50m).

The Danish pelagic fishery in the North Sea mainly targets mackerel, herring, sandeel and sprat. The latter two species are used for industrial purposes (fishmeal and fish oil). All these species are under an ITQ regime. The fishery is executed mainly by large pelagic trawlers, but also by vessels from the demersal segment, which switch gears seasonally.

The Swedish pelagic fishery is performed by vessels that seasonally switch to demersal fisheries. About 10% of the sandeels quota is fished as well as sprat. All industrial catches are landed in Denmark. Major amounts of herring and mackerel are also fished and are more important in terms of value of landings.

The Dutch pelagic fleet in the North Sea consists of 3 large trawlers (from 60 to over 100m). These vessels target herring, horse mackerel and mackerel. There is no fishery directed for industrial purposes.

The German pelagic fishery is performed by two large freezer trawlers and three medium sized trawlers targeting Atlantic herring and Atlantic mackerel. Two pelagic trawlers of about 30m perform a seasonal fishery on sandeels.

Demersal roundfish and Nephrops fishery

The main actors in the demersal roundfish and *Nephrops* fishery in 2015 were the UK, Spain, Denmark, France, Germany, Netherlands, Sweden and Belgium. Important target species were cod, Norway lobster, haddock, saithe and hake. Most of these round fish species were fished below Fmsy. The cod recovery plan in the North Sea may have contributed to improved stock status over the past years and the TAC has slightly increased in 2015. Conversely, not all stocks of Norway lobster are in a favourable status and the TAC for Norway lobster and saithe decreased in 2015. Overall the performance of most demersal roundfish and *Nephrops* fleets seemed positive in 2015.

The UK fishery is the most important demersal roundfish fishery in the North Sea. UK vessels (over 40m) took the bulk of the quota of haddock; this is caught in the northwest and central North Sea and landed almost entirely in the UK. The same vessels exploit a major part of saithe, mainly in the northern North Sea. A great deal of saithe is landed fresh in Denmark as the market in the UK is limited. UK vessels catch more than half of the *Nephrops* total and almost half the Atlantic cod total in the North Sea (excluding the Eastern Arctic).

The Danish demersal roundfish fishery targets considerable amounts of cod, hake, haddock and saithe. A broad range of vessel segments are involved in that fishery. Moreover, the Danish fleet is second according to the value of landings in the *Nephrops* fishery in the North Sea.

The main species for German demersal trawlers in the North Sea is saithe in IVa, taking up about 25% of the quota. Six vessels are involved, ranging between 30-41m long. These vessels also catch some cod and minor amounts of haddock. The fish is landed in Denmark or Germany and is destined for the fresh market but also to processing. *Nephrops* fishery has gained importance for some vessels, though it is minor in the overall context.

The French fleet also participates in the cod and saithe fishery in IVa as well as some amount hake. The Dutch demersal roundfish fishery targets cod and *Nephrops*, but these fisheries are of minor importance in the national context. Swedish vessels catch some major amount of *Nephrops*, moreover cod, saithe and haddock. Overall, these fisheries are not of major importance. Belgium has very small demersal fishery on roundfish and *Nephrops*.

The Spanish fleet was mainly active in the Eastern Arctic. In 2015 the Spanish fleet had a TAC of 16 049 tonnes of Atlantic cod (EU and Norway waters I, IIb). In 2015 the value of landings amounted to €55 million.

Flatfish fishery (plaice and sole)

The main actors in the flatfish fishery in 2015 were the Netherlands, Denmark, UK, Belgium, France and Germany. Important target species were common sole and European plaice, but also included brill and turbot. Management plans are in place and the status of the stocks has evolved favourably. Sole and plaice were fished below Fmsy in 2015 and the TAC increased. Overall the performance of most flatfish beam trawl fleets seemed positive in 2015.

The Netherlands exert by far the most activity in the flatfish fishery, carried out mainly by large beam trawlers in the southern North Sea (IVc). In 2015, almost all EU permitted 'pulse fisheries' were in effect in the Netherlands, resulting in considerable fuel savings. As a result, this fishery is profitable. The plaice stock is at an all-time high but the fishery was only partly profited as prices decreased until 2014. As a result, the quota was not fully exploited. In 2015 plaice prices went up and fuel prices dropped further which made the plaice fisheries more attractive. It is expected that there will be increased effort in plaice fisheries, leading to higher quota uptake (and profitability) in the coming years. Common sole is very important due to high prices.

UK beam trawlers targeting flatfish are owned by Dutch fishers: this is a fishery which is comparable with the traditional Dutch flatfish fishery (as opposed to flatfish pulse fishing). The catch is mainly landed in the Netherlands (Urk). Moreover, shares of the quota are being swapped. Flatfish is of relatively minor importance for the UK market as a whole, but remains of local importance, particularly in the east and south of England.

The Danish fleet targets flatfish mainly using otter trawls in both IIIa and IV. The ratio of sole catches versus plaice catches is rather low compared with the situation in other MS. Plaice is a target species in some fisheries, but constitutes a bycatch in the cod and *Nephrops* fisheries.

Flatfish is a major species for the Belgian fishery, carried out by beam trawlers in the southern North Sea. As opposed to the Dutch vessels, the Belgian beam trawlers still use more traditional gear, although they have made a number of technical adjustments in order to reduce fuel consumption. Even so, beam trawlers impose a high towing resistance and this, in combination with dispersed fishing grounds, results in high fuel consumption. Therefore, the fuel crisis in 2008 had a large impact on the profitability of the Belgian fleet.

The German flatfish fishery is performed by a few Dutch owned beam trawlers. These vessels fish in a manner very similar to the Dutch fleet.

French vessels target plaice and sole in the Channel area. Sole catches are considerably higher than plaice catches.

Brown Shrimp Fishery

The main actors in the shrimp fishery in 2015 were the Netherlands, Germany, Denmark, and Belgium. Overall the performance of most of these fleets was positive in 2015. While there are no quotas for this fishery considerable catches are being made in coastal areas of the southern North Sea. The fishery is carried out by smaller beam trawlers (mainly below 24m). Dutch and German catches account for about 90% of the total catch. The Danish and the Belgian fleets also contribute to the total while France and the UK report only negligible amounts.

Dutch and German shrimp beam trawlers are comparable in size and performance. Some German vessels operate under Dutch ownership. Some Dutch vessels switch between flatfish and shrimp fishery.

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Table 4.5 Structure and economic performance estimates by MS fleet operating in the North Sea & Eastern Arctic region, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Belgium	BEL	59	81%	9,975	31,741	259	300	11,650	76%	12,521	80%	18,716	76%	59,240	72%	59,096	62,473	22,348	11,958	30,258	48.4	7,910	12.7	2,042	3.3	514	101.0
Denmark	DNK	839	60%	56,534	155,825	1,022	1,291	67,837	70%	62,912	69%	756,855	87%	384,894	87%	384,837	394,009	96,392	37,484	277,281	70.4	180,889	45.9	100,051	25.4	331	214.8
France	FRA	541	10%	26,758	109,651	1,652	1,121	76,761	17%	69,390	17%	113,882	23%	209,661	19%	225,414	228,211	83,494	28,862	127,397	55.8	43,903	19.2	14,766	8.3	235	113.7
Germany	DEU	224	21%	18,070	57,822	580	472	33,189	31%	33,468	30%	40,874	59%	95,757	69%	97,483	102,131	34,743	13,579	56,987	55.8	22,244	21.8	6,336	6.2	255	120.7
Ireland	IRL	10	1%	4,774	9,560	70	67	1,000	1%	560	1%	37,490	16%	21,209	10%	21,209	21,521	8,620	2,856	11,766	54.9	3,146	14.7	- 2,140	- 10.0	1,253	177.3
Lithuania	LTU	5	5%	20,700	18,928	145	129	856	9%	822	11%	2,082	3%	9,250	15%	8,570	8,715	894	6,039	- 18,025	- 206.8	- 18,919	- 217.1	- 23,301	- 267.4	- 3,787	- 139.7
Netherlands	NLD	509	99%	71,840	189,901	1,748	1,401	47,705	97%	42,142	98%	191,204	58%	315,052	84%	315,979	318,255	98,049	44,348	172,837	54.3	74,788	23.5	51,086	16.1	340	123.4
Portugal	PRT	1	0%	1,510	1,651	26	25	167	0%	159	0%	1,077	1%	2,575	1%	2,180	2,182	644	428	1,326	60.7	682	31.3	201	9.2	1,636	53.2
Spain	ESP	6	0%	7,008	7,353	150	177	1,152	0%	1,152	0%	23,408	3%	74,997	4%	68,647	68,764	15,957	3,211	55,430	80.6	39,473	57.4	36,711	53.4	8,784	313.9
Sweden	SWE	446	44%	16,507	81,096	719	422	34,253	47%	34,253	47%	82,607	41%	69,619	60%	69,619	77,138	16,100	13,481	40,691	52.8	24,591	31.9	11,664	15.1	91	96.3
United Kingdom	GBR	2,317	51%	94,542	345,882	5,894	3,682	210,011	49%	142,205	47%	392,939	55%	563,565	53%	563,589	588,080	150,551	67,303	313,973	53.4	163,422	27.8	119,617	20.3	136	85.3

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.6 Structure and economic performance estimates by main type of fishery (Pelagic, demersal or other) for MS fleets operating in the North Sea & Eastern Arctic region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Pelagic	56	3%	104,146	168,092	677	569	7,482	3%	5,183	2%	762,251	31%	381,145	22%	380,947	387,037	84,854	39,828	226,401	58.5	141,547	36.6	64,986	17.4	4,053	398.2
Demersal	1,784	17%	199,677	602,680	6,421	6,101	247,008	19%	223,263	18%	822,528	47%	1,210,013	36%	1,213,988	1,254,674	357,274	167,892	713,703	56.9	356,429	28.4	234,007	19.2	400	117.0
Other	3,115	8%	24,393	238,639	5,169	2,416	230,091	7%	171,139	5%	76,355	12%	214,663	12%	221,689	229,769	85,665	21,830	129,817	56.5	44,153	19.2	18,039	7.9	42	53.7

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.7 Structure and economic performance estimates by MS and main type of fishery (Pelagic, demersal or other) for fleets operating in the North Sea & Eastern Arctic region, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Pelagic	DNK	24	78%	21,782	39,812	108	169	3,649	81%	2,453	81%	371,594	83%	138,287	84%	138,282	143,032	21,127	11,055	114,300	79.9	93,173	65.1	50,783	35.5	4,715.4	674.8
Pelagic	FRA	4	2%	4,273	5,215	69	68	791	4%	636	5%	34,305	21%	16,597	10%	16,941	16,993	4,985	2,192	9,689	57.0	4,705	27.7	750	25.2	2,684.0	143.2
Pelagic	GBR	16	56%	30,876	72,796	181	30	1,149	56%	646	62%	215,168	56%	155,320	56%	155,320	156,046	37,354	12,310	94,820	60.8	57,466	36.8	43,449	27.8	6,097.8	3,112.9
Pelagic	IRL	5	12%	4,505	8,742	52	50	388	11%	107	7%	35,249	21%	17,595	22%	17,595	17,902	7,569	2,592	8,904	50.0	1,336	7.5	- 3,879	- 21.8	1,858.9	178.2
Pelagic	LTU	5	24%	20,700	18,928	145	129	856	27%	822	37%	2,082	3%	9,250	16%	8,570	8,715	894	6,039	- 18,025	- 206.8	- 18,919	- 217.1	- 23,301	- 267.4	- 3,786.8	- 139.7
Pelagic	NLD	3	36%	22,010	22,598	122	122	649	36%	519	36%	103,853	43%	44,096	43%	44,239	44,349	12,925	5,641	16,712	37.7	3,787	8.5	- 2,816	- 6.4	5,742.9	136.9
Demersal	BEL	57	81%	9,524	30,201	249	289	11,415	76%	12,306	80%	18,505	77%	58,392	72%	58,248	61,524	21,938	11,816	29,964	48.7	8,026	13.1	2,392	3.9	529.7	103.8
Demersal	DEU	214	81%	17,636	56,325	547	447	32,043	85%	32,545	87%	40,254	67%	93,386	75%	95,070	99,700	33,143	13,331	55,595	55.8	22,452	22.5	6,868	6.9	260.0	124.4
Demersal	DNK	259	84%	28,187	81,067	609	804	35,677	85%	33,564	85%	364,520	94%	196,389	92%	196,273	199,976	55,919	22,480	130,757	65.4	74,839	37.4	44,186	22.1	504.7	162.6
Demersal	ESP	6	0%	7,006	7,350	149	176	1,150	0%	1,150	0%	23,408	7%	74,997	10%	68,646	68,763	15,957	3,209	55,434	80.6	39,477	57.4	36,716	53.4	8,799.1	314.1
Demersal	FRA	248	26%	18,932	67,582	925	669	40,059	24%	33,880	23%	65,324	34%	142,923	27%	152,086	153,610	53,712	22,507	81,601	53.1	27,889	18.2	7,915	6.8	329.2	122.0
Demersal	GBR	516	43%	52,720	152,035	2,291	2,208	66,385	42%	54,811	42%	140,666	60%	313,618	57%	313,631	333,213	79,458	43,347	172,692	51.8	93,234	28.0	73,089	21.9	334.8	78.2
Demersal	NLD	319	100%	48,937	145,829	1,234	1,171	43,567	100%	38,377	100%	86,691	99%	267,006	99%	267,126	268,567	84,176	38,139	152,418	56.8	68,242	25.4	52,013	19.4	477.6	130.2
Demersal	SWE	164	71%	15,113	60,354	384	306	16,350	68%	16,350	68%	80,980	41%	59,532	59%	59,532	65,939	11,931	12,445	33,227	50.4	21,296	32.3	10,397	15.8	202.5	108.5
Other	BEL	2	77%	451	1,540	10	11	235	77%	215	77%	211	60%	848	71%	848	949	410	142	295	31.1	- 115	- 12.2	- 350	- 36.8	127.6	26.7
Other	DEU	10	1%	434	1,497	34	25	1,146	2%	923	1%	620	7%	2,372	17%	2,413	2,431	1,600	249	1,392	57.3	- 208	- 8.6	- 532	- 21.9	143.2	55.1
Other	DNK	556	53%	6,565	34,945	306	317	28,511	56%	26,896	55%	20,741	73%	50,219	81%	50,282	51,001	19,346	3,949	32,223	63.2	12,877	25.3	5,082	10.0	58.0	101.6
Other	FRA	290	6%	3,553	36,854	658	384	35,911	13%	34,875	14%	14,253	10%	50,142	13%	56,387	57,608	24,798	4,163	36,107	62.7	11,309	19.6	6,100	10.6	124.7	94.0
Other	GBR	1,786	53%	10,946	121,050	3,422	1,443	142,476	52%	86,748	51%	37,106	41%	94,628	40%	94,638	98,821	33,739	11,646	46,460	47.0	12,721	12.9	3,079	3.1	26.0	32.2
Other	IRL	4	1%	156	533	12	11	417	1%	332	1%	1,139	9%	2,418	14%	2,418	2,420	654	75	2,173	89.8	1,519	62.8	1,510	62.4	588.9	195.4
Other	NLD	187	100%	893	21,474	392	108	3,489	100%	3,246	100%	660	100%	3,950	100%	4,615	5,339	948	569	3,707	69.4	2,759	51.7	1,889	35.4	19.8	34.3
Other	SWE	282	36%	1,394	20,742	335	116	17,903	36%	17,903	36%	1,627	33%	10,087	64%	10,087	11,200	4,169	1,036	7,464	66.6	3,295	29.4	1,267	11.3	26.5	64.2

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.8 Structure and economic performance estimates by main type of fishing activity operating in the North Sea & Eastern Arctic region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
SSCF	2,873	9%	12,007	188,985	4,368	1,656	198,710	7%	143,958	5%	37,420	14%	119,278	15%	125,891	130,902	52,216	12,529	71,655	54.7	19,439	14.9	4,836	3.7	25	43.3
LSF	2,077	14%	295,509	801,498	7,753	7,301	285,015	15%	254,805	14%	1,621,632	42%	1,677,292	33%	1,682,162	1,731,862	474,682	210,983	1,016,291	58.7	541,610	31.3	335,498	20.0	489	139.2
DWF	5	2%	20,700	18,928	145	129	856	2%	822	2%	2,082	0%	9,250	1%	8,570	8,715	894	6,039	- 18,025	- 206.8	- 18,919	- 217.1	- 23,301	- 267.4	- 3,787	- 139.7

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.9 Structure and economic performance estimates by main type of fishing activity and MS operating in the North Sea & Eastern Arctic region, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
SSCF	DEU	5	1%	46	379	4	4	504	1%	398	1%	41	1%	99	1%	95	108	55	10	9	8.8	- 46	- 42.5	- 82	- 75.7	2	2.6
SSCF	DNK	489	50%	1,811	19,880	156	102	19,064	48%	18,934	48%	5,804	57%	13,109	59%	13,172	13,636	6,333	643	8,430	61.8	2,097	15.4	461	3.4	17	82.3
SSCF	FRA	241	6%	1,668	27,140	490	266	28,004	13%	27,853	14%	9,062	11%	32,864	18%	38,721	39,581	17,586	2,278	25,599	64.7	8,013	20.3	4,852	12.3	106	96.1
SSCF	GBR	1,687	53%	6,706	102,380	3,023	1,071	130,415	53%	76,248	52%	20,434	46%	60,055	45%	60,063	61,944	23,424	8,147	27,029	43.6	3,605	5.8	- 3,380	- 5.5	16	25.2
SSCF	IRL	0	0%	1	6	0	0	6	0%	7	0%	8	0%	10	0%	10	10	5	1	7	69.1	1	14.8	1	13.1	83	51.0
SSCF	NLD	171	100%	444	18,867	362	98	3,033	100%	2,836	100%	484	100%	3,256	100%	3,945	4,634	726	433	3,264	70.4	2,538	54.8	1,753	37.8	19	33.3
SSCF	SWE	279	37%	1,332	20,331	331	114	17,683	37%	17,683	37%	1,588	36%	9,886	66%	9,886	10,991	4,087	1,017	7,316	66.6	3,229	29.4	1,231	11.2	26	64.1
LSF	BEL	59	81%	9,975	31,741	259	300	11,650	76%	12,521	80%	18,716	76%	59,240	72%	59,096	62,473	22,348	11,958	30,258	48.4	7,910	12.7	2,042	3.3	514	101.0
LSF	DEU	218	79%	18,024	57,443	576	469	32,685	83%	33,070	84%	40,834	66%	95,659	73%	97,388	102,024	34,687	13,570	56,977	55.9	22,290	21.9	6,417	6.3	261	121.6
LSF	DNK	350	83%	54,723	135,945	866	1,188	48,773	85%	43,979	85%	751,051	88%	371,785	89%	371,664	380,373	90,059	36,840	268,851	70.7	178,791	47.0	99,590	26.2	769	226.2
LSF	ESP	6	0%	7,008	7,353	150	177	1,152	0%	1,152	0%	23,408	6%	74,997	8%	68,647	68,764	15,957	3,211	55,430	80.6	39,473	57.4	36,711	53.4	8,784	313.9
LSF	FRA	300	20%	25,090	82,511	1,162	854	48,757	20%	41,538	20%	104,820	31%	176,797	21%	186,693	188,631	65,909	26,584	101,798	54.0	35,890	19.0	9,914	7.2	339	119.2
LSF	GBR	629	44%	87,836	243,501	2,871	2,611	79,595	43%	65,957	42%	372,505	56%	503,510	54%	503,526	526,135	127,127	59,156	286,944	54.5	159,817	30.4	122,997	23.4	456	109.9
LSF	IRL	9	2%	4,773	9,554	70	67	994	2%	553	1%	37,482	17%	21,200	10%	21,200	21,511	8,615	2,856	11,760	54.9	3,145	14.7	- 2,141	- 10.0	1,263	177.6
LSF	NLD	338	98%	71,396	171,034	1,386	1,303	44,672	97%	39,307	97%	190,720	58%	311,796	84%	312,034	313,621	97,323	43,915	169,573	54.1	72,250	23.0	49,333	15.7	502	130.2
LSF	PRT	1	0%	1,510	1,651	26	25	167	0%	159	0%	1,077	1%	2,575	1%	2,180	2,182	644	428	1,326	60.7	682	31.3	201	9.2	1,636	53.2
LSF	SWE	166	68%	15,174	60,765	388	308	16,570	65%	16,570	65%	81,019	41%	59,733	59%	59,733	66,148	12,013	12,464	33,374	50.5	21,362	32.3	10,433	15.8	200	108.3
DWF	LTU	5	43%	20,700	18,928	145	129	856	43%	822	49%	2,082	3%	9,250	16%	8,570	8,715	894	6,039	- 18,025	- 206.8	- 18,919	- 217.1	- 23,301	- 267.4	- 3,787	- 139.7

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.10 Structure and economic performance estimates for the top 40 fleet segments (in terms of landed value) operating in the North Sea & Eastern Arctic region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
GBR A27 TM40XX °	16	56%	30,876	72,796	181	30	1,149	56%	646	62%	215,168	56%	155,320	56%	155,320	156,046	37,354	12,310	94,820	60.8	57,466	36.8	43,449	27.8	6,098	3,112.9
DNK A27 TM40XX	16	87%	21,360	38,242	90	151	2,774	87%	1,728	90%	347,371	83%	131,704	85%	131,699	136,448	19,293	10,648	109,425	80.2	90,132	66.1	48,364	35.4	7,001	723.2
NLD A27 TBB40XX °	52	100%	25,130	74,015	392	392	10,637	100%	9,042	100%	34,210	100%	119,235	100%	119,235	119,610	33,531	18,513	68,944	57.6	35,413	29.6	29,708	24.8	1,326	175.8
GBR A27 DTS2440	56	65%	15,300	33,258	492	593	11,486	65%	9,821	66%	52,897	73%	113,161	69%	113,166	118,666	27,253	13,796	63,698	53.7	36,445	30.7	29,916	25.2	1,135	107.4
ESP A27 DTS40XX °	6	35%	7,006	7,350	149	176	1,150	35%	1,150	35%	23,408	56%	74,997	65%	68,646	68,763	15,957	3,209	55,434	80.6	39,477	57.4	36,716	53.4	8,799	314.1
GBR A27 DTS1824	96	56%	13,083	36,780	611	607	15,782	56%	13,171	56%	29,758	70%	72,572	67%	72,574	75,694	17,922	9,877	42,489	56.1	24,567	32.5	18,423	24.3	445	70.0
NLD A27 TBB1824 °	157	100%	10,356	32,441	442	431	21,038	100%	18,935	100%	21,176	100%	68,335	100%	68,482	68,900	24,730	8,025	38,671	56.1	13,941	20.2	7,883	11.4	246	89.8
DNK A27 DTS2440 °	31	93%	8,965	18,919	121	250	7,092	93%	5,855	93%	78,084	95%	60,103	95%	60,103	60,945	17,049	8,320	38,776	63.6	21,727	35.7	11,800	19.4	1,259	155.1
DNK A27 DTS40XX	12	97%	8,074	18,619	55	86	2,016	97%	1,395	99%	145,569	96%	44,963	97%	44,952	46,873	8,687	5,299	33,523	71.5	24,835	53.0	17,092	36.5	2,868	391.3
NLD A27 TM40XX °	3	36%	22,010	22,598	122	122	649	36%	519	36%	103,853	43%	44,096	43%	44,239	44,349	12,925	5,641	16,712	37.7	3,787	8.5	- 2,816	- 6.4	5,743	136.9
FRA A27 DTS40XX	7	68%	7,322	12,996	126	126	1,721	68%	1,255	64%	21,551	71%	40,865	69%	36,587	36,587	11,074	5,019	19,206	52.5	8,132	22.2			2,816	152.2
DNK A27 DTS1824 °	45	89%	4,720	13,779	137	197	7,621	89%	6,855	88%	64,502	93%	40,826	91%	40,829	41,362	13,611	3,881	26,137	63.2	12,526	30.3	6,773	16.4	577	132.7
GBR A27 DTS40XX °	8	84%	11,287	18,891	103	115	1,679	84%	1,375	88%	20,980	79%	39,274	88%	39,275	46,832	9,858	6,265	18,644	39.8	8,786	18.8	7,292	15.6	2,230	162.2
GBR A27 FPO0010	950	55%	3,389	57,696	1,669	650	91,900	55%	45,124	54%	12,384	49%	36,624	47%	36,627	37,784	15,162	5,487	15,819	41.9	656	1.7	- 3,779	- 10.0	17	24.3
BEL A27 TBB2440	17	60%	5,588	18,431	106	144	4,843	60%	4,455	61%	11,648	69%	35,450	63%	35,321	36,714	12,253	7,324	19,504	53.1	7,251	19.8	3,855	10.5	1,120	135.9
FRA A27 DRB1218 °	83	84%	4,296	21,463	334	214	13,064	84%	10,068	82%	10,766	72%	34,457	87%	44,834	45,656	17,285	5,394	25,856	56.6	8,571	18.8	4,284	9.4	311	121.0
SWE A27 DTS2440 °	24	59%	9,489	27,307	129	131	3,978	59%	3,978	59%	76,055	44%	34,215	57%	34,215	38,994	5,415	7,521	20,725	53.2	15,310	39.3	7,395	19.0	877	158.4
NLD A27 DTS2440 °	21	97%	4,772	10,846	113	113	4,085	97%	3,532	97%	12,674	97%	31,088	95%	31,160	31,326	10,070	3,881	17,720	56.6	7,650	24.4	6,091	19.4	833	157.3
NLD A27 TBB2440 °	26	100%	5,523	18,810	137	136	4,093	100%	3,560	100%	8,679	100%	29,166	100%	29,166	29,273	8,604	4,337	16,115	55.1	7,510	25.7	5,550	19.0	620	118.6
DNK A27 DTS1218	92	74%	3,397	17,905	167	160	11,071	74%	10,866	74%	15,812	64%	26,448	78%	26,455	26,568	9,643	2,771	15,654	58.9	6,011	22.6	2,384	9.0	170	97.8
FRA A27 DTS1824 °	24	18%	3,208	10,425	122	114	6,287	18%	5,048	18%	14,541	28%	26,319	18%	26,380	26,653	8,997	5,345	12,507	46.9	3,510	13.2	1,032	3.9	512	109.6
GBR A27 TBB2440 °	11	35%	2,894	9,727	92	127	2,347	35%	1,958	34%	10,737	64%	25,936	57%	25,937	27,643	7,072	4,380	16,844	60.9	9,771	35.4	8,347	30.2	1,471	133.1
DNK A27 PMP1824	17	100%	3,167	7,358	65	120	3,605	100%	2,789	100%	8,852	100%	22,852	100%	22,852	23,007	7,459	2,198	15,345	66.7	7,886	34.3	4,398	19.1	903	128.0
DEU A27 TBB1218	110	100%	3,442	21,214	165	137	15,124	100%	15,919	100%	7,630	100%	21,370	100%	21,910	23,413	8,542	2,621	14,155	60.5	5,613	24.0	3,160	13.5	129	103.4
DEU A27 TBB1824	61	99%	3,745	13,356	134	111	9,628	99%	10,004	99%	5,924	85%	17,942	98%	18,598	19,601	7,184	2,826	10,594	54.1	3,410	17.4	876	4.5	172	95.4
DEU A27 DTS40XX	3	57%	4,892	6,630	105	83	824	57%	689	57%	11,260	54%	17,814	42%	18,011	18,667	6,103	2,789	8,601	46.1	2,498	13.4	- 4,222	- 22.6	2,537	103.5
DEU A27 DTS2440	8	84%	2,322	4,442	50	39	1,823	84%	1,572	84%	8,760	88%	17,361	95%	17,567	18,866	5,963	2,198	11,529	61.1	5,565	29.5	3,969	21.0	1,374	292.4
FRA A27 DFN1012	69	39%	852	11,164	213	133	10,295	39%	10,259	40%	3,154	32%	16,540	36%	17,657	17,984	7,916	1,155	11,001	61.2	3,085	17.2	1,479	8.2	160	82.8
IRL A27 TM40XX	4	19%	4,263	8,198	45	45	289	19%	81	15%	32,114	24%	16,093	26%	16,093	16,394	7,051	2,463	8,068	49.2	1,018	6.2	- 3,066	- 18.7	1,992	181.1
GBR A27 DRB2440 °	15	49%	3,143	9,255	105	152	3,113	49%	2,768	51%	5,547	42%	15,565	54%	15,565	15,793	4,579	2,048	8,409	53.2	3,829	24.3	2,943	18.6	550	55.4
FRA A27 DTS2440 °	9	14%	2,061	5,390	60	55	2,299	14%	1,948	14%	9,311	24%	13,332	12%	12,365	12,432	3,713	2,863	4,422	35.6	709	5.7	- 1,279	- 10.3	512	80.3
FRA A27 TM40XX	2	51%	4,047	4,416	58	58	315	51%	243	55%	31,117	58%	13,254	49%	14,012	14,012	3,869	1,881	7,648	54.6	3,779	27.0			4,966	131.6
GBR A27 FPO1218	33	41%	1,304	6,973	161	148	5,254	41%	4,726	42%	5,653	37%	13,191	40%	13,191	13,952	3,984	1,539	6,903	49.5	2,919	20.9	1,831	13.1	206	46.7
GBR A27 DTS1218 °	49	24%	2,401	9,998	202	193	6,969	24%	6,073	24%	4,223	24%	13,175	24%	13,176	13,528	3,399	1,949	6,262	46.3	2,863	21.2	1,857	13.7	127	32.4
GBR A27 FPO1012	82	50%	1,317	10,764	259	188	12,468	50%	10,713	50%	4,849	51%	12,105	45%	12,105	12,416	3,381	909	7,170	57.8	3,790	30.5	2,645	21.3	87	38.2
SWE A27 DTS1824 °	25	61%	2,946	9,713	70	68	3,743	61%	3,743	61%	3,319	21%	12,023	67%	12,023	12,717	2,574	1,990	7,046	55.4	4,472	35.2	3,619	28.5	284	103.5
BEL A27 TBB1824 °	27	98%	1,976	5,922	93	96	4,461	98%	5,895	99%	3,305	98%	11,928	98%	11,877	12,355	5,735	2,694	4,238	34.3	- 1,497	- 12.1	- 2,979	- 24.1	154	44.2
DEU A27 TBB2440 °	9	100%	2,137	7,693	49	41	1,711	100%	1,635	100%	3,423	100%	11,435	100%	11,464	11,464	3,119	1,947	6,343	55.3	3,224	28.1	1,940	16.9	705	154.7
BEL A27 DTS2440 °	12	90%	1,960	5,848	50	49	2,111	90%	1,956	90%	3,552	90%	11,014	90%	11,050	12,455	3,950	1,798	6,221	50.0	2,271	18.2	1,516	12.2	533	126.6
GBR A27 DRB1218	28	25%	1,057	5,521	102	78	3,483	25%	2,900	24%	8,311	48%	10,879	35%	10,879	11,231	2,611	1,140	6,858	61.1	4,247	37.8	3,493	31.1	242	88.3

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.11 Structure and economic performance estimates for fleet segments operating 80% or more in the North Sea & Eastern Arctic region, 2015

			Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
			(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
North Sea & Eastern Arctic	DEU	DEU A27 TBB1012 °	12	100%	88	891	9	8	1,087	100%	1,096	100%	190	100%	610	100%	649	669	250	106	145	21.7	- 105	- 15.7	- 164	- 24.5	12	18.1
North Sea & Eastern Arctic	DEU	DEU A27 TBB2440 °	9	100%	2,137	7,693	49	41	1,711	100%	1,635	100%	3,423	100%	11,435	100%	11,464	11,464	3,119	1,947	6,343	55.3	3,224	28.1	1,940	16.9	705	154.7
North Sea & Eastern Arctic	DNK	DNK A27 DRB1012	15	100%	281	1,684	25	19	1,150	100%	1,386	100%	21,115	100%	6,861	100%	6,855	6,869	1,565	251	5,489	79.9	3,923	57.1	3,172	46.2	366	283.8
North Sea & Eastern Arctic	DNK	DNK A27 DRB1218	21	100%	840	3,355	32	23	1,805	100%	1,919	100%	32,764	100%	7,171	100%	7,062	7,126	1,632	318	5,418	76.0	3,786	53.1	3,001	42.1	258	232.0
North Sea & Eastern Arctic	DNK	DNK A27 TBB1824	18	100%	1,235	3,299	39	39	2,375	100%	2,589	100%	3,482	100%	5,528	100%	5,528	5,671	2,025	962	3,219	56.8	1,193	21.0	92	1.6	179	83.0
North Sea & Eastern Arctic	DNK	DNK A27 PMP1824	17	100%	3,167	7,358	65	120	3,605	100%	2,789	100%	8,852	100%	22,852	100%	22,852	23,007	7,459	2,198	15,345	66.7	7,886	34.3	4,398	19.1	903	128.0
North Sea & Eastern Arctic	NLD	NLD A27 DRB2440 °	7	100%	1,142	2,847	23	23	513	100%	438	100%	5,606	100%	7,021	100%	7,021	7,103	2,900	1,785	4,311	60.7	1,411	19.9	1,283	18.1	616	184.3
North Sea & Eastern Arctic	NLD	NLD A27 DFN1218 °	8	100%	142	1,434	16	4	178	100%	160	100%	86	100%	424	100%	170	199	31	19	140	70.4	109	54.8	75	37.8	18	33.3
North Sea & Eastern Arctic	NLD	NLD A27 DFN1824 °	8	100%	307	1,173	14	6	278	100%	250	100%	90	100%	270	100%	500	506	191	117	302	59.8	111	22.0	61	12.0	38	53.4
North Sea & Eastern Arctic	NLD	NLD A27 DTS0010 °	11	100%	33	707	17	1	13	100%	12	100%	3	100%	15	100%	15	15	2	4	6	39.9	4	25.1	- 26	- 167.1	1	5.3
North Sea & Eastern Arctic	NLD	NLD A27 DTS1824 °	12	100%	1,498	2,835	50	50	1,994	100%	1,775	100%	3,594	100%	9,865	100%	9,972	10,255	3,632	1,357	5,748	56.1	2,116	20.6	1,744	17.0	479	115.6
North Sea & Eastern Arctic	NLD	NLD A27 PG0010 °	155	100%	328	15,911	323	88	2,635	100%	2,479	100%	343	100%	2,430	100%	3,521	4,136	648	387	2,913	70.4	2,265	54.8	1,564	37.8	19	33.3
North Sea & Eastern Arctic	NLD	NLD A27 PG1012 °	16	100%	116	2,956	39	11	398	100%	356	100%	141	100%	827	100%	424	498	78	47	351	70.4	273	54.8	188	37.8	22	33.2
North Sea & Eastern Arctic	NLD	NLD A27 TBB0010 °	17	100%	78	1,019	26	1	253	100%	238	100%	142	100%	380	100%	174	174	27	16	107	61.8	80	46.0	17	10.0	6	81.9
North Sea & Eastern Arctic	NLD	NLD A27 TBB1218 °	16	100%	404	2,309	36	24	941	100%	847	100%	606	100%	1,900	100%	1,900	1,911	678	222	795	41.6	117	6.1	- 238	- 12.4	50	33.3
North Sea & Eastern Arctic	NLD	NLD A27 TBB40XX °	52	100%	25,130	74,015	392	392	10,637	100%	9,042	100%	34,210	100%	119,235	100%	119,235	119,610	33,531	18,513	68,944	57.6	35,413	29.6	29,708	24.8	1,326	175.8
North Sea & Eastern Arctic	NLD	NLD A27 TBB2440 °	26	100%	5,523	18,810	137	136	4,093	100%	3,560	100%	8,679	100%	29,166	100%	29,166	29,273	8,604	4,337	16,115	55.1	7,510	25.7	5,550	19.0	620	118.6
North Sea & Eastern Arctic	NLD	NLD A27 TBB1824 °	157	100%	10,356	32,441	442	431	21,038	100%	18,935	100%	21,176	100%	68,335	100%	68,482	68,900	24,730	8,025	38,671	56.1	13,941	20.2	7,883	11.4	246	89.8
North Sea & Eastern Arctic	DEU	DEU A27 TBB1218	110	100%	3,442	21,214	165	137	15,124	100%	15,919	100%	7,630	100%	21,370	100%	21,910	23,413	8,542	2,621	14,155	60.5	5,613	24.0	3,160	13.5	129	103.4
North Sea & Eastern Arctic	DEU	DEU A27 TBB1824	61	99%	3,745	13,356	134	111	9,628	99%	10,004	99%	5,924	85%	17,942	98%	18,598	19,601	7,184	2,826	10,594	54.1	3,410	17.4	876	4.5	172	95.4
North Sea & Eastern Arctic	DNK	DNK A27 TBB1218	12	99%	542	2,115	22	23	1,580	99%	1,741	99%	1,728	100%	2,987	100%	2,987	3,040	1,231	573	1,595	52.5	364	12.0	- 398	- 13.1	135	70.8
North Sea & Eastern Arctic	BEL	BEL A27 TBB1824 °	27	98%	1,976	5,922	93	96	4,461	98%	5,895	99%	3,305	98%	11,928	98%	11,877	12,355	5,735	2,694	4,238	34.3	- 1,497	- 12.1	- 2,979	- 24.1	154	44.2
North Sea & Eastern Arctic	DNK	DNK A27 DTS40XX	12	97%	8,074	18,619	55	86	2,016	97%	1,395	99%	145,569	96%	44,963	97%	44,952	46,873	8,687	5,299	33,523	71.5	24,835	53.0	17,092	36.5	2,868	391.3
North Sea & Eastern Arctic	NLD	NLD A27 DTS2440 °	21	97%	4,772	10,846	113	113	4,085	97%	3,532	97%	12,674	97%	31,088	95%	31,160	31,326	10,070	3,881	17,720	56.6	7,650	24.4	6,091	19.4	833	157.3
North Sea & Eastern Arctic	DNK	DNK A27 DTS2440 °	31	93%	8,965	18,919	121	250	7,092	93%	5,855	93%	78,084	95%	60,103	95%	60,103	60,945	17,049	8,320	38,776	63.6	21,727	35.7	11,800	19.4	1,259	155.1
North Sea & Eastern Arctic	BEL	BEL A27 DTS2440 °	12	90%	1,960	5,848	50	49	2,111	90%	1,956	90%	3,552	90%	11,014	90%	11,050	12,455	3,950	1,798	6,221	50.0	2,271	18.2	1,516	12.2	533	126.6
North Sea & Eastern Arctic	DNK	DNK A27 DTS1824 °	45	89%	4,720	13,779	137	197	7,621	89%	6,855	88%	64,502	93%	40,826	91%	40,829	41,362	13,611	3,881	26,137	63.2	12,526	30.3	6,773	16.4	577	132.7
North Sea & Eastern Arctic	GBR	GBR A27 MGP0010 °	26	88%	222	2,612	57	23	1,871	88%	1,539	94%	2,245	99%	1,958	95%	1,958	2,082	603	308	948	45.5	345	16.6	174	8.3	36	40.6
North Sea & Eastern Arctic	DNK	DNK A27 TM40XX	16	87%	21,360	38,242	90	151	2,774	87%	1,728	90%	347,371	83%	131,704	85%	131,699	136,448	19,293	10,648	109,425	80.2	90,132	66.1	48,364	35.4	7,001	723.2
North Sea & Eastern Arctic	GBR	GBR A27 TBB1218	8	85%	251	1,795	36	32	1,159	85%	952	82%	672	82%	1,664	72%	1,664	1,785	406	518	493	27.6	87	4.9	- 35	- 1.9	58	15.3
North Sea & Eastern Arctic	DNK	DNK A27 PGP1218	26	84%	888	3,993	50	61	3,276	84%	2,710	82%	2,989	90%	8,584	92%	8,584	8,685	3,679	410	5,491	63.2	1,812	20.9	181	2.1	210	90.1
North Sea & Eastern Arctic	FRA	FRA A27 DRB1218 °	83	84%	4,296	21,463	334	214	13,064	84%	10,068	82%	10,766	72%	34,457	87%	44,834	45,656	17,285	5,394	25,856	56.6	8,571	18.8	4,284	9.4	311	121.0
North Sea & Eastern Arctic	DEU	DEU A27 DTS2440	8	84%	2,322	4,442	50	39	1,823	84%	1,572	84%	8,760	88%	17,361	95%	17,567	18,866	5,963	2,198	11,529	61.1	5,565	29.5	3,969	21.0	1,374	292.4
North Sea & Eastern Arctic	GBR	GBR A27 DTS40XX °	8	84%	11,287	18,891	103	115	1,679	84%	1,375	88%	20,980	79%	39,274	88%	39,275	46,832	9,858	6,265	18,644	39.8	8,786	18.8	7,292	15.6	2,230	162.2
North Sea & Eastern Arctic	DNK	DNK A27 DTS0010	9	82%	68	791	7	4	541	82%	540	82%	368	97%	823	95%	823	843	291	44	546	64.8	255	30.3	165	19.6	61	124.4
North Sea & Eastern Arctic	GBR	GBR A27 TBB0010 °	10	82%	78	710	22	8	408	82%	401	81%	160	98%	431	95%	431	447	138	95	201	44.9	62	14.0	42	9.3	20	25.7
		36	1,104		131,774	384,294	3,372	3,126	135,016		123,540		861,783		772,804		785,291	810,400	224,681	98,381	500,455		275,775		168,618		23,823	4,729
			22%				27%	34%	28%		31%		52%		43%		43%	43%	43%	43%	47%		51%		53%			

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

4.2 Baltic Sea

At a glance

Overall, the latest official DCF data suggests that the EU Baltic Sea fleet spent almost 426 thousand days at sea in 2015, to land approximately 613 thousand tonnes of seafood valued at €217 million. On the whole, effort, in days at sea, has decreased over the period analysed. The decline of effort was more related to the SSCF with an 11% decrease in days at sea, whereas the LSF increased effort by 1%. The landed weight has increased since 2011 while the landed value has remained stable at around €215 to €250 million (Figure 4.20).

A slight increase (3%) in revenue, combined with significant reductions in operating costs (e.g. -17% in fuel costs), helped the overall situation of the Baltic Sea fleet move from a loss-making position in 2014 to post a modest net profit in 2015 (Figure 4.19).

Table 4.13 to Table 4.19 contain a summary of the economic performance of the Baltic Sea fleet by Member State, main type of fishing activity and fleet segment.

In summary:

- In terms of employment and effort, the small-scale coastal fleets provided 62% of all employment and were responsible for 85% of days at sea. The LSF however were responsible for 91% of the landings (by weight).
- The LSF pelagic fisheries dominate the Baltic Sea fisheries, accounting for 60% of landed weight and 40% of the landing value.
- Overall, the fleet saw declines in landed weight over the period 2009-2012, with a slight increase in 2013, while landed value increased steadily since 2009 but suffered a significant drop in 2014. Herring, sprat and cod remain the most important species.
- Revenue generated by the Baltic Sea fleet was estimated at around €230 million, with the Swedish, Polish, Danish and Finnish fleets together contributing 75%.
- GVA was estimated at €116 million, up 19% compared to 2014. After accounting for operating costs, the fleet made an estimated €49 million in gross profit, also a marked increase (41%) compared to 2014. These improvements were largely due to higher revenues (+3%) combined with lower costs, in particular fuel (-17%) and labour (-2%) costs.
- There were 28 MS fleet segments that operated 80% or more in the Baltic Sea in 2015, accounting for 82% of the number of vessels, 88% of the days at sea deployed, 86% of the FTE, 84% of the landed weight and 86% of the landed value. Collectively, these 'resident' fleets contributed to 61% of the revenue, 61% of the GVA and 69% of the gross profit.
- Both pelagic and demersal fleets made gross profits: pelagic fisheries generated €25 million in gross profit (profit margin of 29%) and demersal fisheries €27 million (31% gross profit margin).

Main drivers affecting fleet performance in the region

The major factors that may have contributed to the positive situation:

- Decreasing fuel prices resulting in lower energy costs. As energy cost is one of the main expenditures in the large-scale fleet, especially demersal and pelagic trawlers, the significant decline in fuel price was beneficial to the economic performance. The major drop in fuel price was in 2015, with a further decline in 2016. Thus far it remained stable in 2017.
- Policy management instruments in quota allocation and ITQs (as introduced in some countries) may have significantly helped to improve the economic performance of certain fleets.
- Pelagic fisheries in the region are exploited at MSY.
- Vessel decommissioning that positively influenced Polish and Latvian fleet profitability.
- The EMFF has also provided measures to improve profitability including increased added value (for the small-scale coastal fleet) and utilisation of by-catch arising from the landing obligations (for the LSF). Measures are already applicable in some MS fishing in Baltic region.

The major factors that may have negatively influenced economic performance:

- Lower average prices for commercially important species, such as: sprat, herring, and cod. Sprat price was driven by the reduced demand caused by the Russian embargo. Lower cod prices were mainly related to the poor quality of cod (market size), and low CPUE.
- Reduced TACs and quotas for cod. The quota of cod in Baltic Sea has been constantly decreasing since 2014.
- Fishing performance, especially in small-scale coastal fleet is very dependent on weather conditions and in even in the favourable economic conditions could be the limiting factor for fleet performance, especially for seasonal fisheries.
- The long service life of the vessels, obsolete equipment and insufficient investments increase the maintenance costs and may therefore reduce the profitability of the fleet. However, the EMFF is being used to provide a possibility to renew vessel engines if the fishing capacity is proven to be in balance with exploitation. Some MS have already introduced such schemes.

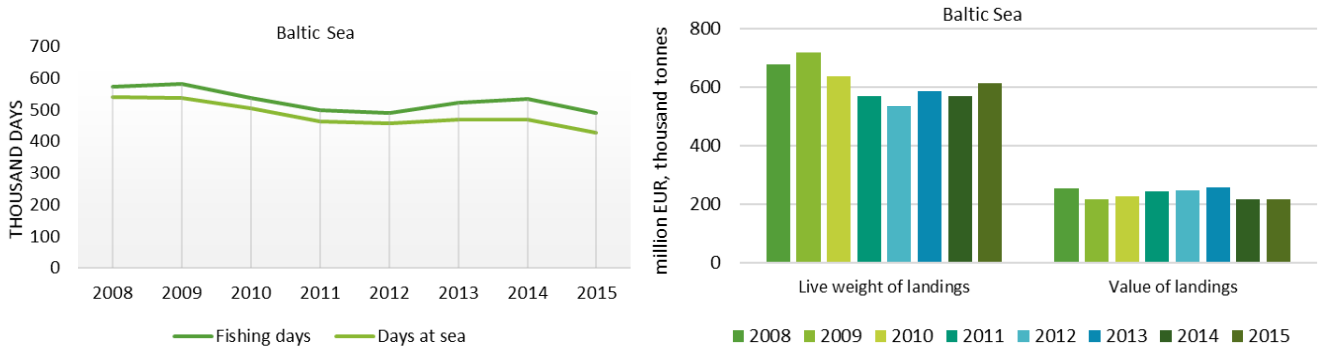
Socio-economic Trends

- Wages and Salaries

From 2014 to 2015 the overall average wage per FTE for the SSCF increased by 7%, fluctuating around €9 000. Wages for the LSF increased steadily between 2010 and 2013 but declined in 2014. The LSF average wage per FTE increased by 4% in 2015 and was estimated at around €22 600.

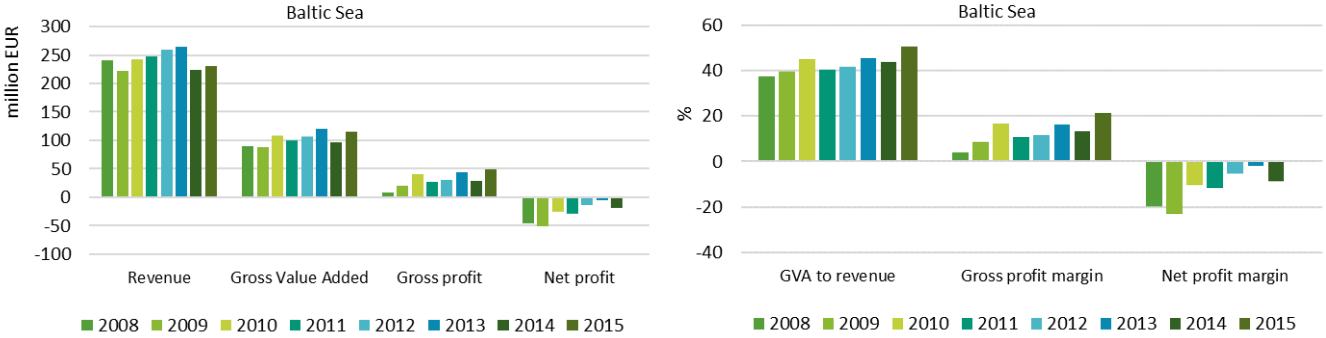
- Labour productivity

The productivity (GVA/FTE) in the large-scale fleet increased significantly in 2015 (+63%). For the SSCF, labour productivity remained rather stable at around €8 100.



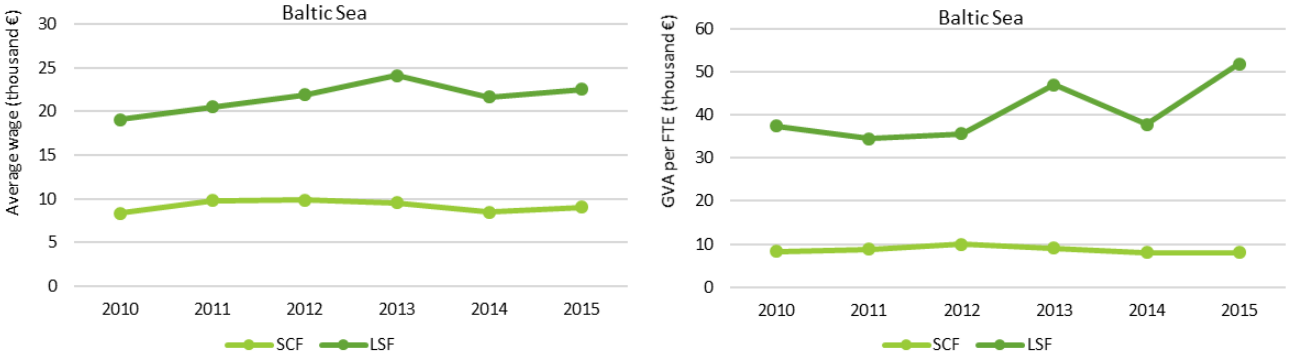
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.20 Trends on effort and landings for MS fleets operating in the Baltic Sea region



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.21 Trends on revenue and profits for MS fleets operating in the Baltic Sea



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.22 Trends on average wage and labour productivity (GVA per FTE) by fishing activity for MS fleets operating in the Baltic Sea region

Regional Details

The Baltic Sea covers ICES areas IIIb, IIIc and IIId and is bounded by the Swedish part of the Scandinavian Peninsula, mainland Europe and the Danish islands. The central part of the Baltic Sea is bordered on its northern edge by the Gulf of Bothnia, in the north-east by the Gulf of Finland, and in the east by the Gulf of Riga. For simplicity, hereafter the EU vessels operating in the aforementioned ICES areas are referred to as the EU Baltic Sea fleet or fisheries.

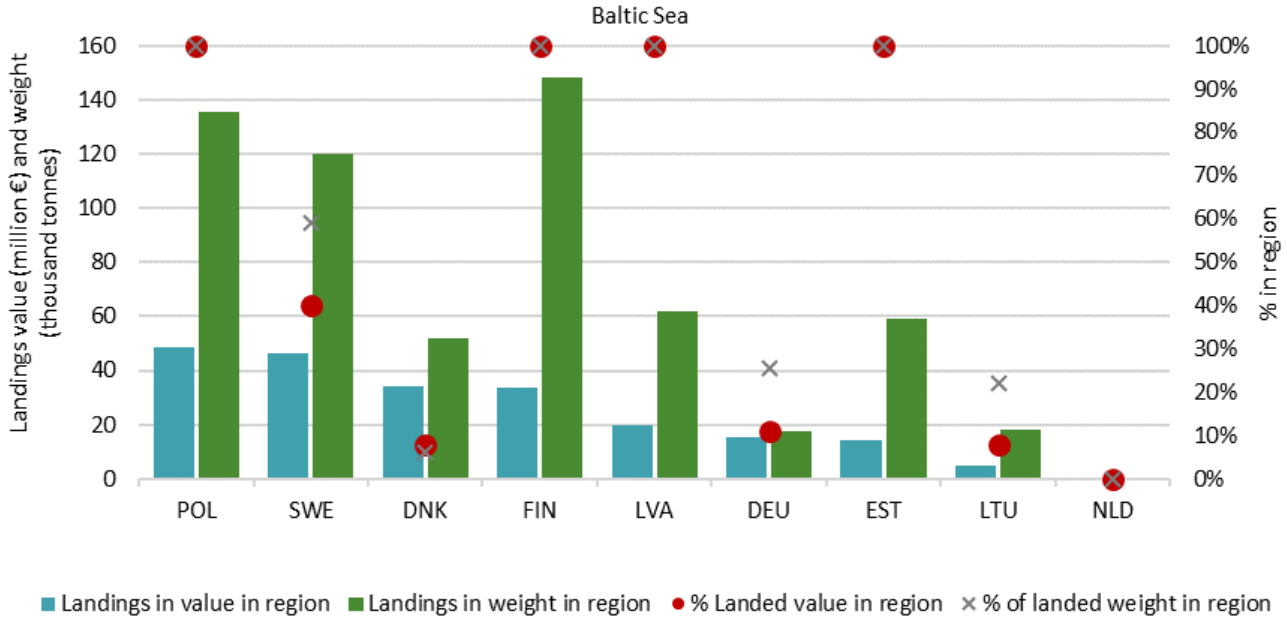
Nine EU Member States were involved in Baltic Sea fisheries in 2015: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden (Figure 4.13). Due to the low activity, the Dutch fleet is generally excluded from further analyses. Socio-economic results exclude the German pelagic trawl segment due to insufficient data.

MS fleet activity in the Baltic Sea region: situation in 2015 and recent trends

Most of the Member States bordering the Baltic Sea are highly dependent on the region, where the main species targeted include herring, sprat and cod.

In terms of landings, and based on the DCF data available, the Estonian, Finnish, Latvian and Polish fisheries are fully dependent on the Baltic Sea region. However, it should be noted that Estonian, Latvian and Polish vessels operating in the High Seas (distant water fleets) are not included in the analysis due to insufficient data or for reasons of confidentiality. On the other hand, the Lithuanian low dependency rate is due to the distant water fleet operating in other areas. Most German, Danish and Swedish vessels operate in both the Baltic and North Sea fishing regions.

The Polish fleet was the most important fleet in terms of landed value (€49 million), while the Finnish fleet was the most important in terms of landed weight (148 thousand tonnes) (Figure 4.23).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.23 Importance of the Baltic Sea region for Member States' fisheries in terms of landings in weight and value, 2015

Fleet capacity and employment

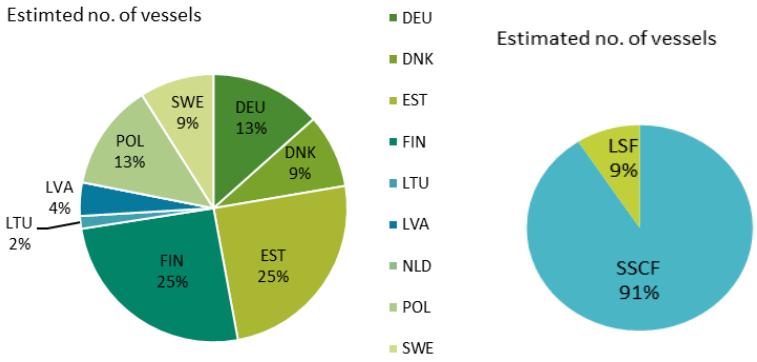
Member State fleets operating in the Baltic Sea collectively numbered around 6 192 active vessels in 2015. With 1 577 vessels, the Finnish fleet comprised the largest fleet in number (25% of the total vessels in the region) and engine power (102 587 kW) while the Polish Baltic fleet was the largest in gross tonnage (15 831 GT) (Table 4.13).

While the SSCF had 91% of the vessels (5 625 vessels), employment estimated for this group amounted to 2 926 FTE in 2015, representing 62% of the total FTEs in the Baltic Sea fisheries, indicating the predominant part-time nature of this fleet segment (Table 4.16; Figure 4.24 and 4.25).

Overall the number of vessels operating in the Baltic Sea decreased steadily between 2008 and 2011, mainly a result of capacity reductions in the Latvian and Polish fleets, to then increase in 2012 due to the entry of Finnish vessels and Estonian vessels in 2013 and 2014. The number of vessels decreased 4% in 2015.

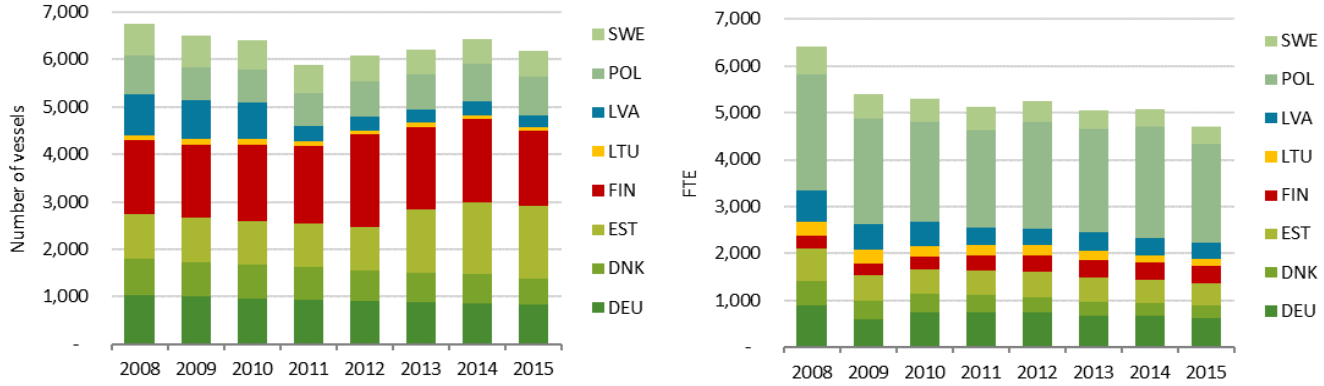
Employment, measured in terms of Full Time Equivalents (FTE) showed a decreasing trend over the period, apart from a small increase in 2012. Overall, FTE decreased 7% in 2015, much in line with the decrease in number of vessels (Figure 4.25).

The capacity reduction was mainly caused by a decommissioning programme implemented in Latvia (after EU accession) and Poland as well as by an ITQ system introduced in Swedish pelagic fisheries in 2009 and entry restrictions on the Swedish eel fishery.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.24 Share of the Baltic Sea fleet capacity (number of vessels) by MS and by fishing activity, 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

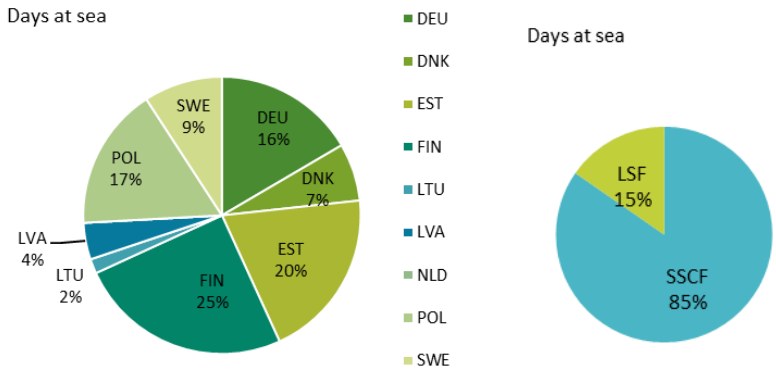
Figure 4.25 Trends on the number of vessels and employment in FTE for MS fleets operating in the Baltic Sea

Fishing effort

The EU Baltic Sea fleets spent over 426 thousand days at sea in 2015. Collectively, vessels from Estonia and Finland together accounted for around 45% of the total days at sea deployed, mostly generated by the SSCF (Figure 4.26).

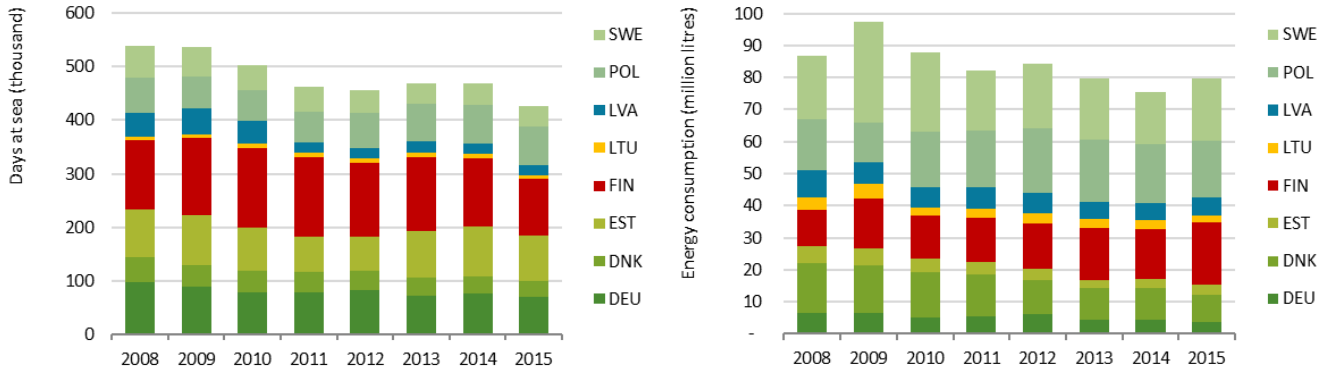
In terms of effort, the SSCF dominate, accounting for 85% of the effort. Within the large-scale fleet, most of the effort was deployed by active, demersal gears.

Effort deployed more or less followed trends in fleet capacity (reduction). In 2015, the total number of days at sea was 21% less than that in 2008. The highest effort reduction again took place in the Latvian, Swedish and German fleets (Figure 4.23).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.26 Share of the effort deployed by the Baltic Sea fleet by MS and fishing activity, 2015

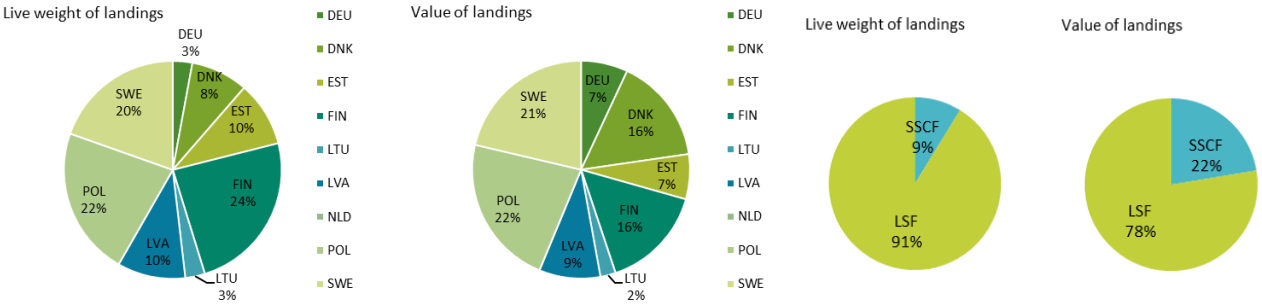


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.27 Trends on effort (in days at sea) and energy consumption for MS fleets operating in the Baltic Sea

Landings and top species

The weight and value of landings was approximately 613 thousand tonnes and €217 million. The LSF landed 91% of the total weight and 78% of the total value.

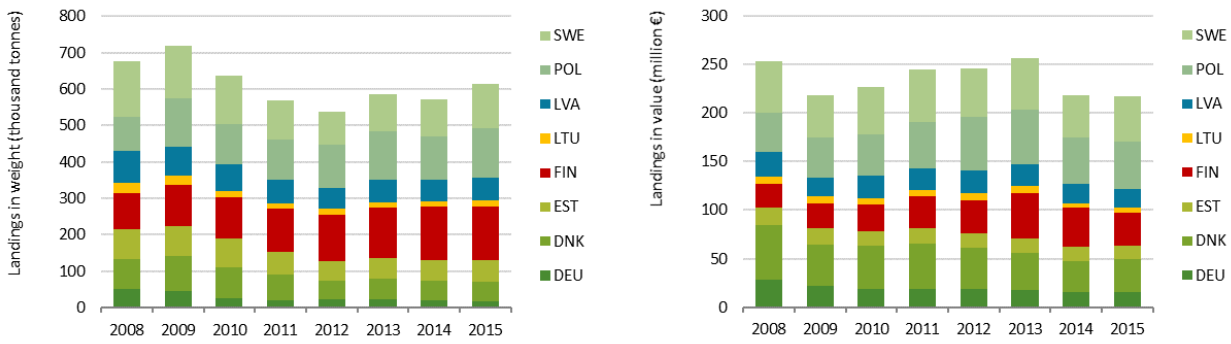


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.28 Share of landings from the Baltic Sea region by MS and main type of fishing activity, 2015

Overall, the Baltic fleet saw declines in landed weight in 2010-2012, with a slight increase in 2013 and further increase in 2015. On the other hand, landings in value increased steadily from 2009 to 2013, suffering a significant drop in 2014 and remaining low in 2015 (Figure 4.29).

In terms of landed weight, Finland (148 thousand tonnes), Poland (136 thousand tonnes) and Sweden (120 thousand tonnes) were the leading MSs. Poland (€49 million), Sweden (€46 million), Denmark (€34 million) and Finland (€33.6 million) collectively accounted for around 75% of the total value of landings in 2015.

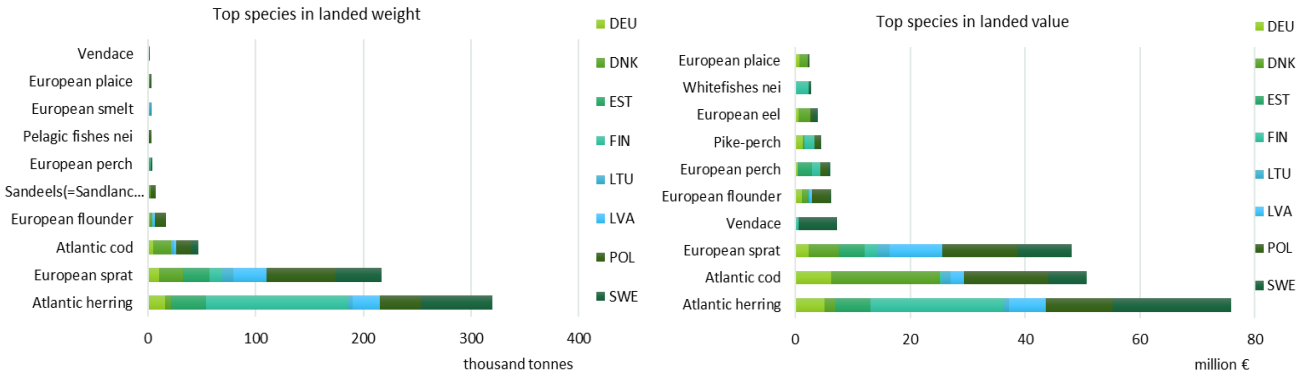


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.29 Trends on landings in weight and value for MS fleets operating in the Baltic Sea

In 2015, the most important species landed in weight included herring (320 thousand tonnes), sprat (217 thousand tonnes, 38% of the landed weight), followed by cod (47 thousand tonnes) and flounder (16 thousand tonnes) (Figure 4.30).

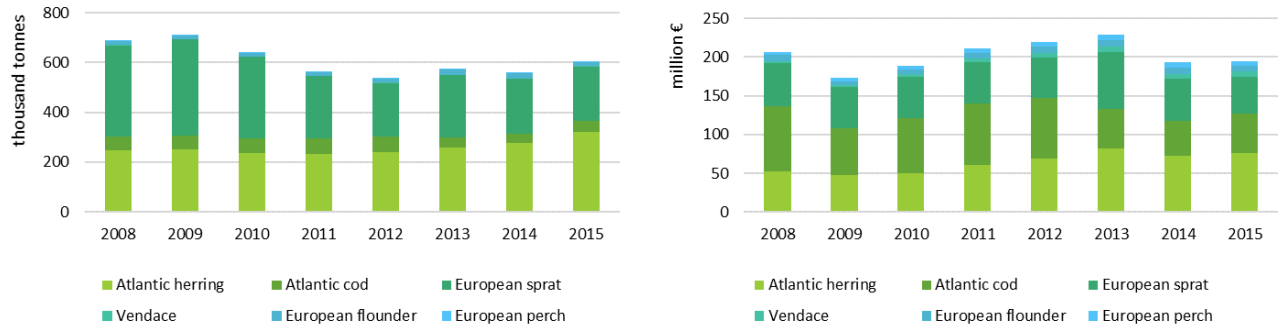
Herring generated the highest value (€76 million, representing 34% of the landed value), followed by cod (€51 million, 23% of the landed value) and sprat (€48 million, 22% of the landed value).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.30 List of top 10 species in terms of landed weight and value by MS fleets operating in the Baltic Sea, 2015

Sprat landings, in weight and value, decreased 12% and 1%, respectively, from 2014 to 2015. The total landed weight of Baltic herring increased 16% between 2014 and 2015, while the value increased 4%. Cod landings increased in both weight and value (13% and 21%, respectively) between 2014 and 2015.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.31 Trends on landings of the top six species in terms of landed value for MS fleets operating in the Baltic Sea, 2015

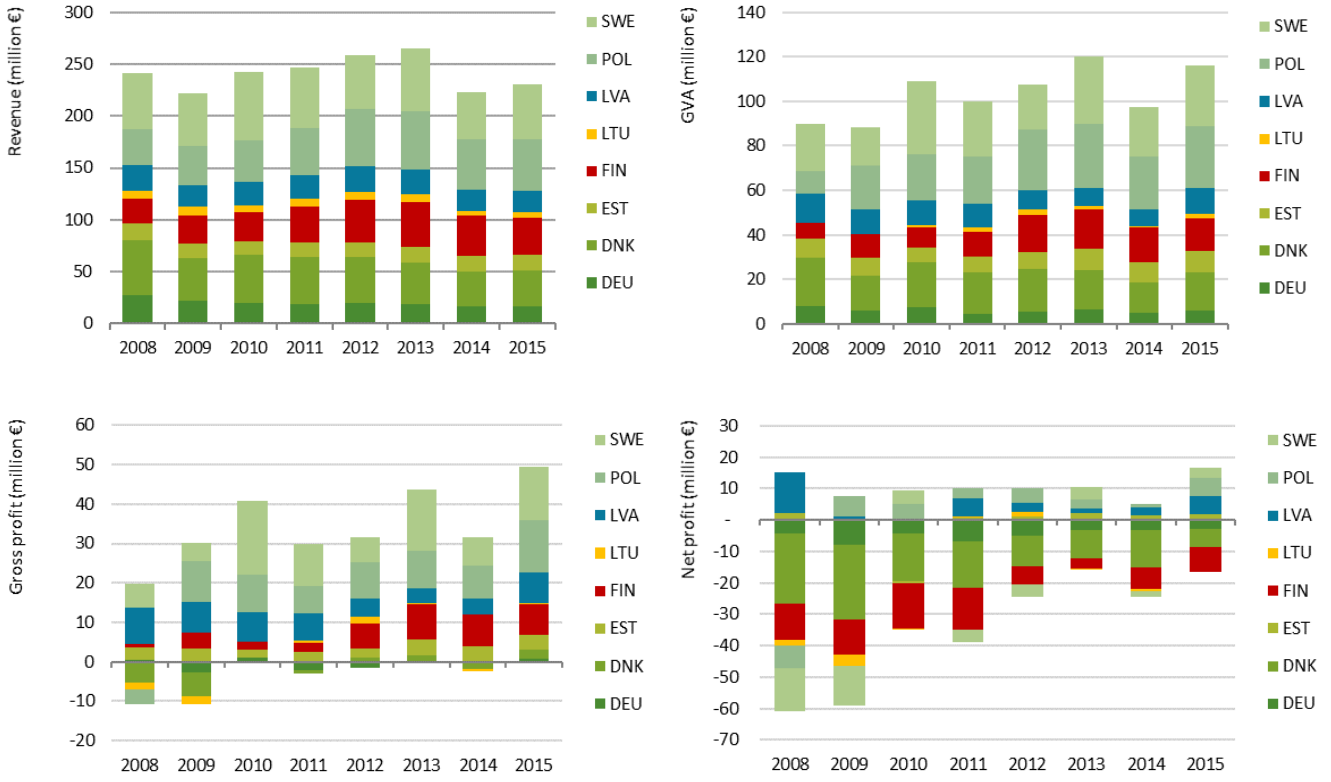
Economic performance

Overall the Baltic fleet was profitable, with all MS fleets generating gross profits in 2015. Three MS fleets – Denmark, Finland and Germany - suffered net losses in 2015 (Figure 4.32).

The revenue (income from landings and other income) generated in 2015 was estimated at €230 million, a rise of 3% from the year before. Four Member States accounted for 75% of all revenues: Sweden (€52 million), Poland (€49.6 million), Finland (€36 million) and Denmark (€35 million) (Table 4.13, Figure 4.32).

GVA was estimated at over €116 million, representing an overall increase of 19% compared to the GVA generated in 2014. After accounting for operating costs, the fleet made almost €49 million in gross profit, a 68% increase on 2014. Net profit was estimated at €15 million, up from the 2014 result of -€19 million. Gross profit margin increased from 13% in 2014 to 22% in 2015.

The Latvian fleet was the most profitable in terms of gross profit to revenue (36% profit margin) followed by the Polish (27%), Swedish (26%), Estonian (25%) and Finnish (22%) fleets. However, profits generated by the Danish, Finnish and German fleets were not high enough to cover the estimated capital costs, suffering net losses in 2015; these being the only fleets that did not manage to generate resource rent.

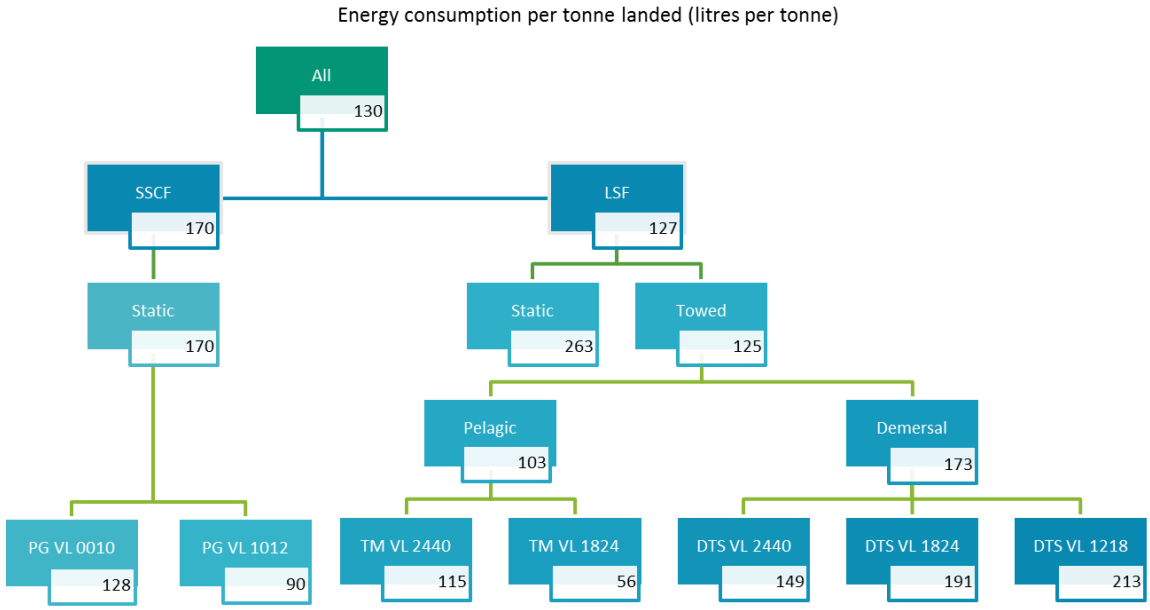


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.32 Trends on revenue (landings income + other income) and profits (GVA, gross profit and net profit) for MS fleets operating in the Baltic Sea region

Productivity

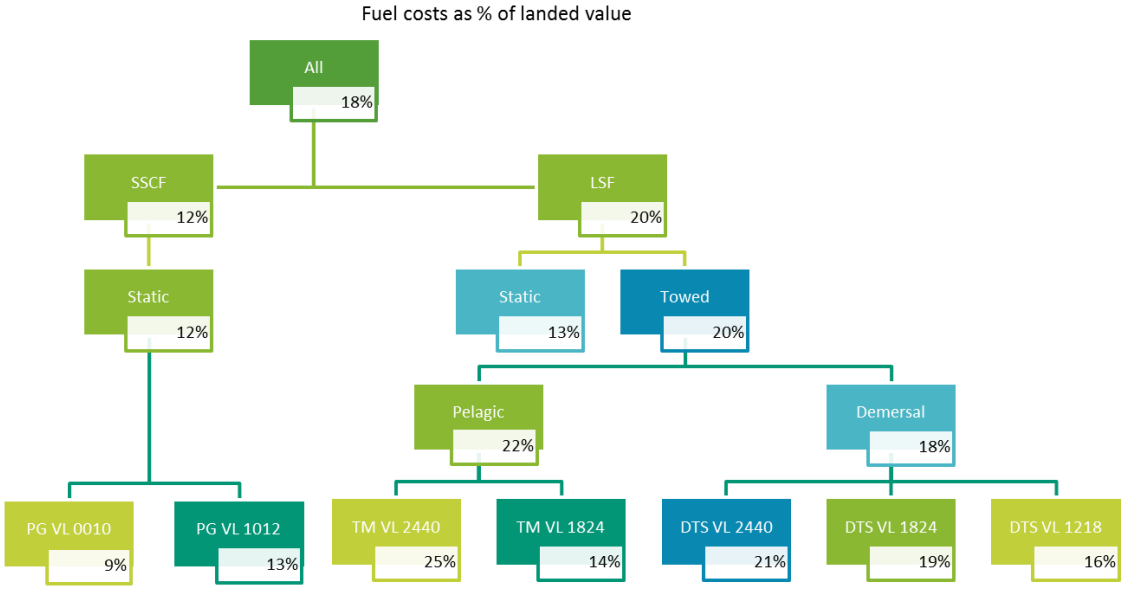
On average, 130 litres of fuel were consumed per landed tonne, a significantly lower value than the average 303 litres consumed by vessels operating in the North Sea fisheries. However, differences between fisheries/fleets are also apparent (Figure 4.33).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017))

Figure 4.33 Schematic representation of the amount of fuel consumed per landed weight (litre/tonne) by the various MS fleet components operating in the Baltic Sea, including some of the most important segments

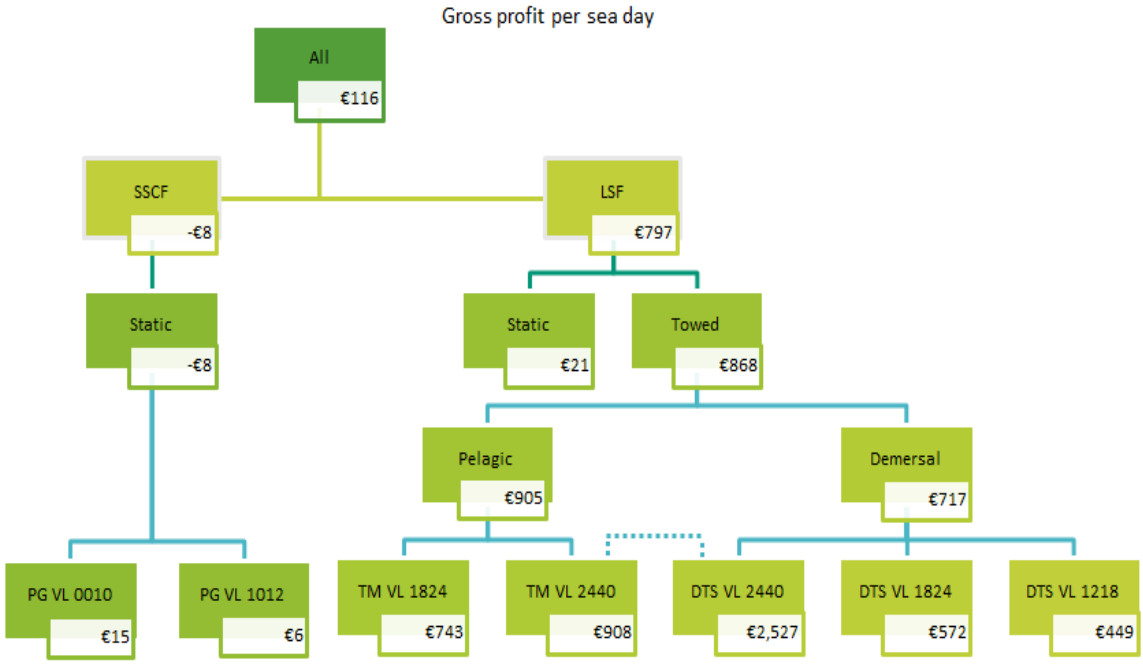
An estimated 18% of the value of landed fish in the Baltic Sea went to pay for fuel costs in 2015 (Figure 4.34). In total around €39 million was spent on fuel to catch 613 thousand tonnes of fish with a landings value of €217 million. Pelagic vessels spent the highest relative amounts on fuel (22% of their landed value), rising to 25% for the larger (24 – 40 m) pelagic trawlers. Those segments also benefited from the recent decrease in fuel prices, a key driver for trawler profitability in recent times.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.34 Schematic representation of the ratio fuel costs to landed value (%) for the various MS fleet components operating in the Baltic Sea, including some important segments

The average gross profit per day at sea was around €116 in 2015, which is only 10% of that recorded in North Sea fisheries (€1 119) (Figure 4.35). On average small-scale coastal fleets recorded small negative gross profits per day at sea (-€8), while pelagic fisheries were generally more profitable (€905) and 24 – 40 m demersal trawlers were the most profitable, generating on average €2 527 in gross profit per day at sea. However, it should be noted that these results do not represent only the demersal fisheries as many MS merge the demersal and pelagic trawlers when reporting.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.35 Schematic representation of the gross profit per day at sea generated by the various MS fleet components operating in the Baltic Sea, including some important segments

Fisheries management and stock status in the region

To incorporate the ecosystem approach in the fisheries management a multiannual management plan for the Baltic Sea fisheries have been developed. In March 2016 representatives of the Council, Parliament and Commission reached provisional agreement on this plan.

The European eel Recovery plan also affects several Baltic States. Within this plan, MS are required to allow 40% of adult eels to escape from inland waters to the sea, where they can spawn. EU regulations also include technical conservation measures, such as mesh sizes, minimum landing sizes, by-catch limitations as well as periods and areas closed for fishing. A ban on driftnet fisheries was introduced after a three-year transitional period in 2008. The Baltic Sea coastal and inland fisheries are mainly regulated by each MS in the region through their national legislation.

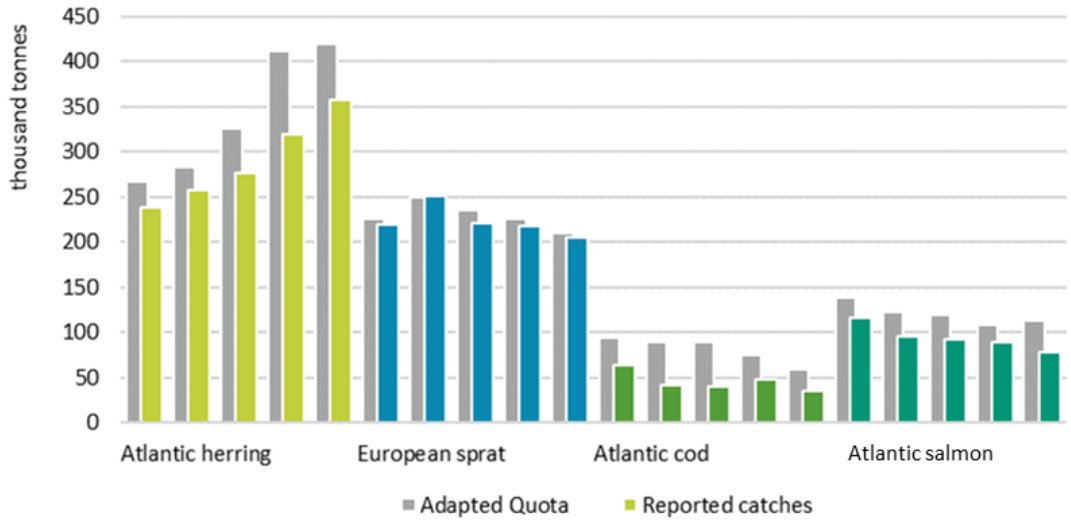
A salmon management plan was proposed by the Commission in August 2011 (COM(2011) 470 final). This establishes a fishing mortality rate (F) based harvest control rule where after MS's establish annual fishing limits in rivers at MSY level. It sets targets for salmon management in rivers: 75% of smolt (juvenile salmon) production to be reached in 5 or 10 years, depending on the status of rivers. However, the Council and the European Parliament have not yet reached an agreement on the Commission's proposal.

The landings obligation has been in force since 1 January 2015 for pelagic and demersal fisheries in the Baltic Sea.

TAC development of main species

The European Commission (EC) prepares proposals for measures and instruments for resource conservation including fishing quotas and fishing effort limitations[7] after a certain consultative process. TACs and quotas are annually defined for commercially important fish stocks. Currently, there are five species under TAC management in the Baltic Sea: (1) cod; (2) herring; (3) sprat; (4) Atlantic salmon and (5) plaice; the most important being the first three. Each year, ICES provides separate advice for two stocks of cod, four stocks of herring and one stock of sprat.

Figure 4.36 provides the development of TACs for the main species in the Baltic Sea. TACs are defined based on the status of stock, assessed by ICES, and the cod management plan.



Source: EU Catch reporting system (FIDES3)

Figure 4.36 Adapted quota (grey bars) and reported catches (coloured bars) for the four most important TACs species in the Baltic Sea region, 2012-2015

The landing obligation has been in force since 1 January 2015 for pelagic and demersal fisheries in the Baltic Sea. The exploitation of the available TACs by MS, provided in the Table 4.12 suggests that in several cases, e.g. Finland, the available sprat quota could be a limiting factor (choke specie) in the mixed pelagic fishery. On the other hand, available cod fishing opportunities were not fully utilised by most MS in the Baltic Sea.

[7] Fishing effort limitations were abolished starting from 2016.

Table 4.12 TAC use for some of the most important stocks in the Baltic Sea region, 2012-2016

		Germany	Denmark	Estonia	Finland	Lithuania	Latvia	Poland	Sweden
Atlantic cod	2012	63%	78%	54%	90%	53%	59%	68%	61%
	2013	37%	52%	15%	32%	40%	38%	60%	36%
	2014	45%	55%	10%	24%	24%	31%	55%	30%
	2015	60%	82%	12%	36%	46%	55%	75%	43%
	2016	55%	74%	0%	9%	55%	63%	72%	48%
Atlantic herring	2012	89%	65%	90%	90%	71%	89%	98%	88%
	2013	92%	101%	89%	96%	68%	87%	79%	88%
	2014	92%	94%	85%	87%	57%	92%	78%	79%
	2015	98%	46%	87%	74%	85%	98%	87%	70%
	2016	98%	89%	86%	82%	75%	97%	79%	89%
Atlantic salmion	2012	48%	80%	40%	85%	7%	55%	75%	100%
	2013	86%	93%	45%	73%	7%	18%	104%	92%
	2014	44%	95%	41%	83%	9%	13%	48%	95%
	2015	99%	78%	46%	87%	8%	22%	62%	100%
	2016	85%	44%	47%	76%	6%	16%	48%	108%
European sprat	2012	100%	98%	99%	83%	100%	100%	95%	99%
	2013	100%	91%	100%	97%	100%	100%	106%	100%
	2014	92%	88%	95%	93%	92%	94%	94%	97%
	2015	98%	95%	89%	100%	96%	97%	97%	100%
	2016	99%	96%	93%	100%	95%	100%	98%	99%
Europea plaice	2012	100%	95%		68%			16%	73%
	2013	77%	80%		6%			12%	43%
	2014	67%	63%		1%			28%	33%
	2015	99%	59%		0%			46%	35%
	2016	91%	52%		0%			36%	46%

Source: EU Catch reporting system (FIDES3)

Status of important stocks

Herring and sprat stocks are all at the MSY level. The sprat TAC deteriorated 50% between 2008 and 2016 but the stock was assessed to be at the MSY level in 2016. The TAC reductions for Gulf of Bothnia herring (-24%), Gulf of Riga herring (-10%), sprat (- 5%) and a roll over for Gulf of Finland salmon will move the fishing in the direction of MSY. The Gulf of Finland salmon has a precautionary TAC and eastern cod is managed as a data-poor stock. The TAC for the Main basin salmon is kept stable at a low level with the aim to contribute further to improve the stocks in the weakest salmon rivers.

Cod is the only fish species for which a multi-annual plan exists (Council Regulation (EC) No 1098/2007). The plan defines targets for stock recovery (in terms of cod mortality for Eastern and Western cod stocks) and also maximum fishing effort and a licensing system for vessels fishing cod in the Baltic. Until 2012 the Eastern cod stock was considered to be sustainably exploited and the Eastern cod TAC (68-81% of the cod TAC in the Baltic between 2008 and 2016) was increasing. However, after good recruitment years and increases in the stock population in 2012-2013 the mean weight of larger cod in the Eastern Baltic declined and ICES changed the status of the Eastern cod stock in 2014 from sustainably exploited to unknown. The Western cod status was above Fmsy and below MSY Btrigger over the period analysed. The TAC for western cod, which was reduced for a number of years, was decreased again by 20% in 2016. This stock continues to give cause for concern.

Description of relevant fisheries in the region

Small-scale coastal fishery

Small-scale coastal fishery (SSCF) in the Baltic Sea are very important from a socio-economic point of view. They dominate the Baltic Sea fishing in terms of vessels (92%) and employment (78% of total employed and 65% of FTE). However, it only accounts for 8% of landed weight and 22% of revenue.

Revenue generated by the Baltic SSCF in 2015 was estimated at €52.6 million, a drop from the €56 million in 2014 (Table 4.16).

In 2015, the SSCF generated €24 million in GVA, corresponding to 45% of the revenue. The profitability of the SSCF also deteriorated, from gross losses of €1.2 million in 2014 to losses of €2.7 million in 2015. The overall poor economic performance can be explained by the small economic size on average. Average vessel revenue was only €9 350 and €4 200 in GVA. Labour productivity in terms of GVA per FTE was only €8 100 in 2015.

Despite the overall poor performance of the SSCF, individual MS fare differently. The German, Estonian, Finnish and Latvian, SSCF made reasonable gross profits while the others suffered losses. After taking account of estimated capital costs, only the Latvian and Estonian fleets were still making net profits and generating resource rent in their fisheries (Table 4.17). Small-scale coastal fleet labor productivity remained at the almost stable level during 2008-2015 with a minor declining trend from 2012.

Large-scale fishery

Revenue generated by large-scale fleets (LSF) in 2015 was estimated at €177 million; an increase from €167 million in 2014 (Table 4.16 and 4.17). The LSF generated €92 million in GVA (up from €77 million in 2014), or 52% of revenue. Overall, the Baltic LSF segment was profitable in 2015, generating €52 million in gross profit and €18 million in net profit.

Pelagic fisheries are the dominant fisheries for the LSF in the Baltic Sea fisheries. This segment accounted for 60% of landed weight and 38% of the landing value in the region in 2014. Demersal fisheries accounted for 30% of landed weight and 37% in value. Both pelagic and demersal made gross profits; pelagic fisheries generated €25 million with a gross profit margin of 29%; a marked increase from €14 million and 16.5%, respectively, in 2014. For demersal fisheries, gross profit improved even more; from €12 million with 16% margin to €27 million and 31%, respectively.

Pelagic vessels are, economically, larger operations on average. In 2015, the average vessel revenue for pelagic vessels was €373 thousand compared to €302 thousand in the demersal sector. Pelagic vessels also generated a higher GVA on average, €189 thousand compared to €168 thousand for demersal fisheries and both increased significantly from 2015. Labour productivity (GVA per FTE) also improved, with the labour productivity in the demersal fisheries exceeding the pelagic (a reversal of the situation in 2014): labour productivity in 2015 was €55 thousand for the demersal sector and €54 thousand for the pelagic.

In the Baltic Sea region, the highest labor productivity (GVA/FTE) was achieved by Sweden, Denmark and Finland, at €73.7 thousand per FTE, €65.7 thousand per FTE and €41.5 thousand per FTE, respectively. However, the productivity of the Swedish fleet partly depends on the fisheries in NS region as the same fleet operates in both the Baltic and North Seas.

Latvia and Estonia generated €33 thousand per FTE and €19.2 thousand per FTE, respectively; whereas the lowest labor productivity was observed in Poland Lithuania and Germany varying from €10 thousand per FTE to €13 thousand per FTE. The German fleet has been suffering from the continuing decline of the Western cod stock. Almost all MS in the Baltic region had similar trends from 2013 to 2015, when GVA significantly decreased in 2014 and then recovered in 2015 with highest value since 2008. The decline in 2014 was in most MS associated with high operating costs, especially energy expenditures, the impeding effect of the export ban on Russia, as well as bad performance of demersal fisheries. The overall GVA/FTE showed a tendency to increase with some variation. The labor productivity differed between the pelagic and demersal fisheries. Fleets targeting cod showed low productivity, whereas pelagic trawlers, regardless of the MS, had a relatively high GVA/FTE with a current tendency to increase. The labor productivity of the SSCF remained almost constant during 2008-2015 with a minor declining trend from 2012.

Performance by fleet segment

Table 4.18 displays the basic capacity, effort and socio-economic indicators estimated for the top 40 MS fleet segments (out of 53), based on the value of revenue in the region. These 40 segments represented 99% of the landed weight (607 thousand tonnes) and 98% of the revenue (€224 million) generated by the Baltic Sea fleet in 2015. Of the top 40 fleet segments, 29 made positive gross profits.

One important reason for the negative gross profit (i.e., loss) of the smaller vessels is the estimated opportunity cost of unpaid labour. For the fleet segments below 12 meters, and to a certain extent for the 12-18m, the estimated opportunity cost for labour may be high in proportion to the catch value, making the gross profit negative. This indicates that many vessel owners earn lower income than that used as an opportunity cost. Hence, the estimated negative gross profits do not lead to insolvency even though income at the fleet level does not provide a high livelihood for fishers on average.

Energy costs are a major cost item, especially in the Baltic Sea LSF. The drop of fuel prices in 2015 has led to a marked improvement in the economic performance of the fuel intensive LSF.

At fleet segment level, the Swedish demersal trawl and seine 24-40m segment generated the highest landed value in 2015 (€26 million), followed by the Polish pelagic trawl 24-40m segment (€18 million) and then the Finnish pelagic trawl 24-40m segment (€17 million). The most important fleets in terms of GVA were the Swedish demersal trawlers 24-40m and the Polish and Latvian pelagic trawlers 24-40m.

In relative terms, the Latvian passive gear segment under 10m (PG0010) generated the highest gross profit margin, followed by the Swedish demersal trawlers segment 10-12m (DTS1012) and Polish pelagic trawlers segment (TM1824). However, the Swedish fleet were mostly fishing in the North Sea.

There were 28 MS fleet segments that operated 80% or more in the Baltic Sea in 2015, accounting for 82% of the number of vessels, 84% of the days at sea deployed, 86% of the FTE, 71% of the landed weight and 62% of the landed value. Collectively, these 'resident' fleets contributed to 62% of the revenue, 61% of the GVA and 61% of the gross profit.

The 34 fleet segments out of 53 operating in the Baltic Sea were making positive gross profit in 2015. However, 21 fleet segments out of 26 that were operating solely in Baltic Sea fishing were making positive gross profits. And furthermore 15 of these fleet segments solely dependent on Baltic Sea fishing were also making net profits. This indicates that the good pelagic stock situation in the Baltic Sea together with implementation of ITQ in Denmark and Sweden have had some positive impact on profitability.

Table 4.13 Structure and economic performance estimates by MS fleet operating in the Baltic Sea region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
DNK	551	40%	6,467	36,592	299	263	28,681	30%	28,444	31%	52,011	6%	34,223	8%	34,271	35,295	14,848	4,112	17,313	49.1	2,464	7.0	- 5,904	- 16.7	31	65.8
EST	1,532	100%	5,875	31,623	2,242	485	84,812	100%	151,632	100%	59,326	100%	14,531	100%	14,531	14,732	5,690	1,772	9,352	63.5	3,662	24.9	1,726	11.7	6	19.3
FIN	1,577	100%	12,792	102,587	1,668	358	106,488	100%	106,203	100%	148,131	100%	33,641	100%	34,734	36,095	7,102	9,532	14,870	41.2	7,768	21.5	- 7,968	- 22.1	9	41.5
DEU	832	78%	4,294	30,790	810	621	70,608	67%	75,331	68%	17,770	26%	15,117	11%	14,704	16,156	5,425	1,870	6,028	37.3	603	3.7	- 2,799	- 17.3	7	9.7
LVA	250	100%	7,218	20,010	620	345	18,261	100%	16,259	100%	62,084	100%	19,776	100%	19,776	20,688	3,820	2,858	11,359	54.9	7,539	36.4	5,830	28.2	45	32.9
LTU	94	90%	3,889	9,368	356	164	7,243	79%	5,500	77%	17,898	22%	4,954	8%	5,170	5,248	1,433	1,192	1,908	36.4	475	9.1	88	1.7	20	11.6
POL	800	100%	15,831	62,783	2,277	2,099	71,155	100%	68,165	100%	135,596	100%	48,719	100%	48,719	49,578	14,462	9,031	27,947	56.4	13,484	27.2	5,579	11.3	35	13.3
SWE	556	56%	11,586	66,081	768	369	39,115	53%	39,115	53%	120,058	59%	46,341	40%	46,341	52,231	13,809	9,072	27,228	52.1	13,419	25.7	3,462	6.6	49	73.7

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.14 Structure and economic performance estimates by main type of fishery (pelagic, demersal, other) operating in the Baltic Sea region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Pelagic	233	12%	31,532	88,537	1,098	808	27,999	12%	25,661	12%	370,624	15%	83,638	5%	84,641	86,866	18,606	18,498	43,950	50.6	25,344	29.2	6,461	7.4	188	54.4
Demersal	282	3%	19,701	71,239	909	829	31,939	2%	29,839	2%	183,343	11%	80,077	2%	80,034	85,382	19,195	14,490	45,891	53.8	26,696	31.3	12,996	15.2	163	55.4
Other	5,677	15%	16,720	200,061	7,033	3,069	366,427	12%	435,151	14%	58,909	9%	53,592	3%	53,575	57,778	28,790	6,451	26,166	45.3	- 2,624	- 4.5	- 19,441	- 33.7	5	8.5

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.15 Structure and economic performance estimates by main type of fishery (pelagic, demersal, other) and MS fleets operating in the Baltic Sea region, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Pelagic	DNK	5	17%	1,547	3,186	15	19	619	14%	503	17%	26,007	6%	6,485	4%	6,484	6,781	1,348	872	4,224	62.3	2,876	42.4	- 46	- 0.7	788.1	226.4
Pelagic	EST	34	100%	3,667	9,449	167	134	3,861	100%	3,618	100%	47,288	100%	9,141	100%	9,141	9,160	3,802	1,187	6,269	68.4	2,466	26.9	1,045	11.4	184.4	46.8
Pelagic	FIN	64	100%	9,209	32,532	155	107	7,235	100%	7,113	100%	137,003	100%	24,740	100%	25,563	26,511	5,360	8,489	10,174	38.4	4,815	18.2	- 3,910	- 14.8	159.0	95.1
Pelagic	LTU	9	45%	1,924	4,097	65	30	1,222	38%	512	23%	12,021	16%	2,533	4%	2,713	2,713	656	644	955	35.2	298	11.0	89	3.3	106.1	31.8
Pelagic	LVA	60	100%	6,852	17,558	387	214	7,649	100%	7,258	100%	59,527	100%	18,329	100%	18,329	19,173	3,467	2,827	10,014	52.2	6,547	34.2	4,863	25.4	166.9	46.8
Pelagic	POL	61	100%	8,333	21,715	309	304	7,413	100%	6,657	100%	88,778	100%	22,410	100%	22,410	22,528	3,973	4,480	12,314	54.7	8,341	37.0	4,418	19.6	201.9	40.5
Demersal	DEU	47	18%	2,075	8,505	63	51	4,856	13%	4,538	12%	9,808	16%	6,798	5%	6,732	7,562	2,734	1,292	2,439	32.3	- 295	- 3.9	- 1,974	- 26.1	52.3	47.7
Demersal	DNK	49	16%	2,535	10,397	91	104	6,082	15%	5,835	15%	18,334	5%	15,580	7%	15,582	15,753	5,731	2,154	7,967	50.6	2,235	14.2	- 654	- 4.2	164.0	76.5
Demersal	LTU	14	100%	1,651	3,087	120	83	1,453	100%	1,051	100%	5,334	100%	1,887	100%	1,909	1,921	477	456	661	34.4	184	9.6	36	1.9	47.2	7.9
Demersal	NLD	0	0%	1	2	0	0	2	0%	1	0%	1	0%	5	0%	5	5	2	1	3	54.1	1	17.9	0	8.8	255.9	85.3
Demersal	POL	107	100%	4,163	17,237	446	424	11,853	100%	10,720	100%	33,038	100%	15,137	100%	15,137	15,442	2,787	3,225	9,030	58.5	6,243	40.4	3,919	25.4	84.4	21.3
Demersal	SWE	66	29%	9,276	32,010	188	166	7,693	32%	7,693	32%	116,827	59%	40,670	41%	40,670	44,699	7,464	7,363	25,792	57.7	18,328	41.0	11,669	26.1	391.5	155.3
Other	DEU	785	98%	2,219	22,285	747	570	65,752	97%	70,793	98%	7,962	85%	8,318	58%	7,972	8,594	2,691	578	3,589	41.8	898	10.5	- 826	- 9.6	4.6	6.3
Other	DNK	497	47%	2,385	23,010	193	141	21,980	44%	22,106	45%	7,670	27%	12,159	19%	12,205	12,761	7,769	1,087	5,122	40.1	- 2,647	- 20.7	- 5,204	- 40.8	10.3	36.4
Other	EST	1,498	100%	2,208	22,174	2,075	351	80,951	100%	148,014	100%	12,037	100%	5,389	100%	5,389	5,572	1,888	585	3,084	55.3	1,195	21.5	681	12.2	2.1	8.8
Other	FIN	1,513	100%	3,583	70,055	1,513	251	99,253	100%	99,090	100%	11,128	100%	8,901	100%	9,171	9,584	1,743	1,044	4,696	49.0	2,953	30.8	- 4,058	- 42.4	3.1	18.7
Other	LTU	71	100%	314	2,184	171	51	4,568	100%	3,937	100%	543	100%	534	100%	549	615	300	92	293	47.6	- 7	- 1.2	- 37	- 6.0	4.1	5.7
Other	LVA	190	100%	366	2,452	233	131	10,612	100%	9,001	100%	2,557	100%	1,447	100%	1,447	1,515	353	31	1,345	88.8	992	65.5	967	63.8	7.1	10.3
Other	POL	632	100%	3,335	23,830	1,522	1,371	51,889	100%	50,788	100%	13,780	100%	11,172	100%	11,172	11,607	7,702	1,326	6,603	56.9	- 1,099	- 9.5	- 2,757	- 23.8	10.4	4.8
Other	SWE	490	64%	2,310	34,071	580	203	31,422	64%	31,422	64%	3,231	67%	5,672	36%	5,672	7,532	6,345	1,709	1,437	19.1	- 4,909	- 65.2	- 8,206	- 109.0	2.9	7.1

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.16 Structure and economic performance estimates by main type of fishing activity for MS fleets operating in the Baltic Sea region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
SSCF	5,625	17%	15,218	192,474	6,881	2,926	360,957	13%	430,171	16%	53,824	19%	48,620	6%	48,609	52,616	26,440	5,784	23,702	45.1	- 2,737	- 5.2	- 18,370	- 34.9	4	8.1
LSF	567	4%	52,735	167,362	2,158	1,779	65,408	3%	60,480	3%	559,051	14%	168,687	3%	169,641	177,411	40,152	33,655	92,305	52.0	52,153	29.4	18,385	10.4	163	51.9

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.17 Structure and economic performance estimates by main type of fishing activity and MS fleet operating in the Baltic Sea region, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
SSCF	DEU	782	99%	2,127	21,730	743	566	65,436	99%	70,396	99%	7,663	99%	8,174	99%	7,833	8,449	2,488	541	3,563	42.2	1,075	12.7	- 545	- 6.5	4.6	6.3
SSCF	DNK	484	50%	1,957	20,872	170	116	20,407	52%	20,577	52%	4,359	43%	9,063	41%	9,108	9,646	6,575	748	3,621	37.5	- 2,954	- 30.6	- 4,817	- 49.9	7.5	31.1
SSCF	EST	1,498	100%	2,208	22,174	2,075	351	80,951	100%	148,014	100%	12,037	100%	5,389	100%	5,389	5,572	1,888	585	3,084	55.3	1,195	21.5	681	12.2	2.1	8.8
SSCF	FIN	1,513	100%	3,583	70,055	1,513	251	99,253	100%	99,090	100%	11,128	100%	8,901	100%	9,171	9,584	1,743	1,044	4,696	49.0	2,953	30.8	- 4,058	- 42.4	3.1	18.7
SSCF	LTU	71	100%	314	2,184	171	51	4,568	100%	3,937	100%	543	100%	534	100%	549	615	300	92	293	47.6	- 7	- 1.2	- 37	- 6.0	4.1	5.7
SSCF	LVA	190	100%	366	2,452	233	131	10,612	100%	9,001	100%	2,557	100%	1,447	100%	1,447	1,515	353	31	1,345	88.8	992	65.5	967	63.8	7.1	10.3
SSCF	POL	609	100%	2,654	20,952	1,417	1,267	49,388	100%	48,814	100%	12,692	100%	10,009	100%	10,009	10,312	7,088	1,127	5,970	57.9	- 1,118	- 10.8	- 2,533	- 24.6	9.8	4.7
SSCF	SWE	479	63%	2,009	32,055	560	193	30,342	63%	30,342	63%	2,845	64%	5,104	34%	5,104	6,925	6,006	1,616	1,132	16.4	- 4,873	- 70.4	- 8,026	- 115.9	2.4	5.9
LSF	DEU	50	18%	2,167	9,060	67	55	5,172	13%	4,935	13%	10,107	16%	6,943	5%	6,871	7,707	2,937	1,330	2,465	32.0	- 472	- 6.1	- 2,254	- 29.3	49.3	44.8
LSF	DNK	68	16%	4,510	15,720	129	147	8,274	14%	7,867	15%	47,652	6%	25,161	6%	25,163	25,649	8,273	3,364	13,692	53.4	5,419	21.1	- 1,087	- 4.2	202.7	93.2
LSF	EST	34	100%	3,667	9,449	167	134	3,861	100%	3,618	100%	47,288	100%	9,141	100%	9,141	9,160	3,802	1,187	6,269	68.4	2,466	26.9	1,045	11.4	184.4	46.8
LSF	FIN	64	100%	9,209	32,532	155	107	7,235	100%	7,113	100%	137,003	100%	24,740	100%	25,563	26,511	5,360	8,489	10,174	38.4	4,815	18.2	- 3,910	- 14.8	159.0	95.1
LSF	LTU	23	100%	3,575	7,184	185	113	2,675	100%	1,563	100%	17,355	100%	4,420	100%	4,622	4,634	1,134	1,100	1,616	34.9	482	10.4	125	2.7	70.2	14.2
LSF	LVA	60	100%	6,852	17,558	387	214	7,649	100%	7,258	100%	59,527	100%	18,329	100%	18,329	19,173	3,467	2,827	10,014	52.2	6,547	34.2	4,863	25.4	166.9	46.8
LSF	POL	191	100%	13,177	41,830	860	832	21,767	100%	19,351	100%	122,904	100%	38,710	100%	38,710	39,266	7,375	7,904	21,977	56.0	14,603	37.2	8,113	20.7	115.1	26.4
LSF	SWE	78	32%	9,576	34,026	208	177	8,773	35%	8,773	35%	117,214	59%	41,238	41%	41,238	45,306	7,804	7,455	26,096	57.6	18,293	40.4	11,488	25.4	336.7	147.6

* German pelagic trawlers excluded, Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.18 Structure and economic performance estimates for the top 40 MS fleets operating in the Baltic Sea region, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
SWE	SWE A27 DTS2440 °	16	41%	6,579	18,932	90	91	2,758	41%	2,758	41%	96,185	56%	25,727	43%	25,727	29,040	4,063	5,214	16,374	56.4	12,312	42.4	6,824	23.5	1,000	180.5
POL	POL A27 TM2440 °	41	100%	6,953	16,590	239	238	5,044	100%	4,385	100%	73,275	100%	18,423	100%	18,423	18,445	3,361	3,814	9,611	52.1	6,250	33.9	2,704	14.7	234	40.4
FIN	FIN A27 TM2440 °	23	100%	7,255	20,952	100	71	3,807	100%	3,731	100%	94,984	100%	17,102	100%	18,222	18,777	2,757	7,518	5,796	30.9	3,039	16.2	-3,836	-20.4	252	81.6
LVA	LVA A27 TM2440	49	100%	6,521	15,487	343	183	5,886	100%	5,509	100%	50,169	100%	15,702	100%	15,702	16,503	2,716	2,269	8,401	50.9	5,685	34.5	4,102	24.9	171	45.9
EST	EST A27 TM2440 °	26	100%	3,533	8,528	153	132	3,525	100%	3,290	100%	46,290	100%	8,952	100%	8,952	8,960	3,703	1,169	6,123	68.3	2,420	27.0	1,011	11.3	236	46.4
POL	POL A27 DTS1218 °	69	100%	2,016	8,782	278	263	8,044	100%	7,248	100%	18,331	100%	8,949	100%	8,949	9,151	1,826	2,074	5,345	58.4	3,519	38.5	2,365	25.8	77	20.3
FIN	FIN A27 PG0010	1,456	100%	2,990	61,215	1,456	245	98,051	100%	98,048	100%	8,213	100%	8,168	100%	8,370	8,783	1,584	873	4,579	52.1	2,995	34.1	-2,850	-32.5	3	18.7
DNK	DNK A27 DTS1218	32	26%	1,184	6,240	58	56	3,858	26%	3,730	26%	8,834	36%	7,474	22%	7,476	7,515	3,023	966	3,712	49.4	689	9.2	-575	-7.7	116	66.5
POL	POL A27 PG0010 °	508	100%	1,526	14,153	1,054	930	40,926	100%	40,928	100%	8,811	100%	6,762	100%	6,762	6,835	4,989	599	4,331	63.4	-657	-9.6	-1,412	-20.7	9	4.7
POL	POL A27 DTS1824 °	38	100%	2,147	8,455	168	161	3,809	100%	3,472	100%	14,707	100%	6,188	100%	6,188	6,291	961	1,151	3,684	58.6	2,723	43.3	1,554	24.7	97	22.9
SWE	SWE A27 DTS1824 °	16	39%	1,914	6,311	45	44	2,432	39%	2,432	39%	12,223	79%	5,921	33%	5,921	6,372	1,286	1,293	2,688	42.2	1,402	22.0	847	13.3	166	60.7
SWE	SWE A27 DTS1218 °	16	23%	575	3,996	29	20	1,492	23%	1,492	23%	5,582	83%	5,718	38%	5,718	5,768	1,417	593	4,016	69.6	2,599	45.1	2,246	38.9	247	201.8
DEU	DEU A27 PG0010	722	100%	1,475	16,484	695	526	59,527	100%	62,831	100%	4,836	100%	5,896	99%	5,638	6,069	1,475	409	2,567	42.3	1,092	18.0	-21	-0.4	4	4.9
DNK	DNK A27 PGP0010	380	49%	1,105	12,843	107	67	12,919	49%	12,858	49%	2,006	46%	4,916	42%	4,962	5,252	3,959	313	2,348	44.7	-1,611	-30.7	-2,465	-46.9	6	34.9
FIN	FIN A27 TM1824	14	100%	1,213	5,745	27	20	1,783	100%	1,737	100%	31,041	100%	5,484	100%	4,960	5,013	2,121	615	3,114	62.1	993	19.8	-235	-4.7	222	155.7
DNK	DNK A27 TM40XX	1	5%	1,332	2,385	6	9	173	5%	115	6%	18,217	4%	4,196	3%	4,196	4,492	685	664	2,807	62.5	2,122	47.2	-483	-10.7	2,894	297.3
POL	POL A27 TM1824	20	100%	1,380	5,125	70	66	2,369	100%	2,272	100%	15,503	100%	3,987	100%	3,987	4,084	612	666	2,703	66.2	2,091	51.2	1,714	42.0	135	41.0
DNK	DNK A27 DTS1824 °	6	11%	592	1,728	17	25	956	11%	901	12%	4,826	7%	3,908	9%	3,909	3,975	1,396	487	2,066	52.0	670	16.9	-51	-1.3	364	83.6
SWE	SWE A27 DFN0010 °	406	65%	1,196	22,022	460	158	25,809	65%	25,809	65%	1,703	70%	3,720	41%	3,720	5,132	5,031	1,136	1,152	22.4	-3,880	-75.6	-6,048	-117.9	3	7.3
EST	EST A27 PG0010	1,415	100%	1,632	17,518	1,757	231	79,851	100%	146,130	100%	3,151	100%	3,622	100%	3,622	3,778	1,124	396	1,702	45.1	578	15.3	216	5.7	1	7.4
DNK	DNK A27 DTS2440 °	2	7%	641	1,352	9	18	507	7%	449	7%	3,983	5%	3,440	5%	3,440	3,500	1,016	595	1,916	54.7	899	25.7	190	5.4	871	107.1
SWE	SWE A27 DTS1012 °	17	22%	207	2,770	24	11	1,011	22%	1,011	22%	2,837	86%	3,304	46%	3,304	3,518	698	262	2,714	77.1	2,016	57.3	1,751	49.8	159	241.0
POL	POL A27 PG1012	101	100%	1,128	6,800	363	337	8,462	100%	7,886	100%	3,881	100%	3,247	100%	3,247	3,476	2,099	528	1,638	47.1	-461	-13.3	-1,121	-32.3	16	4.9
LTU	LTU A27 TM2440 °	9	100%	1,924	4,097	65	30	1,222	100%	512	100%	12,021	100%	2,533	100%	2,713	2,713	656	644	955	35.2	298	11.0	89	3.3	106	31.8
LVA	LVA A27 TM1218	11	100%	331	2,071	44	31	1,763	100%	1,749	100%	9,358	100%	2,627	100%	2,627	2,670	751	559	1,613	60.4	862	32.3	761	28.5	147	52.0
DEU	DEU A27 DTS1218	28	100%	870	4,862	25	21	2,639	100%	2,518	100%	3,797	100%	2,806	100%	2,622	2,856	1,108	315	1,497	52.4	389	13.6	-319	-11.2	54	71.4
DNK	DNK A27 PGP1012	34	70%	377	3,270	34	30	3,739	70%	3,812	71%	1,140	56%	2,555	54%	2,555	2,714	1,565	203	1,038	38.3	-527	-19.4	-989	-36.4	31	34.1
FIN	FIN A27 TM1218 °	27	100%	741	5,835	28	16	1,645	100%	1,645	100%	10,977	100%	2,155	100%	2,381	2,721	482	356	1,265	46.5	783	28.8	161	5.9	47	79.0
DNK	DNK A27 PMP1218	9	27%	263	1,397	13	13	965	27%	922	27%	2,973	49%	2,300	29%	2,300	2,300	735	262	1,279	55.6	544	23.6	153	6.7	146	100.0
DNK	DNK A27 TM1218	4	34%	215	801	9	9	446	34%	388	35%	7,790	24%	2,289	26%	2,289	2,289	663	208	1,417	61.9	754	33.0	437	19.1	323	153.7
DEU	DEU A27 PG1012	60	94%	652	5,246	48	40	5,909	94%	7,565	96%	2,827	99%	2,278	97%	2,195	2,380	1,013	132	996	41.9	-16	-0.7	-524	-22.0	17	24.7
DEU	DEU A27 DTS1824	5	36%	566	1,173	20	15	1,033	36%	879	35%	2,827	48%	2,094	23%	2,100	2,184	709	473	619	28.3	-90	-4.1	-616	-28.2	115	40.1
LTU	LTU A27 DTS2440 °	14	100%	1,651	3,087	120	83	1,453	100%	1,051	100%	5,334	100%	1,887	100%	1,909	1,921	477	456	661	34.4	184	9.6	36	1.9	47	7.9
EST	EST A27 PG1012	83	100%	576	4,656	318	120	1,100	100%	1,884	100%	8,887	100%	1,767	100%	1,767	1,794	764	189	1,382	77.0	617	34.4	465	25.9	17	11.5
LVA	LVA A27 PGP0010	190	100%	366	2,452	233	131	10,612	100%	9,001	100%	2,557	100%	1,447	100%	1,447	1,515	353	31	1,345	88.8	992	65.5	967	63.8	7	10.3
SWE	SWE A27 DFN1012 °	72	54%	813	10,033	99	35	4,533	54%	4,533	54%	1,142	57%	1,384	23%	1,384	1,793	974	480	-19	-1.1	-994	-55.4	-1,977	-110.3	-0	-0.6
POL	POL A27 DFN1218	23	100%	681	2,878	105	104	2,501	100%	1,974	100%	1,088	100%	1,162	100%	1,162	1,296	614	198	633	48.9	19	1.5	-224	-17.3	28	6.1
DEU	DEU A27 DTS2440	2	16%	446	853	10	8	350	16%	294	16%	1,217	12%	904	5%	914	1,164	340	422	-245	-21.1	-585	-50.3	-892	-76.6	-152	-32.4
DNK	DNK A27 PMP1012	18	53%	224	1,923	14	10	1,541	53%	1,698	56%	828	30%	853	27%	853	894	577	149	60	6.7	-517	-57.9	-849	-95.0	3	6.2
FIN	FIN A27 PG1012 °	57	100%	593	8,840	57	6	1,202	100%	1,042	100%	2,915	100%	733	100%	801	801	158	170	117	14.6	-42	-5.2	-1,208	-150.9	2	19.5

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.19 Structure and economic performance estimates for MS fleet segments operating 80% or more in the Baltic Sea region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
DEU A27 DTS1012 °	11	100%	158	1,482	7	6	736	100%	742	100%	907	100%	657	100%	745	998	463	56	295	29.6	- 168	- 16.8	- 283	- 28.3	27	49.2
EST A27 PG0010	1,415	100%	1,632	17,518	1,757	231	79,851	100%	146,130	100%	3,151	100%	3,622	100%	3,622	3,778	1,124	396	1,702	45.1	578	15.3	216	5.7	1	7.4
EST A27 PG1012	83	100%	576	4,656	318	120	1,100	100%	1,884	100%	8,887	100%	1,767	100%	1,767	1,794	764	189	1,382	77.0	617	34.4	465	25.9	17	11.5
EST A27 TM1218 °	8	100%	134	921	14	2	336	100%	328	100%	998	100%	190	100%	190	199	99	17	145	72.9	47	23.4	34	17.2	18	72.7
EST A27 TM2440 °	26	100%	3,533	8,528	153	132	3,525	100%	3,290	100%	46,290	100%	8,952	100%	8,952	8,960	3,703	1,169	6,123	68.3	2,420	27.0	1,011	11.3	236	46.4
FIN A27 TM1824	14	100%	1,213	5,745	27	20	1,783	100%	1,737	100%	31,041	100%	5,484	100%	4,960	5,013	2,121	615	3,114	62.1	993	19.8	- 235	- 4.7	222	155.7
FIN A27 TM2440 °	23	100%	7,255	20,952	100	71	3,807	100%	3,731	100%	94,984	100%	17,102	100%	18,222	18,777	2,757	7,518	5,796	30.9	3,039	16.2	- 3,836	- 20.4	252	81.6
FIN A27 PG1012 °	57	100%	593	8,840	57	6	1,202	100%	1,042	100%	2,915	100%	733	100%	801	801	158	170	117	14.6	- 42	- 5.2	- 1,208	- 150.9	2	19.5
FIN A27 TM1218 °	27	100%	741	5,835	28	16	1,645	100%	1,645	100%	10,977	100%	2,155	100%	2,381	2,721	482	356	1,265	46.5	783	28.8	161	5.9	47	79.0
FIN A27 PG0010	1,456	100%	2,990	61,215	1,456	245	98,051	100%	98,048	100%	8,213	100%	8,168	100%	8,370	8,783	1,584	873	4,579	52.1	2,995	34.1	- 2,850	- 32.5	3	18.7
LTU A27 TM2440 °	9	100%	1,924	4,097	65	30	1,222	100%	512	100%	12,021	100%	2,533	100%	2,713	2,713	656	644	955	35.2	298	11.0	89	3.3	106	31.8
LTU A27 DFN1012 °	10	100%	250	776	57	23	1,393	100%	762	100%	284	100%	240	100%	251	255	169	61	67	26.1	- 103	- 40.2	- 125	- 49.1	7	2.9
LTU A27 DTS2440 °	14	100%	1,651	3,087	120	83	1,453	100%	1,051	100%	5,334	100%	1,887	100%	1,909	1,921	477	456	661	34.4	184	9.6	36	1.9	47	7.9
LTU A27 PG0010	61	100%	65	1,408	114	28	3,175	100%	3,175	100%	259	100%	294	100%	297	360	131	31	226	62.8	95	26.5	88	24.5	4	8.2
LVA A27 PGP0010	190	100%	366	2,452	233	131	10,612	100%	9,001	100%	2,557	100%	1,447	100%	1,447	1,515	353	31	1,345	88.8	992	65.5	967	63.8	7	10.3
LVA A27 TM1218	11	100%	331	2,071	44	31	1,763	100%	1,749	100%	9,358	100%	2,627	100%	2,627	2,670	751	559	1,613	60.4	862	32.3	761	28.5	147	52.0
LVA A27 TM2440	49	100%	6,521	15,487	343	183	5,886	100%	5,509	100%	50,169	100%	15,702	100%	15,702	16,503	2,716	2,269	8,401	50.9	5,685	34.5	4,102	24.9	171	45.9
POL A27 DTS1218 °	69	100%	2,016	8,782	278	263	8,044	100%	7,248	100%	18,331	100%	8,949	100%	8,949	9,151	1,826	2,074	5,345	58.4	3,519	38.5	2,365	25.8	77	20.3
POL A27 DTS1824 °	38	100%	2,147	8,455	168	161	3,809	100%	3,472	100%	14,707	100%	6,188	100%	6,188	6,291	961	1,151	3,684	58.6	2,723	43.3	1,554	24.7	97	22.9
POL A27 PG1012	101	100%	1,128	6,800	363	337	8,462	100%	7,886	100%	3,881	100%	3,247	100%	3,247	3,476	2,099	528	1,638	47.1	- 461	- 13.3	- 1,121	- 32.3	16	4.9
POL A27 TM2440 °	41	100%	6,953	16,590	239	238	5,044	100%	4,385	100%	73,275	100%	18,423	100%	18,423	18,445	3,361	3,814	9,611	52.1	6,250	33.9	2,704	14.7	234	40.4
POL A27 TM1824	20	100%	1,380	5,125	70	66	2,369	100%	2,272	100%	15,503	100%	3,987	100%	3,987	4,084	612	666	2,703	66.2	2,091	51.2	1,714	42.0	135	41.0
POL A27 PG0010 °	508	100%	1,526	14,153	1,054	930	40,926	100%	40,928	100%	8,811	100%	6,762	100%	6,762	6,835	4,989	599	4,331	63.4	- 657	- 9.6	- 1,412	- 20.7	9	4.7
POL A27 DFN1218	23	100%	681	2,878	105	104	2,501	100%	1,974	100%	1,088	100%	1,162	100%	1,162	1,296	614	198	633	48.9	19	1.5	- 224	- 17.3	28	6.1
DEU A27 DTS1218	28	100%	870	4,862	25	21	2,639	100%	2,518	100%	3,797	100%	2,806	100%	2,622	2,856	1,108	315	1,497	52.4	389	13.6	- 319	- 11.2	54	71.4
DEU A27 PG0010	722	100%	1,475	16,484	695	526	59,527	100%	62,831	100%	4,836	100%	5,896	99%	5,638	6,069	1,475	409	2,567	42.3	1,092	18.0	- 21	- 0.4	4	4.9
DEU A27 PG1012	60	94%	652	5,246	48	40	5,909	94%	7,565	96%	2,827	99%	2,278	97%	2,195	2,380	1,013	132	996	41.9	- 16	- 0.7	- 524	- 22.0	17	24.7
SWE A27 DFN1218 °	12	83%	301	2,016	20	11	1,080	83%	1,080	83%	386	91%	568	74%	568	607	340	93	304	50.2	- 35	- 5.8	- 181	- 29.8	26	28.6
	5,085		49,060	256,460	7,957	4,055	357,850		422,495		435,787		133,825		134,698	139,250	36,906	25,388	71,096		34,189		3,928		2,010	970

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

4.3 Northeast Atlantic region

At a glance

The major players in the Northeast (NE) Atlantic are the Spanish, French, British, Portuguese and Irish fleets, with the latter two having the highest dependency on the region for production. The most important species include Atlantic mackerel, horse mackerel, hake and Norway lobster.

In terms of production, the UK, French, Spanish, Portuguese and Irish fleets are the most important and collectively were responsible for 74% of the landed weight and 87% of the value landed in 2015. The weight and value of landings generated by the NE Atlantic fleet amounted to approximately 1.4 million tonnes (-3% less than in 2014) and €2.4 billion (+1%), respectively. Based on the value of landings the French (30% of the regional landings), Spanish (26%) and UK (20%) fisheries have the highest level of landings in the Northeast Atlantic. However, Ireland and Portugal have the highest percentage of national landed value from the Northeast Atlantic at 90% and 75%, respectively.

While effort remained stable total landings decreased by 2%. Despite the decrease in landings the overall, performance improved, with the majority of Member State fleets generating gross and net profits in 2015 (Figures 4.34 and 4.35).

In summary:

- Revenue generated by the NE Atlantic fleet was estimated at €2.5 billion of which 87% was produced by four MS fleets: France (€758 million), Spain (€656 million), UK (€520 million) and Portugal (€273 million). This is an increase of 2% on 2014.
- GVA was estimated at €1.4 billion and after accounting for operating costs, the fleet made €478 million in gross profit and €233 million after deducting capital costs. GVA increased by 7% (+44% from 2010) and gross profit increased by 13%.
- The net profit estimated at €178 million, a 31% increase on 2014.
- The SSCF generated €260 million in GVA and €86 million in gross profits. The large-scale fleet generated over €1.15 billion in GVA and €392 million in gross profit.
- In 2015, fuel price decreased and remained low in 2016, while most fish prices remained stable or increased compared to 2014 (including plaice and common shrimp). Therefore, it is expected that economic performance will further improve as revenues are likely to increase and costs to decrease. Overall, performance is mostly driven by the large-scale fleets.

Main drivers affecting fleet performance in the region

Factors that may have contributed to the positive situation include:

- Recovery of some stocks, e.g. the biomass of most herring stocks have increased and the Northern hake stock continues to follow a positive trend.
- Low fuel prices resulting in lower energy costs, especially for pelagic fisheries.
- Increased TACs for a number of stocks, *e.g.* hake, herring and anglerfish.
- Stable fish prices generally and higher average prices for some important species *e.g.* common sole and *Nephrops*
- Capacity reduction (with or without public support) and thus decreasing fixed costs.

Factors that may have hampered economic performance in the region include:

- Reduced TACs for mackerel, sole, plaice and cod.
- Lower average prices and total landings for plaice, common shrimp, herring and mackerel.
- Whilst the consequences of Brexit are unknown, it is expected that it could have a large impact on fleets operating the Northeast Atlantic. The UK holds a significant portion of the landings. Furthermore, there is a high dependency on UK waters for a number of MS: Ireland, France, Spain, Belgium, the Netherlands and Germany.

Socio-economic Trends

In terms of socio-economic variables, the fleet operating in the Northeast Atlantic region displayed the following trends:

- Employment

The number of Full Time Equivalent (FTE) employees increased 3% in 2015. The most important fleets in terms of overall employment correlate to those fisheries that have the highest dependency on this area. Spain has the highest level of employment with over 14 640 thousand FTE, followed by Portugal (7 046), the UK (4 399), France (3 955) and Ireland (2 185). FTE employment has remained relatively stable over the period 2010-2015.

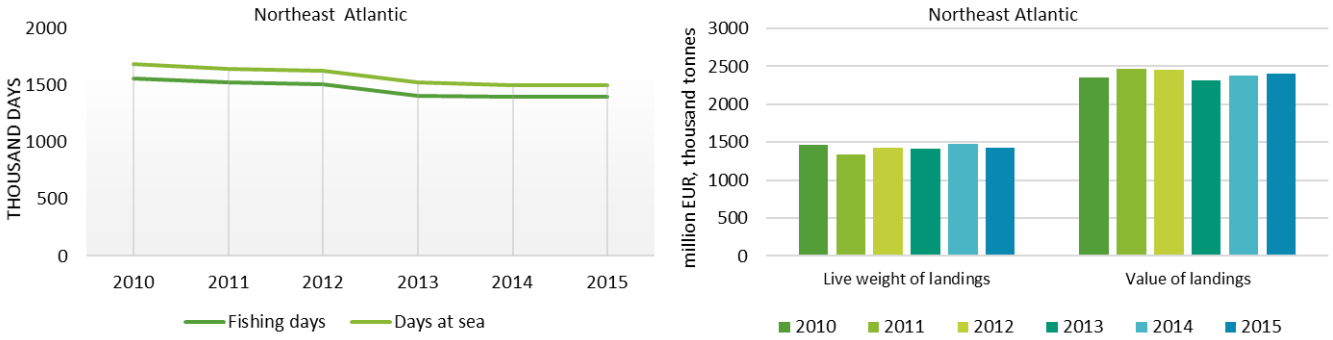
Total employment for the LSF is highest for Spain and Portugal, totalling 12 469 and 6 366 respectively, reflecting the high number of active vessels in these MS.

The SSCF, for all MS, demonstrates a dramatic difference between the numbers of total employed and total FTE indicating that a large number of those employed in the SSCF are part-time or casual workers.

LSF figures for total employed and FTEs are closer in value indicating a high level of full time employment in this segment in comparison to the SSCF.

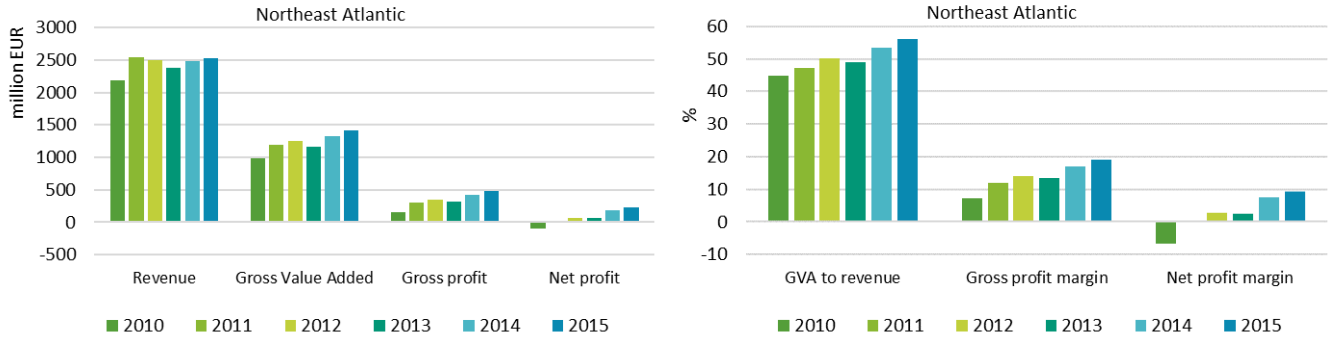
- Wages and Salaries

The overall average wage per FTE for the SSCF decreased by 6% in 2015, fluctuating around €20 000. For the LSF average wage increased by 2%. Furthermore, the average wage per FTE for the LSF has increased 26% since 2010 and from 2014 has been above €30 000.



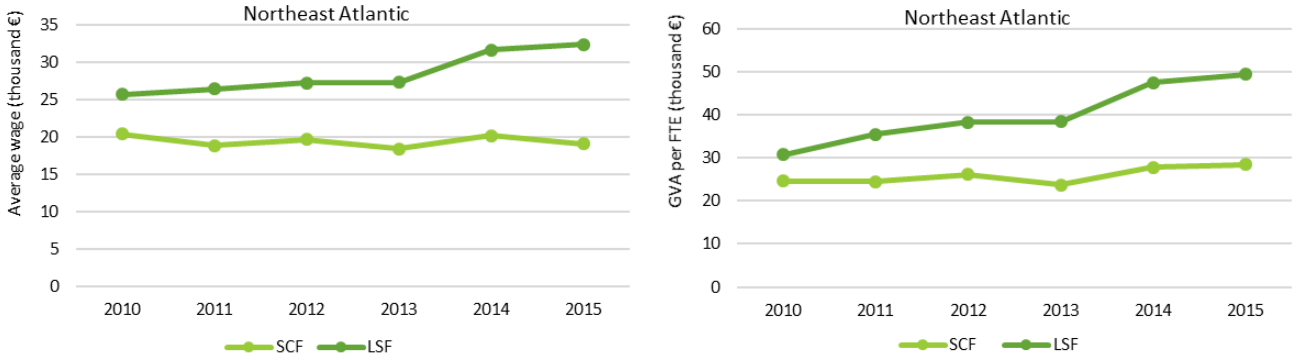
Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.37 Trends on effort and landings for MS fleets operating in the NE Atlantic region



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.38 Trends on revenue and profits for MS fleets operating in the NE Atlantic region



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.39 Trends on average wage and labour productivity (GVA per FTE) by fishing activity for MS fleets operating in the NE Atlantic region

Regional Details

The Northeast Atlantic region covers ICES Subdivisions V, VI, VII (except VIId) and VIII, IX, X, XII (Figure 4.24). For simplicity EU vessels operating in the aforementioned ICES areas are referred to as the EU Northeast (NE) Atlantic fleet.

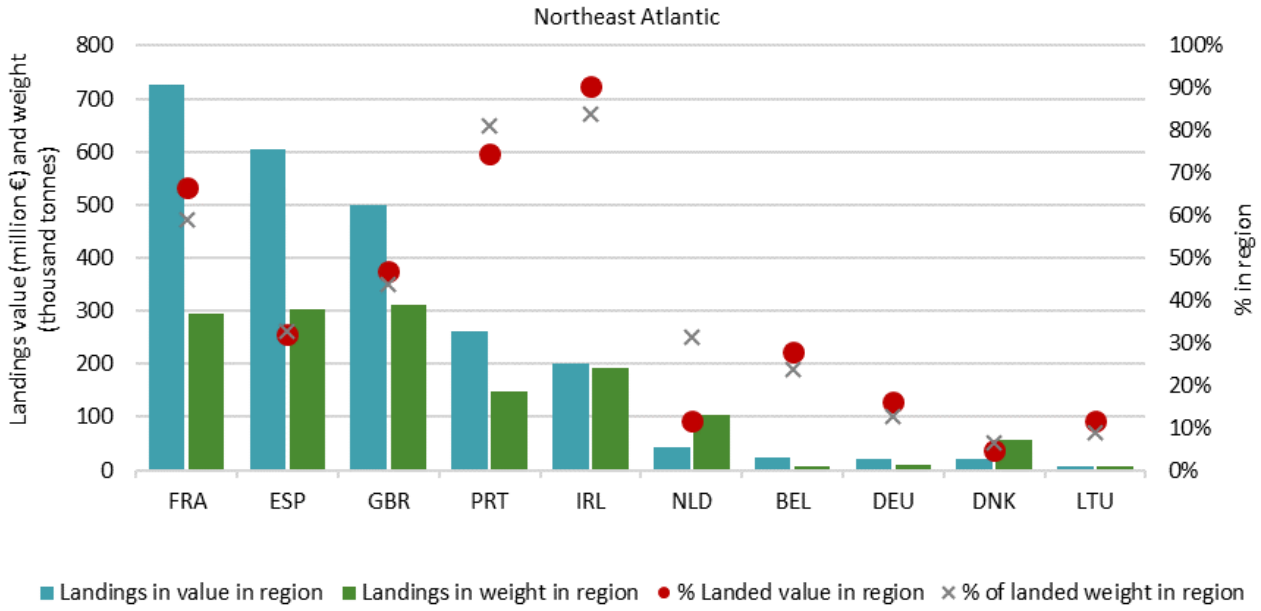
Ten MS fleets operated in the region in 2015; Belgium, Denmark, France, Germany, Ireland, Lithuania, the Netherlands, Portugal, Spain and the United Kingdom. Estimates provided for the Danish, Dutch, German and Lithuanian fleets should be considered with caution due to the limited fishing activity in the region (effort and landings shares in the region were less than 30% of the total). Therefore, according to the available data, the main fleets operating in the region were the Spanish, French, UK, Portuguese and Irish fleets. Some effort data by FAO fishing area (division) are missing for France for 2008 to 2009.

Table 4.20 to Table 4.28 contain a summary of the economic performance of the Northeast Atlantic region fleet by Member State, main type of fishing activity and fleet segment.

MS fleet activity in the Northeast Atlantic region: situation in 2015 and recent trends

Based on the value of landings, the French (46%), Spanish (38%) and UK (35%) fisheries have the highest level of landings in the Northeast Atlantic. However, Ireland and Portugal have the highest total percentage of national landed value from the region at 83% and 74% respectively, indicating their high dependency on this area (Figure 4.33).

The high difference between value and weight of landings for France, Spain, UK, Portugal and Belgium compared to Ireland, Denmark or Netherlands reflects the higher value of demersal species more represented in those five MS fleet's landings.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.40 Importance of the NE Atlantic region for Member States' fisheries in terms of landings in weight and value, 2015

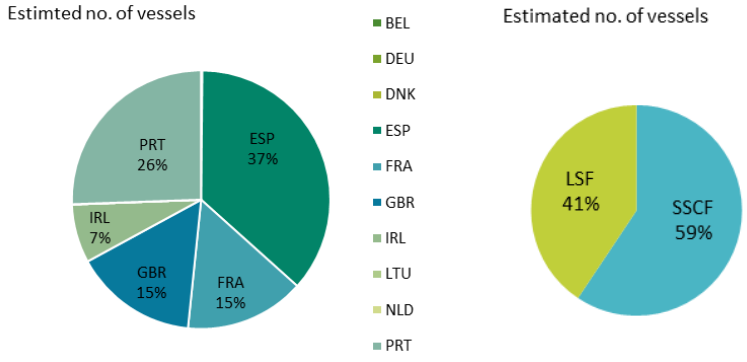
Fleet capacity and employment

According to the figures estimated at the regional level, the ten Member State fleets operating in the NE Atlantic region collectively numbered over 14 600 active vessels in 2015 that made the NE Atlantic the second region after the Mediterranean & Black Sea region (20 700 vessels) in terms of vessels number. The Spanish fleet comprised the largest fleet in number (around 5 335 active vessels, or 37% of the total in the region) (Table 4.20, Figure 4.36).

The SSCF accounted for 59% of the number of vessels and 48% of the days at sea, while LSF generated by far the highest landed weight, with 90% of the total and 86% of the value.

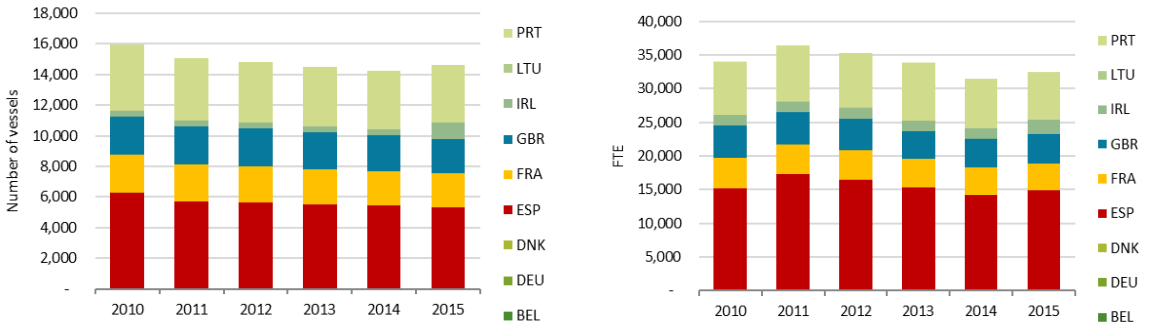
While the SSCF covered 59% of the number of vessels, employment estimated for this group amounted to more than 19 000 jobs and around 9 100 FTE in 2015, representing respectively around 40% of the total jobs and 28% of the total FTEs in the Northeast Atlantic sea fisheries and indicating the predominate part-time nature of this fishing fleet.

Fleet capacity and employment of the MS fleets operating in the region have followed a general decreasing trend over most of the period analysed, apart from some increase in 2015 (Figure 4.37).



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.41 Share of NE Atlantic fleet capacity by MS and fishing activity, 2015



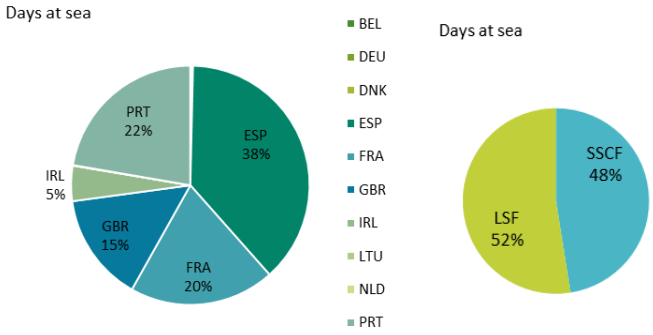
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.42 Trends on the number of vessels and employment (in FTE) for MS fleets operating in the NE Atlantic region

Fishing effort

The latest official DCF data suggests that the EU Northeast Atlantic fleet spent over 1.5 million days at sea in 2015, 38% of which were deployed by the Spanish fleet. Collectively, vessels from Portugal, France, United Kingdom, Spain and Ireland together accounted for around 62% of the total days at sea. These five fleets represented almost the total effort deployed in the region. It must be noted that Ireland had partial effort data for vessel less than 10m in length and only for the years 2013-2015, so conclusions regarding effort need to be taken with caution as Ireland's effort is underestimated for this segment (Figures 4.38 and 4.39).

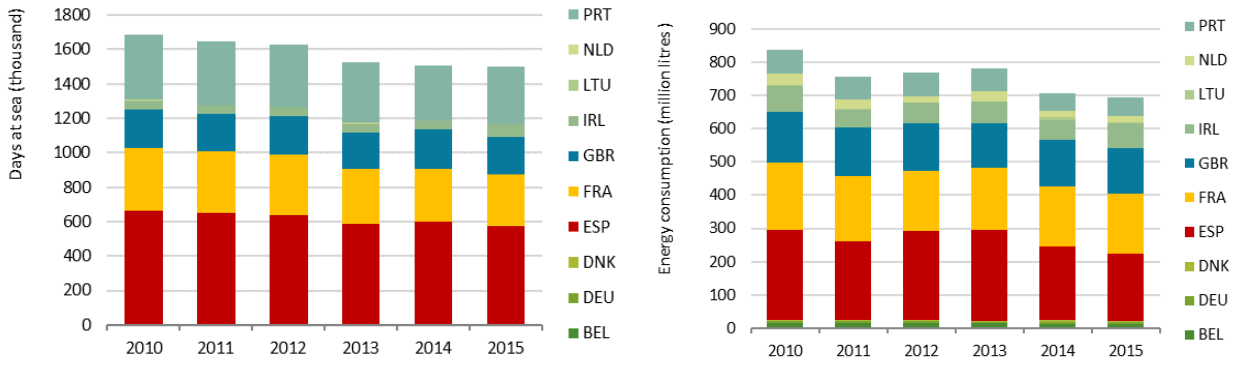
The number of days at sea per fishing activity is quite balanced in the recent year although, in 2010, the small-scale coastal fleet had a more relevant presence in the share of effort making up 60% of total sea days. In 2015 SSCF vessels accounted for 48% of the total number of days at sea in the Northeast Atlantic area but only 9.3% of the landed weight and 14% of the landed value share (Figures 4.38 and 4.40).



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.43 Share of effort deployed in the NE Atlantic region by MS and fishing activity, 2015

Fishing effort has decreased much in line with capacity, over the period analysed but with a significant drop in 2013, which can be largely attributed to the Spanish fleet. The capacity of the Spanish fishing fleet has significantly decreased in the last number of years to bring fishing capacity in balance with its fishing opportunities. Between 2008 and 2015, 3 656 vessels ceased activity and the decreasing trend in vessel number, engine power and gross tonnage is expected to continue for the coming years. Energy consumption has also followed a general decreasing trend, albeit more accentuated in 2014 and 2015 (Figure 4.39).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.44 Trends on fishing effort (in days at sea) and energy consumption for MS fleets operating in the NE Atlantic region

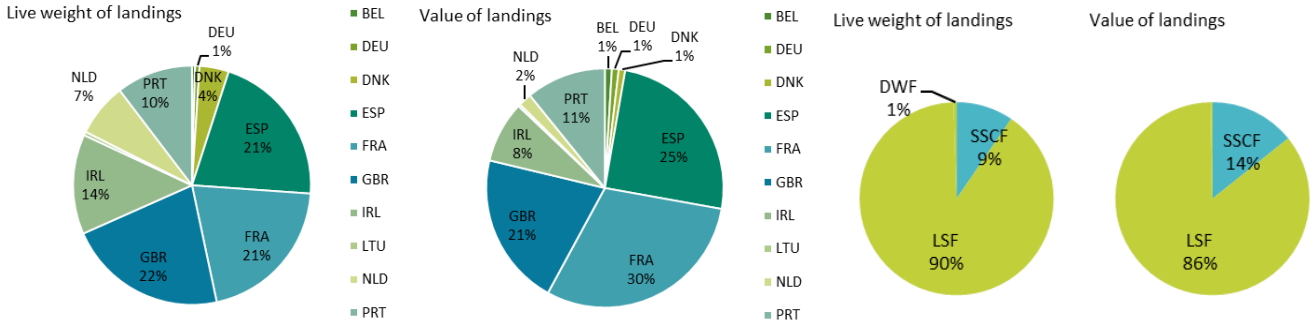
Landings and top species

The weight and value of landings generated by the NE Atlantic fleet amounted to approximately 1.4 million tonnes and €2.4 billion, respectively. The average prices for NE Atlantic landings are higher than the NS landings. For pelagic species the average price in NE Atlantic was 50% higher (0.75€/Kg) and for demersal species was 75% higher (2.57€/kg) than in the NS.

In terms of landed weight, the UK (311 thousand tonnes), Spanish (302 thousand tonnes), French (294 thousand tonnes), Irish (193 thousand tonnes) and Portuguese (149 thousand tonnes) were the leading national fleets, together accounting for over 88% of the total weight landed.

The French (€727 million), Spanish (€604 million), UK (€499 million), Portuguese (€262 million) and Irish (€200 million) fleets together accounted for around 95% of the total value of landings in 2015.

The weight of landings generated by the EU NE Atlantic fleet decreased 3.0% in 2015 compared to 2014, while the value increased 1.1% (Figure 4.40) despite the decrease in weight. Landings are mainly generated by the large-scale fleet, making up 90% of the live weight and 86% of the landed value. Data is present for all MS in the region for the time series presented.



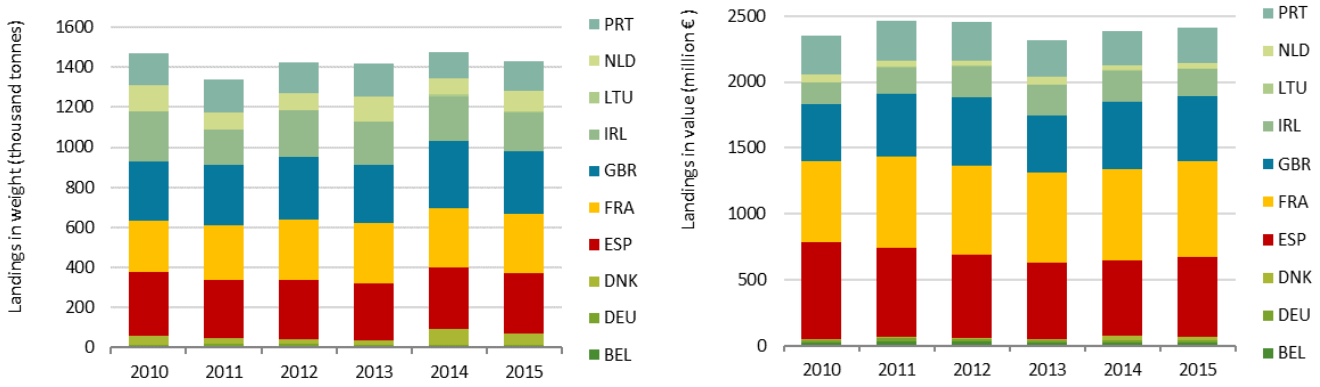
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.45 Share of landings from the NE Atlantic region by MS and fishing activity, 2015

Note: MS fleets with less than 1% are not shown

In 2015, the main species landed by the NE Atlantic fleet in terms of weight were small pelagic species, including Atlantic mackerel (261 thousand tonnes), blue whiting (221 thousand tonnes), followed by European hake (87 thousand tonnes) and chub mackerel (85 thousand tonnes) (Figure 4.41).

In terms of value, European hake (€281 million) was the most important species in 2015, followed by Atlantic mackerel (€205 million) and Norway lobster (€177 million) (or if, monkfish and anglerfish are grouped, produce a combined value of €178 million) (Figure 4.41).

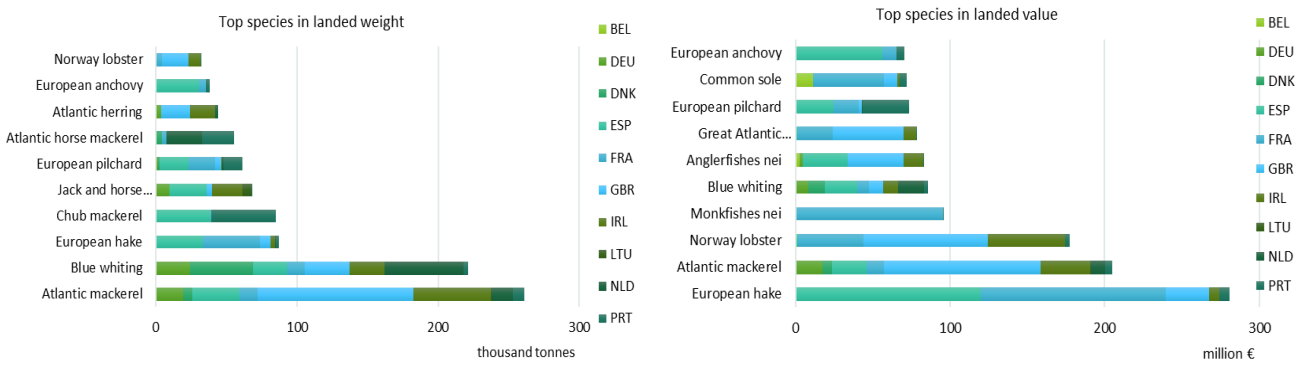


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.46 Trends on landings in weight and value from MS fleets operating in the NE Atlantic fishing region

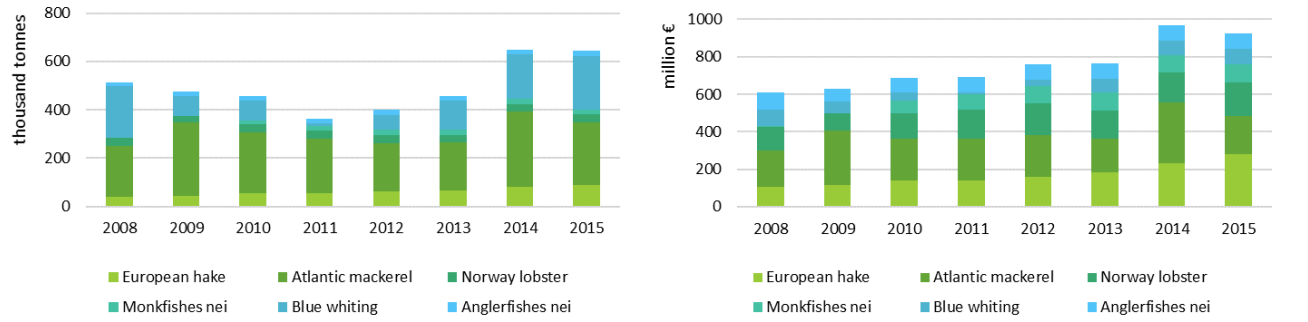
The top species can be seen as drivers for MS fleets. The share in landed value of European hake is dominated by France and Spain (43%). Norway lobster landings are dominated by the UK, with 45% of total landings, followed by Ireland and France with 28% and 24% respectively. Monkfish landings are dominated by France (54%). Blue whiting landings is shared between the MS fleets. Regarding small pelagic fishes, European pilchard landings are led by Portugal (41% share) and Spain (33%). For European anchovy Spain is the main MS dependent on this species with 80% of the share (for this analysis the species anglerfishes and monkfishes were combined together) (Figure 4.42.).

Temporal trends in the value and weight of landings, have been significantly influenced by fluctuations in TAC and quotas for Atlantic mackerel, blue whiting and hake. Mackerel went through a significant increase in 2014 followed by a decrease in 2015, which impacted the total value of landings for MS targeting this species (Figure 4.43).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.47 Top 10 species in terms of landed weight and value for MS fleets operating in the NE Atlantic, 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.48 Trends on landings of the top six species in terms of landed value for MS fleets operating in the NE Atlantic region

Socio-economic performance

The revenue (income from landings and other income) generated by the EU Northeast Atlantic fleet covered in the analysis in 2015 was estimated at €2.5 billion, 95% of which was shared between five Member States: France (€758 million); Spain (€656 million), UK (€520 million), Portugal (€272 million) and Ireland (€203 million).

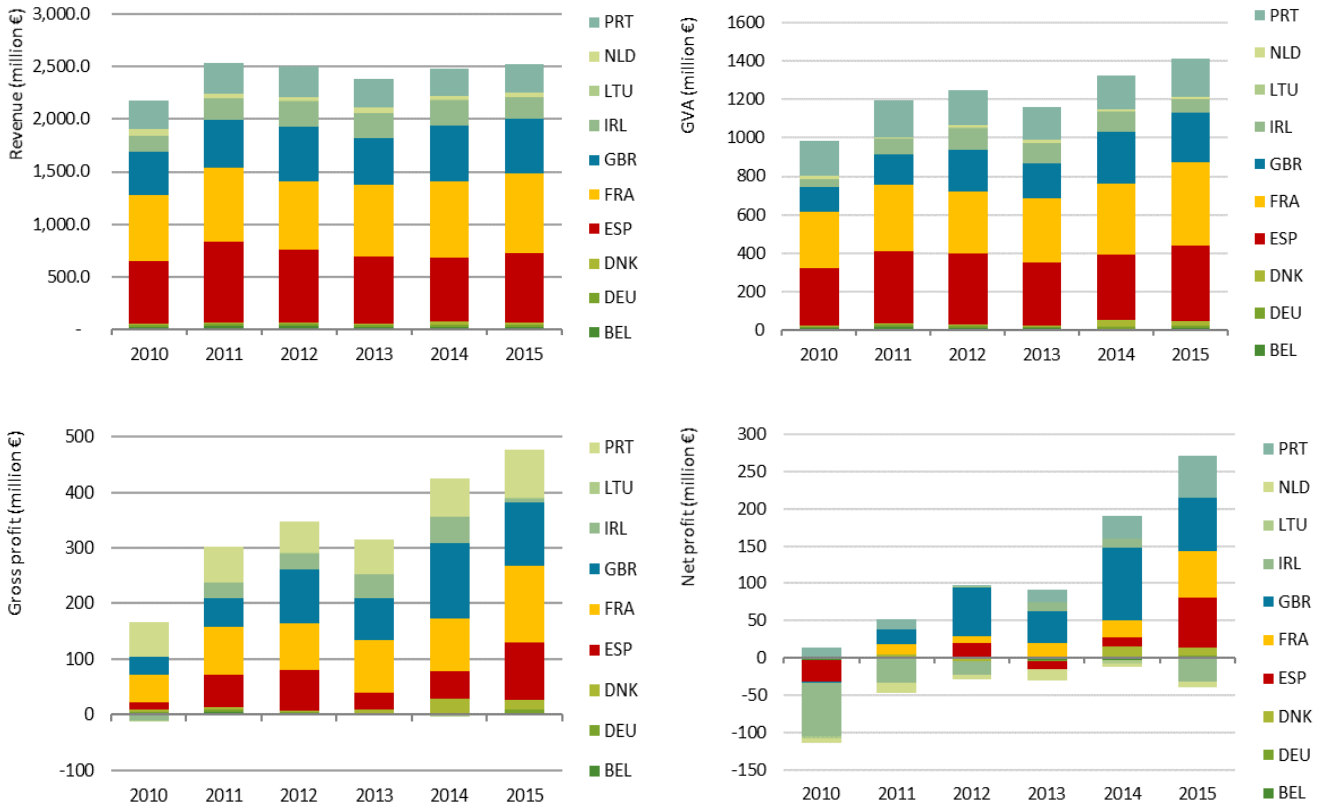
Revenue increased by 2% compared to 2014. Four Member State fleets saw increases of less than 5% while the Belgian, German, and Dutch fleets saw increases of 10%, 26% and 25%, respectively. The Danish, UK, Irish, and Lithuanian, fleets suffered a decrease in revenue of 45%, 15% and 12%, respectively. These decreases are primarily driven by TAC and quota reductions.

The GVA produced was estimated at €1.4 billion in 2015. This represented an overall increase of 7% compared to the previous year. The GVA for the Belgian, German and French fleets in the region increased considerably +33%, +39%, and 18%, respectively. Conversely, Denmark, UK, Ireland and Lithuania saw reductions in GVA.

After accounting for operating costs, the fleet made €478 million in gross profit, an increase of 203% compared to 2014. All MS fleets operating in the NE Atlantic region generated gross profits. Three MS fleets suffered net losses – Ireland (-€31 million), Lithuania (-€0.5 million) and the Netherlands (-€6.8 million). However, the Irish fleet's net profit loss is due, in part, to an overestimate of net profit loss for some of the Irish fleet segments (see the Irish national chapter) and the data should be interpreted with caution.

By fishing activity, the NE Atlantic SSCF generated almost €391 million in revenue in 2015 (7% increase compared to 2014), while the large-scale fleet generated almost €2.1 billion in revenue (1% increase on 2014).

The variation in total annual revenue is mainly linked to fluctuations in TACs and quotas and fish prices. On the whole, the value of landings increased in 2015 compared to 2014 for European hake (21%) due to increasing TAC reflecting the success of the hake management plan and, to a lesser extent, improved prices (+16%). Value of landings for blue whiting also increased slightly in 2015 (+8%) due to a rise in TAC, which offset a price decrease. The value of landings of Great Atlantic scallop recovered to the levels experienced in 2013 with almost 78 thousand tonnes landed in 2015 with a value of €27.5 million.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.49 Trends on revenue (income from landings + other income) and profit (GVA, gross profit and net profit) for MS fleets operating in the NE Atlantic region

On the contrary, the value of landings for Atlantic mackerel decreased (37%) due to a 15% reduction in TAC from 2014 to 2015, as well as a decrease in its price. Ireland was affected by this reduction, reflected in the decrease of 12% of the total landed value, largely due to the decrease in mackerel TAC. Landings of common sole and European pilchard also slightly decreased between 2014 and 2015, due to lower TACs. However, a price augmentation is observed for common sole and the decrease in landings weight for European pilchard is mitigated by a slight price increase.

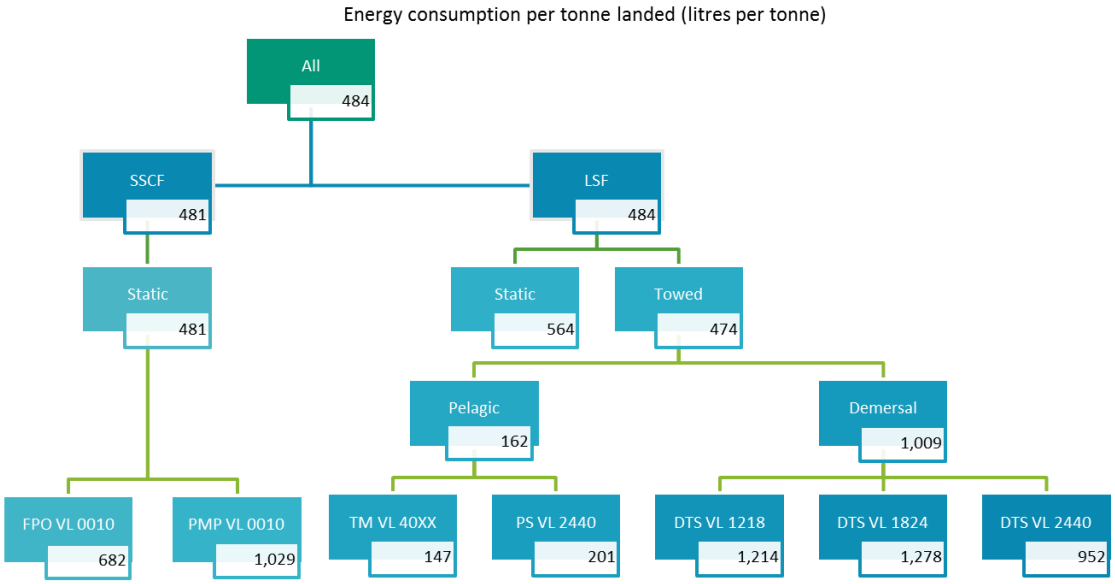
The impact of changes in TACs and prices at MS level varies as their species composition and species dependency can differ considerably. The Northeast Atlantic is a wide region with various pelagic and demersal stocks. Among the 10 Member States fishing in the Northeast Atlantic, all are active in the North Western waters (VI, VII except VIId) with the exception of Portugal, and only Spain, France, Portugal and Belgium have fishing activities in the South Western waters (VIII, IX, X). Five countries, Spain, United Kingdom, Ireland, France and Portugal made up the most important part of the landings. The Northeast Atlantic fleet is strongly dependant on European hake landing values, in particular for France and Spain (respectively 32% and 44% of their top ten species landing values).

If only the 10 most important species in landing weight in 2015 in the region are considered, 7 of these each represented for Spain more than 10% while in landing value, European hake and anchovy were the most important part of the revenue (44% and 20% respectively in 2015). On the contrary, United Kingdom had 56% of its landing weight consisting of mackerel which represented 33% of its landing value, but 3 other species - Norway lobster, great Atlantic scallop and anglerfishes also carried an important share in the landing value (26%, 15%, and 12%, respectively).

Productivity

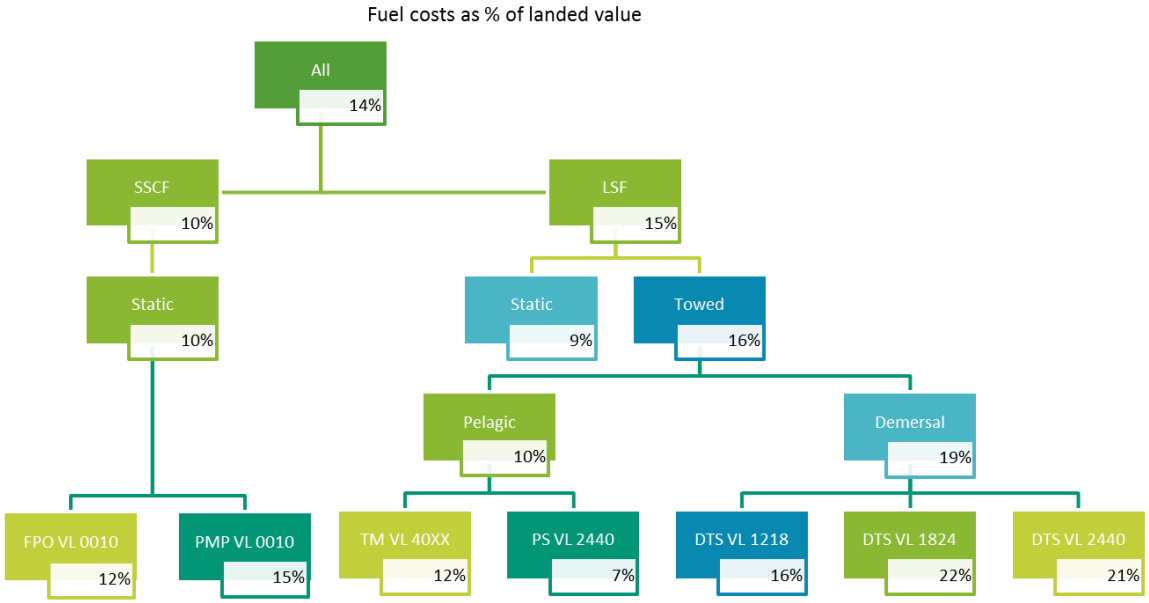
On average, 484 litres of fuel per tonne of landed fish was used in Northeast Atlantic fisheries in 2015 (Figure 4.10). However, significant differences between fisheries are observed. From the most important segments, pelagic fisheries were the most fuel efficient, consuming 162 litres of fuel per landed tonne. The mid to large demersal trawlers consumed the most fuel per landed catch (1 200 litres/tonne).

An estimated 14% of the value of landed fish in the Northeast Atlantic went to pay for fuel costs in 2015, a similar value as in the North Sea (13%) due to a higher value of landings that offset the higher value of fuel cost (Figure 4.46). In total around €333 million were spent on fuel to catch 1.43 million tonnes of fish with a landings value of €2.4 billion. The large-scale demersal segments spent high amounts of their landed value on fuel costs. Those segments benefited from the decrease in fuel prices, which has been a key driver for trawler profitability in recent times.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017))

Figure 4.50 Schematic representation of the amount of fuel consumed per landed weight (litre/tonne) by the various MS fleet components operating in the NE Atlantic region, including some of the most important segments



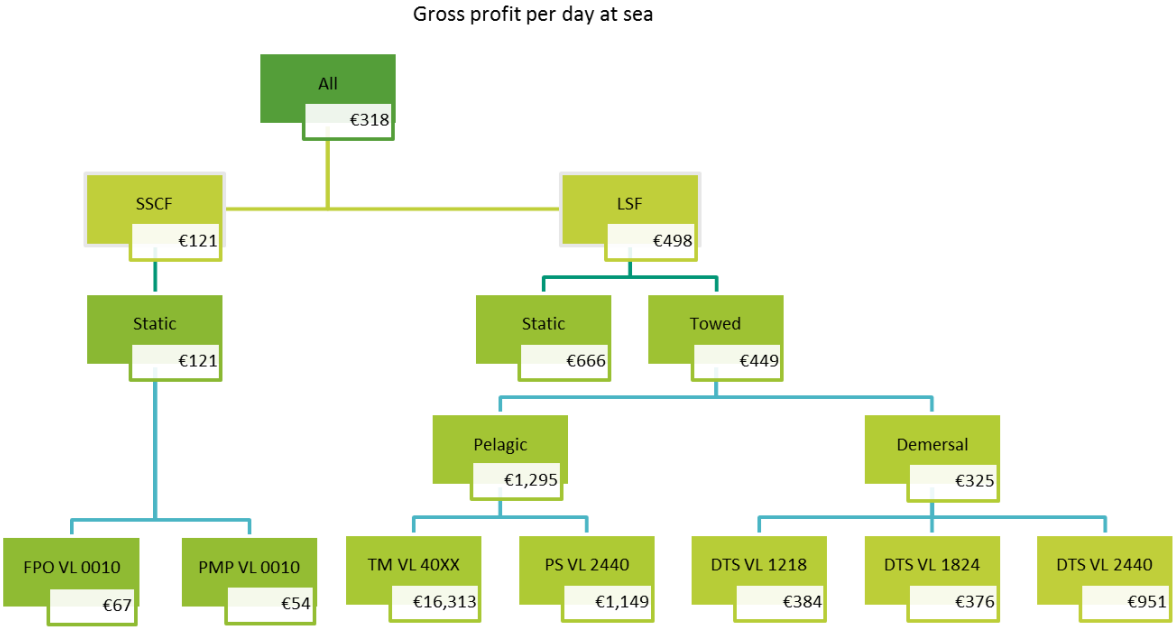
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.51 Schematic representation of the ratio fuel costs to landed value (%) for the various MS fleet components operating in the NE Atlantic region, including some of the most important segments

In 2015, the gross profit per day at sea was around €318 for Northeast Atlantic fleets altogether, significantly less than in the North Sea fisheries (€1 119) due to the larger diversity of the fishing segments and strategies in the Northeast Atlantic (Figure 4.46) and the reduced profitability of some of the segments, particularly the pelagic (TM VL40XX) segment with a value of €16 313.

On average small-scale coastal fleets demonstrated a low but positive gross profit per day at sea of €121. The LSF pelagic fisheries were highly profitable, more so than the demersal fisheries.

From the most important segments for the Northeast Atlantic, pelagic vessels over 40m made on average €16 313 in gross profit per day at sea, much lower than the value for the same segments in the North Sea (€30 174), while the value for demersal fleets were 4.5 times lower in the Northeast Atlantic than in the North Sea in 2015.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.52 Schematic representation of the gross profit per day at sea generated by the various MS fleet components operating in the NE Atlantic region, including some of the most important segments

Regulation, Fisheries management and stock status in the region

- Council Regulation (EC) No 1300/2008 established a multi-annual plan for the herring stock distributed to the west of Scotland and the fisheries exploiting that stock in international and EU waters in ICES zones Vb and VIb, and the northern part of ICES zone VIa excluding the Clyde. The UK and Irish fleets were the most important fleet segment for this fishery. Most herring stocks (North Sea, Irish Sea and Celtic Sea) are fished in accordance with MSY, with corresponding 2016 TAC for these stocks. The situation is also positive for southern and western horse mackerel and the TAC allows fishing at levels corresponding to MSY in 2016.
- Long-term plan for cod stocks and the fisheries exploiting those stocks (Council Regulation (EC) No 1342/2008). The long-term plan for cod has an impact on the North-eastern Member States. The French, Belgian, German, UK, Irish, Dutch, Spanish and Portuguese fleets all have quota for cod and thus interact with the cod fisheries. As days at sea restrictions are becoming more constraining, it may have an effect on the economic performance of the fleets.
- Council Regulation (EC) No 388/2006 established a multiannual plan for the sustainable exploitation of the stock of sole in the Bay of Biscay covering ICES areas VIIIa and VIIIb. The French DFN segments are the most important fleets in term of sole landings in weight in the Northeast Atlantic with 26 000 tonnes (61%).
- Council Regulation (EC) No 509/2007 established a multi-annual plan for the sustainable exploitation of the stock of sole in the Western Channel (ICES VIIe). The sole fishery is most important to the UK and French fleets.
- Council Regulation (EC) No 2166/2005 established measures for the recovery of the Southern hake and Norway lobster stocks in the Cantabrian Sea and Western Iberian Peninsula and amending Regulation (EC) No 850/98 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms. This has been very successful.
- Council Regulation (EU) No 713/2013 establishing the fishing opportunities for anchovy in the Bay of Biscay for the 2013/14 fishing season. This management plan concerns mainly Spanish and French fleets.
- Measures for the recovery of eel. Area covered includes EU estuaries and rivers that flow into seas in ICES areas III, IV, VI, VII, VIII, IX and the Mediterranean (Council Regulation (EC) No 1100/2007 of 18 September 2007). In the region, this management plan applies mainly to France.
- Council Regulation (EC) No 302/2009- 500/2012 Measures concerning a multiannual recovery plan for bluefin tuna in the eastern Atlantic and Mediterranean. According to STECF data, in 2015, three national fleets operated in this fishery with the French fleet representing 50% of the total of landings value in the Northeast Atlantic (followed by Portugal (48%) and Irish fleet (1%).
- Council Regulation (EC) No 811/2004 to increase the quantities of mature fish in the Northern hake stock to at least 140 000 tonnes. This management plan concerns Spanish, French, Portuguese, Irish, UK, Dutch and Belgian fleets and has been successful.

Other management measures that may affect economic performance of the fleets operating in the Northeast Atlantic include marine protected areas and other legislation that has a multispecies impact.

In 2016, the landings obligation for demersal fisheries in the North Sea and the Atlantic EU waters came into force, bringing an important part of the EU fleet in the Northeast Atlantic under the obligation to bring and retain on board, and to land all catches. Fishing opportunities for stocks falling under the landing obligation are fixed taking into account catches rather than landings, based on biological advice and in the understanding that this should not jeopardise the MSY objective or increase the fishing mortality.

TAC development of main species

In 2015, there were quotas for 27 fish species defined for the region, 16 of them were demersal species, 7 pelagic species and 4 deep-sea species. There was in increase in the total TAC from 2014 to 2015.

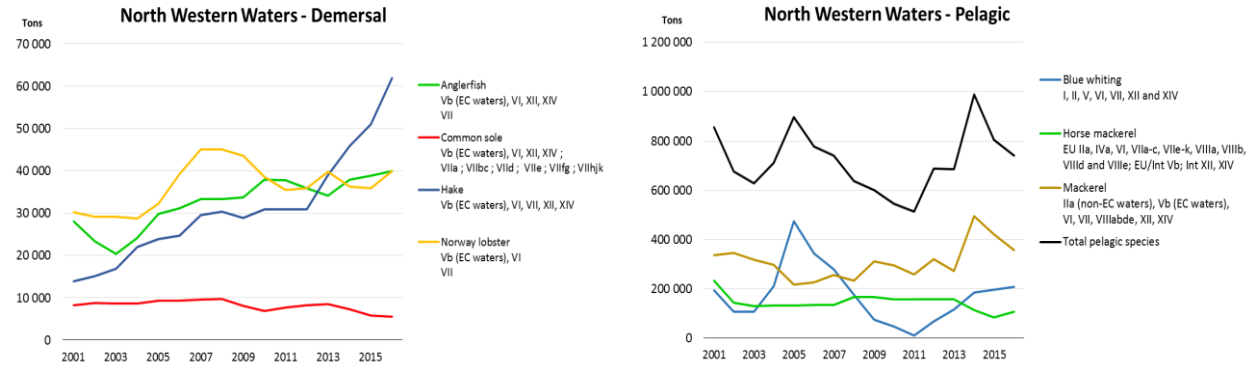
Demersal species:

- This total TAC increase is mainly due to the positive development of **hake stocks TAC** (+11% in NWW and a slight increase in SWW from 2014 to 2015). Many hake stocks in divisions VI, VII and VIIIabd are exploited below MSY. Southern stocks are overfished but managed under technical measures for the conservation of fishery resources. French and Spanish fleets were the most impacted by this trend.
- In NWW, **TAC of anglerfish** increased by 40% over the period 2001-2015. The SWW anglerfish TAC increased slightly in recent years. In 2015, the French TAC represented more than 50% of the NWW TAC.
- **TAC of common sole** decreased in the recent years in the NWW, mainly for the stock in VIIfg (-21% from 2014 to 2025) as in the SWW.
- **Norway lobster TAC** in NWW and SWW remained quite stable. One of the main stocks of Norway lobster (Vb, VI) is sustainably exploited and the TAC is expected to increase in the coming years.

Pelagic Species:

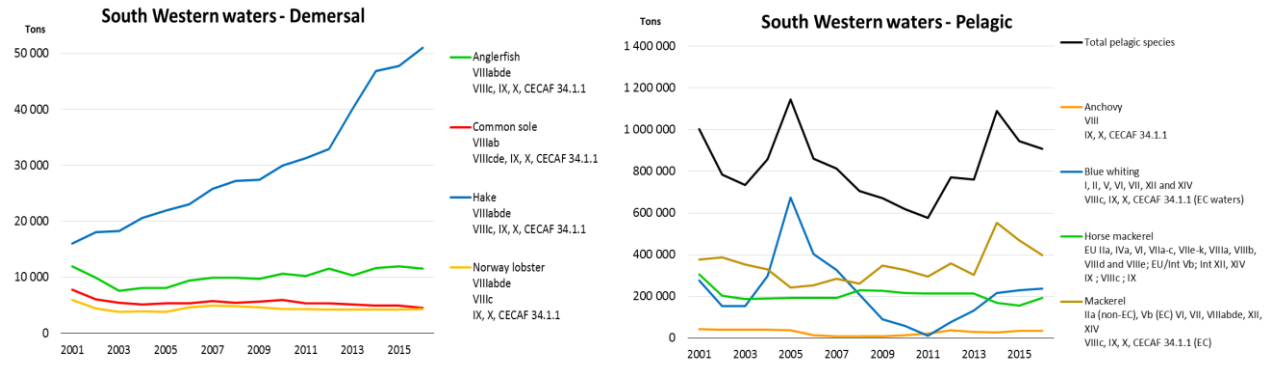
TACs for pelagic species in the Northeast Atlantic region have varied since 2001 especially for blue whiting and mackerel with very high values in 2005 and then again in 2014.

- After a peak in 2014, the **mackerel TAC of** decreased from 2014 to 2015 impacting the Irish and British fleets.
- **Horse mackerel TAC** decreased in NWW from 2014 to 2015. On the contrary, the TAC increased in SWW during the same period positively impacting the Spanish and Portuguese fleets.
- **Anchovy TAC** increased by 23% from 2014 to 2015 (29 994 tonnes and 36 778 tonnes, respectively). Spain, Portugal and to a lesser extent France shared this TAC.
- **TAC of blue whiting** increased by 11% from 2014 to 2015. This increase positively affected the five most important MS fleets in the Northeast Atlantic.



Source: Calculated based on 2016 TAC Council Regulations and BEMEF modelling

Figure 4.53 Trends on TACs for major demersal (left) and pelagic (right) stocks in the North-western waters, 2001-2015.



Source: Calculated based on 2016 TAC Council Regulations and BEMEF modelling

Figure 4.54 Trends on TACs for major demersal (left) and pelagic (right) stocks in the South-western waters, 2001-2015 (For the SWW the amount of WHB are NWW+SWW)

Status of important stocks

Fishing has generally progressed towards MSY (fishing at or below MSY) in all areas of the Northeast Atlantic since 2006.

Important stocks in the North Western Waters: many stocks, such as Norway Lobster (VII), mackerel and horse mackerel are overfished (but inside safe biological limits or managed under LTMP). Blue whiting, common sole (in VIIe) and Norway lobster (Vb and VI) and most herring stocks (North Sea, west of Scotland, Irish Sea and Celtic Sea) are exploited at

a rate that is consistent with MSY. The common sole stock in VIIa is outside safe biological limits. The status of the anglerfish stock is unknown.

Important stocks in the South Western Waters: hake, mackerel, common sole and Norway lobster are overfished (but inside safe biological limits or managed under LTMP). All blue whiting stocks, one of the main horse mackerel stocks (IX) and the main anchovy stocks are fished in correspondence with MSY. Only one horse mackerel stock (VIIIc) is still outside safe biological limits. Norway lobster (VIIIabde) and anglerfish status of stocks are unknown.

Landing obligation

In 2015, no major problems occurred. The introduction of the landing obligation may be implemented with little extra effort in the pelagic sector as well as in the saithe fisheries as these fisheries traditionally have had low bycatch rates. However, more challenges are to be expected for demersal fisheries. Fishers fear that the discard ban will have a large impact on their profitability, mainly due to increased costs. Another concern is related to potential choke species. Particularly, in a mixed fishery this could be an issue as many species are caught at the same time and multiple choke species may occur. Whiting, haddock, ray, plaice, dab, turbot and brill are potential choke species candidates in mixed demersal fisheries. Therefore, to continue fishing throughout the year, it will be vital to have either enough quota available or adapt fishing strategies (optimal solution has not been discovered thus far).

Description of relevant fisheries in the region

Large-scale fleet

There were nine MS large-scale fleets operating in the Northeast Atlantic region totalling 5 937 active vessels. Spain and France have the largest number of active vessels with 2 961 vessels and 1 027 vessels, respectively. However, the area is more important to the Irish and Portuguese fleets with 98% and 92% of their large-scale fleet active in the area, respectively.

Overall the LSF was profitable in 2015, totalling €1.15 billion in GVA and €392 million in gross profit. The most profitable in terms of gross and net profit margins was the Danish NE Atlantic LSF with 73% and 55%, respectively. The French NE Atlantic LSF, consisting of over 1 027 vessels generated the highest revenue (€609 million), followed by Spain (€573 million), the UK (€445 million) and Ireland (€194 million). At MS level, all large-scale fleets operating in the NE Atlantic generated gross profits in 2015, with France generating the highest gross profit of €107 million. All MS LSF made a positive net profit except for the Irish and Dutch. However, the Irish fleet's net profit loss is due, in part, to an overestimate of net profit loss for some of the Irish fleet segments (see the Irish national chapter). Additionally, two distant water fleets (Lithuanian and Spanish fleets) were also active in the region in 2015 (Table 4.24). Note: Data on the EU distant water fleets operating in the region is limited and no economic indicators were calculated.

Total employment for the LSF is highest for Spain and Portugal totalling 12 469 and 6 366, respectively, reflecting the high number of active vessels in these MS. While the SSCF, for all MS, demonstrates a dramatic difference between the numbers of total employed and total FTE, the LSF figures for total employed and FTE are closer in value indicating the high level of full time employment in this segment.

MS can be classed into different categories according to their dependency which is representative of their large-scale fleet landings composition in the Northeast Atlantic:

- Two MS have a high dependency on one or two species. For the Belgian fleet common sole constitutes 50% of landing value and for Denmark blue whiting constitutes 51% of total landings followed by mackerel (29%). The common sole fishery is highly important for the Belgian fleet valued at €11 million; however, the French fleet, which is much larger, has a landings value of common sole of €34.9 million, which makes up 6% of its total landed value.
- The value of the Dutch fleet in the Northeast Atlantic is predominantly based on pelagic fisheries which make up to 89% of the total landings value (49% of blue whiting, 28% of horse mackerel, and 20% of mackerel).
- Moderate dependency on four species representing 50% of total value of landings: pelagic and demersal species for the UK and Ireland (Atlantic mackerel, blue whiting, Norway lobster and anglerfish). In Ireland the main value species are *Nephrops* and mackerel totalling 47% of the total value. These two species have landing values of €49.5 million and €31 million, respectively. The UK LSF landings in the Northeast Atlantic, like Ireland, is dominated by mackerel and *Nephrops,* with landing values of €100.5 million and €63 million, respectively.
- For Spain and France, there is a more diverse landing composition, with hake playing a key role for both countries. The main species by landing value for France were hake (19%), monkfish (15%), *Nephrops* (7%) and common sole (6%). The main species by landing value for Spain were, hake (22%), anchovy (10%), albacore (8%) and anglerfish (5%).

Small-scale coastal fleet

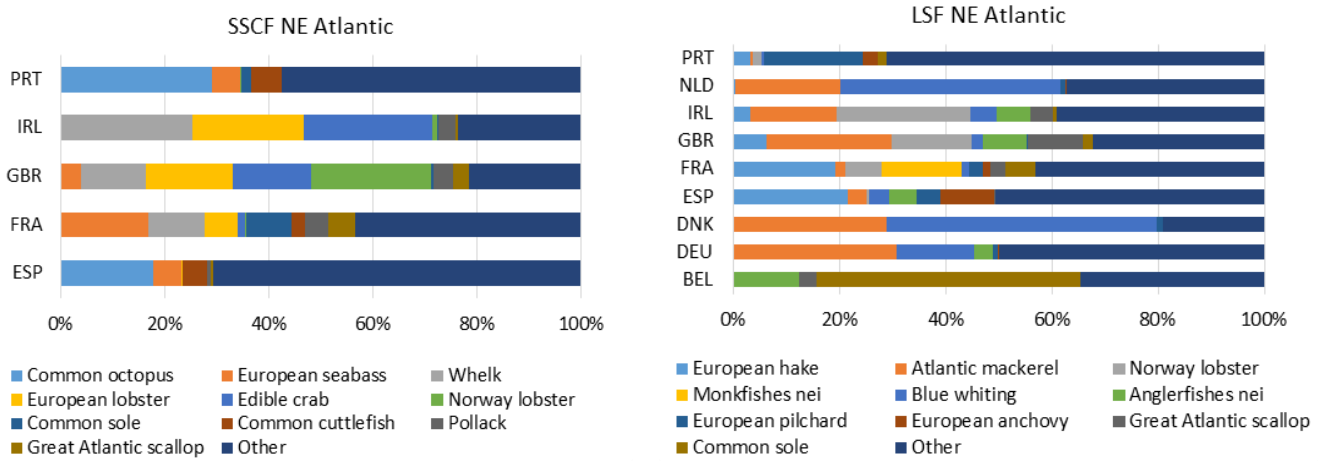
There were small-scale coastal fleets from five Member States operating in the Northeast Atlantic. While 100% of Irish and 99% for the Portuguese SSCF fished in the NE Atlantic in 2015, it represented only part of the SSCF fishing activity for Spain (59%), France (58%) and UK (47%) as they were also active in the Mediterranean Sea and/or in the North Sea. In terms of vessel numbers Portugal and Spain have the highest number of active SSCF vessels with 2 994 vessels and 2 373 vessels, respectively.

Overall the SSCF was profitable in 2015, totalling €260 million in GVA and €86 million in gross profit. The most profitable in terms of gross and net profit margins was the Portuguese SSCF with 39% and 27%, respectively. Only the Irish fleet SSCF suffered net losses although data for the SSCF Irish fleet is not complete and this result is uncertain. In terms of productivity, the Gross Value Added per FTE varied from €16.5 thousand (Spain) to €97.8 thousand (France), as the French fleet (€150

million) accounted for 39% of the total SSCF revenue in that region while the Spanish fleet accounted for 37% of the FTEs (3 522 FTEs).

Total employment for the SSCF is highest for Portugal and Spain totalling 8 355 and 4 976, respectively, reflecting the high number of active vessels in these MS. All MS in the Northeast Atlantic demonstrate a much lower FTE figure in comparison with total employed indicating that a large majority of those employed in the SSCF are part-time or casual workers.

- Octopus accounted for 18% and 29% of the total value of the SSCF landings for Spain and Portugal with a total value of €10.6 million and €23 million, respectively. In Portugal, octopus has an average price of €4.65 per kilo. The other top species for Portugal were seabream (€5 million), cuttlefish (€4 million) and Seabass (€4 million). Spain's other top species in terms of value for the SSCF were Barnacle (€5 million) and seabass (€3 million). Barnacle accounts for a large proportion of total value due to their high value which can average at €42 per kilo.
- Edible crab targeted by the UK and Irish SSCF accounted respectively for 15% and 25% of their total value of landings in 2015. Those fleets also targeted whelk, European lobster and Norway lobster (UK fleet). Those four species accounted for more than 70% of the total value of landings for those member states.
- While not listed in the top landed value for Ireland, razor clams are an important fishery for the SSCF on the east coast of Ireland in the North Irish Sea and South Irish Sea. Annual landings from the Irish Sea, the bulk of which comes from the north Irish Sea increased between 2012 and 2014, from about 250 tonnes in 2012 to 787 tonnes in 2014 and declined to 707 tonnes in 2015. Prices for the North Irish fishery increased from €2.21 in 2010 to €5.05 in 2015. Prices increased by 12.7% between 2014 and 2015. While the stocks are decreasing, the increase in price and a reduction in operating costs, mostly fuel, has meant that the fishery remains profitable.
- Seabass, whelk, common sole and European lobster accounted for 43% of the French SSCF value of landings.
- The small coastal fleet, in the UK, have benefited from a reallocation of quota from the over 10m sector and the introduction of marine conservations zones in England, Wales and Northern Ireland and marine protected areas in Scotland.
- Common sole is worth €10.8 million for the French SSCF, representing the 84% of the total value for common sole in the region.
- Due to the limitations imposed by the Iberian sardine management plan, catches of European pilchard reached the lowest historical weight for Spain and Portugal. Portugal, for example, showed a 78% decrease in landed weight between 2008 and 2015. The value for this fishery in the NEA for Spain and Portugal was €335 thousand and €287 thousand, respectively. In order to satisfy domestic demand in these MSs, sardines are imported.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.55 Top 10 species (and other) landed in terms of value as a proportion of the total landings in the region by MS small-scale coastal fleets and large-scale fleets operating in the NE Atlantic, 2015

Performance by fleet segments

Table 4.25 provides results for the top 40 MS fleet segments in terms of landed value operating in the NE Atlantic region in 2015. These 40 MS fleet segments, out of the 179 fleet segments identified in the region, represented over 62% of the vessels (9 061 vessels), 73% of the landed weight (1 040 thousand tonnes) and 73% of the value (€1.8 billion) generated by fleets in the region in 2015.

At fleet segment level, the Spanish demersal trawlers between 24 and 40m generated the most revenue in 2015 (€136 million), followed by the UK pelagic trawlers over 40m (€122 million). The UK pelagic trawler over 40m segment also generated one of the highest GVA, estimated at €74 million and GVA per FTE of €3 million. This fleet segment posted an estimated net profit of €33 million (Table 4.25).

There were 94 MS fleet segments that operated 90% or more in the Northeast Atlantic region in 2015, accounting for 22% of the number of vessels, 71% of the days at sea deployed, 75% of the FTE, 46% of the landed weight and 53% of the landed value. Collectively, these 'resident' fleets contributed to 59% of the GVA and 56% of the gross profit (Table 4.26). Of these, the Spanish passive and polyvalent fleet (PGP 24-40m), with a revenue of €110 million and a net profit of €23 million, was the most profitable and its revenue was generated mainly through landings of European hake. There is a significant gap between the first two most profitable segments and the others in term of revenue. The third and the fourth leading segments were the Irish demersal trawlers 24-40m and the French drift nets 24-40m with respectively €44 million (net profit €8.4 million) and €42 million (net profit €8.7 million). With similar profits but different fisheries: this Irish segment mainly fished Atlantic mackerel but its revenue was generated predominately from Norway lobster landings (more than €20 million) while the French segment focused on European hake.

For the fleet segments operating 90% or more of their effort in the NE Atlantic, 12 fleets had a net profit over €5 million and 29 had a net profit between €1 and €5 million.

Considering labour productivity, all the 13 French 'resident' fleet segments produced more than €80 000 of GVA per FTE. The most efficient segment is the French drift net (DFN) 24-40m (€145 200 of GVA per FTE). In Ireland, two segments dredgers (DRB) 24-40m and demersal trawlers (DTS) 24-40m had respectively €89 900 of GVA per FTE and €92 300 of GVA per FTE. The Portuguese demersal trawlers (DTS) fleet 18-24m generated €61 100 of GVA per FTE close to the Spanish passive and polyvalent segment 24-40m with €67 800 of GVA per FTE (revenue from deep-water rose shrimp and Norway lobster landings) and to British beam trawlers 18-24m with €63 800 of GVA per FTE which its revenue was generated mostly by common sole and cuttlefish.

Table 4.20 Structure and economic performance estimates by MS fleets operating in the NE Atlantic region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
BEL	14	19%	4,117	13,514	81	106	3,620	24%	3,201	20%	5,808	24%	22,792	28%	22,718	23,846	8,054	5,177	11,324	47.5	3,270	13.7	824	3.5	802	106.6
DNK	2	0%	2,120	3,906	9	16	301	0%	95	0%	57,041	7%	21,154	5%	21,153	21,628	3,015	1,091	18,863	87.2	15,847	73.3	11,912	55.1	11,031	1,196.1
FRA	2,190	39%	74,235	365,222	5,821	3,955	295,908	65%	272,376	65%	293,828	59%	726,628	66%	749,940	758,444	297,511	92,474	435,121	57.4	137,610	18.1	62,807	8.6	199	110.0
DEU	6	1%	3,912	5,923	129	98	1,484	1%	1,194	1%	8,737	13%	22,392	16%	22,775	23,197	7,983	2,302	14,675	63.3	6,692	28.9	1,860	8.0	2,282	149.7
IRL	1,071	99%	48,560	136,442	2,964	2,185	71,622	99%	61,456	99%	193,072	84%	199,946	90%	198,870	202,779	65,612	38,213	72,313	37.5	6,796	3.5	- 31,429	- 16.6	69	34.9
LTU	1	1%	4,353	3,980	30	27	180	2%	147	2%	7,095	9%	7,246	12%	6,713	6,744	700	1,270	1,121	16.6	420	6.2	- 501	- 7.4	1,121	41.3
NLD	4	1%	23,991	24,856	136	136	858	2%	694	2%	103,227	31%	43,215	12%	43,354	43,479	12,708	6,245	13,078	30.1	370	0.9	- 6,834	- 15.7	3,286	96.0
PRT	3,737	97%	40,810	222,104	14,721	7,046	334,501	95%	323,382	95%	148,800	81%	262,468	75%	271,983	272,613	109,055	31,254	196,416	72.1	87,361	32.1	56,387	20.7	53	27.9
ESP	5,335	63%	107,874	308,553	17,467	14,640	571,374	62%	571,374	62%	301,909	33%	603,575	32%	648,931	656,107	291,657	88,213	395,663	60.3	104,006	15.9	66,347	10.2	74	27.0
GBR	2,256	49%	86,241	340,188	6,180	4,399	220,557	51%	161,321	53%	310,839	44%	499,446	47%	499,484	519,773	137,735	66,783	253,143	48.7	115,408	22.2	71,367	13.7	112	57.5

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.21 Structure and economic performance estimates by main type of fishery (pelagic, demersal, other) operating in the NE Atlantic region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Pelagic	645	33%	112,106	257,165	6,615	5,469	78,314	34%	67,211	32%	720,955	30%	537,601	30%	520,829	525,539	200,708	54,397	302,049	57.7	101,367	19.4	20,811	4.1	474	55.4
Demersal	3,988	39%	179,631	563,863	13,037	10,503	513,163	39%	478,727	38%	400,568	23%	1,030,528	30%	1,043,325	1,071,157	343,677	198,665	510,751	48.1	167,143	15.7	70,555	6.8	129	49.1
Other	9,983	27%	104,476	603,658	27,886	16,636	908,927	29%	849,302	27%	308,832	50%	840,732	47%	921,768	931,914	389,646	79,960	598,917	64.3	209,271	22.5	141,374	15.3	60	36.0

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.22 Structure and economic performance estimates by MS and main type of fishery (pelagic, demersal, other) for fleets operating in the NE Atlantic region, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Pelagic	DNK	1	5%	1,908	3,416	8	14	248	5%	84	3%	50,803	11%	19,675	12%	19,675	20,099	2,744	951	17,685	88.0	14,941	74.3	11,209	55.8	12,632.1	1,308.1
Pelagic	ESP	323	54%	20,606	65,662	3,430	3,420	33,773	50%	33,773	50%	131,267	32%	156,573	25%	144,394	145,317	74,833	11,284	97,596	67.2	22,763	15.7	13,954	9.6	302.1	28.5
Pelagic	FRA	70	47%	9,074	26,052	437	341	13,865	72%	10,410	78%	57,973	35%	69,148	40%	64,920	65,990	25,312	8,611	36,060	54.7	10,748	16.3	1,501	2.9	512.3	105.8
Pelagic	GBR	12	44%	24,712	58,262	145	24	920	44%	398	38%	165,745	44%	122,123	44%	122,123	122,704	29,370	9,852	73,703	60.1	44,332	36.1	33,114	27.0	5,919.9	3,023.1
Pelagic	IRL	37	88%	21,894	43,667	304	286	3,090	89%	1,368	93%	133,062	79%	62,861	78%	61,733	63,086	25,265	12,269	17,735	29.0	- 7,504	- 12.3	- 41,788	- 68.2	628.7	65.9
Pelagic	LTU	1	5%	4,353	3,980	30	27	180	6%	147	7%	7,095	9%	7,246	12%	6,713	6,744	700	1,270	1,121	16.6	420	6.2	- 501	- 7.4	1,120.6	41.3
Pelagic	NLD	3	39%	23,818	24,455	132	132	702	39%	562	39%	102,778	42%	41,629	41%	41,764	41,884	12,202	6,104	11,976	28.6	- 226	- 0.5	- 7,371	- 17.6	3,814.0	90.7
Pelagic	PRT	197	100%	5,741	31,672	2,129	1,225	25,536	100%	20,469	100%	72,233	100%	58,345	100%	59,507	59,716	30,281	4,056	46,173	77.3	15,892	26.6	10,693	17.9	234.4	37.7
Demersal	BEL	13	19%	3,983	13,055	78	103	3,550	24%	3,135	20%	5,666	23%	22,452	28%	22,378	23,476	7,891	5,134	11,149	47.5	3,258	13.9	882	3.8	830.2	108.3
Demersal	DEU	2	1%	3,152	4,273	67	54	531	1%	441	1%	7,899	13%	18,784	15%	18,992	19,414	6,435	1,797	12,928	66.6	6,493	33.4	2,162	11.1	5,903.0	241.3
Demersal	DNK	0	0%	212	490	1	2	53	0%	11	0%	6,238	2%	1,479	1%	1,478	1,529	271	139	1,178	77.0	907	59.3	703	46.0	3,799.4	523.5
Demersal	ESP	2,119	74%	46,754	109,941	5,387	4,166	233,014	71%	233,014	71%	89,127	27%	206,516	28%	219,301	225,344	88,794	47,320	116,322	51.6	27,527	12.2	14,580	6.5	54.9	27.9
Demersal	FRA	628	66%	41,629	162,154	2,130	1,668	114,530	69%	101,774	69%	117,747	62%	367,535	68%	361,720	365,900	126,911	64,337	181,508	49.6	54,597	14.9	13,995	4.0	289.0	108.8
Demersal	GBR	684	57%	46,429	164,614	2,774	2,637	89,889	57%	77,179	58%	91,406	39%	237,473	43%	237,491	251,272	61,564	43,624	100,187	39.9	38,623	15.4	17,490	7.0	146.4	38.0
Demersal	IRL	329	100%	22,893	67,008	1,526	1,057	39,843	100%	32,555	100%	49,050	98%	122,743	99%	122,444	124,487	32,988	22,738	52,007	44.7	19,088	16.4	10,818	9.4	165.5	54.1
Demersal	NLD	1	0%	173	401	4	4	155	0%	132	0%	449	1%	1,586	1%	1,590	1,596	506	141	1,102	69.0	596	37.3	538	33.7	1,311.6	262.3
Demersal	PRT	211	96%	14,405	41,929	1,068	812	31,597	94%	30,486	94%	32,986	60%	51,960	50%	57,931	58,140	18,317	13,435	34,372	59.1	16,054	27.6	9,387	16.2	162.9	42.3
Other	BEL	1	23%	134	459	3	3	70	23%	66	23%	142	40%	340	29%	340	370	163	42	175	47.3	12	3.2	- 58	- 15.7	253.9	53.4
Other	DEU	4	1%	760	1,650	61	44	953	1%	753	1%	838	9%	3,608	25%	3,783	3,783	1,548	505	1,747	46.2	199	5.3	- 302	- 8.0	412.0	39.3
Other	ESP	2,893	57%	40,514	132,951	8,649	7,054	304,587	59%	304,587	59%	81,516	43%	240,485	47%	285,237	285,446	128,030	29,609	181,745	63.7	53,715	18.8	37,814	13.4	62.8	25.8
Other	FRA	1,491	33%	23,532	177,016	3,254	1,946	167,513	63%	160,192	62%	118,107	85%	289,945	76%	323,300	326,554	145,288	19,526	217,553	66.6	72,265	22.1	47,310	14.5	145.9	111.8
Other	GBR	1,559	47%	15,100	117,312	3,260	1,738	129,748	48%	83,744	49%	53,688	59%	139,850	59%	139,870	145,797	46,801	13,307	79,254	54.4	32,453	22.3	20,763	14.2	50.8	45.6
Other	IRL	706	99%	3,773	25,767	1,134	842	28,689	99%	27,533	99%	10,959	91%	14,342	86%	14,693	15,206	7,359	3,207	2,571	16.9	- 4,787	- 31.5	- 460	- 3.6	3.6	3.1
Other	PRT	3,329	96%	20,664	148,503	11,524	5,009	277,368	94%	272,427	95%	43,581	77%	152,163	80%	154,544	154,757	60,457	13,763	115,871	74.9	55,414	35.8	36,306	23.5	34.8	23.1

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.23 Structure and economic performance estimates by main type of fishing activity for MS fleets operating in the NE Atlantic region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
SSCF	8,677	26%	28,691	381,939	19,079	9,137	712,732	26%	666,692	25%	136,212	49%	343,623	42%	390,851	395,527	174,044	33,491	260,296	65.8	86,252	21.8	59,691	15.2	30	28.5
LSF	5,937	39%	362,844	1,038,259	28,406	23,413	787,219	41%	728,128	40%	1,286,534	33%	2,056,967	40%	2,087,212	2,125,189	759,101	297,857	1,150,655	54.4	391,649	18.5	174,174	8.4	195	49.4
DWF	2	1%	4,678	4,489	52	58	453	1%	420	1%	7,610	1%	8,272	1%	7,859	7,894	886	1,674	766	9.7	- 121	- 1.5	- 1,126	- 14.3	350	13.1

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.24 Structure and economic performance estimates by MS and main type of fishing activity operating in the NE Atlantic region, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
SSCF	ESP	2,373	57%	6,328	57,951	4,976	3,522	228,383	59%	228,383	59%	16,558	61%	59,718	57%	81,775	81,781	44,772	8,391	58,193	71.2	13,421	16.4	10,794	13.3	25	16.5
SSCF	FRA	1,163	28%	6,673	115,098	2,001	982	120,833	58%	119,709	58%	68,157	83%	122,901	67%	147,632	149,543	65,340	8,880	96,016	64.2	30,677	20.5	17,853	11.9	83	97.8
SSCF	GBR	1,469	47%	6,335	91,627	2,708	1,018	114,103	47%	71,014	48%	23,899	54%	72,710	55%	72,720	74,929	26,457	7,523	42,545	56.8	16,088	21.5	9,678	12.9	29	41.8
SSCF	IRL	678	100%	2,275	20,883	1,039	751	25,210	100%	24,604	100%	7,386	100%	7,728	100%	8,080	8,562	5,437	2,199	- 82	- 1.0	- 5,519	- 64.5	- 609	- 9.7	- 0	- 0.1
SSCF	PRT	2,994	98%	7,080	96,381	8,355	2,863	224,203	99%	222,982	99%	20,213	99%	80,566	99%	80,644	80,712	32,039	6,498	63,625	78.8	31,586	39.1	21,975	27.2	21	22.2
LSF	BEL	14	19%	4,117	13,514	81	106	3,620	24%	3,201	20%	5,808	24%	22,792	28%	22,718	23,846	8,054	5,177	11,324	47.5	3,270	13.7	824	3.5	802	106.6
LSF	DEU	6	2%	3,912	5,923	129	98	1,484	4%	1,194	3%	8,737	14%	22,392	17%	22,775	23,197	7,983	2,302	14,675	63.3	6,692	28.9	1,860	8.0	2,282	149.7
LSF	DNK	2	0%	2,120	3,906	9	16	301	1%	95	0%	57,041	7%	21,154	5%	21,153	21,628	3,015	1,091	18,863	87.2	15,847	73.3	11,912	55.1	11,031	1,196.1
LSF	ESP	2,961	71%	101,221	250,094	12,469	11,086	342,718	71%	342,718	71%	284,837	69%	542,831	57%	566,011	573,175	246,699	79,418	337,825	58.9	91,126	15.9	56,178	9.9	114	30.5
LSF	FRA	1,027	67%	67,562	250,124	3,820	2,973	175,075	72%	152,667	72%	225,671	66%	603,727	73%	602,308	608,900	232,171	83,594	339,105	55.7	106,934	17.6	44,954	7.8	330	114.1
LSF	GBR	788	55%	79,906	248,561	3,472	3,380	106,454	57%	90,307	58%	286,940	43%	426,736	46%	426,764	444,844	111,278	59,260	210,599	47.3	99,320	22.3	61,688	13.9	267	62.3
LSF	IRL	393	98%	46,285	115,558	1,925	1,433	46,412	98%	36,852	99%	185,686	83%	192,218	90%	190,790	194,218	60,175	36,014	72,395	39.3	12,315	6.7	- 30,820	- 16.9	196	54.8
LSF	NLD	4	1%	23,991	24,856	136	136	858	2%	694	2%	103,227	31%	43,215	12%	43,354	43,479	12,708	6,245	13,078	30.1	370	0.9	- 6,834	- 15.7	3,286	96.0
LSF	PRT	743	92%	33,729	125,723	6,366	4,183	110,298	91%	100,400	92%	128,586	82%	181,903	72%	191,339	191,901	77,016	24,757	132,791	69.2	55,775	29.1	34,411	17.9	179	31.7
DWF	ESP	1	1%	326	509	22	31	273	1%	273	1%	515	0%	1,026	0%	1,146	1,151	186	404	- 355	- 30.9	- 541	- 47.0	- 624	- 54.3	- 298	- 11.3
DWF	LTU	1	9%	4,353	3,980	30	27	180	9%	147	9%	7,095	11%	7,246	13%	6,713	6,744	700	1,270	1,121	16.6	420	6.2	- 501	- 7.4	1,121	41.3

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.25 Structure and economic performance estimates for the top 40 MS fleets operating in the NE Atlantic region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of fleet segment DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
ESP A27 DTS2440	126	100%	31,960	47,107	1,231	1,532	25,475	100%	25,475	100%	64,690	100%	123,295	100%	130,150	136,089	47,528	28,305	67,163	49.4	19,635	14.4	11,404	8.4	533	43.8
GBR A27 TM40XX °	12	44%	24,712	58,262	145	24	920	44%	398	38%	165,745	44%	122,123	44%	122,123	122,704	29,370	9,852	73,703	60.1	44,332	36.1	33,114	27.0	5,920	3,023.1
FRA A27 DTS1824 °	110	82%	14,379	46,728	547	511	28,184	82%	22,999	82%	37,865	72%	119,719	82%	119,996	121,220	40,926	23,957	57,810	47.7	16,883	13.9	5,777	4.8	528	113.1
ESP A27 PGP2440 °	61	100%	15,679	23,451	1,071	1,052	10,495	100%	10,495	100%	25,250	100%	90,954	100%	110,073	110,207	40,833	8,338	71,323	64.7	30,489	27.7	23,179	21.0	1,169	67.8
FRA A27 DTS2440 °	53	86%	12,755	33,349	374	341	14,224	86%	12,130	86%	30,232	76%	93,650	88%	86,854	87,269	26,080	17,717	37,707	43.2	11,627	13.3	- 673	- 0.8	707	110.7
FRA A27 DTS1218	138	91%	6,567	35,038	452	388	30,599	91%	26,087	91%	17,867	89%	82,305	93%	75,872	77,662	30,325	12,417	43,009	55.4	12,684	16.3	5,543	7.1	312	110.8
ESP A27 PS2440	89	98%	12,778	32,757	1,198	1,482	10,662	98%	10,662	98%	59,731	99%	84,161	99%	73,028	73,464	38,732	6,094	49,813	67.8	11,081	15.1	7,179	9.8	557	33.6
ESP A27 PMP0010	2,015	100%	3,949	41,200	4,051	2,872	187,192	100%	187,192	100%	9,955	100%	42,262	100%	63,450	63,455	36,137	6,851	45,246	71.3	9,108	14.4	7,455	11.8	22	15.8
GBR A27 DTS2440	30	35%	8,146	17,708	262	316	6,116	35%	4,995	34%	19,238	27%	51,878	31%	51,880	54,809	12,494	7,346	25,541	46.6	13,048	23.8	9,571	17.5	855	80.8
IRL A27 DTS1824	67	100%	9,248	26,997	420	385	14,110	100%	11,096	100%	20,205	96%	49,630	98%	49,630	50,250	16,659	11,340	19,674	39.2	3,015	6.0	- 1,725	- 3.4	295	51.1
ESP A27 PS1824	90	96%	5,179	18,714	1,163	1,102	9,775	96%	9,775	96%	43,261	98%	43,837	95%	45,560	45,807	23,393	3,139	29,887	65.3	6,494	14.2	3,130	6.8	334	27.1
IRL A27 TM40XX	17	81%	17,849	34,323	189	186	1,210	81%	470	85%	99,037	76%	44,713	74%	44,713	45,972	19,594	10,312	11,114	24.2	- 8,480	- 18.5	- 25,576	- 55.6	656	59.6
IRL A27 DTS2440	37	100%	8,035	18,538	449	217	9,281	100%	7,371	100%	17,303	100%	42,890	100%	42,890	44,191	8,986	8,258	20,005	45.3	11,020	24.9	8,399	19.0	541	92.3
PRT A27 DTS2440	59	100%	12,495	30,603	507	488	14,076	100%	13,387	100%	28,144	100%	37,308	100%	42,022	42,221	13,289	10,957	23,295	55.2	10,006	23.7	5,014	11.9	395	47.7
FRA A27 DFN2440	17	100%	4,015	8,294	218	210	4,576	100%	3,344	100%	15,909	100%	49,694	100%	41,798	41,798	19,976	2,777	30,418	72.8	10,442	25.0	8,694	20.8	1,789	145.2
NLD A27 TM40XX °	3	39%	23,818	24,455	132	132	702	39%	562	39%	102,778	42%	41,629	41%	41,764	41,884	12,202	6,104	11,976	28.6	- 226	- 0.5	- 7,371	- 17.6	3,814	90.7
GBR A27 DTS1218 °	159	76%	7,761	32,314	652	625	22,525	76%	19,760	76%	13,367	76%	41,290	76%	41,294	42,432	10,652	6,301	18,945	44.7	8,293	19.5	5,043	11.9	119	30.3
GBR A27 FPO0010	789	45%	2,813	47,898	1,386	540	76,293	45%	38,155	46%	13,069	51%	40,575	53%	40,579	41,539	15,884	4,555	23,304	56.1	7,420	17.9	3,737	9.0	30	43.2
PRT A27 PGP0010	1,840	100%	3,331	49,672	4,974	1,507	136,135	100%	136,135	100%	11,583	100%	39,495	100%	39,617	39,674	15,682	3,453	30,991	78.1	15,309	38.6	10,557	26.6	17	20.6
FRA A27 HOK2440 °	19	99%	4,161	10,091	228	200	4,586	99%	3,583	99%	9,885	98%	30,463	97%	38,459	38,459	16,073	2,141	28,072	73.0	11,998	31.2	10,080	26.2	1,492	140.4
ESP A27 DRB0010	1,751	100%	1,903	27,564	2,991	1,496	168,826	100%	168,826	100%	3,980	100%	28,130	100%	37,410	37,410	22,492	3,657	31,237	83.5	8,745	23.4	8,219	22.0	18	20.9
FRA A27 DFN1218 °	67	88%	2,809	14,672	292	229	13,116	88%	11,449	87%	7,080	89%	36,899	90%	37,268	37,818	16,361	2,019	24,040	63.6	7,679	20.3	4,821	12.8	360	105.2
FRA A27 DFN1824	29	97%	3,516	10,562	192	176	7,075	97%	5,528	97%	7,705	99%	33,258	99%	35,934	36,529	17,812	1,653	25,729	70.4	7,917	21.7	5,657	15.5	880	146.3
GBR A27 DTS1824	76	44%	10,344	29,080	483	480	12,478	44%	10,324	44%	12,668	30%	35,803	33%	35,805	38,271	8,842	7,809	12,018	31.4	3,176	8.3	- 1,682	- 4.4	159	25.0
FRA A27 DTS1012 °	148	80%	2,179	19,670	326	207	23,160	80%	22,712	80%	8,234	72%	32,198	78%	33,591	34,032	13,261	4,447	18,496	54.4	5,235	15.4	1,556	4.6	125	89.4
FRA A27 DFN1012	107	61%	1,331	17,440	333	207	16,081	61%	15,679	60%	6,779	68%	29,767	64%	31,776	32,288	14,245	1,804	21,379	66.2	7,133	22.1	4,625	14.3	199	103.0
PRT A27 PS1824	51	100%	2,886	14,670	901	493	7,599	100%	5,360	100%	35,719	100%	27,108	100%	27,742	27,867	14,875	1,976	21,510	77.2	6,634	23.8	4,166	15.0	422	43.6
FRA A27 TM1824 °	28	94%	3,339	11,335	152	133	6,444	94%	4,350	93%	13,561	81%	28,490	90%	24,620	25,300	9,296	4,316	12,044	47.6	2,748	10.9	212	0.8	427	90.2
GBR A27 HOK2440 °	10	74%	2,741	5,294	98	196	2,338	74%	1,739	73%	6,518	81%	24,365	80%	24,375	24,473	7,531	1,784	12,193	49.8	4,661	19.1	3,021	12.3	1,261	62.3
ESP A27 PS1218	121	99%	2,469	12,844	960	754	11,620	99%	11,620	99%	25,893	99%	26,349	98%	24,119	24,355	11,708	1,802	16,726	68.7	5,018	20.6	3,498	14.4	138	22.2
FRA A27 DFN0010	268	84%	1,004	22,365	360	141	23,611	84%	23,408	84%	2,912	77%	15,243	82%	21,894	22,132	10,019	1,246	13,728	62.0	3,709	16.8	1,928	8.7	51	97.0
BEL A27 TBB2440	12	40%	3,722	12,277	70	96	3,226	40%	2,844	39%	5,207	31%	20,939	37%	20,862	21,790	7,314	4,879	10,327	47.4	3,013	13.8	750	3.4	891	108.0
GBR A27 DRB1218	86	75%	3,189	16,660	307	234	10,509	75%	9,310	76%	8,843	52%	20,618	65%	20,618	21,678	4,949	3,440	8,484	39.1	3,535	16.3	1,259	5.8	99	36.2
GBR A27 TBB2440 °	22	65%	5,450	18,319	173	238	4,420	65%	3,736	66%	6,046	36%	19,723	43%	19,724	22,937	5,378	8,249	2,599	11.3	- 2,780	- 12.1	- 5,462	- 23.8	121	10.9
GBR A27 FPO1218	48	59%	1,851	9,892	228	210	7,453	59%	6,425	58%	9,589	63%	19,677	60%	19,677	20,758	5,943	2,183	10,758	51.8	4,815	23.2	3,271	15.8	226	51.3
DNK A27 TM40XX	1	8%	1,908	3,416	8	14	248	8%	84	4%	50,803	12%	19,675	13%	19,675	20,099	2,744	951	17,685	88.0	14,941	74.3	11,209	55.8	12,632	1,308.1
FRA A27 FPO0010	211	77%	807	17,623	336	147	20,871	77%	20,792	77%	4,084	58%	13,726	69%	19,028	19,357	8,298	1,243	11,490	59.4	3,192	16.5	1,680	8.7	55	78.2
DEU A27 DTS40XX	2	37%	3,152	4,273	67	54	531	36%	441	36%	7,899	38%	18,784	45%	18,992	19,414	6,435	1,797	12,928	66.6	6,493	33.4	2,162	11.1	5,903	241.3
FRA A27 HOK0010	213	88%	893	20,233	264	106	19,528	88%	19,495	89%	2,499	95%	18,970	94%	18,568	18,879	8,264	1,258	12,331	65.3	4,067	21.5	2,507	13.3	58	116.5
ESP A27 DTS1824	81	100%	4,643	14,970	414	434	14,076	100%	14,076	100%	8,750	100%	23,273	100%	18,522	18,534	6,153	6,603	8,082	43.6	1,929	10.4	626	3.4	100	18.6

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.26 Structure and economic performance estimates for MS fleet segments operating 90% or more in the NE Atlantic region, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
ESP	ESP A27 HOK1218	75	100%	1,593	6,577	343	288	10,600	100%	10,600	100%	4,482	100%	10,164	100%	9,565	9,581	3,384	1,284	5,809	60.6	2,424	25.3	1,596	16.7	77	20.2
ESP	ESP A27 DTS2440	126	100%	31,960	47,107	1,231	1,532	25,475	100%	25,475	100%	64,690	100%	123,295	100%	130,150	136,089	47,528	28,305	67,163	49.4	19,635	14.4	11,404	8.4	533	43.8
ESP	ESP A27 FPO1012	56	100%	386	2,680	197	114	8,074	100%	8,074	100%	659	100%	2,665	100%	2,244	2,244	1,109	291	1,342	59.8	234	10.4	211	9.4	24	11.8
ESP	ESP A27 DRB0010	1,751	100%	1,903	27,564	2,991	1,496	168,826	100%	168,826	100%	3,980	100%	28,130	100%	37,410	37,410	22,492	3,657	31,237	83.5	8,745	23.4	8,219	22.0	18	20.9
ESP	ESP A27 HOK2440	9	100%	1,064	2,760	60	97	983	100%	983	100%	2,380	100%	4,547	100%	2,905	2,905	1,148	440	1,726	59.4	578	19.9			192	17.8
ESP	ESP A27 DFN1012 °	117	100%	810	5,629	314	211	16,811	100%	16,811	100%	2,329	100%	6,262	100%	5,541	5,541	2,843	459	4,362	78.7	1,519	27.4	1,148	20.7	37	20.6
ESP	ESP A27 DFN1824 °	36	100%	3,011	6,468	341	342	5,924	100%	5,924	100%	4,431	100%	13,214	100%	12,427	12,427	6,227	1,546	7,027	56.6	800	6.4	- 59	- 0.5	195	20.6
ESP	ESP A27 PMP1012	95	100%	652	4,461	210	182	7,220	100%	7,220	100%	1,606	100%	3,175	100%	4,320	4,321	2,155	309	2,762	63.9	607	14.1	349	8.1	29	15.2
ESP	ESP A27 PS1012 °	23	100%	179	1,340	108	82	1,711	100%	1,711	100%	2,379	100%	2,222	100%	1,682	1,687	998	248	1,170	69.3	172	10.2	150	8.9	51	14.3
ESP	ESP A27 FPO1218	49	100%	740	3,025	237	176	6,603	100%	6,603	100%	890	100%	2,812	100%	2,996	2,996	1,773	284	2,089	69.7	315	10.5	171	5.7	43	11.9
ESP	ESP A27 PGP2440 °	61	100%	15,679	23,451	1,071	1,052	10,495	100%	10,495	100%	25,250	100%	90,954	100%	110,073	110,207	40,833	8,338	71,323	64.7	30,489	27.7	23,179	21.0	1,169	67.8
ESP	ESP A27 HOK1012 °	62	100%	415	2,896	144	96	6,545	100%	6,545	100%	1,780	100%	3,717	100%	3,773	3,773	1,602	355	2,553	67.7	950	25.2	815	21.6	41	26.6
ESP	ESP A27 PMP1218 °	68	100%	1,345	5,450	324	280	7,710	100%	7,710	100%	4,017	100%	7,130	100%	10,997	10,997	6,388	1,234	6,980	63.5	591	5.4	255	2.3	103	24.9
ESP	ESP A27 DFN1218	152	100%	2,939	11,589	681	592	23,659	100%	23,659	100%	5,705	100%	16,577	100%	11,885	11,885	7,368	1,053	7,007	59.0	- 361	- 3.0	- 1,422	- 12.0	46	11.8
ESP	ESP A27 DRB1012	14	100%	87	580	46	41	1,897	100%	1,897	100%	403	100%	1,178	100%	1,578	1,578	835	393	793	50.2	- 42	- 2.7	- 133	- 8.4	57	19.3
FRA	FRA A27 PS1218 °	29	100%	1,213	6,985	181	106	4,245	100%	3,638	100%	16,566	100%	17,611	100%	15,890	15,890	7,817	886	9,586	60.3	1,769	11.1	258	1.6	331	90.1
FRA	FRA A27 DFN2440	17	100%	4,015	8,294	218	210	4,576	100%	3,344	100%	15,909	100%	49,694	100%	41,798	41,798	19,976	2,777	30,418	72.8	10,442	25.0	8,694	20.8	1,789	145.2
IRL	IRL A27 DTS2440	37	100%	8,035	18,538	449	217	9,281	100%	7,371	100%	17,303	100%	42,890	100%	42,890	44,191	8,986	8,258	20,005	45.3	11,020	24.9	8,399	19.0	541	92.3
IRL	IRL A27 DTS1012	20	100%	281	1,681	25	14	1,220	100%	1,073	100%	423	100%	1,060	100%	1,060	1,060	373	127	588	55.4	215	20.3	172	16.2	29	41.7
IRL	IRL A27 FPO0010	575	100%	1,121	12,417	786	555	17,545	100%	17,545	100%	2,827	100%	631	100%	982	1,350	1,564	1,171	- 3,748	- 277.6	- 5,311	- 393.4			- 7	- 6.7
IRL	IRL A27 DTS1218	41	100%	1,962	6,922	123	96	5,408	100%	4,583	100%	4,801	100%	8,820	100%	8,820	8,820	1,848	892	5,753	65.2	3,906	44.3	3,642	41.3	140	60.2
IRL	IRL A27 PMP1218 °	2	100%	27	142	3	3	86	100%	85	100%	16	100%	47	100%	47	47	32	10	24	50.3	- 9	- 18.5			12	9.5
IRL	IRL A27 DRB1012 °	34	100%	400	2,636	92	82	3,706	100%	3,211	100%	1,032	100%	3,017	100%	3,017	3,017	1,932	425	1,846	61.2	- 86	- 2.9	- 123	- 4.1	54	22.6
IRL	IRL A27 DFN1012	15	100%	180	1,189	34	32	1,001	100%	810	100%	382	100%	816	100%	816	838	319	106	516	61.6	197	23.5			34	16.2
IRL	IRL A27 TM0010 °	4	100%	47	294	7	5	155	100%	138	100%	2,894	100%	1,129	100%			12									
IRL	IRL A27 HOK1012 °	4	100%	50	304	23	23	108	100%	95	100%	38	100%	60	100%	60	60	21	1	55	91.8	34	56.3			14	2.4
IRL	IRL A27 TBB2440 °	15	100%	1,899	5,420	160	96	3,258	100%	2,592	100%	2,839	100%	8,297	100%	8,197	8,197	69									
IRL	IRL A27 DFN1824 °	12	100%	837	2,638	46	43	1,726	100%	1,217	100%	1,560	100%	3,469	100%	3,469	3,492	1,049	692	541	15.5	- 507	- 14.5	- 1,050	- 30.1	45	12.5
IRL	IRL A27 DRB0010	109	100%	325	3,120	204	130	1,468	100%	1,468	100%	763	100%	1,691	100%	1,492	1,614	656	210	786	48.7	130	8.1			7	6.0
PRT	PRT A27 PS1012 P3°	13	100%	130	1,028	122	103	2,502	100%	2,313	100%	785	100%	996	100%	998	998	340	171	640	64.1	299	30.0	153	15.4	49	6.2
PRT	PRT A27 PGP0010 P3	10	100%	32	501	36	17	1,522	100%	1,522	100%	120	100%	622	100%	175	175	58	30	107	61.3	49	28.0	6	3.3	11	6.3
PRT	PRT A27 PS0010 P3	25	100%	44	966	62	31	2,132	100%	2,132	100%	259	100%	383	100%	442	443	178	83	311	70.2	133	30.1	68	15.3	12	10.0
PRT	PRT A27 HOK0010 P3	351	100%	999	15,094	860	316	26,380	100%	26,380	100%	1,868	100%	9,418	100%	9,611	9,612	3,997	688	7,835	81.5	3,838	39.9	2,417	25.2	22	24.8
PRT	PRT A27 DFN0010 P3	42	100%	63	1,282	91	42	2,699	100%	2,699	100%	273	100%	760	100%	854	854	344	118	662	77.5	318	37.2	230	26.9	16	15.8
PRT	PRT A27 DFN0010	232	100%	393	6,067	632	134	11,969	100%	11,969	100%	916	100%	4,160	100%	4,174	4,174	1,876	341	3,449	82.6	1,573	37.7	1,023	24.5	15	25.7
PRT	PRT A27 DFN1012	22	100%	204	1,571	94	72	3,096	100%	2,961	100%	382	100%	2,242	100%	2,245	2,246	853	153	1,827	81.3	973	43.3	748	33.3	83	25.4
PRT	PRT A27 DFN1218	84	100%	2,039	10,697	632	443	15,156	100%	13,992	100%	3,825	100%	13,476	100%	13,496	13,500	5,852	1,318	9,702	71.9	3,850	28.5	1,621	12.0	116	21.9
PRT	PRT A27 DFN1824	28	100%	1,921	6,649	338	291	6,471	100%	5,728	100%	2,261	100%	6,511	100%	6,519	6,527	2,311	838	4,501	69.0	2,190	33.6	967	14.8	161	15.5
PRT	PRT A27 DRB0010	44	100%	138	1,962	98	44	4,466	100%	4,466	100%	751	100%	1,309	100%	1,316	1,316	455	221	892	67.8	437	33.2	273	20.8	20	20.3
PRT	PRT A27 DRB1012	23	100%	192	1,592	87	47	2,800	100%	2,761	100%	813	100%	1,376	100%	1,377	1,377	421	322	898	65.2	476	34.6	230	16.7	39	19.1
PRT	PRT A27 DRB1218	13	100%	192	1,246	73	40	1,415	100%	1,273	100%	1,087	100%	2,641	100%	2,641	2,641	916	130	2,264	85.7	1,348	51.1	1,111	42.1	174	56.6
PRT	PRT A27 DTS0010	5	100%	51	285	23	22	1,126	100%	1,049	100%	322	100%	1,260	100%	1,265	1,265	477	191	816	64.5	339	26.8	258	20.4	163	37.1
PRT	PRT A27 DTS1218	10	100%	330	1,865	53	52	2,092	100%	2,019	100%	1,013	100%	3,106	100%	3,125	3,135	1,058	429	2,235	71.3	1,177	37.5	887	28.3	223	43.0

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
PRT A27 DTS1824	7	100%	839	2,372	48	44	1,527	100%	1,482	100%	451	100%	3,731	100%	4,505	4,505	1,216	1,010	2,686	59.6	1,470	32.6	1,003	22.3	384	61.1
PRT A27 DTS2440	59	100%	12,495	30,603	507	488	14,076	100%	13,387	100%	28,144	100%	37,308	100%	42,022	42,221	13,289	10,957	23,295	55.2	10,006	23.7	5,014	11.9	395	47.7
PRT A27 FPO0010	161	100%	471	6,403	395	143	12,397	100%	12,397	100%	1,389	100%	7,379	100%	7,430	7,433	2,799	395	5,966	80.3	3,168	42.6	2,498	33.6	37	41.7
PRT A27 FPO1012	54	100%	474	3,852	185	117	7,356	100%	6,792	100%	1,030	100%	5,141	100%	5,147	5,147	1,881	301	4,037	78.4	2,155	41.9	1,571	30.5	75	34.5
PRT A27 FPO1218	45	100%	766	4,637	365	198	5,952	100%	5,630	100%	1,651	100%	7,006	100%	7,007	7,021	2,901	364	5,172	73.7	2,271	32.4	1,385	19.7	115	26.1
PRT A27 FPO1824	7	100%	501	1,666	93	65	1,460	100%	1,280	100%	516	100%	1,361	100%	1,422	1,425	592	192	982	68.9	390	27.4	180	12.6	140	15.1
PRT A27 HOK0010	146	100%	135	2,830	349	97	9,520	100%	9,520	100%	607	100%	2,378	100%	2,379	2,379	953	150	2,031	85.4	1,079	45.3	890	37.4	14	20.9
PRT A27 HOK1012	10	100%	85	813	54	30	1,051	100%	991	100%	205	100%	1,195	100%	1,198	1,200	455	78	865	72.1	410	34.2	323	26.9	86	28.8
PRT A27 MGO0010	29	100%	87	1,065	248	107	2,292	100%	2,292	100%	2,793	100%	1,866	100%	1,865	1,865	788	174	1,559	83.6	770	41.3	641	34.4	54	14.6
PRT A27 MGO1012	6	100%	35	266	94	22	475	100%	475	100%	304	100%	314	100%	314	314	130	35	207	66.0	77	24.6	32	10.1	35	9.4
PRT A27 PGP0010	1,840	100%	3,331	49,672	4,974	1,507	136,135	100%	136,135	100%	11,583	100%	39,495	100%	39,617	39,674	15,682	3,453	30,991	78.1	15,309	38.6	10,557	26.6	17	20.6
PRT A27 PGP1012	11	100%	99	812	54	28	1,100	100%	1,076	100%	194	100%	677	100%	677	681	231	71	442	64.9	211	30.9	88	13.0	40	15.8
PRT A27 PGP1218	27	100%	686	3,700	234	150	3,863	100%	3,571	100%	1,197	100%	4,074	100%	4,162	4,173	1,479	406	2,975	71.3	1,496	35.9	841	20.2	110	19.8
PRT A27 PMP0010	47	100%	94	1,620	146	33	2,575	100%	2,575	100%	203	100%	909	100%	923	923	358	137	651	70.6	294	31.8	159	17.2	14	19.7
PRT A27 PS0010	23	100%	114	1,130	89	29	1,589	100%	1,589	100%	1,325	100%	1,727	100%	1,745	1,745	859	90	1,458	83.6	598	34.3	435	24.9	63	50.3
PRT A27 PS1012	30	100%	266	2,275	225	146	3,669	100%	3,061	100%	4,733	100%	4,693	100%	4,775	4,783	2,438	273	3,811	79.7	1,372	28.7	1,078	22.5	127	26.1
PRT A27 PS1218	36	100%	718	5,022	332	203	5,167	100%	3,870	100%	11,197	100%	7,955	100%	8,232	8,300	4,097	479	6,480	78.1	2,383	28.7	1,793	21.6	180	31.9
PRT A27 PS1824	51	100%	2,886	14,670	901	493	7,599	100%	5,360	100%	35,719	100%	27,108	100%	27,742	27,867	14,875	1,976	21,510	77.2	6,634	23.8	4,166	15.0	422	43.6
PRT A27 PS2440	19	100%	1,583	6,581	398	220	2,878	100%	2,144	100%	18,215	100%	15,483	100%	15,573	15,581	7,492	984	11,965	76.8	4,472	28.7	3,000	19.3	630	54.4
PRT A27 TBB0010	43	100%	108	1,607	154	59	3,328	100%	3,328	100%	235	100%	903	100%	1,054	1,054	303	125	797	75.6	494	46.9	370	35.1	19	13.5
PRT A27 TBB1012	7	100%	61	396	25	16	767	100%	721	100%	170	100%	326	100%	628	628	181	50	489	77.9	308	49.1	240	38.2	70	30.6
ESP A27 DTS1824	81	100%	4,643	14,970	414	434	14,076	100%	14,076	100%	8,750	100%	23,273	100%	18,522	18,534	6,153	6,603	8,082	43.6	1,929	10.4	626	3.4	100	18.6
ESP A27 DRB1218	81	100%	1,155	7,155	283	189	12,027	100%	12,027	100%	3,291	100%	9,259	100%	12,336	12,336	5,027	2,322	6,169	50.0	1,142	9.3	564	4.6	76	32.6
ESP A27 DTS1218 °	61	100%	1,623	6,823	297	322	9,726	100%	9,726	100%	3,492	100%	13,112	100%	11,555	11,556	5,003	3,397	5,940	51.4	937	8.1	814	7.0	97	18.5
ESP A27 PMP0010	2,015	100%	3,949	41,200	4,051	2,872	187,192	100%	187,192	100%	9,955	100%	42,262	100%	63,450	63,455	36,137	6,851	45,246	71.3	9,108	14.4	7,455	11.8	22	15.8
ESP A27 HOK1824 °	29	100%	2,124	6,249	241	291	3,770	100%	3,770	100%	3,541	100%	8,068	100%	15,256	15,256	6,412	2,561	8,527	55.9	2,115	13.9	1,449	9.5	294	29.3
IRL A27 FPO1012	82	100%	897	6,832	194	139	6,470	100%	6,069	100%	4,123	100%	6,175	100%	6,175	6,266	3,500	912	3,070	49.0	- 430	- 6.9	- 609	- 9.7	37	22.1
FRA A27 PGO0010 °	85	100%	227	5,349	121	30	3,501	100%	3,427	100%	18,039	100%	2,626	100%	4,239	4,240	2,238	137	3,339	78.8	1,101	26.0	468	11.0	39	109.8
IRL A27 DTS1824	67	100%	9,248	26,997	420	385	14,110	100%	11,096	100%	20,205	96%	49,630	98%	49,630	50,250	16,659	11,340	19,674	39.2	3,015	6.0	- 1,725	- 3.4	295	51.1
ESP A27 PS1218	121	99%	2,469	12,844	960	754	11,620	99%	11,620	99%	25,893	99%	26,349	98%	24,119	24,355	11,708	1,802	16,726	68.7	5,018	20.6	3,498	14.4	138	22.2
FRA A27 HOK2440 °	19	99%	4,161	10,091	228	200	4,586	99%	3,583	99%	9,885	98%	30,463	97%	38,459	38,459	16,073	2,141	28,072	73.0	11,998	31.2	10,080	26.2	1,492	140.4
PRT A27 HOK1218	22	99%	561	3,024	205	175	3,913	99%	4,189	99%	1,762	99%	6,883	99%	7,119	7,119	2,833	437	5,559	78.1	2,726	38.3	2,387	33.5	255	31.7
FRA A27 MGO0010 °	150	99%	453	9,925	166	48	10,617	99%	10,598	99%	439	99%	3,359	100%	9,115	9,166	4,097	509	6,200	67.6	2,103	22.9	620	6.8	41	129.9
PRT A27 HOK1012 P3	68	99%	702	5,865	485	327	8,403	99%	7,965	99%	1,444	98%	6,190	99%	6,213	6,213	2,552	582	4,761	76.6	2,209	35.6	1,466	23.6	70	14.6
ESP A27 PS2440	89	98%	12,778	32,757	1,198	1,482	10,662	98%	10,662	98%	59,731	99%	84,161	99%	73,028	73,464	38,732	6,094	49,813	67.8	11,081	15.1	7,179	9.8	557	33.6
FRA A27 HOK1012	54	98%	561	7,683	120	75	8,037	98%	7,990	98%	2,210	94%	11,932	98%	12,780	12,942	5,315	873	8,360	64.6	3,045	23.5	1,912	14.8	155	112.1
IRL A27 TM1218 °	5	98%	489	1,208	14	13	342	98%	200	98%	4,281	95%	1,830	95%	1,830	1,830	13									
FRA A27 TM1218	12	98%	702	3,564	49	46	2,879	98%	2,226	97%	5,336	99%	9,288	98%	9,863	10,252	4,182	1,634	5,890	57.5	1,707	16.7	1,031	10.1	503	127.4
FRA A27 DFN1824	29	97%	3,516	10,562	192	176	7,075	97%	5,528	97%	7,705	99%	33,258	99%	35,934	36,529	17,812	1,653	25,729	70.4	7,917	21.7	5,657	15.5	880	146.3
PRT A27 HOK1218 P3	39	97%	789	4,905	338	206	4,681	97%	4,077	98%	1,743	96%	5,394	98%	5,557	5,557	2,387	442	4,367	78.6	1,980	35.6	1,395	25.1	113	21.2
FRA A27 PMP1012 °	40	97%	602	5,360	96	62	6,031	97%	5,822	97%	16,382	99%	7,471	96%	12,739	12,789	5,052	888	7,788	60.9	2,736	21.4	1,654	12.9	196	126.3
GBR A27 TBB1824	17	96%	2,262	4,043	102	127	4,176	96%	3,636	96%	4,609	97%	15,492	97%	15,493	16,642	4,579	2,600	8,112	48.8	3,533	21.2	2,757	16.6	468	63.8
ESP A27 PS1824	90	96%	5,179	18,714	1,163	1,102	9,775	96%	9,775	96%	43,261	98%	43,837	95%	45,560	45,807	23,393	3,139	29,887	65.3	6,494	14.2	3,130	6.8	334	27.1
FRA A27 PMP0010	63	95%	354	5,145	103	43	6,311	95%	6,287	95%	7,434	99%	4,285	96%	5,642	5,661	2,373	315	3,510	62.0	1,137	20.1	440	7.8	56	81.5
FRA A27 TM1824 °	28	94%	3,339	11,335	152	133	6,444	94%	4,350	93%	13,561	81%	28,490	90%	24,620	25,300	9,296	4,316	12,044	47.6	2,748	10.9	212	0.8	427	90.2
PRT A27 HOK1824	20	94%	1,720	4,959	238	195	3,920	94%	3,823	94%	2,779	97%	10,117	96%	10,751	10,856	4,299	1,146	7,133	65.7	2,833	26.1	1,941	17.9	361	36.6
ESP A27 PGO1824 °	13	94%	1,039	2,292	120	115	1,579	94%	1,579	94%	2,729	98%	5,025	95%	7,755	7,780	2,658	1,018	4,231	54.4	1,573	20.2	1,139	14.6	322	36.8
IRL A27 TM2440	11	94%	3,509	7,841	95	83	1,383	94%	560	96%	26,850	90%	15,190	92%	15,190	15,285	5,646	1,957	6,621	43.3	976	6.4	- 16,212	- 106.1	588	80.2
FRA A27 DRB0010	59	92%	437	5,437	106	31	4,033	92%	4,012	92%	5,663	97%	4,152	91%	6,153	6,218	2,370	444	3,642	58.6	1,273	20.5	694	11.2	62	119.1
IRL A27 DRB2440 °	6	92%	743	1,696	53	37	1,392	92%	1,161	93%	1,684	85%	7,338	97%	7,338	7,338	2,466	1,486	3,354	45.7	888	12.1	453	6.2	522	89.9
FRA A27 DTS1218	138	91%	6,567	35,038	452	388	30,599	91%	26,087	91%	17,867	89%	82,305	93%	75,872	77,662	30,325	12,417	43,009	55.4	12,684	16.3	5,543	7.1	312	110.8
94	10,761		192,511	734,816	36,374	24,520	1,064,248		1,031,756		663,514		1,271,773		1,335,031	1,350,316	562,769	170,498	829,073		266,399		158,148		18,550	3,733

4.4 Mediterranean & Black Sea region

At a glance

Most of the eleven Mediterranean and Black Sea Member States fleets are wholly dependent on the region. The exceptions were Spain and France which also have major parts of their fleets operating in the Atlantic and other fishing regions. The main species fished in the region include anchovy, sardine, and hake. While the overall economic situation in the region shows an overall net profit for the regional fleet, four Member State fleets, when excluding Greece, suffered net losses in 2015. GVA as a proportion of revenue was estimated at 60%. In other words, the Mediterranean and Black sea fishing fleet transformed more than half its total revenue into capital, salaries, and profits, thereby having a positive impact on the economies of the region and their fishing communities.

As for the socioeconomics it is worth mentioning that the total FTE has increased slightly since 2013 despite the fact that the total number of vessels remains stable. The average labour wage for the LSF had been on a decreasing trend since 2010, but shows a slight improvement in 2015 compared to last year. This improvement can be linked to the positive trend in revenues and the negative one in operational costs as, in most countries, labour costs are directly related to revenues and variable costs as the tradition-based income sharing system between the ship-owner and the crew is the most prevalent. The average labour wage for the SSCF remains stable across all the years analysed. Despite the fact that during the period 2010-2015 the labour productivity trend (GVA per FTE) is more or less stable the for both sectors (LSF and SSCF), there is an increase in 2015 compared to 2014.

Effort (in days at sea) deployed by MS fleets operating in the region, has followed a slight decreasing trend over the period analysed (Figure 4.56). Live weight of landings shows a slight increase during the same period but the value of landings presented a significant increase in 2015.

Moreover, economic indicators have improved for the Mediterranean region. Revenue and GVA generated by the fleet also followed an increasing trend: figures for 2015 show significant improvement (Figure 4.56 and 4.57). The most profitable year over the period analysed was 2015, in particular for the Italian fleet, the main contributor to trends in the region.

The good news:

- higher revenues,
- reduced fuel prices,
- recovery of some stocks such as bluefin tuna and deep-sea rose shrimp (GSA 9),
- higher average first sale prices of certain species.

Challenges ahead:

- continued deterioration in the status of many fish stocks, e.g. hake and red mullet,
- lack of investment.

What's for the future?

- stable fuel prices and thus energy costs,
- 20% increase of TAC for bluefin tuna for 2016 and 20% for 2017 giving positive signals for increased revenues,
- setting TAC for swordfish from 2017; worries for revenue reduction.

Main drivers affecting fleet performance in the region

In 2015, the regional fishing fleet's economic performance has shown improvement with an increase of gross profit and net profit even if high variation across MS can be observed; the positive trend was mainly driven by the Italian fleet.

Factors that may have contributed to improve economic performance in the region include:

- Higher revenues: revenues benefited from an increase in landings and higher average prices; in particular, SSCF sold at higher prices compared to the large-scale fleet, and they are mainly directed to the market through very short supply-chains (either direct to consumers or to restaurants in tourist areas). Despite the increase in the average price in 2015, over the period 2008-2015 the average first sale prices of the most important target species decreased (average price €4.90 per kg in 2008 and €3.62 per kg in 2015). This negative trend is due, in part, to the low spending power of households during the financial crises. It is also partly related to the lack of market strategies, including the implementation of labelling and certification schemes that add value to fishery products, as well as weakness in some Producers Organisations (with some exemptions).
- Decreasing fuel prices resulting in lower energy costs.
- There are some examples of fisheries where stocks are being exploited at rates consistent with achieving MSY (STECF, 2016) and fleets are showing positive trends, particularly in landings (e.g. deep sea rose shrimp *Parapenaeus longirostris* in North Tyrrhenian-Ligurian Sea). The overall level of overfishing, however, remains generally too high.

Other factors that affected fleet performance in region include:

- Stock status: Mediterranean fisheries are highly multi-specific (mixed) and many of the target stocks are overexploited. According to STECF, only very few demersal stocks are currently being exploited at rates consistent with achieving MSY. The marine resources and ecosystems of this region have come under increasing pressure in recent years, driven by diversification and intensification of marine and maritime activities. While the fishing capacity has been frozen or reduced in EU countries since mid '90s, the trend in non-EU countries is probably following a different pattern and an increase in effort and capacity is likely to still occur in some areas.
- Competition between professional and recreational fishers. There is limited information on recreational fisheries (with some exemptions, Slovenia).
- New management measures, in particular the introduction of a TAC for swordfish and for pelagic fisheries in the Adriatic Sea. Fishers are concerned that these TACs will have a negative impact on their profits in the future. Another

important management measures that has been adopted by GFCM in 2016 is the institution of two Fisheries Restricted Areas (RFAs) in the Strait of Sicily.

- Lack of investment in fishing gear with lower environmental impact and greater energy efficiency. The energy efficiency has not improved in recent years in the region.

Social-economic Trends

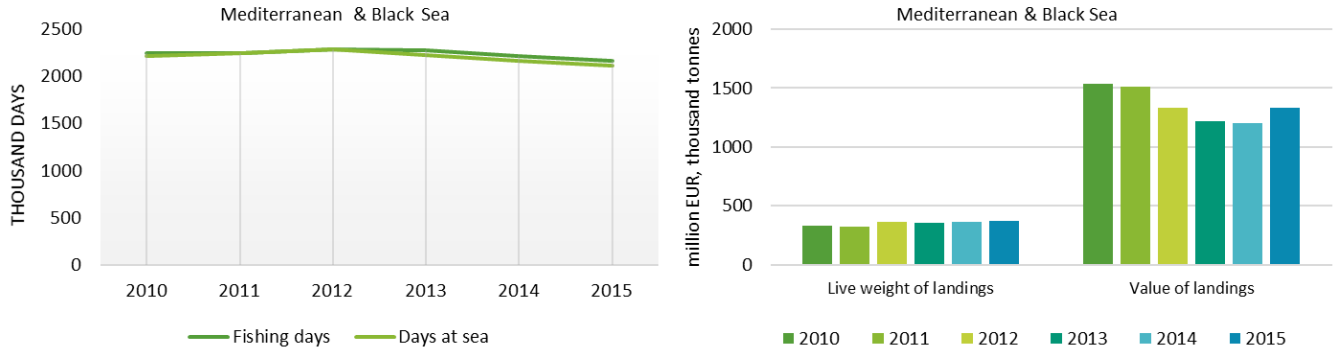
In terms of socio-economic variables, the fleet operating in the Mediterranean & Black Sea displayed the following trends:

- Wages and Salaries

From 2014 to 2015 the overall average wage per FTE for the SSCF decreased by 7%, fluctuating between €8 300 and €10 800. Wages for the LSF increased 5% from 2014 to 2015 to reach almost €16 600, yet suffered a decrease of 20% compared to figures reported in 2008 (Figure 4.58).

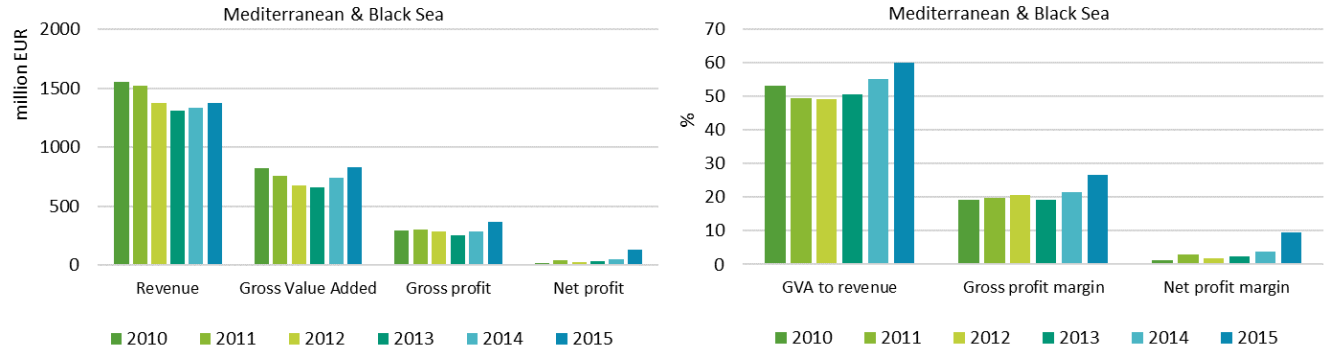
- Labour productivity

The productivity (GVA/FTE) for both segments recovered in 2015. For the large-scale fleet, GVA per FTE was €30 100, a 12.5% increase compared to 2014. For the SSCF, labour productivity also increased, albeit less dramatically (+3%) to reach €16 500 (Figure 4.58).



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.56 Trends on effort and landings for MS fleets operating in the Mediterranean & Black Sea regions



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.57 Trends on revenue and profits for MS fleets operating in the Mediterranean & Black Sea regions

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.58 Trends on average wage and labour productivity by fishing activity for MS fleets operating in the Mediterranean & Black Sea regions

Regional Details

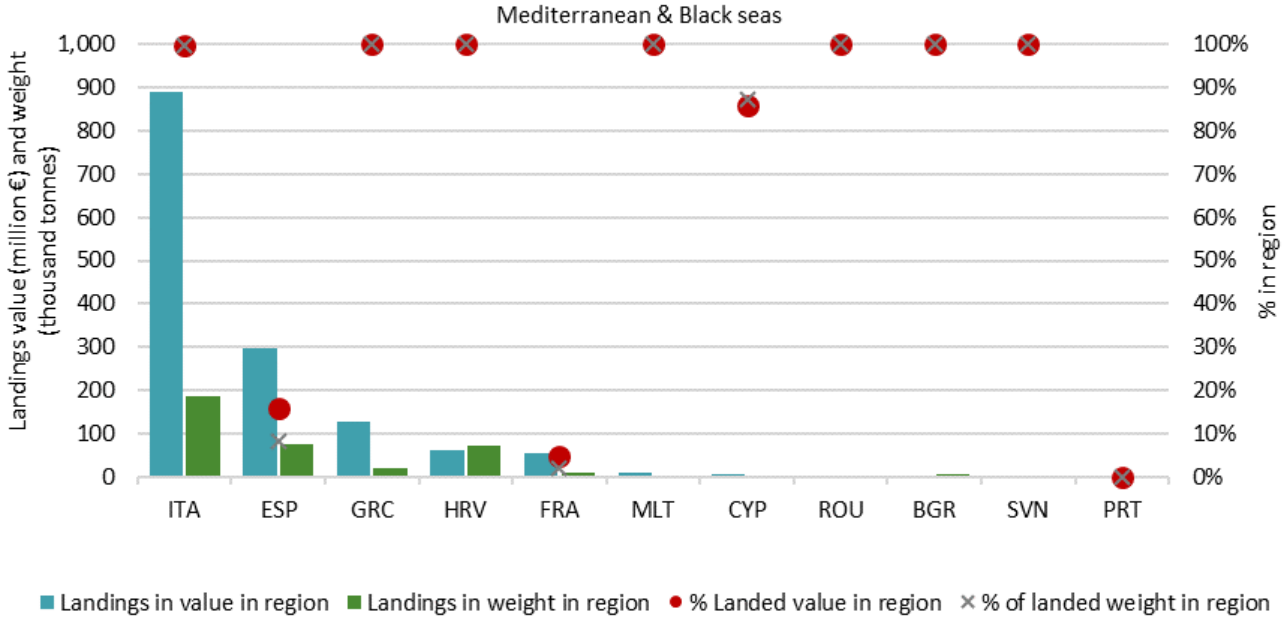
The Mediterranean & Black Sea region covers FAO fishing areas 37.1, 37.2, 37.3 and 37.4. The EU waters are covered by the GFCM GSA areas listed in Figure 4.38. Nine EU Member States were involved in Mediterranean fisheries in 2015: Croatia, Cyprus, France, Greece, Italy, Malta, Portugal, Slovenia and Spain and two MS operate in the Black Sea: Bulgaria and Romania (Figure 4.38).

A fully comprehensive and realistic economic analysis, including all 11 coastal MS fishing fleets operating in the Mediterranean & Black Sea region, was not possible. Data on the structure, activity and production of the fleets are presented for all MS involved. However, economic performance results have been excluded for Greece due to incomplete and/or unreliable datasets. A trend analysis is provided only for the period 2011-2014 because consistent datasets for the entire period 2008-2015 were not available for all MS fleets.

Tables 4.27 to 4.33 contain a summary of economic performance of the Mediterranean & Black Sea fleet by Member State, fishing activity and fleet segment, respectively. Due to data quality issues data on the Greek fleet at aggregated levels have not been included.

MS fleet activity in the Mediterranean & Black Sea region: situation in 2015 and recent trends

Based on data submitted, most MS fleets were totally dependent on the Mediterranean basin for their fishery primary production in 2015. All landings by the Bulgarian, Croatian, Italian, Maltese, Romanian, Slovenian and Greek fleets originated from the Mediterranean or Black seas. On the other hand, this percentage decreases to 86% for the Cypriot fleet, as some activity also occurs in other non-EU Mediterranean waters. For Spain and France, the percentage is marginal, with only 16% and 5%, respectively, of the total landed weight of these two MS fleets originating from EU-Med waters. Only two Portuguese vessels partially operate in the EU Mediterranean waters (Figure 4.59).

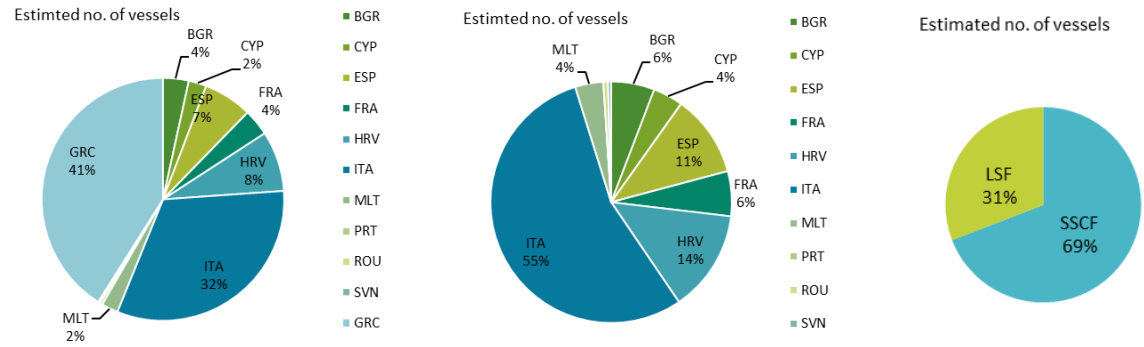


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.59 Importance of the Mediterranean & Black Sea regions for Member States' fisheries in terms of landings in weight and value, 2015

Fleet capacity and employment

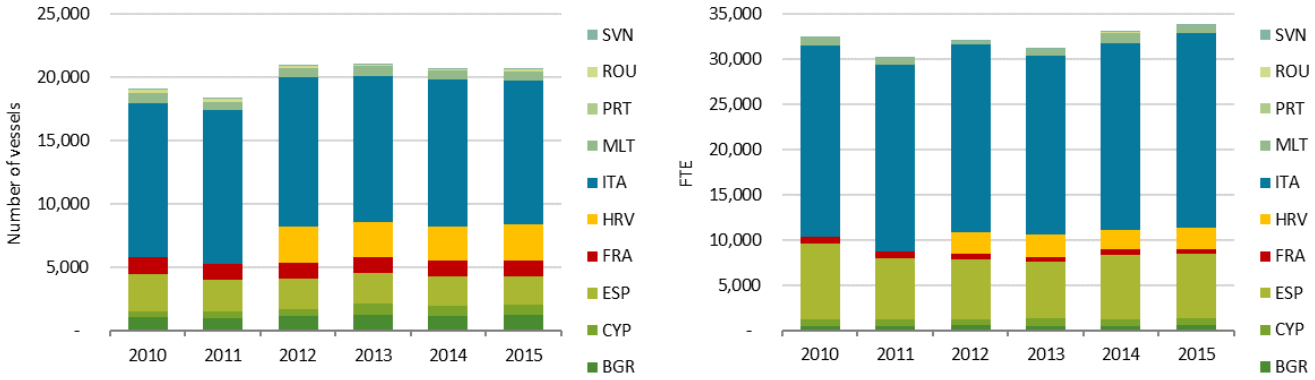
The EU fleet fishing in the Mediterranean & Black Sea consisted of 20 709 active vessels (excluding the Greek fleet). The SSCF comprised 14 316 vessels, or 69% of the regional fleet. With 14 400 vessels, Greece would comprise 41% of the Mediterranean & Black Sea fleet. Total employment in 2015 was estimated at 45 435 jobs, corresponding to 33 868 FTEs (excluding Greece) (Figure 4.60). Total employment in Greece was estimated at 25 372 jobs, corresponding to 23 402 FTEs in the same year.



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.60 Share of Mediterranean & Black Sea fleet capacity by MS and fishing activity, 2015 (middle panel excluded Greece)

Trends in the number of vessels have remained relatively stable, increasing after 2011 due to the entry of the Croatian fleet. Conversely, effort (in days at sea) deployed by MS fleets operating in the region has followed a decreasing trend over the period analysed, mainly due to reductions seen in the Italian fleet (Figure 4.61).

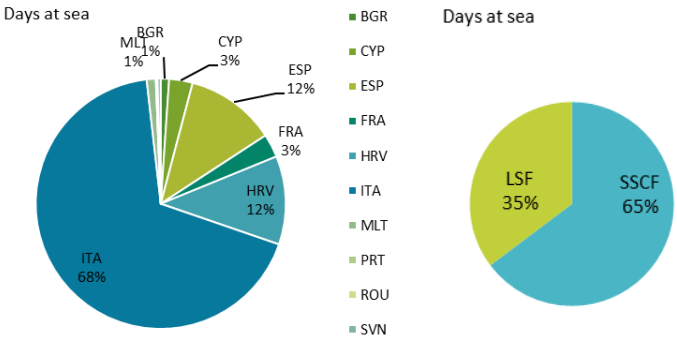


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.61 Trends on the number of vessels and employment (in FTE) for the MS fleets operating in the Mediterranean & Black Sea region

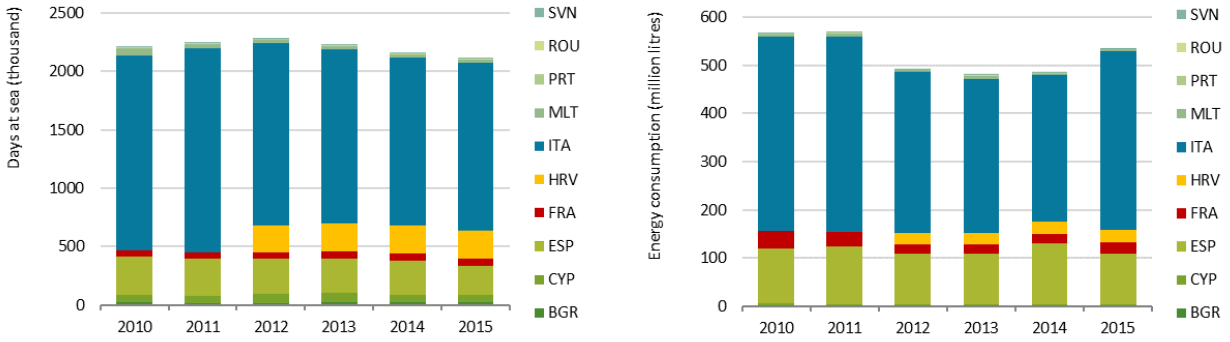
Fishing effort

The Mediterranean & Black Sea fleet spent more than 2.1 million days at sea in 2015 (excluding Greece). The Italian fleet accounted for 68% of the number of days, followed by Croatia and Spain (both with 12%). The SSCF accounted for 65% of the days at sea (Figure 4.62 and 4.63).



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.62 Share of the fishing effort deployed in Med & Black Sea region by MS and fishing activity, 2015



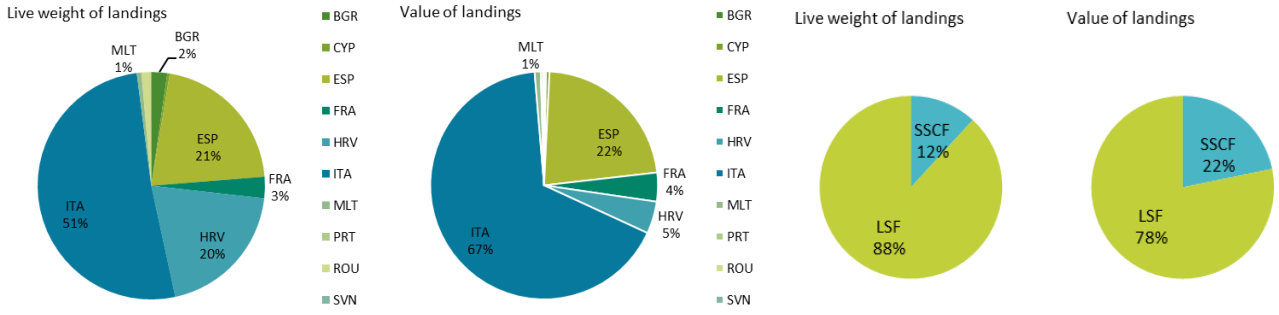
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.63 Trends on fishing effort (in days at sea) and energy consumption for MS fleets operating in the Mediterranean & Black Sea region

Landings and top species

The weight and value of landings generated by the regional fleet (excluding Greece) in 2015 amounted to approximately 368 thousand tonnes and €1.33 billion, respectively.

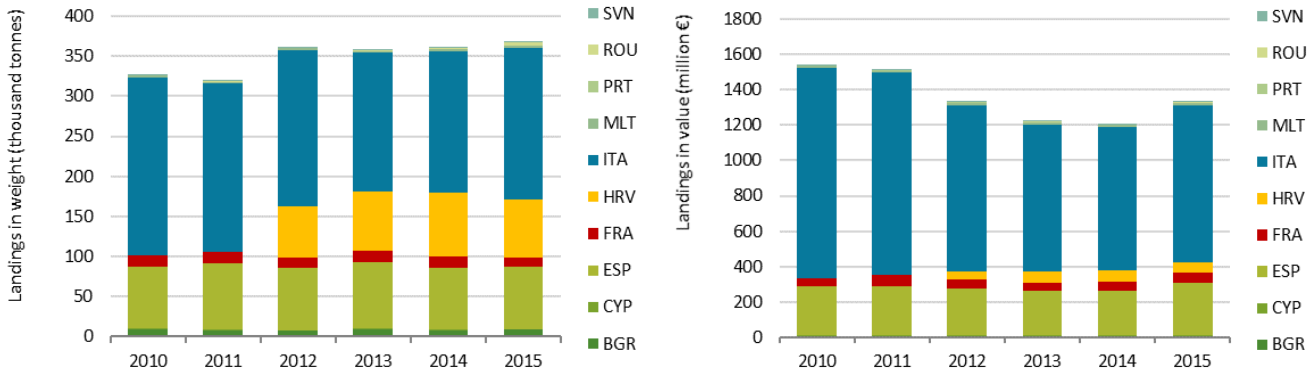
In terms of landed weight, Italy (189 thousand tonnes), Spain (78 thousand tonnes) and Croatia (73 thousand tonnes) were again the leading countries, together accounting for 92% of the total weight and 94% of the value of landings by the EU Mediterranean & Black Sea fleet (Figure 4.64).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.64 Share of landings from the Mediterranean & Black Sea region by MS and fishing activity, 2015

In 2015, large-scale vessels generated, by far, the highest landed weight (88% of the total), equivalent to 78% of the landed value. Although over 65% of the effort was deployed by the SSCF, these vessels landed only 12% by weight and 22% by value (Figure 4.57 and 4.58). This fleet segment is more important from a social point of view as it represents almost 50% of the FTE employment in the Mediterranean & Black Sea fleet (excluding Greece).

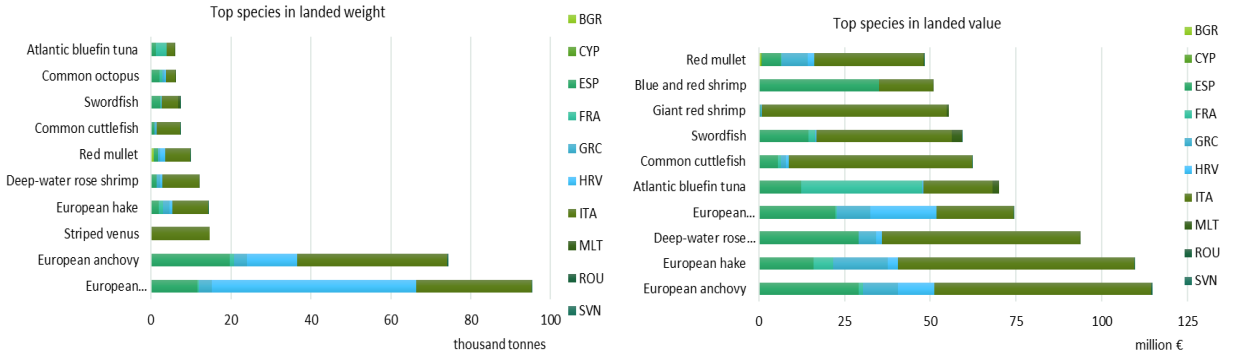


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.65 Trends on landings in weight and value by MS fleets operating in the Mediterranean and Black seas

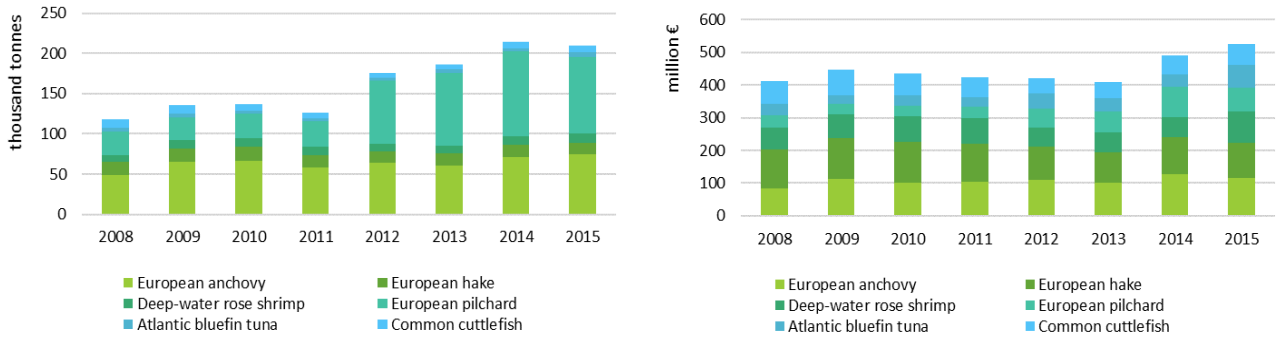
In 2015, the main species (by weight) for the EU Mediterranean fleet were pilchard (=sardine, 95.3 thousand tonnes), followed by European anchovy (74.2 thousand tonnes), striped Venus (14.7 thousand tonnes) and hake (14.4 thousand tonnes) (Figure 4.66 and 4.67).

By value, the most landed species were anchovy (€115 million), hake (€110 million), deep-water rose shrimp (€94 million) and pilchard (€74 million) (Figure 4.66 and 4.67).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.66 List of the top 10 species in terms of landed weight and value for MS fleets operating in the Mediterranean & Black Sea, 2015.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.67 Trends on landings of the top six species in terms of landed value for MS fleets operating in the Mediterranean & Black Sea, 2015

Socio-Economic performance

Excluding Greece, revenue (income from landings and other income) generated by the Mediterranean & Black Sea fleet in 2015 was an estimated €1.4 billion, 65% of which was generated by the Italian fleet (€895 million). In terms of economic performance, the amount of Gross Value Added (GVA), generated by EU Mediterranean & Black Sea fleet was €828 million. Italy (€551 million), Spain (€181 million), France (€39 million) and Croatia (€39 million) were the leading countries regarding GVA in 2015.

Total Gross profit for the region was estimated at €365 million. The Italian fleet generated the largest gross profit in 2015 amounting to €274 million, followed by Spain (€56 million), Croatia (€16 million) and France (€11 million), together accounting for 95% of Gross profit (Table 4.27). Net profit amounted to €129 million in 2015.

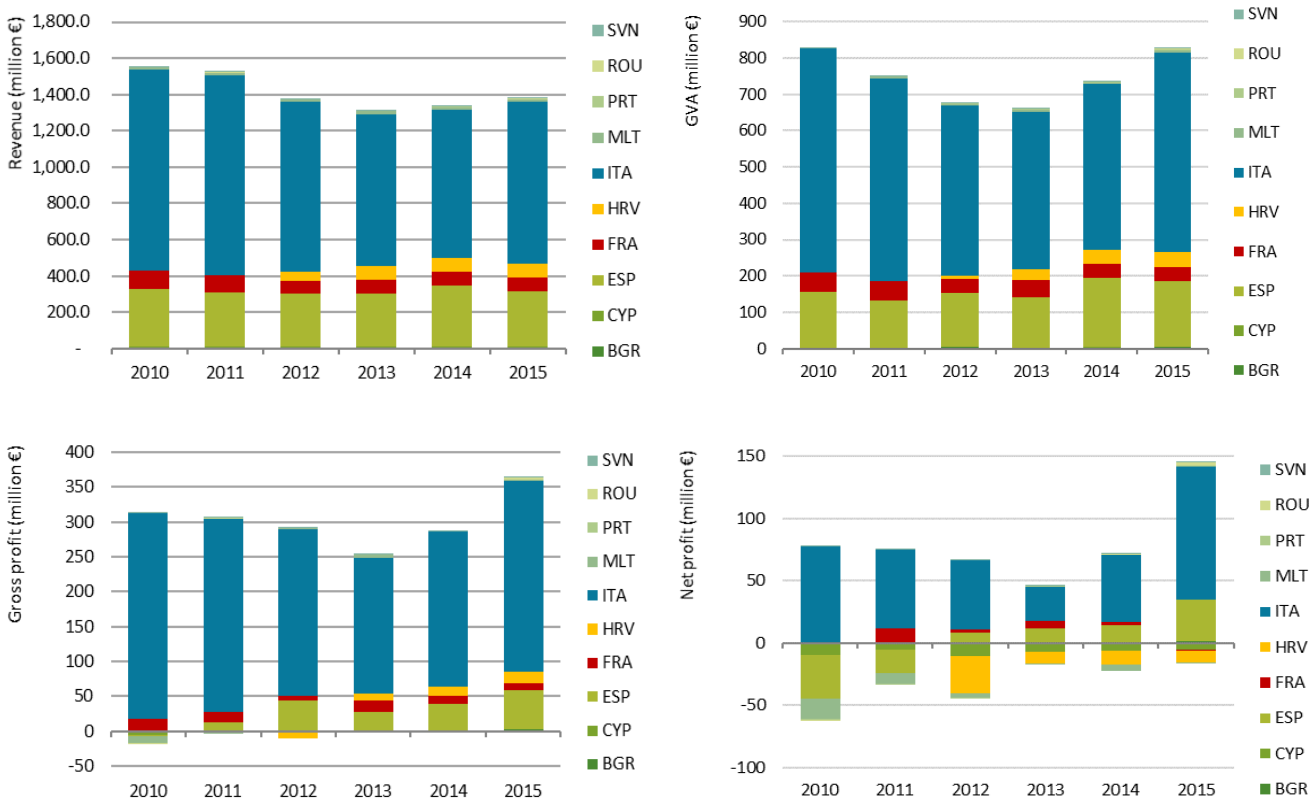
Excluding Greece only one EU Mediterranean & Black Sea country, Cyprus, reported a gross loss in 2015 (-€78 thousand), while four MS fleets reported net losses; Croatia (-€9 million), Cyprus (-€5.8 million), France (-€90 thousand), and Malta (€804 thousand).

Among operating costs, the two major fishing expenses were crew and energy costs, accounting for €463 and €277 million, respectively. In terms of crew costs, Italy (€277 million), Spain (€125 million) and France (€29 million) were the leading countries, together accounting for 93% of the total crew costs. Regarding energy costs, Italy (€198 million), Spain (€45 million) and Croatia (€14 million) were the leading countries, together accounting for 93% of the total energy cost (Table 4.27).

By fishing activity, and according to the available data, the Mediterranean & Black Sea fleet appears somewhat unevenly distributed between the two main fishing activities. The SSCF consisted of 69% of the fleet by number (14 316 vessels) and accounted for 63% of the effort (1.4 million days). In terms of production however, the SSCF landed only 12% by weight (43 556 tonnes) and 22% by value (€290 million). Overall, both fleet segments were profitable, with gross profit margins estimated at 29% for the SSCF and 26% for the LSF. Net profit margins were estimated at 14% for the SSCF and 8% for the LSF in 2015 (all excluding Greece) (Table 4.30).

According to the available data (*i.e.* excluding Greece), only the Maltese SSCF generated gross losses while in the large-scale fleets only Cyprus generated gross losses in 2015. A slightly different picture emerges for net profit, where three MSs SSCF (Cyprus, Croatia and Malta) reported losses in 2015, and three LSF reported losses (Cyprus, Croatia and France) (Table 4.33).

Revenue and GVA generated by the fleet also followed an increasing trend from 2013 onwards. The most profitable year over the period analysed was 2015, in particular for the Italian fleet, the main contributor to trends in the region (Figure 4.68).

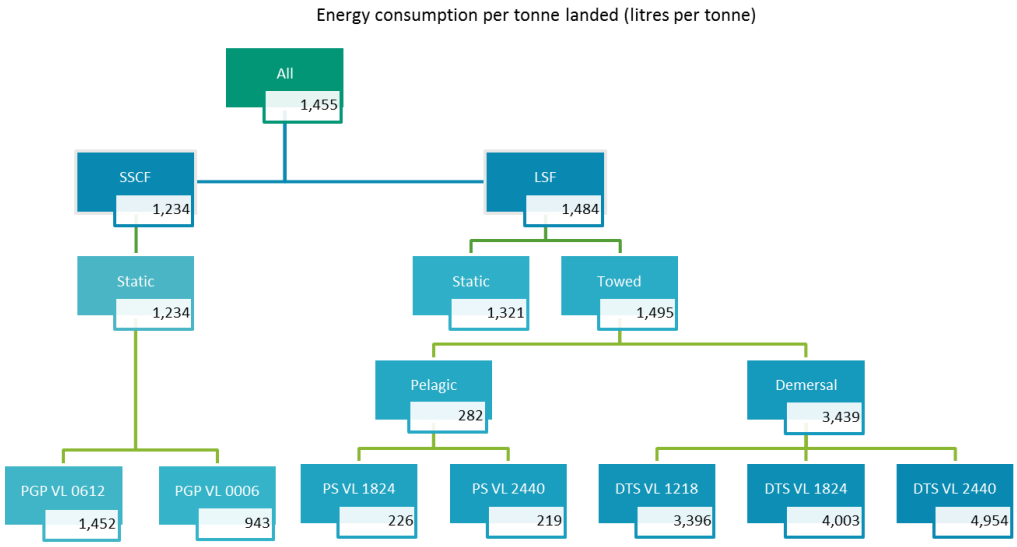


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.68 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) by MS fleets operating in the Mediterranean & Black Sea region

Productivity

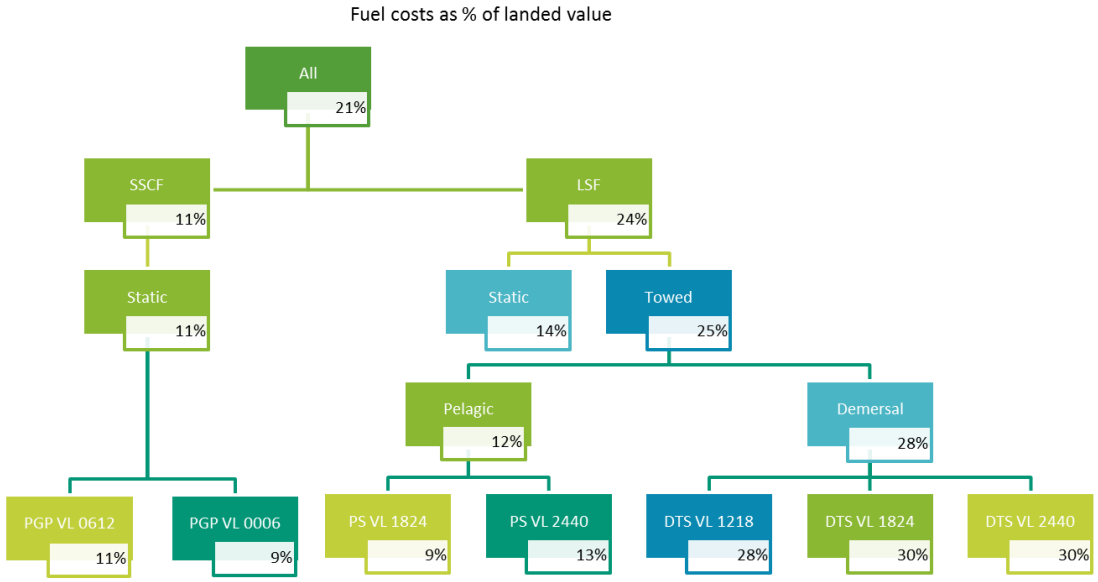
While on average 1 455 litres of fuel per tonne of landed fish were used in Mediterranean and Black Sea fisheries in 2015, significant differences between fisheries are observed. Large-scale pelagic fisheries were the most fuel efficient, consuming on average 282 litres of fuel per landed tonne while the demersal trawl fisheries consumed the most fuel per landed catch (4 954 litres/tonne for DTS between 24 and 40m) (Figure 4.69).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.69 Schematic representation of the amount of fuel consumed per landed weight (litres/tonne) by the various MS fleet components operating in the Med & Black seas, including some important segments

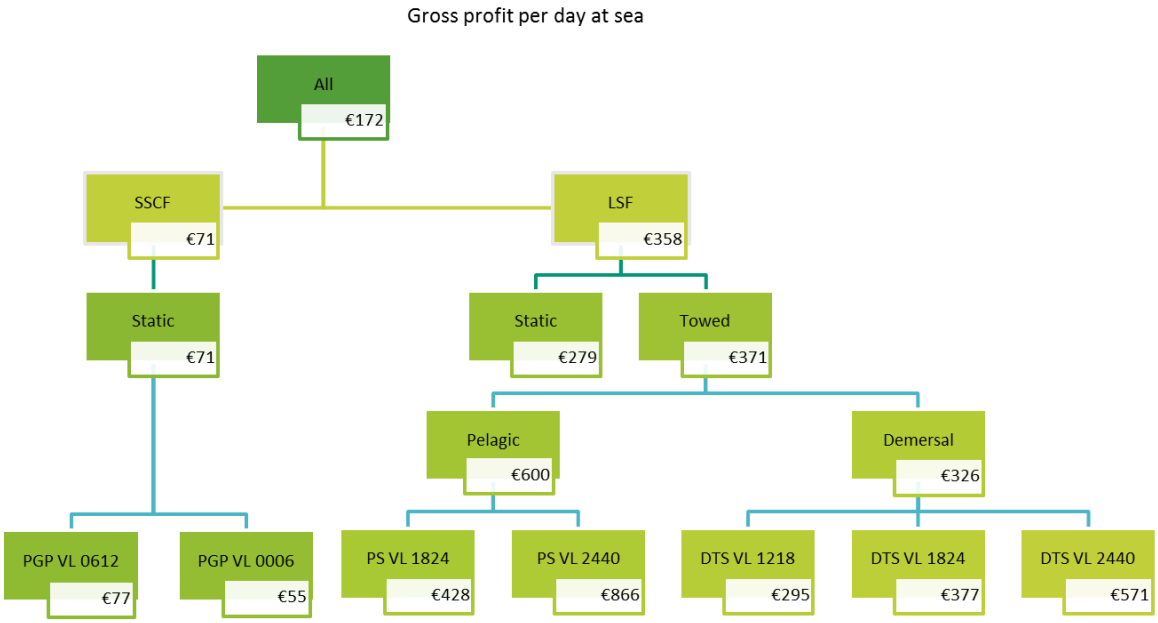
Around 21% of the landed value in the Mediterranean and Black Sea went to pay for fuel costs in 2015. In total around €277 million were spent on fuel to catch 368 thousand tonnes of fish, with a landings value of €1.33 billion. In particular, the large-scale demersal segments spent high amounts (30%) of their landed value on fuel. As trawling is typically fuel intensive, fluctuations in fuel consumption and fuel prices are therefore key drivers of the profitability of the fleets (Figure 4.70).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.70 Schematic representation of the ratio fuel costs to landed value (%) for the various MS fleet components operating in the Mediterranean & Black seas, including some important segments

In 2015, the average gross profit per day at sea was estimated at around €172 for Mediterranean and Black Sea fisheries. On average small-scale coastal fisheries showed a low positive gross profit. The pelagic fisheries were the most profitable, earning on average €600 in gross profit per day at sea. From the most important segments, purse seiners between 24 and 40, made an average €866 gross profit per day at sea and has increased steadily (Figure 4.71).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.71 Schematic representation of the amount of gross profit generated per day at sea (€/day) by the various MS fleet components operating in the Mediterranean & Black seas, including some important segments

Status of important stocks

The Mediterranean is facing significant challenges, such as achieving MSY for most stocks by 2020, since many assessed stocks are currently fished considerably above the MSY target estimates.

The last STECF assessment considered stocks of Norway lobster in GSA 9 and GSA 11 and deep-water rose shrimps in GSA 9-10-11 to be stable (an increasing situation for GSA9 was analysed separately). Conversely stocks of stripped red mullet (GSA9), deep-water rose shrimp (GSA1, GSA10), and Norway Lobster (GSA6) were declining. While there was no full assessment of common sole in GSA7 (due to data issues), none the less a reduction in fishing mortality was advised.

A GFCM-FAO meeting conducted in 2016 also performed stock assessments and advised a reduction in fishing reduction for Sardine in GSA1, GSA6, and GSA17-18, and for anchovy in GSA17-18. As a key commercial specie in the Mediterranean, the most recent assessment of hake is also of concern; that assessment concluded that the hake stock is overexploited in GSAs 1-3, 5, 6, 7, 9, 12-16 and 17-18. The most important commercially exploited species, turbot in GSA 29, is also considered to be overexploited, and management measures (following GFCM recommendations) are in place. While sprat, the second most important fishery in economic terms, is evaluated as sustainably exploited, picked dogfish is considered to be depleted. The newly exploited species *Rapana* is not yet assessed but given its importance in terms of value this stock deserves attention.

For the Black Sea, the EWG encountered special difficulties when evaluating these resources due to shared stocks with non-EU countries.

EWGs involved in these assessments, including EGW17-06, agreed that there is currently a lack of data, especially for shared stocks, and highlighted the urgent need to increase stocks definition and knowledge for future assessments.

Fisheries Management and stock status in the region

During the last two years, the EU accelerated the development and introduction of multiannual plans under the CFP.

The 40th session of the GFCM established further emergency measures in 2017 and 2018 for small pelagic stocks in the Adriatic Sea (GSA 17 and GAS 18) considering that both anchovy and sardine stocks in GSA 17 and GSA 18 are overexploited and fishing mortality needs to be reduced (Recommendation GFCM 40/2016/3). This recommendation foresees various measures:

- Catch limitations for small pelagic,
- Reduction in fishing effort for the years 2017-2018,
- Spatio-temporal closures to protect nursery and spawning areas for the years 2017-2018,
- Fleet capacity limitations.

In 2014, at the initiative of the EU, the GFCM adopted a recommendation for a multiannual management plan for fisheries on small pelagic stocks in the Northern Adriatic Sea (Recommendation GFCM 37/2013/1). The recommendation also foresees transitional conservation measures for fisheries on small pelagic stocks in the Southern Adriatic Sea. The GFCM multiannual plan mainly applies to EU fisheries since both small pelagic species are primarily exploited by EU fishing vessels.

In 2015 - as the assessed demersal stocks in GSA 12 to 16 were overexploited - the GFCM recommended a set of minimum standards for bottom trawling fisheries of demersal stocks in the Straits of Sicily pending the development and adoption of a multiannual management plan (Recommendation GFCM 39/2015/2). In 2016, the GFCM established a multiannual management plan for fisheries exploiting hake and deep-water rose shrimp in the Strait of Sicily (GSA 12 to 16) applicable to bottom trawlers greater than 10 meters in length overall (LOA) when the total catches of these species represents at least 25% of the catch in live weight or value. (Recommendation GFCM 40/2016/4). The main measures adopted were technical measures (including Fisheries Restricted Areas, FRAs) for the conservation and management of hake and deep-water rose shrimp in three areas of the Strait of Sicily); management of fishing effort, specific measures to address IUU fishing, national measures for control, monitoring and surveillance, and scientific monitoring.

TAC development of main species

The bluefin tuna fishery in the Mediterranean is regulated by the International Commission for the Conservation of Atlantic Tunas (ICCAT) to which the EU is a contracting party. Eight EU Member States are involved in the bluefin Tuna fishery (Cyprus, France, Greece, Croatia, Italy, Malta, Portugal and Spain). Prior to 2016 this was the only stock regulated by TAC.

In 2010, 2012 and 2014 substantial measures were introduced to ensure the sustainable management of this stock. In 2014, ICCAT endorsed a 20% annual increase of the bluefin tuna (BFT) Total allowable catch (TAC) over the next three years. As a result, the EU quota increased from 7 938.65 tonnes in 2014 to 9 372.92 tonnes in 2015 (20%), to 11 203.54 tonnes in 2016 and to 13 451.36 tonnes in 2017.

In 2016, ICCAT (for the first time) agreed a Total Allowable Catch (TAC) of 10 500 tonnes for Swordfish (Recommendation 16-06). Recognizing the outcome of the stock assessment conducted by SCRS that year and, in particular, the overfished status of the stock (the SCRS recommended substantially reducing catches and increased monitoring of landings and discards) ICCAT decided to implement a 15-year recovery plan starting in 2017 and continuing through 2031, with the goal of achieving BMSY with at least 60% probability. Apart from a TAC, other measures were also established including capacity limitations, a closed fishing season, minimum size limits, control measures, and on-board scientific observers.

There are 2 species under TAC management in the Black Sea, turbot and sprat with the quota for turbot divided evenly between Bulgaria and Romania. For sprat, Bulgaria and Romania's national quotas are set at 70% and 30% of the total EU quota, respectively.

Description of relevant fisheries in the region

Small-scale coastal fleet

The Mediterranean fishery is dominated by small-scale vessels dispersed across many landing places that use a variety of fishing gears even on the same fishing trip. For small-scale inshore vessels, such polyvalent activity is a common practise. SSCF in the Mediterranean & Black Sea involves a significant number of fishing techniques (static nets like trammel nets, gillnets, set longlines, pots, and traps) and target a vast range of species, adapting to fishing seasons based on a rotation system. Moreover, SSCF faces intense competition from LCF. There are also a variety of vessels operating in the same fishing areas, and this can lead to conflict. This conflict, between the small-scale and large-scale fleets, was highlighted by some as a major factor impacting on financial performance. Another problem that negatively affects the economic performance of small-scale fishers is competition with an increasing number of recreational fishers, who usually fish in coastal areas and sometimes illegally sell their catch at low prices.

The small-scale coastal fleet (vessels under 12m using passive gears) in the Mediterranean & Black sea area is of vital importance since it represents the 69% of the total fleet by number of vessels (79% if Greece is included) and 42% of all employment. Specifically, there are 14 316 small-scale vessels with a combined gross tonnage of 31 thousand GT and a total power of 530 thousand kW. In 2015, 22 411 fishers were directly employed in the Mediterranean small-scale fishing fleet (42 831 including Greece), corresponding to 14 137 FTEs (32 627 FTEs including Greece). The majority of them are family based enterprises. Two Member States in particular represent major employers: Greece with 18 490 FTEs and Italy with 9 858 FTEs, respectively. In addition, in some Member States (e.g. Greece and Cyprus) women play a key role in many SSCFs, very often through the provision of unpaid labour.

Landings by the Mediterranean SSCF amount to 12% of the total landed weight in the region but 22% of the total value (excluding Greece). The higher value achieved by the SSCF (compared to the LSF) appears to reflect higher prices linked to differences in quality, freshness, product size and the use of different marketing channels. The SSCF generally operates through very short supply-chains.

Despite the fact that SSCF vessels are small, they are vital for local economies and have strong ties to them. They usually offer income and employment to poor and isolated areas with very few alternative economic activities. SSCF activities also have significant connections with other local activities including coastal tourism, shipping activities, etc. that contribute significantly to the maintenance of the social and economic sustainability of local coastal communities.

The SSCF accounted for 66% of the total days at sea in the Mediterranean & Black Sea region and generated a revenue of €333 million. Gross Value Added was estimated at around €234 million. Gross Profit and Net Profit were estimated at €98 million and €45 million, respectively. The labour productivity (GVA per FTE) was estimated at €16.5 thousand. The highest Net Profit was generated by the Italian SSCF at €33.7 thousands. The economic performance of the SSCF revealed an improvement on 2015. According to the available data, only Malta generated gross losses and three member States (Cyprus, Croatia, and Malta) reported net losses in 2015.

The SSCF showed a large variety of target species including common sole (mainly Croatia and Slovenia), common cuttlefish (mainly Italy, Croatia and Spain) and surmullet (mainly Italy, France, Spain and Cyprus). Other target species include common octopus (mainly Italy, Croatia, Spain, France and Malta) and European hake (mainly Italy, Croatia, Spain and France). In the Black Sea, the most important target species is Thomas' rapa whelk (i.e., sea snails) in Romania and Bulgaria (Figure 4.72).

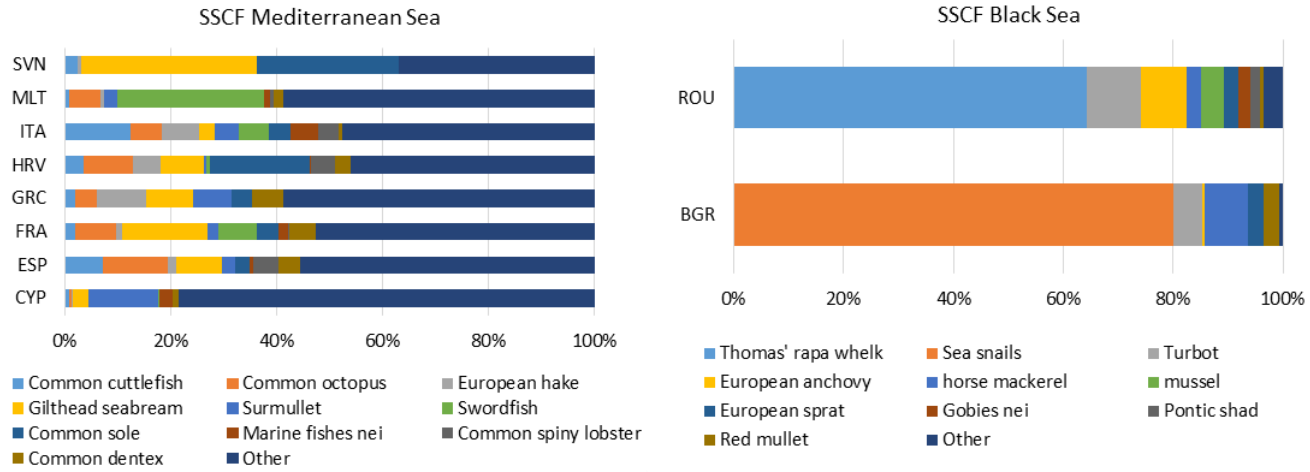


Figure 4.72 Top 10 species landed in terms of value as a proportion of the total landings in the region by MS small-scale coastal fleets operating in the Mediterranean & Black seas, 2015

Small pelagic fisheries in the Adriatic Sea

In 2013, a multiannual plan for small pelagic fisheries in the Adriatic Sea was adopted by GFCM (Recommendation GFCM 37/2013). This plan establishes management measures and harvest control rules for fisheries targeting sardine (*Sardina pilchardus*) and anchovy (*Engraulis encrasicolus*) in the Northern Adriatic Sea (GSA 17) and transitional conservation measures for small pelagic fisheries in the southern Adriatic Sea (GSA 18). The plan was amended by emergency measures in 2014 (GFCM/38/2014/1), 2015 (GFCM/39/2015/1) and 2016 (GFCM/40/2016/3). The last recommendation foresees measures that apply in 2017 and 2018, but also introduced additional restrictions on the number of days targeting sardine,

capacity limitations for purse seiners and pelagic trawlers, and additional closure periods. It also introduced a spatial closure (for a period of at least 6 months) in areas important for younger age classes of fish, and catch limit on the total quantity of small pelagics (sardine and anchovy).

Three EU Member States were involved in small pelagic fisheries in the Adriatic in 2015: Croatia, Italy and Slovenia. The fleets involved totalled 368 vessels with a combined gross tonnage (GT) of 27 720 tonnes (down 5% on 2014[8]). For Croatia and Slovenia, the principle gear is the purse seine while the Italian fleet employs the "volante" mid-water pair-trawl (towed by two vessels), mostly operated in the northern and central area. The Italian purse seine fleet operate mainly in the central Adriatic. In 2015, 250 vessels were classified in purse seiners segments and 118 in pelagic trawler segments.

Total landings from GSA17 and GSA 18 amounted to 121 047 tonnes in 2015 comprising more than 90% sardine and anchovy. Valued at €94.6 million these fisheries employed some 2 339 fishers (1 916 FTE) a small decrease on 2014 (2 543 employees and 1 978 FTEs).

Small pelagics are the main fisheries resources of the Adriatic Sea, accounting for a large share of the total catches. In the eastern part fishing by Croatian vessels has been directed mostly at sardines, while anchovies are mainly landed by Italian pelagic fleet.

Prices for sardines and anchovies show a high variability between countries. In Croatia in 2015 the average price was 0.38 €/kg for sardine and 0.85 €/kg for anchovies while in Italy it was 0.78 €/kg and 1.68 €/kg, respectively. These price differences are partly explained by the respective markets in each country; in Croatia small pelagic are used by the processing, salting and marinating industries, as well as for fish feed for tuna farms while in Italy fish are sold fresh for local consumption and in minor quantities for export (mainly for processing in Spain).

The revenue generated by the Adriatic pelagic fleet in 2015 was estimated at €97.7 million, an increase of 10% on 2014. Gross profit was estimated at €27.5 million.

As the current fisheries for small pelagics in the Adriatic are highly dependent on only 2 species (sardine and anchovy) they are consequently highly sensitive to management measures imposed on these stocks. Bearing in mind the likely impact of the additional provisions of the GFCM management plan in 2017 and 2018 along with any impact of the planned EU multiannual plan for small pelagics, the economic situation of the dependent fleets should be monitored carefully.

Large-scale fleet

In 2015, the large-scale fleet fishing in the Mediterranean consisted of 6 393 vessels with total tonnage of 233 thousand GT and engine power of 1.14 million kW. The total landed weight was 324 thousand tonnes with estimated value of €1.04 billion, which resulted in generating of €594 million in GVA, and net profit of €84 million. The large-scale fleet in the Mediterranean employs a total of 23 024 people, corresponding to 19 731 FTE. Total labour cost in 2015 were €327 million while the labour productivity (GVA per FTE) was €30 100. The Mediterranean large-scale fleet accounts for 42% of the EU LSF (number of vessels) but only 8% of the landing weight and 20% of landed value. Overall the Mediterranean LSF is profitable, with a gross profit margin estimated at 26% and a net profit margin of 8% in 2015 (excluding Greece).

The most important fleets in the region are Italy with 3 895 vessels and landings of 161 thousand tonnes; Spain (1 071 vessels and 71 thousand tonnes); and Croatia (1 052 vessels and 72 thousand tonnes). In 2015, these fleets landed €677 million (Italy), €265 million (Spain) and €53 million (Croatia), respectively.

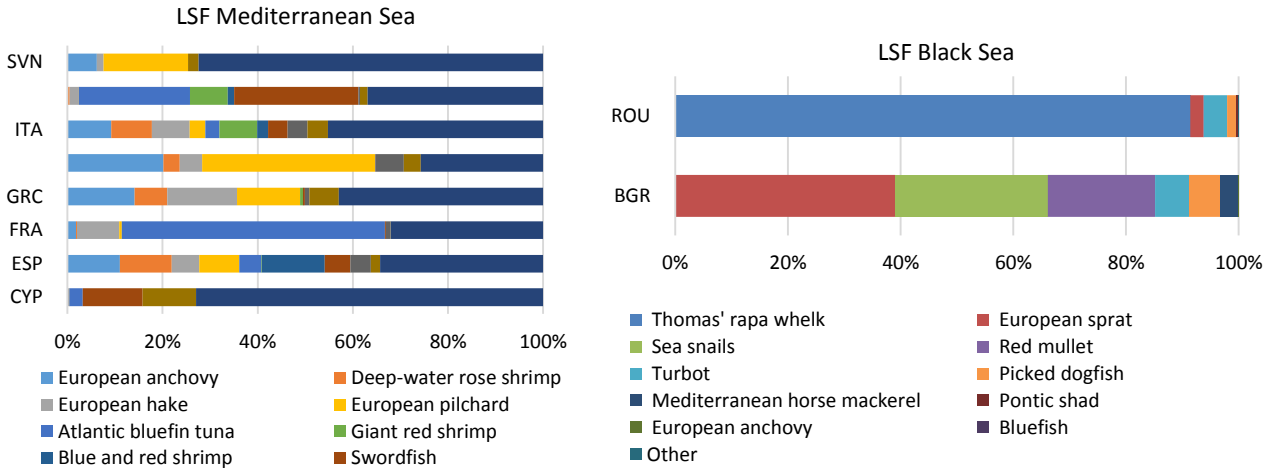


Figure 4.73 Top 10 species landed in terms of value as a proportion of the total landings in the region by MS large-scale fleets operating in the Mediterranean & Black seas, 2015

One of the main issues for the LSF in the Mediterranean is a high dependency on a small number of species and the status of these stocks. For many fleets, success is highly sensitive to management measures for these stocks. This is especially true for pelagic fisheries where a significant proportion of the landed weight derives from one or two species.

[8] Italian data on pelagic fisheries in the Adriatic Sea refers to fleets operating in GSA 17 and GSA 18 (source: Italian National Programme on Data Collection).

And this is the case not just for individual fleet segments and fisheries, but it is also reflected at a national level for some Member States. For example, swordfish and bluefin tuna contribute to a significant part of the total landing value generated by the Maltese LSF; sardine and anchovy contribute more than half of the landed value of Croatian LSF; while bluefin tuna account for the bulk of the landed value of the French LSF. In contrast, the Italian LSF harvest a higher variety of species with anchovy, European hake, deep-water rose shrimp and giant red shrimp accounting for about 34% of landed value.

Considering that from 2017 the ICCAT recovery plan for Mediterranean swordfish will see a gradual TAC reduction while the bluefin TAC will likely see increases in coming years, some impact can be expected at the fleet and national levels.

In the Adriatic, fleets heavily dependent on small pelagics are similarly vulnerable. As the current fisheries are highly dependent on sardine and anchovy they are consequently highly sensitive to the status of these stocks and the management measures imposed on them (see above).

Demersal fisheries in the Western Mediterranean Sea

The main demersal species caught in the Western Mediterranean are hake, red mullet, blue whiting, monkfish, Norway lobster and a variety of shrimp species (deep-water rose, giant red, blue and red). French, Italian and Spanish vessels landed approximately 100 000 tonnes in 2015 valued at €675 million. These were taken using a variety of gears including demersal trawls, long-lines, gillnets, trammel nets and traps. By value, the most important fleets were the Spanish and Italian trawlers.

The European Union has proposed a Multiannual Management Plan (MAP) for fisheries exploiting demersal stocks in the Western Mediterranean. Based on MS data, the fleet covered by this plan includes around 10 900 vessels, with a combined gross tonnage of 91 thousand GT and engine power of 587 thousand kW. Days at sea by these vessels totalled more than 1.1 million in 2015 with an average of 104 days per vessel. The fleets affected[9] include those of Italy (50% of the vessels potentially affected), Spain (39%) and France (11%) of which trawlers represent 14% of the total fleet, long-liners 2%, gillnets 7%, trammel nets and traps 47% with a further 30% classed as polyvalent. In 2015, demersal fisheries were responsible for 16 232 jobs, corresponding to 13 449 FTEs. With the exception of Spanish gillnets all fleet segments reported a gross profit and GVA was estimated at €325 million.

Demersal trawlers fishing in the Straits of Sicily

The Straits of Sicily are one of the most important demersal fishing areas in the Mediterranean. Sicilian trawlers (DTS1824) fishing in GSA 16 operate out of seven harbours along the southern coast including Mazara del Vallo. These vessels generally conduct short trips ranging from 1 to 2 days at sea, fishing on the outer shelf and upper slope. Larger Sicilian trawlers (DTS2440) go on longer fishing trips, which may last up to 4 weeks. These vessels operate offshore in both the Italian and international waters of the Strait of Sicily.

The fleet segment DTS1824 numbered 134 vessels and DTS2440 numbered 113 vessels in 2015. These two segments saw declines in capacity and effort deployed over 2010-2015 (-22% vessels, -24% GT and -33% in days at sea).

Landings in 2015 amounted to approximately 11 thousand tonnes valued at €99 million. Deep-water pink shrimp was the main target species, accounting for about 46% of the demersal landings, with European hake and giant red shrimp totalling 13% and 9%, respectively.

According to the more recent (STECF) assessments all three species are overfished. In 2016, the GFCM established a multiannual management plan for the fisheries exploiting European hake and deep-water rose shrimp in the Strait of Sicily (GSA 12 to 16). It is applied to bottom trawls above 10 meters length overall, when the total catches of these species represent at least 25% of the catch in live weight or value (Recommendation GFCM 40/2016/4). The plan aims to ensure that exploitation levels of European hake and deep-water rose shrimp are at MSY by 2020 at the latest and to protect nursery areas and essential fish habitats in the Strait of Sicily.

Both the DTS1824 and DTS2440 segments recorded increased profitability in 2015; gross profit increased for the DTS2440 segment as a consequence of high revenues and lower energy costs. The average price of giant red shrimp, one of the target specie, strongly increased in 2015 (+28%); the first sale price of this specie was 23.43 €/kilo in 2015.

Performance by fleet segment

Table 4.32 provides results for the top 40 MS fleet segments operating in the (out of 138 active fleet segments and noting that Greece is excluded). These fleets represented 74% of the total; cover 87% of the effort deployed (1.8 million days); generate 93% of the revenue (€1.26 billion); 93% of the GVA (€771 million); and 94% of the gross profit (€344 million).

There were 129 MS fleet segments that operated 80% or more in the Mediterranean & Black Sea in 2015, accounting for over 99% of the number of vessels, effort deployed, employment and revenue (Table 4.33).

At fleet segment level, Italian 12-18m demersal trawlers and seiners generated the most revenue from the Mediterranean & Black Sea region in 2015 (€176 million), followed by the 06-12m Italian polyvalent/passive gear segment (€170 million) and the Italian 18-24m demersal trawl and seine segment (€163 million). The same fleet segments also generated the highest GVA and gross profit (Table 4.32).

[9] Italian data on demersal fisheries in the Western Med refers to fleet operating in GSA 9, GSA 10 and GSA 11 (source: Italian National Program on Data Collection).

Table 4.27 Structure and economic performance estimates by MS fleets operating in the Mediterranean & Black Sea region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
BGR	1,204	100%	5,020	39,634	1,728	608	22,709	100%	22,709	100%	8,309	100%	3,773	100%	4,919	7,120	2,359	1,371	4,688	65.8	2,329	32.7	1,283	18.0	4	7.7
HRV	2,823	100%	32,702	246,072	5,067	2,384	241,992	100%	206,701	100%	72,907	100%	60,921	100%	60,921	74,550	23,264	14,252	39,421	52.9	16,158	21.7	- 9,433	- 12.7	14	16.5
CYP	833	99%	2,877	36,477	1,245	754	64,504	99%	64,504	99%	1,290	87%	6,489	86%	6,489	6,489	896	1,649	818	12.6	- 78	- 1.2	- 5,822	- 89.7	1	1.1
FRA	1,246	22%	14,181	125,088	2,011	577	63,906	14%	62,814	15%	11,203	2%	54,498	5%	69,749	74,511	28,690	13,479	39,331	52.8	10,641	14.3	- 90	- 0.1	32	68.1
ITA	11,325	100%	149,372	942,341	25,767	21,439	1,437,736	100%	1,526,871	100%	188,752	100%	889,933	100%	889,933	895,015	277,314	198,020	551,002	61.6	273,688	30.6	107,075	12.0	49	25.7
MLT	781	100%	5,102	57,706	1,463	872	24,965	100%	23,347	100%	2,437	100%	11,576	100%	11,576	12,457	3,777	2,266	5,920	47.5	2,143	17.2	- 804	- 6.5	8	6.8
PRT	2	0%	293	686	11	11	426	0%	409	0%	71	0%	673	0%	897	897	297	175	618	68.9	321	35.8	188	20.9	412	54.9
ROU	127	100%	845	5,825	352	44	4,045	100%	3,681	100%	4,843	100%	4,282	100%	4,282	4,282	551	519	3,522	82.2	2,970	69.4	2,693	62.9	28	79.7
SVN	88	100%	386	5,556	119	84	8,706	100%	8,706	100%	196	100%	1,273	100%	1,273	2,031	961	220	1,560	76.8	599	29.5	284	14.0	18	18.6
ESP	2,281	27%	53,970	212,959	7,672	7,094	247,362	27%	247,362	27%	77,641	8%	298,827	16%	299,251	301,885	124,651	45,413	180,785	59.9	56,134	18.6	33,591	11.3	79	25.5

* Incomplete and questionable data for Greece. Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.28 Structure and economic performance estimates by main type of fishery (pelagic, demersal, other) for fleets operating in the Mediterranean & Black Sea region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Pelagic	907	47%	56,032	245,477	6,530	5,161	104,526	45%	99,887	48%	186,768	8%	222,338	13%	218,886	226,905	88,167	27,445	150,899	66.5	62,732	27.7	22,478	9.9	166.3	29.2
Demersal	4,151	40%	156,542	739,676	12,827	11,461	507,871	38%	501,992	40%	115,638	7%	714,969	21%	700,838	709,373	200,847	202,967	374,123	52.7	173,276	24.4	47,914	6.8	90.1	32.6
Other	15,651	42%	52,174	687,192	26,079	17,246	1,503,953	48%	1,565,225	50%	65,242	10%	394,939	22%	429,568	442,959	173,746	46,953	302,643	68.3	128,897	29.1	58,573	13.4	19.3	17.5

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.29 Structure and economic performance estimates by MS and main type of fishery (pelagic, demersal, other) for fleets operating in the Mediterranean & Black Sea region, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Pelagic	BGR	85	100%	2,398	10,855	206	158	5,935	100%	5,935	100%	4,700	100%	2,154	100%	2,137	2,219	667	705	1,149	51.8	482	21.7	82	3.7	13.5	7.3
Pelagic	ESP	224	37%	9,581	42,637	2,254	1,963	27,167	40%	27,167	40%	44,052	11%	75,236	12%	70,234	70,993	37,372	4,813	49,048	69.1	11,677	16.5	8,299	11.7	219.1	25.0
Pelagic	FRA	32	21%	4,656	17,298	245	12	551	3%	531	4%	226	0%	533	0%	2,101	5,933	1,095	448	3,008	50.7	1,913	32.2	-597	-10.1	94.0	248.6
Pelagic	HRV	201	100%	16,498	68,016	1,331	962	28,895	100%	24,107	100%	65,629	100%	31,701	100%	31,701	34,676	12,564	4,883	19,481	56.2	6,917	20.0	-5,361	-15.5	96.9	20.2
Pelagic	ITA	357	100%	22,517	104,410	2,440	2,035	41,567	100%	41,753	100%	71,451	100%	110,864	100%	110,864	111,071	36,142	16,504	76,526	68.9	40,383	36.4	18,822	17.0	214.2	37.6
Pelagic	MLT	6	100%	358	2,047	43	23	186	100%	169	100%	662	100%	1,703	100%	1,703	1,703	258	83	1,400	82.2	1,142	67.1	1,025	60.2	233.3	59.9
Pelagic	SVN	2	100%	24	214	10	7	225	100%	225	100%	48	100%	146	100%	146	309	70	10	288	93.0	218	70.5	208	67.1	143.8	39.5
Demersal	CYP	4	53%	400	1,247	26	26	384	53%	384	53%	113	58%	743	50%	743	743	94	309	142	19.1	47	6.4	-570	-76.8	38.4	5.5
Demersal	ESP	646	23%	35,997	112,968	2,651	2,891	77,991	24%	77,991	24%	23,196	7%	165,660	22%	147,696	149,375	54,314	34,972	77,773	52.1	23,459	15.7	8,883	6.0	120.3	26.9
Demersal	FRA	63	7%	5,815	19,256	233	178	11,386	7%	11,070	8%	7,103	4%	26,439	5%	30,271	31,182	8,914	10,197	11,499	36.9	2,584	8.3	-2,409	-7.7	182.5	64.5
Demersal	HRV	475	100%	10,469	70,031	915	536	48,603	100%	43,673	100%	5,319	100%	18,418	100%	18,418	21,748	4,901	7,671	9,463	43.5	4,562	21.0	-2,939	-13.5	19.9	17.7
Demersal	ITA	2,942	100%	102,190	530,413	8,930	7,767	367,483	100%	367,065	100%	79,658	99%	501,711	99%	501,711	503,709	131,978	149,299	273,956	54.4	141,978	28.2	45,148	9.0	93.1	35.3
Demersal	MLT	11	100%	1,508	4,188	53	53	1,165	100%	949	100%	185	100%	1,616	100%	1,616	2,040	345	417	880	43.1	535	26.2	-263	-12.9	80.0	16.6
Demersal	SVN	10	100%	164	1,573	19	10	860	100%	860	100%	64	100%	381	100%	381	577	300	102	410	71.2	110	19.1	66	11.4	41.0	39.1
Other	BGR	1,119	100%	2,621	28,779	1,522	450	16,774	100%	16,774	100%	3,609	100%	1,619	100%	2,782	4,901	1,692	666	3,539	72.2	1,847	37.7	1,201	24.5	3.2	7.9
Other	CYP	829	100%	2,478	35,230	1,219	728	64,120	100%	64,120	100%	1,177	92%	5,746	95%	5,746	5,746	802	1,340	677	11.8	-125	-2.2	-5,252	-91.4	0.8	0.9
Other	ESP	1,411	28%	8,392	57,354	2,767	2,241	142,204	27%	142,204	27%	10,394	5%	57,930	11%	81,321	81,516	32,966	5,629	53,964	66.2	20,998	25.8	16,409	21.3	38.3	24.1
Other	FRA	1,151	25%	3,710	88,534	1,532	387	51,969	19%	51,213	20%	3,874	3%	27,527	7%	37,377	37,396	18,681	2,833	24,825	66.4	6,144	16.4	2,916	7.8	21.6	64.1
Other	HRV	2,147	100%	5,735	108,026	2,821	885	164,494	100%	138,921	100%	1,959	100%	10,802	100%	10,802	18,126	5,798	1,699	10,478	57.8	4,679	25.8	-1,133	-6.3	4.9	11.8
Other	ITA	8,026	100%	24,666	307,517	14,397	11,637	1,028,686	100%	1,118,053	100%	37,643	100%	277,359	100%	277,359	280,235	109,193	32,217	200,520	71.6	91,326	32.6	43,104	15.4	25.0	17.2
Other	MLT	764	100%	3,236	51,471	1,367	796	23,614	100%	22,229	100%	1,591	100%	8,257	100%	8,257	8,714	3,174	1,767	3,640	41.8	466	5.4	-1,566	-18.0	4.8	4.6
Other	PRT	2	0%	293	686	11	11	426	0%	409	0%	71	0%	673	0%	897	897	297	175	618	68.9	321	35.8	188	20.9	412.0	54.9
Other	ROU	127	100%	845	5,825	352	44	4,045	100%	3,681	100%	4,843	100%	4,282	100%	4,282	4,282	551	519	3,522	82.2	2,970	69.4	2,693	62.9	27.7	79.7
Other	SVN	76	100%	199	3,769	90	66	7,621	100%	7,621	100%	83	100%	745	100%	745	1,145	591	108	862	75.3	271	23.7	11	1.0	11.3	13.1

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.30 Structure and economic performance estimates by main type fishing activity (SSCF and LSF) in the Mediterranean & Black Sea region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
SSCF	14,316	43%	31,313	529,879	22,411	14,137	1,369,762	51%	1,427,702	53%	43,556	16%	290,013	35%	321,326	332,726	136,096	32,261	233,888	70.3	97,792	29.4	45,415	13.8	16.3	16.5
LSF	6,393	42%	233,436	1,142,466	23,024	19,731	746,588	39%	739,402	41%	324,093	8%	1,042,233	20%	1,027,965	1,046,512	326,664	245,104	593,778	56.7	267,113	25.5	83,550	8.0	92.9	30.1

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.31 Structure and economic performance estimates by MS and main type of fishing activity operating in the Mediterranean & Black Sea region, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
SSCF	BGR	1,080	100%	1,801	22,780	1,429	382	13,772	100%	13,772	100%	1,774	100%	701	100%	1,622	3,675	1,425	282	2,939	80.0	1,513	41.2	1,123	30.6	3	7.7
SSCF	CYP	807	100%	1,875	31,830	1,126	635	62,443	100%	62,443	100%	693	100%	4,553	100%	4,553	4,553	292	980	839	18.4	548	12.0	- 3,601	- 79.1	1	1.3
SSCF	ESP	1,210	29%	3,788	39,743	1,940	1,493	122,442	31%	122,442	31%	6,438	24%	33,614	32%	53,685	53,685	21,003	2,686	38,200	71.2	17,198	32.0	14,999	30.5	32	25.6
SSCF	FRA	1,108	27%	2,981	83,996	1,437	369	50,022	24%	49,525	24%	3,504	4%	23,544	13%	33,865	33,885	16,923	2,659	21,779	64.3	4,857	14.3	1,967	5.8	20	59.0
SSCF	HRV	1,771	100%	4,937	93,895	2,402	745	136,128	100%	116,499	100%	1,365	100%	7,960	100%	7,960	14,453	4,899	1,492	8,257	57.1	3,357	23.2	- 1,947	- 13.5	5	11.1
SSCF	ITA	7,430	100%	13,869	210,370	12,559	9,858	953,800	100%	1,032,659	100%	27,455	100%	213,339	100%	213,339	215,647	88,689	22,795	158,375	73.4	69,687	32.3	33,697	15.6	21	16.1
SSCF	MLT	721	100%	1,668	41,359	1,138	567	20,413	100%	19,932	100%	635	100%	3,954	100%	3,954	4,080	2,017	1,058	1,390	34.1	- 627	- 15.4	- 1,716	- 42.0	2	2.5
SSCF	ROU	113	100%	194	2,137	290	21	3,122	100%	2,809	100%	1,609	100%	1,604	100%	1,604	1,604	258	202	1,246	77.7	989	61.7	881	54.9	11	60.6
SSCF	SVN	76	100%	199	3,769	90	66	7,621	100%	7,621	100%	83	100%	745	100%	745	1,145	591	108	862	75.3	271	23.7	11	1.0	11	13.1
SSCF	GRC	13,567	100%	26,490	252,161				100%		#DIV/0!		100%		100%						- 96.0		- 303.9		- 338.8		
LSF	BGR	124	100%	3,218	16,854	299	225	8,937	100%	8,937	100%	6,535	100%	3,072	100%	3,297	3,445	933	1,089	1,749	50.8	816	23.7	161	4.7	14	7.8
LSF	CYP	26	78%	1,003	4,647	119	119	2,061	76%	2,061	76%	597	76%	1,936	64%	1,936	1,936	604	669	- 21	- 1.1	- 625	- 32.3	- 2,222	- 114.8	- 1	- 0.2
LSF	ESP	1,071	26%	50,182	173,216	5,732	5,601	124,920	26%	124,920	26%	71,204	17%	265,213	28%	245,566	248,200	103,649	42,728	142,585	57.5	38,936	15.7	18,592	7.5	133	25.5
LSF	FRA	138	9%	11,200	41,092	574	208	13,884	6%	13,289	6%	7,699	2%	30,954	4%	35,884	40,627	11,767	10,819	17,552	43.2	5,785	14.2	- 2,057	- 5.1	127	84.3
LSF	HRV	1,052	100%	27,764	152,177	2,665	1,638	105,864	100%	90,202	100%	71,542	100%	52,961	100%	52,961	60,097	18,364	12,760	31,165	51.9	12,800	21.3	- 7,486	- 12.5	30	19.0
LSF	ITA	3,895	100%	135,503	731,971	13,208	11,581	483,936	100%	494,212	100%	161,297	100%	676,595	100%	676,595	679,368	188,625	175,225	392,626	57.8	204,001	30.0	73,378	10.8	101	33.9
LSF	MLT	60	100%	3,434	16,347	325	305	4,552	100%	3,415	100%	1,802	100%	7,622	100%	7,622	8,377	1,760	1,208	4,530	54.1	2,770	33.1	912	10.9	76	14.8
LSF	PRT	2	0%	293	686	11	11	426	0%	409	0%	71	0%	673	0%	897	897	297	175	618	68.9	321	35.8	188	20.9	412	54.9
LSF	ROU	14	100%	650	3,689	62	24	923	100%	872	100%	3,234	100%	2,679	100%	2,679	2,679	294	317	2,276	85.0	1,982	74.0	1,812	67.7	163	96.4
LSF	SVN	12	100%	187	1,787	29	18	1,085	100%	1,085	100%	113	100%	528	100%	528	886	370	112	698	78.8	328	37.1	273	30.8	58	39.3
LSF	GRC	834	100%	43,921	157,796				100%		#DIV/0!		100%		100%						- 37.0		- 100.0		- 121.1		

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.32 Structure and economic performance estimates for the top 40 MS fleets operating in the Mediterranean & Black Sea region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
ITA A37 DTS1218	1,159	100%	22,570	163,127	3,332	3,246	173,544	100%	172,230	100%	25,201	100%	175,805	100%	175,805	175,879	44,074	48,858	99,472	56.6	55,398	31.5	37,288	21.2	86	30.6
ITA A37 PGP0612	5,205	100%	11,572	191,474	9,435	7,649	687,930	100%	748,088	100%	21,989	100%	168,662	100%	168,662	170,457	69,339	19,038	123,201	72.3	53,862	31.6	22,304	13.1	24	16.1
ITA A37 DTS1824	610	100%	36,298	164,992	2,426	2,410	96,175	100%	97,048	100%	24,593	100%	162,443	100%	162,443	162,610	37,494	59,385	78,436	48.2	40,942	25.2	4,112	2.5	129	32.5
ITA A37 DTS2440	218	100%	29,162	93,480	1,091	1,083	30,704	100%	30,224	100%	8,612	100%	93,612	100%	93,612	95,312	28,003	27,162	53,424	56.1	25,422	26.7	- 627	- 0.7	246	49.3
ESP A37 DTS1824	305	99%	18,522	57,196	1,294	1,479	35,320	99%	35,320	99%	12,856	100%	98,816	100%	74,262	74,976	27,390	17,905	38,561	51.4	11,171	14.9	3,553	4.7	126	26.1
ESP A37 DTS2440	135	100%	13,313	41,974	748	835	19,841	100%	19,841	100%	5,987	100%	45,378	100%	48,656	49,376	16,999	12,492	24,213	49.0	7,214	14.6	2,335	4.7	179	29.0
ESP A37 PMP0612	1,018	99%	3,174	33,764	1,553	1,218	105,844	99%	105,844	99%	5,580	98%	28,761	97%	46,442	46,442	17,178	2,113	33,301	71.7	16,123	34.7	14,458	31.1	33	27.3
ITA A37 PGP0006	2,213	100%	2,217	17,848	3,082	2,167	264,421	100%	282,826	100%	5,294	100%	43,567	100%	43,567	44,068	18,958	3,646	34,334	77.9	15,376	34.9	11,023	25.0	16	15.8
ITA A37 DRB1218 °	706	100%	9,339	76,340	1,493	542	46,566	100%	46,682	100%	16,135	100%	40,487	100%	40,487	40,542	15,136	4,828	28,823	71.1	13,688	33.8	2,637	6.5	41	53.2
ITA A37 PGP1218 °	403	100%	5,479	61,121	1,097	1,045	50,668	100%	59,254	100%	5,664	100%	35,874	100%	35,874	36,442	12,883	5,234	25,061	68.8	12,178	33.4	5,127	14.1	62	24.0
ESP A37 PS1824	89	100%	4,279	18,924	1,076	1,001	12,447	100%	12,447	100%	21,494	100%	32,255	100%	29,925	29,925	17,454	2,169	20,679	69.1	3,225	10.8	2,334	7.8	233	20.7
ESP A37 PS1218	90	100%	2,116	11,566	810	687	9,951	100%	9,951	100%	15,055	100%	21,631	100%	23,095	23,095	12,162	1,651	15,208	65.9	3,046	13.2	2,519	10.9	169	22.1
ESP A37 DTS1218	152	100%	3,792	11,545	468	463	17,199	100%	17,199	100%	3,926	100%	19,504	100%	21,681	21,686	8,415	4,200	12,832	59.2	4,417	20.4	2,486	11.5	84	27.7
ITA A37 TM1824	50	100%	3,363	16,099	294	294	7,585	100%	6,916	100%	22,152	100%	19,810	100%	19,810	19,810	5,999	3,442	11,300	57.0	5,302	26.8	2,546	12.9	226	38.4
HRV A37 PS2440 °	71	100%	11,295	39,901	659	515	12,072	100%	10,128	100%	40,789	100%	18,928	100%	18,928	20,875	7,540	3,074	11,456	54.9	3,916	18.8	- 4,619	- 22.1	161	22.2
ITA A37 TM1218 °	37	100%	989	6,777	121	104	4,726	100%	5,357	100%	10,199	100%	18,822	100%	18,822	18,822	6,717	2,775	13,454	71.5	6,736	35.8	6,226	33.1	364	129.2
FRA A37 DTS2440 °	32	100%	3,913	10,094	135	110	6,266	100%	6,120	100%	4,785	100%	16,226	100%	18,291	19,072	5,256	6,231	6,967	36.5	1,711	9.0	- 2,208	- 11.6	218	63.5
ITA A37 HOK1218 °	120	100%	1,980	18,636	472	465	15,111	100%	16,271	100%	2,557	100%	16,710	100%	16,710	16,710	4,140	2,476	9,756	58.4	5,616	33.6	3,465	20.7	82	21.0
FRA A37 DFN0612	539	100%	1,774	46,517	699	182	22,933	100%	22,784	100%	1,275	100%	10,369	100%	16,043	16,043	7,970	1,316	9,971	62.2	2,001	12.5	414	2.6	18	54.9
ITA A37 TM2440	54	100%	5,992	26,952	276	276	6,668	100%	7,211	100%	17,191	100%	15,986	100%	15,986	15,986	4,690	3,955	9,982	62.5	5,293	33.1	1,268	7.9	185	36.2
ITA A37 PS40XX	12	100%	2,945	8,894	165	109	332	100%	306	100%	2,121	100%	15,922	100%	15,922	15,922	5,913	759	13,733	86.3	7,820	49.1	3,980	25.0	1,144	125.9
ESP A37 PS2440 °	25	100%	3,060	11,104	283	203	2,728	100%	2,728	100%	5,974	100%	18,850	100%	15,904	16,617	7,153	901	12,364	74.4	5,211	31.4	3,265	19.7	495	61.0
ITA A37 TBB1824	20	100%	1,487	7,572	190	190	5,326	100%	5,326	100%	2,297	100%	15,167	100%	15,167	15,167	3,553	4,880	6,483	42.7	2,930	19.3	644	4.2	329	34.1
ITA A37 PS2440	50	100%	5,538	21,221	531	483	4,444	100%	4,411	100%	9,470	100%	13,705	100%	13,705	13,713	4,290	2,265	9,424	68.7	5,134	37.4	- 847	- 6.2	187	19.5
ITA A37 PS1218 °	112	100%	1,535	13,964	669	494	13,299	100%	13,193	100%	4,994	100%	13,466	100%	13,466	13,665	4,232	1,841	9,341	68.4	5,109	37.4	3,191	23.4	84	18.9
ITA A37 PS1824	42	100%	2,154	10,504	384	275	4,512	100%	4,359	100%	5,324	100%	13,153	100%	13,153	13,153	4,302	1,468	9,291	70.6	4,990	37.9	2,457	18.7	220	33.8
FRA A37 DTS1824 °	31	100%	1,901	9,162	98	68	5,120	100%	4,950	100%	2,318	100%	10,212	100%	11,980	12,110	3,659	3,966	4,532	37.4	873	7.2	- 201	- 1.7	146	66.2
HRV A37 PS1824	52	100%	4,148	17,966	395	308	8,033	100%	6,723	100%	19,322	100%	9,386	100%	9,386	10,264	3,804	1,277	6,266	61.1	2,462	24.0	- 504	- 4.9	121	20.3
ESP A37 PMP1218	52	100%	587	3,670	130	156	4,395	100%	4,395	100%	411	100%	2,390	100%	8,287	8,287	2,333	698	5,706	68.9	3,373	40.7	2,581	31.2	110	36.6
ITA A37 DTS0612	202	100%	1,160	15,225	287	187	12,388	100%	12,788	100%	1,345	100%	8,253	100%	8,253	8,253	2,051	1,917	4,747	57.5	2,696	32.7	1,674	20.3	23	25.4
ITA A37 HOK1824 °	43	100%	2,977	14,019	182	182	5,684	100%	5,642	100%	1,449	100%	7,848	100%	7,848	7,848	2,427	1,124	4,954	63.1	2,527	32.2	- 196	- 2.5	115	27.3
ESP A37 PGO1824 °	18	74%	1,601	3,152	160	171	2,272	74%	2,272	74%	1,306	74%	7,673	79%	6,778	6,915	2,751	566	4,090	59.1	1,338	19.4	660	9.5	229	24.0
HRV A37 DTS1218 °	191	100%	3,542	29,691	314	197	18,561	100%	16,761	100%	2,007	100%	6,235	100%	6,235	8,588	1,956	2,725	4,069	47.4	2,113	24.6	- 386	- 4.5	21	20.7
ESP A37 PGO1218 °	45	99%	972	3,239	241	168	3,831	99%	3,831	99%	1,316	99%	7,849	99%	5,743	5,800	3,375	486	2,878	49.6	- 496	- 8.6	- 638	- 11.0	65	17.1
FRA A37 PGP0612	92	100%	295	9,573	137	52	6,310	100%	6,240	100%	624	100%	3,956	100%	4,552	4,560	2,235	403	2,884	63.2	649	14.2	288	6.3	31	55.0
HRV A37 DFN0612	713	100%	2,516	44,751	870	345	67,090	100%	52,580	100%	702	100%	4,210	100%	4,210	6,684	1,911	791	3,924	58.7	2,013	30.1	353	5.3	6	11.4
ITA A37 TBB2440	16	100%	1,885	7,397	84	84	1,650	100%	1,650	100%	1,111	100%	4,207	100%	4,207	4,207	900	2,047	1,351	32.1	450	10.7	- 945	- 22.5	85	16.1
CYP A37 PG0612	361	100%	1,283	18,659	654	508	48,027	100%	48,027	100%	610	100%	3,884	100%	3,884	3,884	254	801	988	25.4	734	18.9	- 2,161	- 55.6	3	1.9
ITA A37 PMP1218 °	30	100%	361	3,372	87	87	3,422	100%	4,227	100%	519	100%	3,588	100%	3,588	3,588	1,055	587	2,373	66.1	1,318	36.7	1,012	28.2	79	27.3
HRV A37 DTS2440	17	100%	2,706	7,844	91	74	3,462	100%	3,019	100%	836	100%	3,515	100%	3,515	3,669	801	1,800	1,178	32.1	378	10.3	- 1,293	- 35.2	69	16.0

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.33 Structure and economic performance estimates for MS fleet segments operating 80% or more in the Mediterranean & Black Sea region, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
BGR A37 DFN0006	297	100%	220	2,736	366	92	2,869	100%	2,869	100%	17	100%	11	100%	152	319	118	38	224	70.4	106	33.3	45	14.1	1	2.4
BGR A37 DFN0612	442	100%	888	11,915	528	120	4,134	100%	4,134	100%	36	100%	49	100%	697	2,385	767	113	2,074	87.0	1,307	54.8	1,120	47.0	5	17.4
BGR A37 DFN1218 °	12	100%	205	1,731	19	11	302	100%	302	100%	51	100%	44	100%	101	167	38	29	110	65.6	72	43.2	37	22.0	9	10.4
BGR A37 PMP0006	51	100%	37	389	73	24	1,314	100%	1,314	100%	309	100%	114	100%	80	80	132	10	53	66.1	- 79	- 99.3	- 88	- 110.5	1	2.2
BGR A37 PMP0612	135	100%	368	4,490	215	80	3,753	100%	3,753	100%	1,329	100%	465	100%	523	689	291	88	489	71.0	198	28.7	116	16.8	4	6.1
BGR A37 PMP1218	22	100%	425	3,091	65	50	2,189	100%	2,189	100%	1,481	100%	701	100%	733	733	193	257	310	42.3	117	15.9	- 50	- 6.8	14	6.2
BGR A37 PMP1824 °	5	100%	190	1,177	9	6	511	100%	511	100%	303	100%	172	100%	326	326	36	98	180	55.3	145	44.4	91	28.1	36	27.8
BGR A37 TM1218 °	38	100%	696	5,820	100	75	2,947	100%	2,947	100%	1,485	100%	822	100%	1,019	1,050	385	318	559	53.3	174	16.6	- 37	- 3.6	15	7.5
BGR A37 TM1824	7	100%	368	1,379	18	18	727	100%	727	100%	595	100%	292	100%	292	344	85	84	180	52.3	95	27.6	50	14.6	26	10.3
BGR A37 TM2440	12	100%	1,310	3,510	58	55	1,896	100%	1,896	100%	2,602	100%	1,027	100%	812	812	192	301	405	49.9	213	26.2	74	9.1	34	7.3
BGR A37 FPO0612	39	100%	133	1,304	108	36	526	100%	526	100%	81	100%	59	100%	122	122	90	17	64	52.2	- 26	- 21.2	- 41	- 33.2	2	1.8
BGR A37 HOK0006	33	100%	23	302	39	8	311	100%	311	100%	1	100%	1	100%	14	14	5	3	4	33.0	- 1	- 4.5	- 4	- 29.4	0	0.6
BGR A37 HOK0612	57	100%	107	1,376	72	16	648	100%	648	100%	2	100%	2	100%	27	60	16	10	32	52.7	16	26.7	- 13	- 21.6	1	2.0
BGR A37 FPO0006	7	100%	5	40	7	2	47	100%	47	100%	0.1	100%	0.2	100%	2.6	2.6	5.3	1.0	- 0.8	- 30.4	- 6	- 234.9	- 7	- 282.5	- 0	- 0.5
BGR A37 PGP0612 °	19	100%	21	227	21	6	170	100%	170	100%	0.5	100%	0.3	100%	4.3	4.3	0.8	1.7	- 0.7	- 16.1	- 1	- 34.3	- 5	- 109.7	- 0	- 0.1
BGR A37 PS0006 °	28	100%	24	146	30	10	365	100%	365	100%	18	100%	12	100%	13	13	5	2	5	37.8	0	2.3	- 4	- 34.5	0	0.5
CYP A37 PG0612	361	100%	1,283	18,659	654	508	48,027	100%	48,027	100%	610	100%	3,884	100%	3,884	3,884	254	801	988	25.4	734	18.9	- 2,161	- 55.6	3	1.9
CYP A37 PGO0612	71	100%	217	2,419	71	14	1,938	100%	1,938	100%	7	100%	68	100%	68	68	3	31	- 48	- 70.2	- 50	- 74.1	- 482	- 710.1	- 1	- 3.4
CYP A37 PG0006	32	100%	37	1,385	58	45	3,116	100%	3,116	100%	44	100%	275	100%	275	275	23	32	63	22.8	40	14.6	- 47	- 17.3	2	1.4
CYP A37 PGO0006	343	100%	337	9,366	343	69	9,362	100%	9,362	100%	33	100%	327	100%	327	327	13	115	- 164	- 50.2	- 176	- 54.1	- 910	- 278.8	- 0	- 2.4
ESP A37 PS0612	20	100%	126	1,044	87	72	2,041	100%	2,041	100%	1,529	100%	2,501	100%	1,310	1,356	603	91	797	58.8	194	14.3	181	13.4	40	11.1
ESP A37 DTS2440	135	100%	13,313	41,974	748	835	19,841	100%	19,841	100%	5,987	100%	45,378	100%	48,656	49,376	16,999	12,492	24,213	49.0	7,214	14.6	2,335	4.7	179	29.0
ESP A37 DTS0612	21	100%	169	755	63	67	2,844	100%	2,844	100%	228	100%	1,014	100%	1,931	1,931	715	183	1,295	67.1	580	30.0	459	23.8	62	19.3
ESP A37 PS2440 °	25	100%	3,060	11,104	283	203	2,728	100%	2,728	100%	5,974	100%	18,850	100%	15,904	16,617	7,153	901	12,364	74.4	5,211	31.4	3,265	19.7	495	61.0
FRA A37 DTS1824 °	31	100%	1,901	9,162	98	68	5,120	100%	4,950	100%	2,318	100%	10,212	100%	11,980	12,110	3,659	3,966	4,532	37.4	873	7.2	- 201	- 1.7	146	66.2
FRA A37 PS2440 °	17	100%	4,349	14,028	179	3	4	100%	4	100%	0	100%	2	100%	1	3,833	0	381	1,288	33.6	1,288	33.6	- 1,004	- 26.2	76	450.4
FRA A37 PGP0612	92	100%	295	9,573	137	52	6,310	100%	6,240	100%	624	100%	3,956	100%	4,552	4,560	2,235	403	2,884	63.2	649	14.2	288	6.3	31	55.0
FRA A37 PGO0612	59	100%	117	4,774	86	17	1,785	100%	1,780	100%	163	100%	514	100%	1,180	1,180	624	118	780	66.1	156	13.2	- 56	- 4.7	13	44.9
FRA A37 PGP0006	56	100%	46	1,490	66	20	3,344	100%	3,322	100%	213	100%	1,434	100%	1,369	1,369	700	79	948	69.3	248	18.2	193	14.1	17	47.9
FRA A37 FPO0612	47	100%	150	4,560	58	18	3,110	100%	3,065	100%	285	100%	1,592	100%	1,980	1,980	977	199	1,234	62.4	258	13.0	66	3.3	26	69.0
FRA A37 HOK0612	56	100%	269	6,623	88	13	1,631	100%	1,610	100%	140	100%	1,162	100%	3,025	3,036	1,368	181	2,064	68.0	696	22.9	490	16.2	37	159.8
FRA A37 MGO0612 °	22	100%	132	1,558	38	9	1,123	100%	1,025	100%	104	100%	485	100%	1,311	1,311	640	122	1,035	78.9	395	30.1	309	23.5	47	121.7
FRA A37 DFN0612	539	100%	1,774	46,517	699	182	22,933	100%	22,784	100%	1,275	100%	10,369	100%	16,043	16,043	7,970	1,316	9,971	62.2	2,001	12.5	414	2.6	18	54.9
FRA A37 PGO0006	42	100%	38	1,498	49	11	1,390	100%	1,388	100%	121	100%	326	100%	1,090	1,090	598	42	862	79.1	263	24.2	223	20.5	21	79.0
FRA A37 FPO0006	80	100%	68	2,254	82	17	3,714	100%	3,651	100%	288	100%	1,710	100%	1,424	1,424	779	73	1,061	74.5	282	19.8	216	15.1	13	61.2
FRA A37 DFN0006	100	100%	113	3,954	118	26	3,961	100%	3,954	100%	218	100%	1,416	100%	2,211	2,211	1,148	152	1,448	65.5	300	13.6	217	9.8	14	56.1
FRA A37 PMP0612 °	18	100%	94	2,244	34	11	1,364	100%	1,254	100%	168	100%	950	100%	702	702	382	64	420	59.8	38	5.4	- 35	- 5.1	23	39.4
FRA A37 DTS2440 °	32	100%	3,913	10,094	135	110	6,266	100%	6,120	100%	4,785	100%	16,226	100%	18,291	19,072	5,256	6,231	6,967	36.5	1,711	9.0	- 2,208	- 11.6	218	63.5
FRA A37 DFN1218 °	21	100%	597	2,980	58	9	825	100%	663	100%	265	100%	3,498	100%	2,201	2,201	1,118	52	2,011	91.4	892	40.6	641	29.1	96	215.0
FRA A37 HOK0006	19	100%	17	509	19	3	478	100%	477	100%	10	100%	114	100%	290	290	142	32	108	37.2	- 34	- 11.7	- 50	- 17.3	6	41.6
FRA A37 PS0612 °	15	100%	307	3,270	66	9	547	100%	527	100%	226	100%	531	100%	2,100	2,100	1,095	68	1,720	81.9	625	29.8	407	19.4	115	186.2
HRV A37 DFN0006	328	100%	340	4,161	379	76	26,670	100%	20,740	100%	172	100%	768	100%	768	929	414	66	562	60.5	149	16.0	- 77	- 8.3	2	7.4
HRV A37 DFN0612	713	100%	2,516	44,751	870	345	67,090	100%	52,580	100%	702	100%	4,210	100%	4,210	6,684	1,911	791	3,924	58.7	2,013	30.1	353	5.3	6	11.4

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
HRV	HRV A37 DRB0612	18	100%	162	2,069	38	21	1,991	100%	1,947	100%	248	100%	889	100%	889	935	151	192	622	66.6	471	50.4	341	36.4	35	30.2
HRV	HRV A37 DTS0612 °	180	100%	1,319	15,606	249	98	15,310	100%	13,842	100%	855	100%	2,718	100%	2,718	3,073	950	1,020	1,164	37.9	214	7.0	- 836	- 27.2	6	11.9
HRV	HRV A37 DTS1824	40	100%	2,298	9,935	159	103	5,394	100%	4,370	100%	791	100%	2,917	100%	2,917	3,316	707	1,460	1,073	32.4	366	11.0	- 1,376	- 41.5	27	10.4
HRV	HRV A37 FPO0006	44	100%	51	1,114	44	12	3,241	100%	5,096	100%	25	100%	151	100%	151	858	115	21	781	91.0	665	77.5	627	73.1	18	63.6
HRV	HRV A37 HOK0006	100	100%	100	2,001	173	15	4,283	100%	3,543	100%	26	100%	152	100%	152	694	283	22	605	87.1	322	46.3	281	40.6	6	40.1
HRV	HRV A37 HOK0612 °	235	100%	1,020	25,559	296	91	13,158	100%	9,762	100%	201	100%	1,219	100%	1,219	3,463	1,026	334	1,965	56.7	939	27.1	273	7.9	8	21.5
HRV	HRV A37 MGO0006	273	100%	222	4,393	273	98	19,498	100%	15,601	100%	414	100%	2,022	100%	2,022	2,606	554	41	1,809	69.4	1,254	48.1	1,105	42.4	7	18.5
HRV	HRV A37 MGO0612 °	82	100%	314	6,168	108	26	7,636	100%	5,687	100%	134	100%	486	100%	486	546	177	102	113	20.7	- 64	- 11.7	- 264	- 48.3	1	4.4
HRV	HRV A37 PGP0006 °	62	100%	66	638	71	33	1,564	100%	1,149	100%	5	100%	28	100%	28	28	125	0	- 260	- 914.4	- 385	- 1,354.8	- 1,710	- 6,015.1	- 4	- 7.8
HRV	HRV A37 PGP0612	92	100%	245	3,654	190	65	4,475	100%	3,455	100%	30	100%	244	100%	244	244	238	40	- 71	- 29.1	- 309	- 126.8	- 1,311	- 537.8	- 1	- 1.1
HRV	HRV A37 PMP0006	36	100%	35	473	104	29	1,850	100%	1,437	100%	33	100%	166	100%	166	166	28	3	- 20	- 12.0	- 48	- 29.1	- 66	- 39.4	- 1	- 0.7
HRV	HRV A37 PMP0612 °	52	100%	253	4,927	141	34	3,422	100%	2,679	100%	61	100%	265	100%	265	631	172	94	365	57.9	193	30.7	91	14.4	7	10.7
HRV	HRV A37 PS0612 °	40	100%	259	3,535	88	32	3,737	100%	3,046	100%	330	100%	561	100%	561	569	193	117	285	50.0	92	16.1	- 79	- 13.9	7	8.9
HRV	HRV A37 PS1218	38	100%	795	6,615	189	107	5,053	100%	4,210	100%	5,188	100%	2,826	100%	2,826	2,968	1,026	414	1,473	49.6	447	15.1	- 159	- 5.4	39	13.7
HRV	HRV A37 PS1824	52	100%	4,148	17,966	395	308	8,033	100%	6,723	100%	19,322	100%	9,386	100%	9,386	10,264	3,804	1,277	6,266	61.1	2,462	24.0	- 504	- 4.9	121	20.3
HRV	HRV A37 PS2440 °	71	100%	11,295	39,901	659	515	12,072	100%	10,128	100%	40,789	100%	18,928	100%	18,928	20,875	7,540	3,074	11,456	54.9	3,916	18.8	- 4,619	- 22.1	161	22.2
HRV	HRV A37 DFN1218	21	100%	262	3,570	38	16	1,232	100%	1,134	100%	47	100%	334	100%	334	520	168	64	299	57.5	131	25.2	- 27	- 5.2	14	18.4
HRV	HRV A37 DRB1218 °	29	100%	442	4,885	64	44	3,885	100%	3,734	100%	583	100%	2,145	100%	2,145	2,168	337	475	1,356	62.5	1,019	47.0	612	28.2	47	30.9
HRV	HRV A37 DTS2440	17	100%	2,706	7,844	91	74	3,462	100%	3,019	100%	836	100%	3,515	100%	3,515	3,669	801	1,800	1,178	32.1	378	10.3	- 1,293	- 35.2	69	16.0
HRV	HRV A37 FPO0612 °	109	100%	311	6,616	134	45	10,375	100%	16,058	100%	109	100%	756	100%	756	756	586	120	405	53.7	- 181	- 24.0	- 409	- 54.2	4	9.1
HRV	HRV A37 DTS1218 °	191	100%	3,542	29,691	314	197	18,561	100%	16,761	100%	2,007	100%	6,235	100%	6,235	8,588	1,956	2,725	4,069	47.4	2,113	24.6	- 386	- 4.5	21	20.7
ITA	ITA A37 DRB1218 °	706	100%	9,339	76,340	1,493	542	46,566	100%	46,682	100%	16,135	100%	40,487	100%	40,487	40,542	15,136	4,828	28,823	71.1	13,688	33.8	2,637	6.5	41	53.2
ITA	ITA A37 DTS0612	202	100%	1,160	15,225	287	187	12,388	100%	12,788	100%	1,345	100%	8,253	100%	8,253	8,253	2,051	1,917	4,747	57.5	2,696	32.7	1,674	20.3	23	25.4
ITA	ITA A37 DTS1218	1,159	100%	22,570	163,127	3,332	3,246	173,544	100%	172,230	100%	25,201	100%	175,805	100%	175,805	175,879	44,074	48,858	99,472	56.6	55,398	31.5	37,288	21.2	86	30.6
ITA	ITA A37 DTS1824	610	100%	36,298	164,992	2,426	2,410	96,175	100%	97,048	100%	24,593	100%	162,443	100%	162,443	162,610	37,494	59,385	78,436	48.2	40,942	25.2	4,112	2.5	129	32.5
ITA	ITA A37 DTS2440	218	100%	29,162	93,480	1,091	1,083	30,704	100%	30,224	100%	8,612	100%	93,612	100%	93,612	95,312	28,003	27,162	53,424	56.1	25,422	26.7	- 627	- 0.7	246	49.3
ITA	ITA A37 HOK1218 °	120	100%	1,980	18,636	472	465	15,111	100%	16,271	100%	2,557	100%	16,710	100%	16,710	16,710	4,140	2,476	9,756	58.4	5,616	33.6	3,465	20.7	82	21.0
ITA	ITA A37 HOK1824 °	43	100%	2,977	14,019	182	182	5,684	100%	5,642	100%	1,449	100%	7,848	100%	7,848	7,848	2,427	1,124	4,954	63.1	2,527	32.2	- 196	- 2.5	115	27.3
ITA	ITA A37 PMP1218 °	30	100%	361	3,372	87	87	3,422	100%	4,227	100%	519	100%	3,588	100%	3,588	3,588	1,055	587	2,373	66.1	1,318	36.7	1,012	28.2	79	27.3
ITA	ITA A37 PS1218 °	112	100%	1,535	13,964	669	494	13,299	100%	13,193	100%	4,994	100%	13,466	100%	13,466	13,665	4,232	1,841	9,341	68.4	5,109	37.4	3,191	23.4	84	18.9
ITA	ITA A37 PS1824	42	100%	2,154	10,504	384	275	4,512	100%	4,359	100%	5,324	100%	13,153	100%	13,153	13,153	4,302	1,468	9,291	70.6	4,990	37.9	2,457	18.7	220	33.8
ITA	ITA A37 PS2440	50	100%	5,538	21,221	531	483	4,444	100%	4,411	100%	9,470	100%	13,705	100%	13,705	13,713	4,290	2,265	9,424	68.7	5,134	37.4	- 847	- 6.2	187	19.5
ITA	ITA A37 PS40XX	12	100%	2,945	8,894	165	109	332	100%	306	100%	2,121	100%	15,922	100%	15,922	15,922	5,913	759	13,733	86.3	7,820	49.1	3,980	25.0	1,144	125.9
ITA	ITA A37 TBB1218	12	100%	289	2,281	26	26	1,132	100%	1,118	100%	366	100%	1,739	100%	1,739	1,739	768	221	1,220	70.2	452	26.0	365	21.0	103	47.5
ITA	ITA A37 TBB1824	20	100%	1,487	7,572	190	190	5,326	100%	5,326	100%	2,297	100%	15,167	100%	15,167	15,167	3,553	4,880	6,483	42.7	2,930	19.3	644	4.2	329	34.1
ITA	ITA A37 TBB2440	16	100%	1,885	7,397	84	84	1,650	100%	1,650	100%	1,111	100%	4,207	100%	4,207	4,207	900	2,047	1,351	32.1	450	10.7	- 945	- 22.5	85	16.1
ITA	ITA A37 TM1218 °	37	100%	989	6,777	121	104	4,726	100%	5,357	100%	10,199	100%	18,822	100%	18,822	18,822	6,717	2,775	13,454	71.5	6,736	35.8	6,226	33.1	364	129.2
ITA	ITA A37 TM1824	50	100%	3,363	16,099	294	294	7,585	100%	6,916	100%	22,152	100%	19,810	100%	19,810	19,810	5,999	3,442	11,300	57.0	5,302	26.8	2,546	12.9	226	38.4
ITA	ITA A37 TM2440	54	100%	5,992	26,952	276	276	6,668	100%	7,211	100%	17,191	100%	15,986	100%	15,986	15,986	4,690	3,955	9,982	62.5	5,293	33.1	1,268	7.9	185	36.2
ITA	ITA A37 PGP0006	2,213	100%	2,217	17,848	3,082	2,167	264,421	100%	282,826	100%	5,294	100%	43,567	100%	43,567	44,068	18,958	3,646	34,334	77.9	15,376	34.9	11,023	25.0	16	15.8
ITA	ITA A37 PGP0612	5,205	100%	11,572	191,474	9,435	7,649	687,930	100%	748,088	100%	21,989	100%	168,662	100%	168,662	170,457	69,339	19,038	123,201	72.3	53,862	31.6	22,304	13.1	24	16.1
ITA	ITA A37 PGP1218 °	403	100%	5,479	61,121	1,097	1,045	50,668	100%	59,254	100%	5,664	100%	35,874	100%	35,874	36,442	12,883	5,234	25,061	68.8	12,178	33.4	5,127	14.1	62	24.0
ITA	ITA A37 PMP0612	12	100%	80	1,048	42	42	1,449	100%	1,744	100%	171	100%	1,110	100%	1,110	1,122	391	111	840	74.9	449	40.0	370	33.0	70	20.0

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
MLT	MLT A37 DFN0006	7	100%	6	170	10	4	159	100%	158	100%	3	100%	27	100%	27	38	52	3	34	88.4	- 18	- 47.0	- 25	- 65.6	5	9.3
MLT	MLT A37 DFN0612	1	100%	3	90	1	1	5	100%	5	100%	0	100%	0	100%	0	0	3	1	- 2	- 850.5	- 5	- 1,892.6	- 7	- 2,524.3	- 2	- 4.2
MLT	MLT A37 DTS1824	8	100%	963	2,885	33	33	913	100%	786	100%	131	100%	1,222	100%	1,222	1,496	259	311	764	51.1	505	33.8	56	3.8	96	23.2
MLT	MLT A37 DTS2440	3	100%	545	1,302	20	20	252	100%	163	100%	54	100%	394	100%	394	544	86	105	116	21.3	30	5.5	- 319	- 58.7	39	5.8
MLT	MLT A37 HOK0006	10	100%	12	171	10	4	354	100%	362	100%	5	100%	22	100%	22	22	19	9	1	5.0	- 18	- 83.3	- 26	- 119.4	0	0.3
MLT	MLT A37 HOK0612	43	100%	324	5,470	115	115	2,061	100%	1,712	100%	250	100%	1,486	100%	1,486	1,561	573	249	765	49.0	192	12.3	- 20	- 1.3	18	6.7
MLT	MLT A37 HOK1218	12	100%	274	2,026	62	62	1,122	100%	777	100%	244	100%	1,328	100%	1,328	1,331	329	158	741	55.6	412	30.9	242	18.2	62	11.9
MLT	MLT A37 HOK1824	17	100%	1,051	5,380	109	109	1,456	100%	1,016	100%	386	100%	2,269	100%	2,269	2,598	567	412	1,118	43.1	551	21.2	- 79	- 3.1	66	10.3
MLT	MLT A37 MGO0612	9	100%	91	1,598	34	34	309	100%	249	100%	47	100%	229	100%	229	229	74	90	43	18.7	- 31	- 13.4	- 88	- 38.2	5	1.3
MLT	MLT A37 MGO1218	3	100%	57	522	13	13	155	100%	122	100%	105	100%	208	100%	208	208	97	33	143	68.9	47	22.4	15	7.1	48	11.0
MLT	MLT A37 PGP0006	348	100%	354	9,797	501	160	8,484	100%	8,528	100%	108	100%	738	100%	738	754	230	272	149	19.8	- 80	- 10.7	- 313	- 41.5	0	0.9
MLT	MLT A37 PGP0612	159	100%	474	13,809	243	113	4,111	100%	4,042	100%	101	100%	725	100%	725	733	446	241	148	20.3	- 297	- 40.5	- 590	- 80.5	1	1.3
MLT	MLT A37 PMP0006	20	100%	22	331	28	14	1,290	100%	1,294	100%	13	100%	93	100%	93	93	67	15	50	53.9	- 17	- 18.7	- 31	- 33.9	3	3.6
MLT	MLT A37 PMP0612	132	100%	472	11,509	229	157	3,919	100%	3,801	100%	153	100%	857	100%	857	872	627	268	238	27.3	- 388	- 44.5	- 708	- 81.2	2	1.5
MLT	MLT A37 PS2440	2	100%	222	1,271	12	4	68	100%	53	100%	372	100%	1,540	100%	1,540	1,540	162	44	1,347	87.5	1,184	76.9	1,131	73.4	673	305.4
MLT	MLT A37 FPO0006	1	100%	1	13	1	0	30	100%	30	100%	3	100%	7	100%	7	7	1	1	6	81.6	5	67.2	5	62.7	6	29.6
MLT	MLT A37 PS0612	1	100%	10	201	6	6	3	100%	3	100%	0.6	100%	0.1	100%	0.1	0.1	31.2	27.6	- 76.7	- 67,291	- 108	-94,675.9	- 113	-98,833.5	- 77	- 12.8
MLT	MLT A37 PS1218	2	100%	57	410	15	10	86	100%	86	100%	197	100%	113	100%	113	113	56	5	90	79.8	34	30.3	20	17.6	45	8.9
MLT	MLT A37 MGO1824	2	100%	96	585	11	11	159	100%	133	100%	174	100%	267	100%	267	267	91	17	205	76.7	114	42.6	61	22.7	102	18.6
MLT	MLT A37 PS1824	1	100%	70	164	10	3	29	100%	27	100%	93	100%	50	100%	50	50	8	6	40	79.9	32	63.1	- 13	- 26.2	40	13.8
ROU	ROU A37 PG0006 °	12	100%	9	202	37	2	317	100%	307	100%	36	100%	56	100%	56	56	15	5	47	83.3	31	56.2	28	50.4	4	19.9
ROU	ROU A37 PG0612 °	101	100%	186	1,935	253	18	2,805	100%	2,502	100%	1,573	100%	1,548	100%	1,548	1,548	242	197	1,200	77.5	957	61.9	853	55.1	12	65.8
ROU	ROU A37 PMP1218 °	12	100%	410	2,577	49	14	678	100%	638	100%	2,212	100%	1,826	100%	1,826	1,826	180	205	1,561	85.5	1,382	75.7	1,266	69.3	130	114.7
ROU	ROU A37 PMP2440 °	2	100%	240	1,112	13	10	245	100%	234	100%	1,021	100%	852	100%	852	852	114	112	714	83.8	600	70.4	547	64.1	357	71.5
SVN	SVN A37 DFN0006 °	35	100%	32	512	37	23	3,679	100%	3,679	100%	23	100%	195	100%	195	260	193	22	187	72.1	- 6	- 2.3	- 45	- 17.4	5	8.1
SVN	SVN A37 DFN0612 °	41	100%	166	3,258	53	43	3,942	100%	3,942	100%	60	100%	550	100%	550	885	398	86	675	76.3	277	31.3	56	6.4	16	15.7
SVN	SVN A37 DTS1218 °	10	100%	164	1,573	19	10	860	100%	860	100%	64	100%	381	100%	381	577	300	102	410	71.2	110	19.1	66	11.4	41	39.1
SVN	SVN A37 PS1218 °	2	100%	24	214	10	7	225	100%	225	100%	48	100%	146	100%	146	309	70	10	288	93.0	218	70.5	208	67.1	144	39.5
ESP	ESP A37 DTS1218	152	100%	3,792	11,545	468	463	17,199	100%	17,199	100%	3,926	100%	19,504	100%	21,681	21,686	8,415	4,200	12,832	59.2	4,417	20.4	2,486	11.5	84	27.7
ESP	ESP A37 PS1218	90	100%	2,116	11,566	810	687	9,951	100%	9,951	100%	15,055	100%	21,631	100%	23,095	23,095	12,162	1,651	15,208	65.9	3,046	13.2	2,519	10.9	169	22.1
ESP	ESP A37 DFN0612	45	100%	315	2,727	90	117	4,946	100%	4,946	100%	319	100%	1,828	100%	2,733	2,733	1,202	196	1,865	68.2	663	24.3	569	20.8	41	15.9
ESP	ESP A37 DRB0612 °	33	100%	201	1,495	78	47	2,785	100%	2,785	100%	199	100%	944	100%	1,162	1,402	794	191	871	62.1	77	5.5	48	3.4	26	18.6
ESP	ESP A37 PS1824	89	100%	4,279	18,924	1,076	1,001	12,447	100%	12,447	100%	21,494	100%	32,255	100%	29,925	29,925	17,454	2,169	20,679	69.1	3,225	10.8	2,334	7.8	233	20.7
ESP	ESP A37 PMP1218	52	100%	587	3,670	130	156	4,395	100%	4,395	100%	411	100%	2,390	100%	8,287	8,287	2,333	698	5,706	68.9	3,373	40.7	2,581	31.2	110	36.6
ESP	ESP A37 DFN1218	40	100%	402	2,660	120	114	4,757	100%	4,757	100%	386	100%	2,478	100%	1,600	1,600	1,018	423	353	22.1	- 664	- 41.5	- 1,158	- 72.4	9	3.1
ESP	ESP A37 DTS1824	305	99%	18,522	57,196	1,294	1,479	35,320	99%	35,320	99%	12,856	100%	98,816	100%	74,262	74,976	27,390	17,905	38,561	51.4	11,171	14.9	3,553	4.7	126	26.1
ESP	ESP A37 PGO1218 °	45	99%	972	3,239	241	168	3,831	99%	3,831	99%	1,316	99%	7,849	99%	5,743	5,800	3,375	486	2,878	49.6	- 496	- 8.6	- 638	- 11.0	65	17.1
ESP	ESP A37 PMP0612	1,018	99%	3,174	33,764	1,553	1,218	105,844	99%	105,844	99%	5,580	98%	28,761	97%	46,442	46,442	17,178	2,113	33,301	71.7	16,123	34.7	14,458	31.1	33	27.3
ESP	ESP A37 PMP0006	108	97%	102	1,115	180	75	7,513	97%	7,513	97%	287	98%	1,630	97%	2,259	2,259	1,625	39	1,863	82.5	239	10.6			17	24.8
ESP	ESP A37 HOK1218 °	22	95%	379	2,208	70	39	1,691	95%	1,691	95%	201	89%	1,144	85%	1,689	1,689	672	333	682	40.4	10	0.6	- 72	- 4.2	31	17.5
ESP	ESP A37 FPO1218 °	19	94%	537	2,131	69	67	2,229	94%	2,229	94%	252	88%	2,147	89%	2,602	2,602	1,363	311	1,681	64.6	318	12.2	181	7.0	90	25.0
ESP	ESP A37 HOK0612	38	90%	189	2,072	113	78	4,049	90%	4,049	90%	247	90%	1,352	82%	2,197	2,197	955	327	1,155	52.6	200	9.1			31	14.8
CYP	CYP A37 PGP1218 °	22	85%	603	3,400	93	93	1,677	85%	1,677	85%	484	82%	1,193	78%	1,193	1,193	510	360	- 162	- 13.6	- 673	- 56.4	- 1,652	- 138.4	- 7	- 1.7
	129	20,678		262,320	1,666,641	45,197	33,623	2,112,589		2,163,360		366,069		1,322,474		1,339,878	1,369,687	459,122	276,176	822,426		363,303		128,859		9,237	4,371
		99.9%				99.5%	99.3%	99.8%		99.8%		99.6%		99.3%		99.3%	99.3%	99.2%	99.6%	99.4%		99.6%					

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

4.5 Other Fishing Regions (OFR)

At a glance

Although the main fishing grounds for the EU fishing fleet are located in the Baltic, North Sea & Eastern Arctic, Northeast Atlantic, Mediterranean and Black seas, part of the EU fleet operate in fishing areas much further afield (Figure 4.74). This section reviews all the other fishing regions where the EU fleets are present and operational.

These regions, collectively termed "Other Fishing Regions" (OFR) encompass:

a) non-EU waters within the Northeast Atlantic (FAO area 27) and in Mediterranean & Black Sea (FAO area 37),

b) non-EU waters within the Northwest Atlantic (FAO area 21); Southwest Atlantic (FAO area 41); Southeast Atlantic (FAO area 47); Indian Ocean (FAO areas 51 and 57); etc.),

c) EU Outermost Region waters located in these areas. The Portuguese Outermost Region of the Azores are not included as these are in the Northeast Atlantic (FAO area 27).

This section provides a general overview of EU fleet activity in the OFR based on DCF data available from Member States, as well as a more in-depth analysis of some important sub-regions:

- **Northwest Atlantic.** The main fishing nations in FAO area 21 are Spain and Portugal, traditionally targeting redfish, halibut, cod and other demersal species.
- **Other Regions**, within the OFR there is a more general sub-region termed 'Other Regions'. This spans the world's oceans (south and central Atlantic, Indian Ocean, Pacific Ocean and Antarctica). Fishing activity in these areas accounted for around 81% of the total value generated in 2015 within the entire OFR. The Spanish fleet is the main player, where the large distant water fleets mainly exploit tuna along with a number of other species;
- **Outermost Regions** refers to territories belonging to EU Member States outside FAO area 27 including the seven French territories of Guadeloupe, French Guyana, Martinique, Mayotte, Réunion, Saint Martin and Saint-Barthélemy; the Canaries (autonomous community of Spain); and Madeira (autonomous region of Portugal). The Portuguese Outermost region of the Azores is not included as it is located in the Northeast Atlantic. Their respective geographical locations (Atlantic, Caribbean and Indian Ocean) enable the EU to have the world's largest maritime territory with an exclusive economic zone covering 25 million km².

Data limitations

DCF socio-economic data were available for 9 MS distant water or outermost region fleets operating in *Other Fishing Regions* (OFR) in 2015: Spain, France, Portugal, Lithuania, UK, Germany, Netherlands, Italy, and Cyprus. Fishing activity for the Italian distant water fleet, which had been suspended since 2013, resumed again in 2015.

However, FAO data shows activity in OFR for a number of other MS fleets in 2015, namely, Estonia, Latvia, Greece and Poland (Figure 4.74). Estonia and Latvia did not provide DCF data on their distant water fleets and only partial data were available for Poland and Greece; insufficient to be included in this regional analysis.

Due to missing or incomplete data the results presented here do not convey the full extent of the EU fisheries in the region. Nevertheless, available DCF data for the OFR in 2015 covers on average 97% of the total EU landings provided under the DCF. To mitigate some of the data gaps this analysis is complemented with FAO statistics where possible. According to the FAO data, landings by the Estonian, Latvian and Polish fleets together compose around 8% of total and, consequently landings presented here represent around 92% of the total (Figure 4.74).

Figure 4.75 shows the share of landings in weight and value by fishing region according to the DCF data submitted by MS.

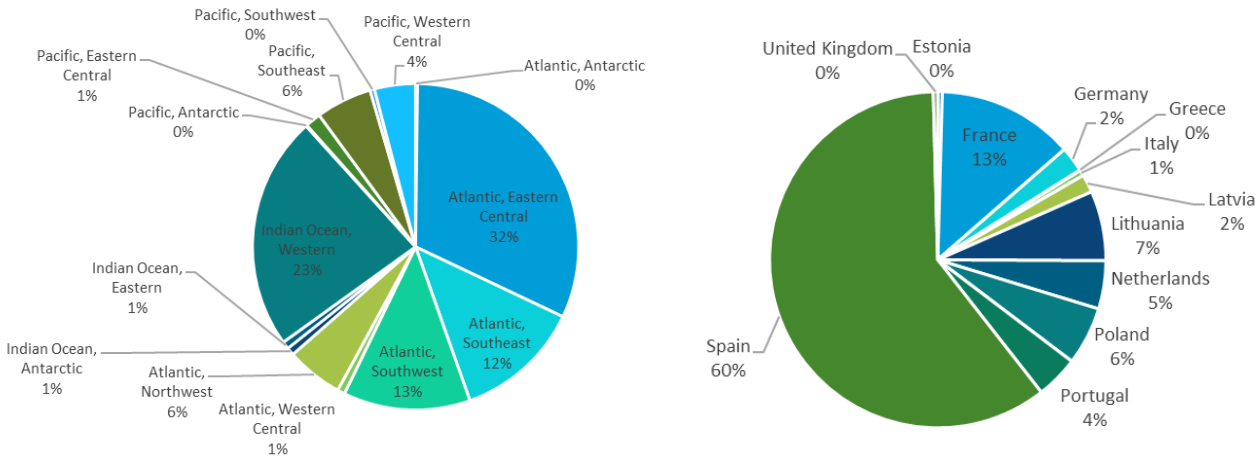


Figure 4.74 Share of landings in weight by main fishing region (left) and by Member State (right) in Other Fishing Regions (OFR), 2015

(Source: FAO)

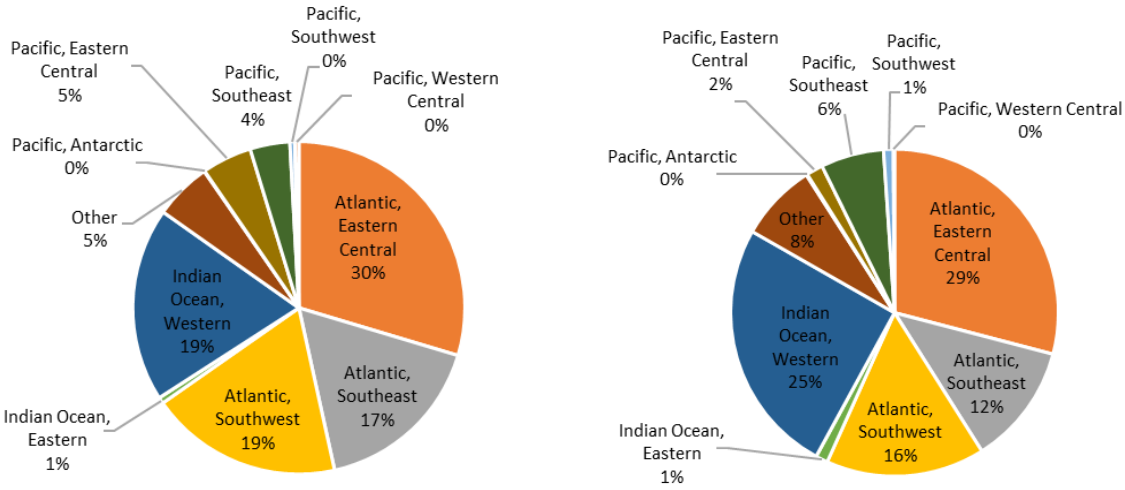
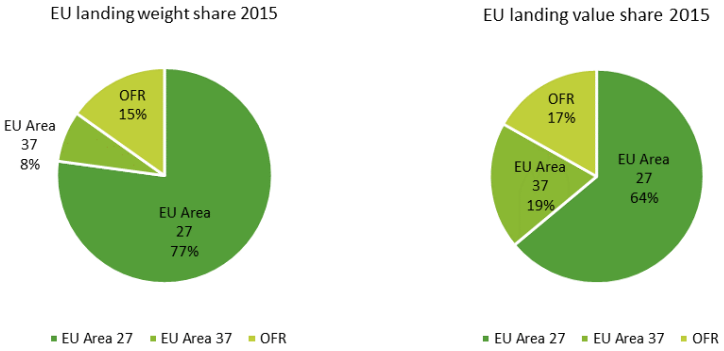


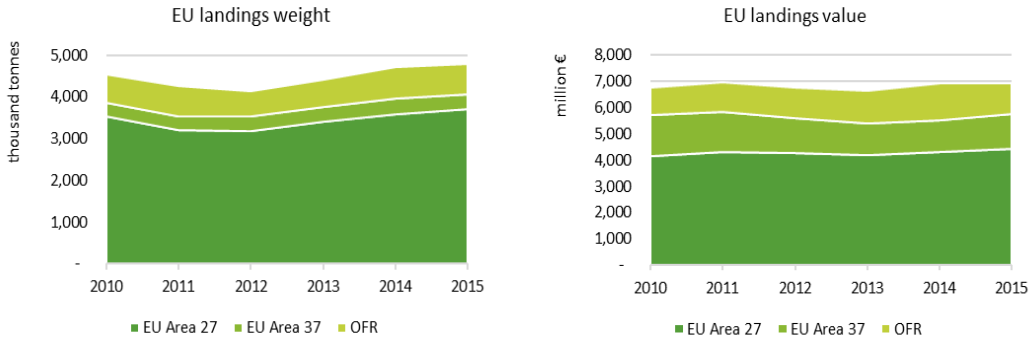
Figure 4.75 Share of landings in weight by main fishing region (left) and value (right) in OFR according to the data submitted under the DCF, 2015

Around 15% of all EU fleet production by weight and 17% by value originated from the *Other Fishing Regions* in 2015 (Figure 4.76). These figures have remained relatively stable over recent years (Figure 4.77).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.76 Share of landings weight and value in 2015 by main fishing region: Area 27, Area 37 and OFR



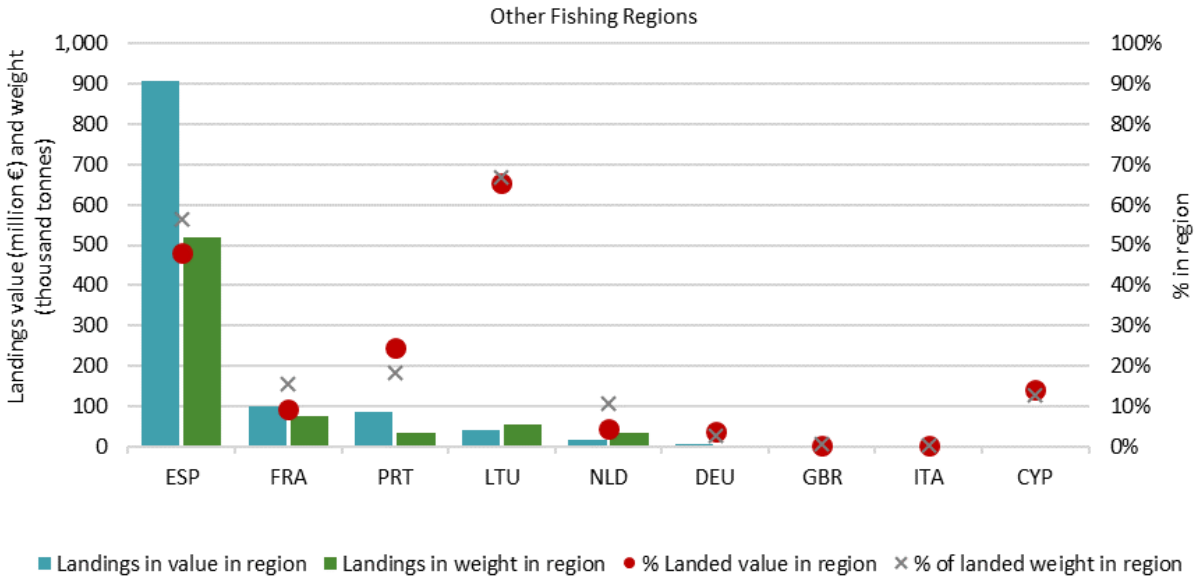
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.77 Trends on landings weight and value by main fishing region

By value, Spain was the leading producer, generating €908 million in landings, followed by France (€102 million) and Portugal (€86 million). These fleets target high value species including tunas (yellowfin, bigeye, and skipjack), swordfish, Argentine hake, blue shark, and Greenland halibut.

Lithuania, with 54.4 thousand tonnes landed, is the third largest producer by weight after Spain and France. Lithuania is also the MS most dependent on these fisheries for its landed value (65%) followed by Spain (48%) and Portugal (24%) (Figure 4.78).

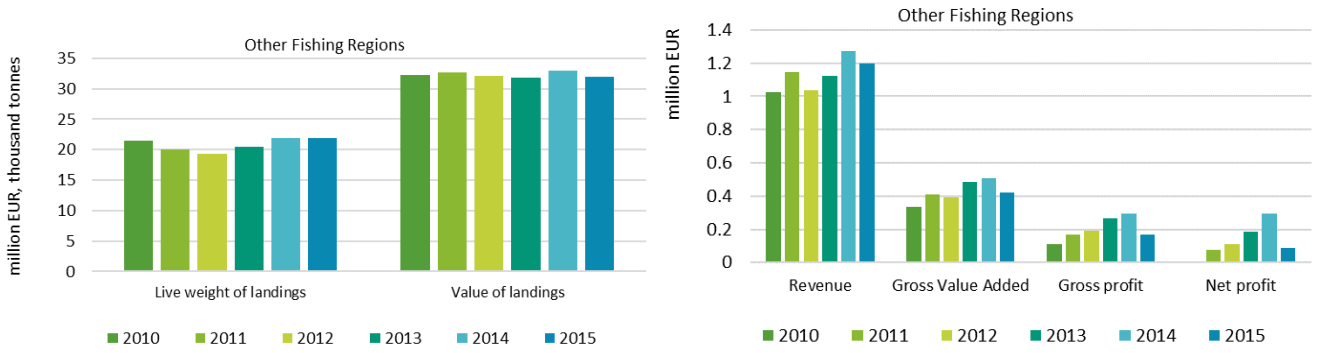
In terms of landed weight, Lithuania caught 67% of their landings in the OFR, followed by Spain (56%), Portugal (18%) and France (16%).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.78 Importance of the *Other Fishing Regions* for Member States' fisheries in terms of landings in weight and value, 2015

Note: Excludes Poland due to insufficient data.



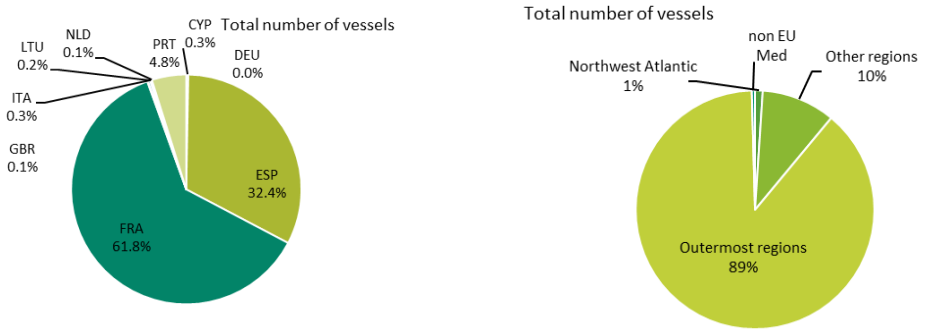
Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.79 Trends on landings, revenue and profit by MS fleets operating in *Other Fishing Regions*

MS fleet activity in the 'Other Fishing Regions': situation in 2015 and recent trends

Fleet capacity and employment

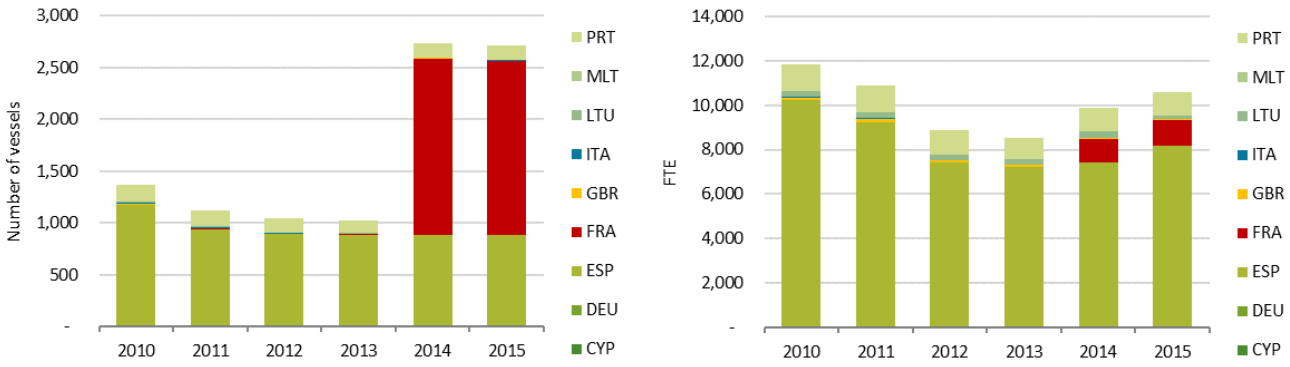
The French, Spanish and Portuguese fleets are by far the most predominant fleets operating in OFR, together account for 99% of the total number of vessels. Most of them belong to the outermost region fleets (89%) (Figure 4.80).



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

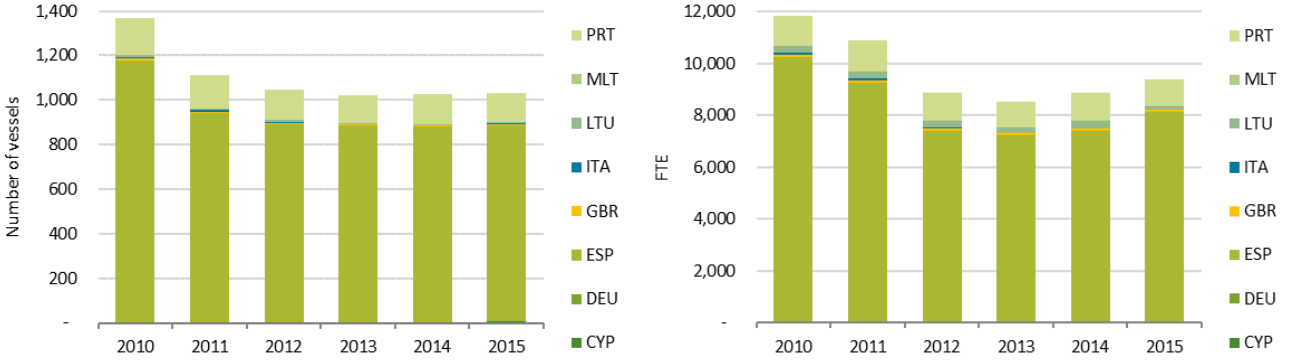
Figure 4.80 Share of the OFR fleet capacity by MS and main fishing areas in OFR 2015

Overall the number of vessels operating in OFR has followed a decreasing trend since 2010, mainly due to the Spanish fleet, in particular over the initial period, which appears to have stabilised since 2013. Data for the French OFR fleet was only available for 2014 and 2015. Employment, measured in terms of Full Time Equivalents (FTE) showed a decreasing trend as well between 2010 and 2013, but remained stable in 2013 and increased in 2014 and 2015 due mainly to growth in the Spanish fleet (Figure 4.81 and 4.82).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.81 Trends on the number of vessels and employment (in FTE) for MS fleets operating in OFR. Data for France available only in 2014 and 2015

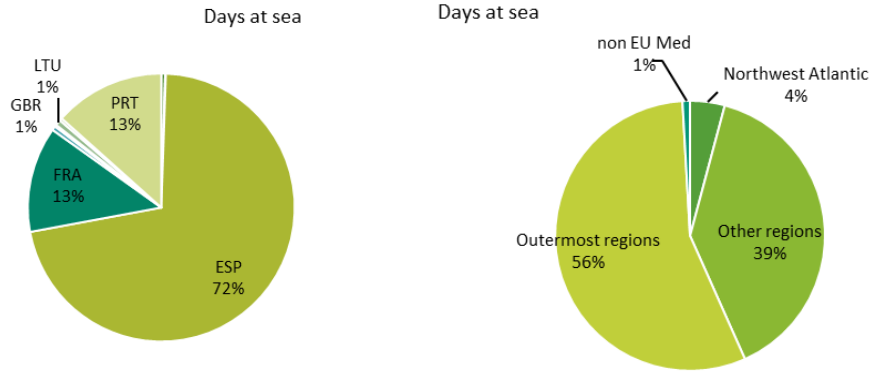


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.82 Trends on the number of vessels and employment (in FTE) for the MS fleets operating in OFR. Excludes France

Fishing effort

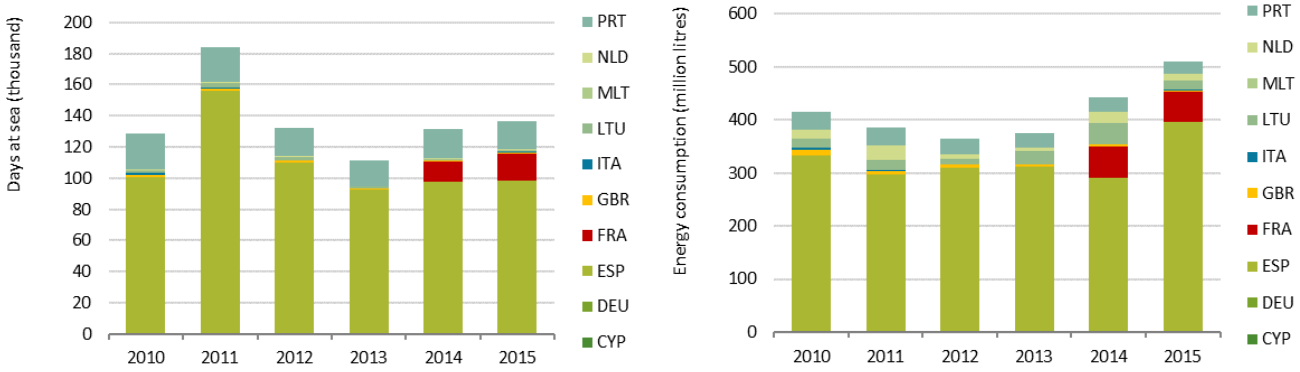
The pie charts presented in Figure 4.83 indicate the proportion of days at sea attributable to each MS fleet in 2015. Spain, France and Portugal together accounted for around 98% of the total days at sea, mostly deployed in the outermost regions (56%) and in Other regions (39%).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

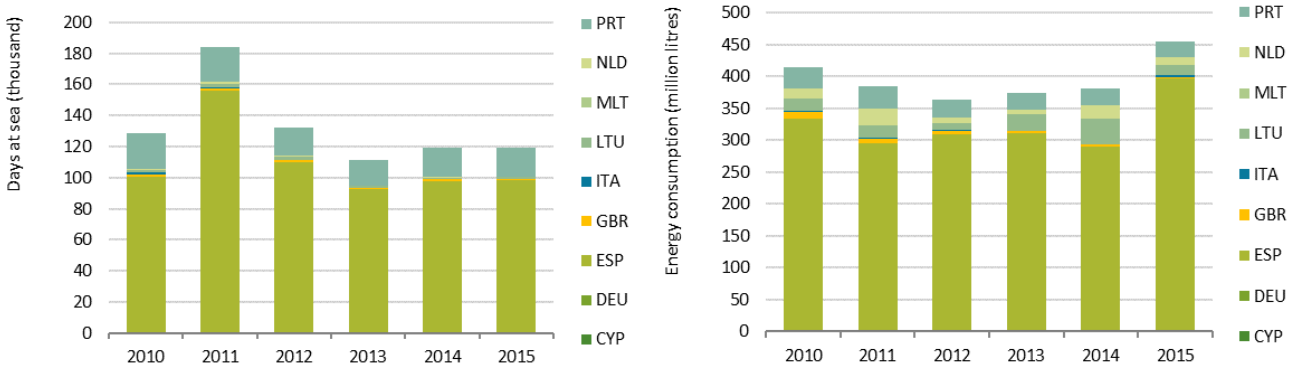
Figure 4.83 Share of fishing effort (in days at sea) and landed value by MS and by main fishing area in OFR, 2015

After a sharp increase in effort, by the Spanish fleet in 2011, the number of days at sea has more or less followed the fleet capacity reduction, with slight increases in 2014 and 2015 largely attributed to the Spanish fleet. Fuel consumption decreased from 2010 to 2012 in line with the increase in capacity but increased steadily since 2013, peaking in 2015 (Figures 4.84 and 4.85).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.84 Trends on effort (days at sea) and fuel consumption for the MS fleets operating in OFR. Data for France available only in 2014 and 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.85 Trends on effort (days at sea) and fuel consumption for the MS fleets operating in OFR. Excludes France

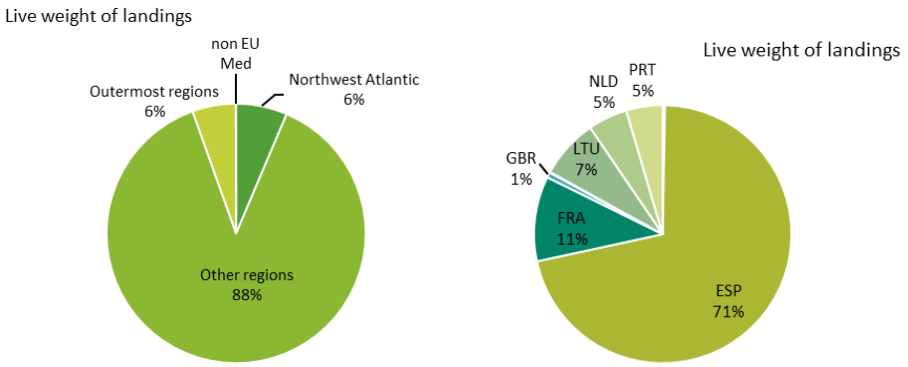
Landings and top species

In 2015, the EU distant water fleet (excluding Estonia and Latvia) landed around 730 thousand tonnes with the majority (88%) coming from *Other Regions*. A further 6% was taken in the Northwest Atlantic, 5% from the Outermost regions, and less than 1% from non-EU Mediterranean waters (Figures 4.86 and 4.88).

In terms of landed weight, Spain (520 thousand tonnes; -1.8% on 2014), France (77 thousand tonnes; +405% on 2014), Lithuania (54 thousand tonnes; 46% on 2013), and the Netherlands (36 thousand tonnes; -60% on 2014) were the leading distant water fleets, together accounting for 94% of the total weight landed. Compared to 2014, landed weight decreased for all of the major MS fleets, from one third to one half, except for France which similar weights of landings with a slight decrease (Figures 4.89 and 4.90).

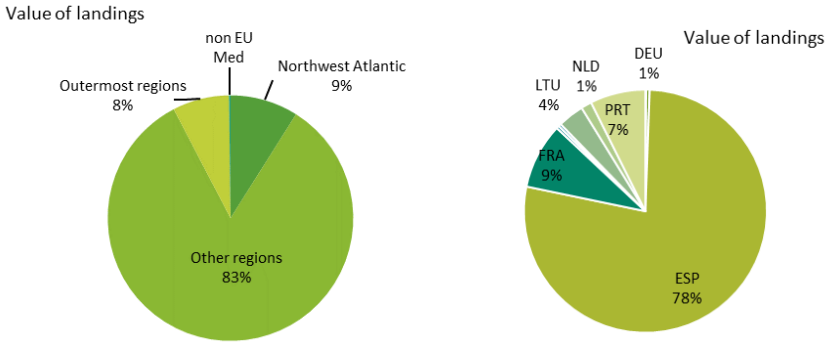
In terms of landed value, the Spanish fleets dominate the fishing activity in the OFR with €907 million (-22% on 2014); followed by France (€102 million; +252% on 2014), Portugal (€86 million; +1% on 2014) and Lithuania (€40.6 million; -42% on 2014) (Figures 4.87 and 4.89). Note: excludes Estonia and Latvia for landings and landings value and Poland for landings value; according to FAO data, the Estonia fleet would contribute to 0.3% of the landed weight and the Latvian fleet a further 2%.

The two most important distant water fleet segments by revenue generated were the Spanish purse seiners over 40m (€343 million) and demersal trawlers over 40m (€226 million). The Spanish demersal trawlers 24-40m, generated €115 million in revenue, the Spanish vessels using other passive gears 24-40m €86 million and the French purse seiners over 40m €85 million (Table 4.39).



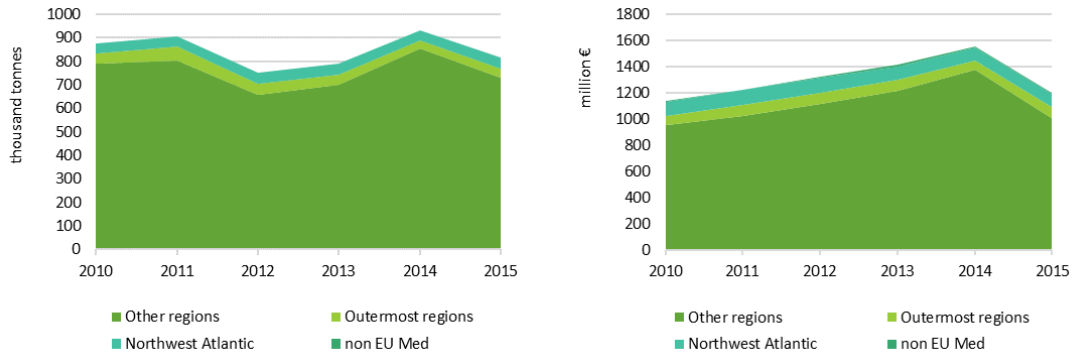
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.86 Share of landings in weight by fishing area and MS fleet operating in OFR, 2015



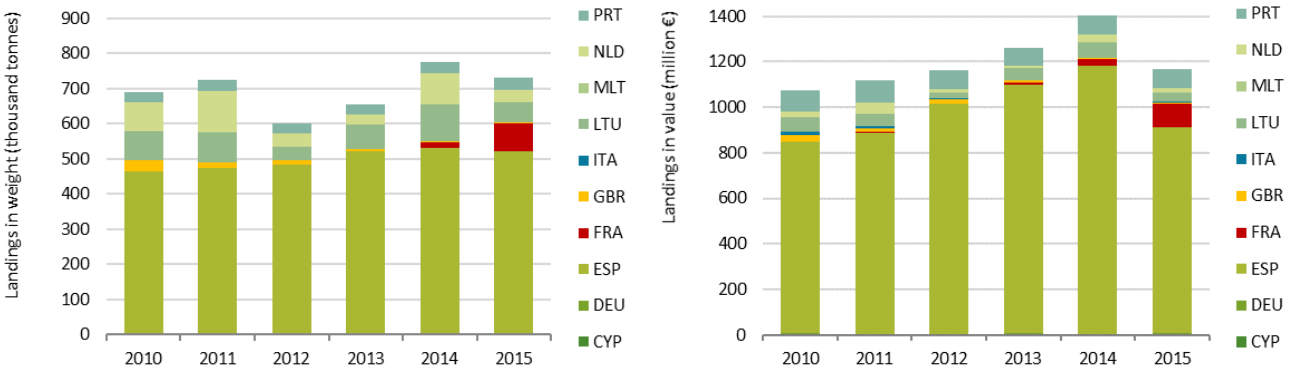
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.87 Share of landed value by main fishing area and MS fleet operating in OFR, 2015



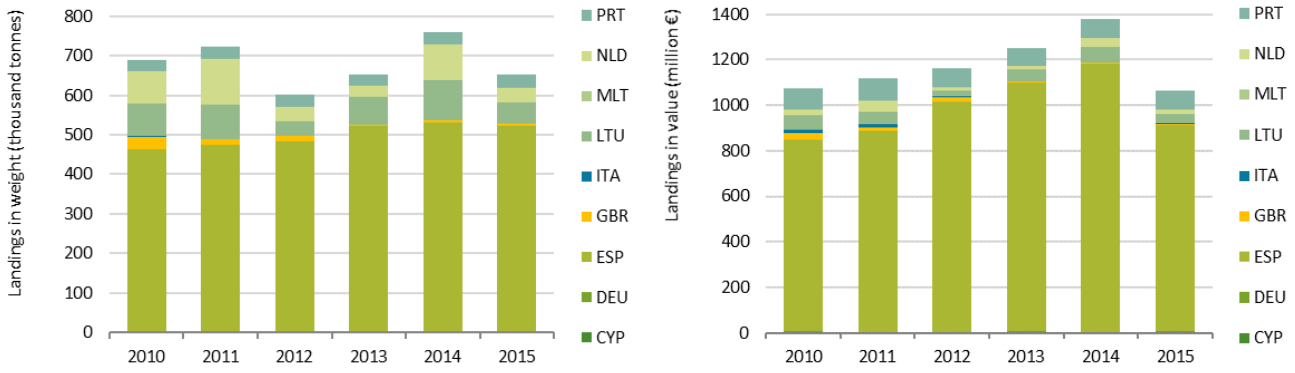
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.88 Trends on landed weight (left) and value (right) by fishing area in OFR



Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.89 Trends on landings weight and value from Other Fishing Regions by MS fleets

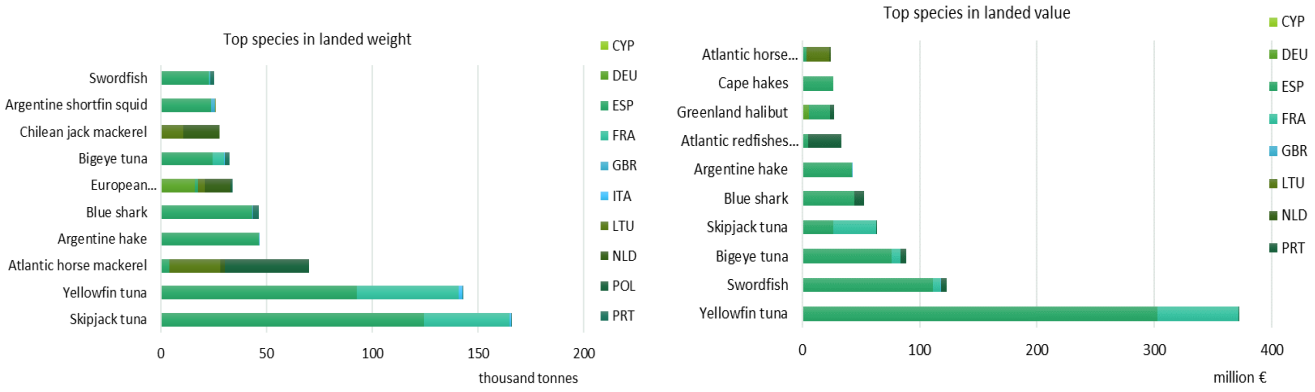


Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.90 Trends on landings weight and value from Other Fishing Regions by MS fleets. Excludes France

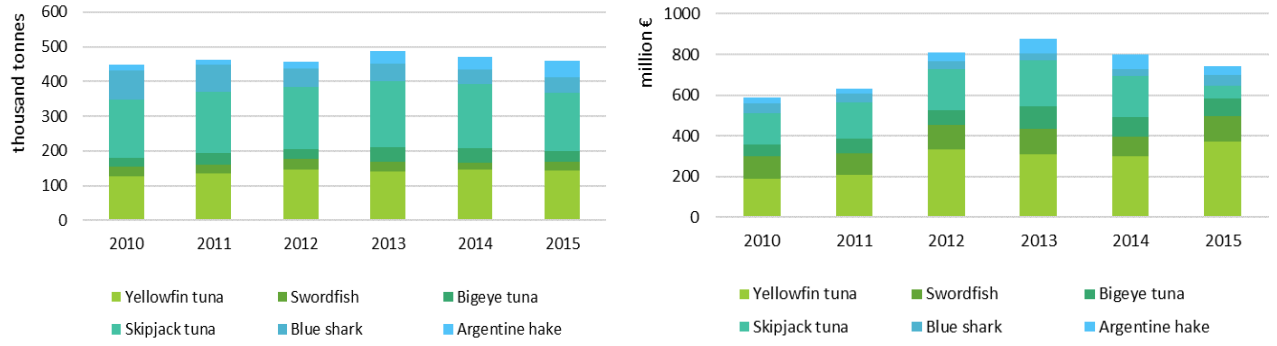
Based on the data available, in 2015 skipjack tuna (166 thousand tonnes) was the most landed species by MS fleets operating in OFR, followed by yellowfin tuna (143 thousand tonnes) and Atlantic horse mackerel (70 thousand tonnes) (Figure 4.91 and 4.92).

In terms of value, the 5 most important species in 2015 were: yellowfin tuna (€372 million), followed by swordfish (€123 million), bigeye tuna (€89 million), skipjack tuna (€63 million), and blue shark (€52 million) (Figures 4.91 and 4.92).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.91 List of top 10 species in terms of weight and value and the proportion landed by MS fleets operating in the OFR in 2015.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.92 Trends on landings weight and value of the top species in terms of landed value for MS fleets operating in OFR.

Socio-Economic performance

Revenue (income from landings and other income) generated by the MS fleets operating in OFR amounted to an estimated €1.2 billion in 2015, 79% of which was generated by the Spanish fleet alone (€950 million). The French fleet came in second with €98 million, followed by Portugal (€81 million) (Figure 4.93).

GVA produced by the fleet covered in the analysis was estimated at €420 million in 2015. This represented an overall decrease of 17% compared to the GVA generated in 2014, with all MS fleets suffering declines with the exception of Cyprus, France, Germany and Portugal. After accounting for operating costs, the fleet made €167 million in gross profit, a 42% decrease compared to 2014 (Figures 4.93 and 4.94).

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.93 Trends in revenue (landings income + other income) and profit (GVA, gross profit and net profit) by MS fleets operating in OFR. Data for France available only in 2014 and 2015

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.94 Trends in revenue (landings income + other income) and profit (GVA, gross profit and net profit) by MS fleets operating in OFR. Excludes France and Lithuania

Fisheries management and status of stocks in the region

Regional Fisheries Management Organisations (RMFOs)

Fishing in international waters outside the EEZ is regulated by RFMOs and their member countries. These members include bordering states as well as countries that are heavily involved in fishing in a given marine region. EU Member States are represented in numerous RFMOs through the European Commission. Annual negotiations are held to determine which countries are allowed to catch how much of a species. Almost all commercially relevant fish species are covered by the RFMOs. There are specific RFMOs for the management of certain fish species, for example, tuna, salmon and pollock.

RFMOs that manage fish stocks by region include: North Atlantic Salmon Conservation Organization (NASCO); South East Atlantic Fisheries Organisation (SEAFO); South Indian Ocean Fisheries Agreement (SIOFA); South Pacific Regional Fisheries Management Organisation (SPRFMO); Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), etc.

RFMOs that manage highly migratory fish species, mainly tuna include: International Commission for the Conservation of Atlantic Tunas (ICCAT); Indian Ocean Tuna Commission (IOTC); Western and Central Pacific Fisheries Commission (WCPFC); Inter-American Tropical Tuna Commission (IATTC); Commission for the Conservation of Southern Bluefin Tuna (CCSBT), etc.

Outermost regions/national regional fisheries regulations

Apart from TACs for all main species/stocks, EU regulations comprise specific fishery technical regulatory measures, such as mesh sizes, minimum landing sizes, by-catch limitations as well as periods and areas closed for fishing. Coastal and offshore fisheries are mainly regulated by each MS country through their national legislation (France, Spain and Portugal).

Status of important stocks

Some of the most important stocks in the OFR region include tuna species, such as skipjack tuna, yellowfin tuna and bigeye tuna.

The most important stocks for EU distant water fleets, in particular Spain and France, include yellow fin and skipjack in the Atlantic Ocean as well as in the Eastern and Western Pacific and Indian oceans. Albacore in the Atlantic is also important. Of these, stocks of skipjack are all assessed within safe biomass levels with fishing mortality at MSY, while yellow fin stocks are mostly fished above MYS and low biomass levels.

Description of relevant fisheries in the region

SPAIN[10]

In 2015, Spanish "Other Fishing Regions" (OFR) fleet was composed by a total of 879 vessels (this figure includes 221 distant water vessel, 112 large-scale vessels and 547 small-scale vessels) with a total capacity of 177 thousand tonnes (the majority of this capacity, 128 thousand tonnes, belongs to the distant water fleet over 40 meters) and 260 thousand kW. The total full time employment (FTE) of this fleet was 8 105 employees in 2015 (an average of 9 people by vessel although in the case of the Spanish distant water fleet over 40 meters the average crew is 42 people explained by the large size and capacity of the vessels compounding this segment).

The total weight landed by the Spanish fleet operating in the 'Other Fishing Regions' in 2015 was 520 thousand tonnes of seafood with an approximated total value of €908 million. This fleet registered in 2015 a gross profit around €156 million, which results from the positive performance of the Spanish distant water fleet segment, with almost €145 million, and a negative performance for some other fleet segments. The gross margin on revenues was 54% for the whole OFR fleet.

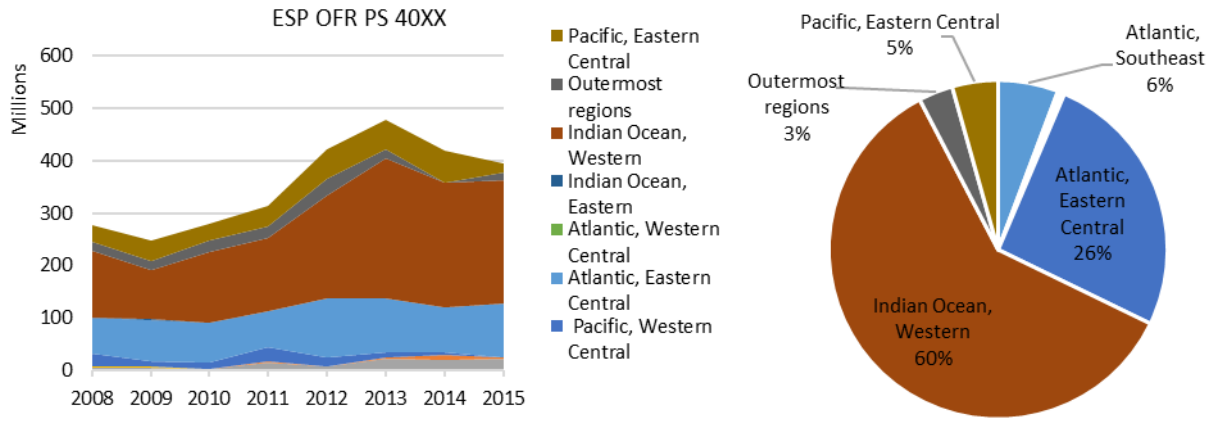
The Spanish distant water fleet (vessels over 40 meters) is highly diversified with a broad range of vessel types targeting different species predominantly from West Africa and the Indian Ocean. The fleet targets a variety of species but in particular large pelagic fishes, such as blue shark, bigeye tuna and swordfish. By type of gear, the Spanish distant water fleet is composed of purse seiners, demersal trawlers, and vessels using passive gear (mainly long-liners).

Purse seiners (PS) over 40m

The Spanish fleet of purse seiners consisted of 30 vessels in 2015, operating in several fishing areas in the Indian, Atlantic and Pacific oceans. The Western Indian Ocean is the most important region for this fleet (accounting for 60% of total landing value) followed by and Eastern Central Atlantic (26%), where they mainly target tuna species. Bigeye tuna made up 16% of the fleet segment landed value in 2015.

The average full time employment (FTE) is 62 employees per vessel in 2015. The total landings by this fleet segment was 230 thousand tonnes and the value of these landings was almost €394 million. This fleet segment was reported a gross profit of around €41 million in 2015, with a gross margin on revenues around 12%, but a negative net profit of around -€5 million.

[10] Includes data not captured by the methodology due to incomplete relevant data and other information not provided under the DCF.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.95 Landings value and share of landing in 2015 by sub-region for ESP OFR PS40XX

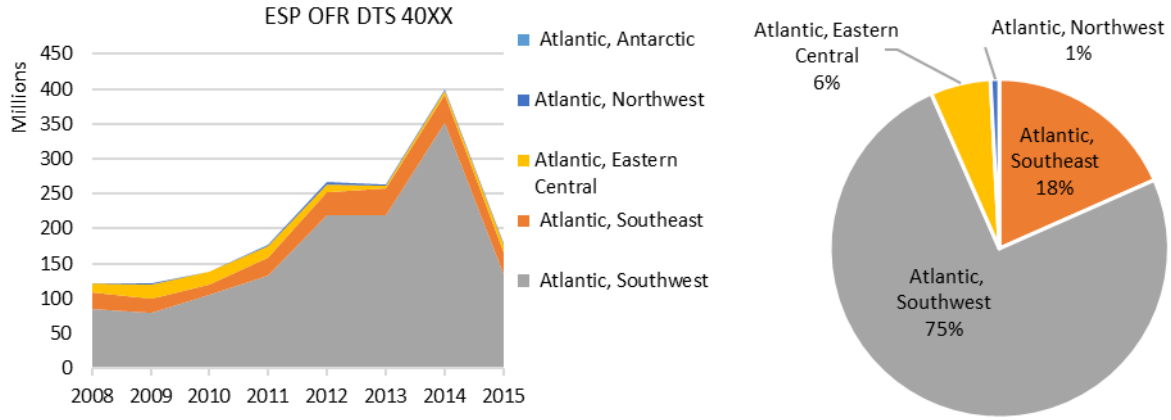
For comparison, the table below provides results on some of the main fishing activity and social-economic indicators for the fleet segments as a whole, i.e. without regional disaggregation and thus, figures may vary to those provided in the regional tables at the end of the chapter.

		Total number of vessels	Full-time equivalent (national)	Days at sea	Live weight of landings	Value of landings	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	GVA per FTE (labour productivity
		(#)	(#)	(day)	(tonne)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)
ESP OFR PS40XX	2009	33	1,968	10,240	190,374	270,002	47,902	21.4	3,677	1.6	- 28,287	- 12.6	24.3
	2010	33	2,029	9,951	220,441	297,103	113,620	36.8	63,446	20.6	37,324	12.1	56.0
	2011	32	1,435	9,980	241,940	324,627	140,946	40.3	91,512	26.2	68,326	19.5	98.2
	2013	32	1,244	9,575	275,786	473,682	241,135	50.8	185,258	39.0	146,373	30.8	193.9
	2014	33	1,604	8,780	249,571	416,773	137,631	37.6	87,350	23.9	61,567	16.8	85.8
	2015	30	1,859	8,698	230,136	393,696	98,372	27.7	41,422	11.7	- 4,913	- 1.4	52.9
ESP OFR PS40XX °	2008	42	1,241	11,265	213,869	298,867	74,668	36.3	41,714	20.3	19,844	9.7	60.2
	2012	32	1,598	9,557	249,449	425,130	207,671	48.0	159,812	36.9	138,086	31.9	130.0

Demersal trawlers (DTS) over 40m

This segment of the fleet operates in different distant regions such as the Northwest Atlantic, the Eastern Central Atlantic, the Southeast Atlantic and the Southwest Atlantic, this latter region accounting for the vast majority of the value generated by this segment (Figure 4.96).

It is composed by 33 vessels which fished in 2015 around 145 thousand tonnes with a landing value of €178 million in total and employed, in total, over 1 200 FTEs. This segment of the fleet is profitable reporting a gross profit of over €38 million in 2015 with a gross margin on revenues around 17%. Net profit for this segment was also high at €29 million for a net profit rate of 13%.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.96 Landings value and share of landing in 2015 by sub-region for ESP OFR DTS40XX

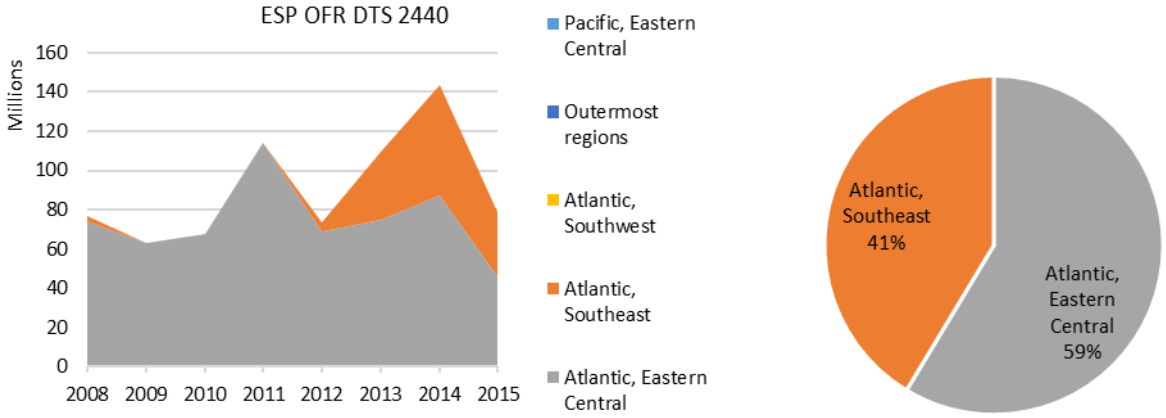
For comparison, the table below provides results on some of the main fishing activity and social-economic indicators for the fleet segment as a whole, i.e. without regional disaggregation and thus, figures may vary to those provided in the regional tables at the end of the chapter.

		Total number of vessels	Full-time equivalent (national)	Days at sea	Live weight of landings	Value of landings	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	GVA per FTE (labour productivity
		(#)	(#)	(day)	(tonne)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)
ESP OFR DTS40XX	2008	32	824	7,218	46,431	139,174	18,160	24.8	-1527	-2.1	- 9,498	-13.0	22.0
	2009	28	686	6,977	43,676	138,566	27,419	36.0	7950	10.4	1,117	1.5	40.0
	2010	31	1,096	7,425	53,858	149,679	42,709	38.7	13761	12.5	6,237	5.7	39.0
	2011	31	1,011	8,575	66,243	183,468	73,560	40.4	33541	18.4	26,445	14.5	72.8
	2012	35	912	9,507	89,811	267,975	33,357	22.8	-442	-0.3	- 6,999	-4.8	36.6
	2013	29	902	7,796	106,799	261,432	51,627	31.8	12229	7.5	3,413	2.1	57.2
	2014	30	921	8,604	151,604	396,495	101,177	45.4	68486	30.7	59,125	26.5	109.8
	2015	33	1,233	9,183	144,641	178,445	83,376	36.6	38247	16.8	28,975	12.7	67.6

Demersal trawlers (DTS) 24-40m

This segment operates exclusively in the Eastern Central Atlantic and Southeast Atlantic, representing around 60% and 40% of the total landing value respectively.

There are 39 vessels in this segment in 2015 employing 1 560 FTE (an average of 40 FTE per vessel). Landings of almost 31 thousand tonnes generated over €79 million in value. Gross profit rates and net profit rates show good economic performance at 21% and 19%, respectively.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.97 Landings value and share in 2015 by sub-region for ESP OFR DTS 2440

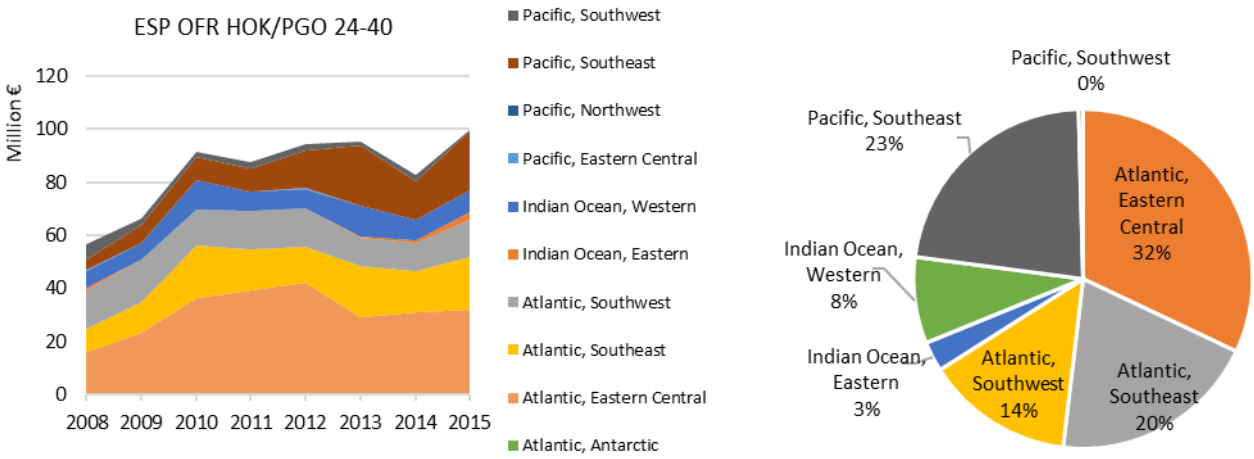
For comparison, the table below provides results on some of the main fishing activity and social-economic indicators for the fleet segment as a whole, i.e. without regional disaggregation and thus, figures may vary to those provided in the regional tables at the end of the chapter.

		Total number of vessels	Full-time equivalent (national)	Days at sea	Live weight of landings	Value of landings	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	GVA per FTE (labour productivity
		(#)	(#)	(day)	(tonne)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)
ESP OFR DTS2440	2008	76	2,279	19,092	12,292	83,242	9,209	10.3	- 9,113	- 10.2	- 26,517	- 29.6	4.0
	2009	71	1,886	18,683	11,946	68,618	22,620	18.4	- 9,078	- 7.4	- 20,394	- 16.5	12.0
	2010	65	2,376	17,370	13,285	72,175	15,834	17.6	- 8,717	- 9.7	- 17,649	- 19.6	6.7
	2011	44	871	12,188	16,544	117,695	19,346	29.2	11,004	16.6	10,220	15.4	22.2
	2012	55	786	10,793	12,883	73,926	18,620	27.7	3,255	4.8	- 4,745	- 7.1	23.7
	2013	35	1,090	7,743	14,165	108,471	13,048	15.2	- 2,150	- 2.5	- 3,138	- 3.7	12.0
	2014	39	1,302	10,911	22,424	142,431	157,008	73.8	145,634	68.4	143,678	67.5	120.5
	2015	39	1,560	11,012	30,579	79,124	40,320	35.1	24,240	21.1	21,692	18.9	25.8

Longliners HOK and PGO 24-40m

In 2015, the segment formerly classified as HOK has now been split to more accurately describe the fishing activity into two segments, HOK and PGO.

This segment of the fleet operates in multiple OFR sub-regions, the most important of which is West Africa. It is composed by 83 vessels which fished in 2015 around 56 thousand tonnes with a landing value around €113 million and employed 1 391 FTEs (an average of 17 FTE per vessel). This fleet segment was profitable with a gross profit of around €27.5 million in 2015 and a net profit of ~€21 million.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.98 Landings value and share in 2015 by sub-region for ESP OFR HOK 2440 & ESP OFR PGO2440

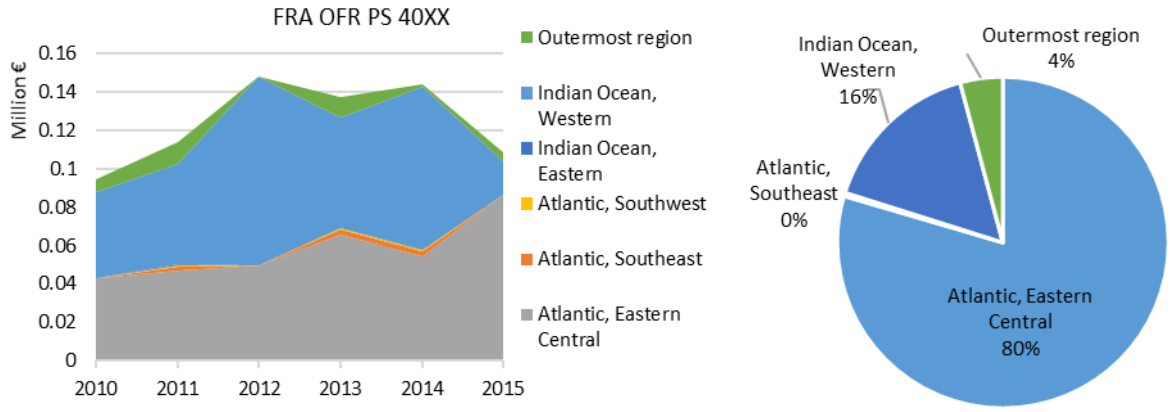
For comparison, the table below provides results on some of the main fishing activity and social-economic indicators for the fleet segments as a whole, i.e. without regional disaggregation and thus, figures may vary to those provided in the regional tables at the end of the chapter.

		Total number of vessels	Full-time equivalent (national)	Days at sea	Live weight of landings	Value of landings	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	GVA per FTE (labour productivity)
		(#)	(#)	(day)	(tonne)	(thousand €)	(thousand €)	(%)	(thousand €	(%)	(thousand €	(%)	(thousand €)
ESP OFR HOK2440	2008	96	1,569	25,157	29,118	86,171	19,070	25.2	- 430.2	- 0.6	- 8,179	- 10.8	12.2
	2009	100	1,788	27,222	33,969	94,404	37,092	33.3	10,824.8	9.7	- 3,087	- 2.8	20.7
	2010	117	1,748	31,721	82,745	119,880	51,592	35.7	12,555.8	8.7	4,118	2.8	29.5
	2011	99	2,024	30,302	77,651	113,582	49,048	30.8	15,297.3	9.6	10,617	6.7	24.2
	2012	112	1,581	32,614	74,969	124,691	25,319	22.4	- 3,148.5	- 2.8	- 7,155	- 6.3	16.0
ESP OFR HOK2440 °	2013	96	1,369	27,406	61,113	116,895	32,031	36.6	16,300.0	18.6	14,492	16.6	23.4
	2014	24	383	4,841	11,125	15,616	4,628	31.0	468.2	3.1	- 334	- 2.2	12.1
	2015	21	363	4,685	12,354	12,339	8,753	44.4	2,994.5	15.2	779	3.9	24.1
ESP OFR PGO2440 °	2014	69	1,077	20,544	39,688	81,320	23,592	29.8	8,337.9	10.5	4,903	6.2	21.9
	2015	62	1,028	18,924	43,913	101,079	40,390	43.1	24,581.3	26.2	20,455	21.8	39.3

FRANCE

The French industrial fleet of Purse Seiners consisted of 21 vessels in 2015. In 2014, there were added 5 additional vessels to this fleet segment, compared to 2013, because vessels registered on the Island of Mayotte are identified in the French fleet register from 1 January 2014. Mayotte is a French overseas region located in the Indian Ocean. So it is important to take this into account when analysing the evolution of economic data for this fleet segment in 2015. Moreover, a cluster has been established in 2014 for this segment, which aggregates data from one long liner VL2440. Economic models of seiners are very different, that is why only the activity of tropical purse seine is analysed in the following text.

The overwhelming majority of this fleet is made of freezer tuna seiners operating in the Indian Ocean and Central Atlantic Ocean. The average age of those 21 vessels in this fleet segment was 16.5 years in 2014 and average length was 78 meters. The average full time employment is around 26 employees by vessel in 2014 (fisher employees come both from France and foreign countries - mostly African).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.99 Landings value and share in 2015 by sub-region for FRA OFR PS40XX

In a general way, year 2015 as 2014 was marked by difficulties facing tuna activity. The unfavourable market, with the sharp fall in prices of raw tuna, had a significantly negative impact on the turnover and profitability of the firms. Furthermore, the significant decline of the yen in the second half of 2014 made less competitive exports of tuna processed in Japan. The decline in 2014 on fuel prices helped however vessels to limit partially the impact on the observed decrease in sales prices.

In 2014, total weight of landings of tropical tuna amounted around 92 000 tonnes for the 21 vessels of the fleet segment (a decrease of approximately 3% compared to 2013). In terms of weight almost 60% of fish catches are made by seiners operating in the Indian Ocean and the rest is caught in Atlantic Ocean. Tuna species caught are yellowfin tuna (YFT: 54.7% of the total weight of landings), skipjack tuna (SKJ: 36.7%), big eye tuna (BET: 8.2%) and albacore (ALB: 0.3%).

Total values of landings for the whole 21 vessels reached €108 million in 2015. According to economic data collected, the two main cost items are crew wage and energy and represent respectively 30.4% and 24.2% of the income in 2014. Increased operating costs (despite lower fuel prices) combined with the decline in turnover over the period 2014 causes a significant decrease of the operating cash flow, which reaches less than 9% against nearly 18% in 2013. Gross profit was nearly €13 million (9%) in 2014 however, as depreciation costs are not provided for this fleet net profit cannot be assessed.

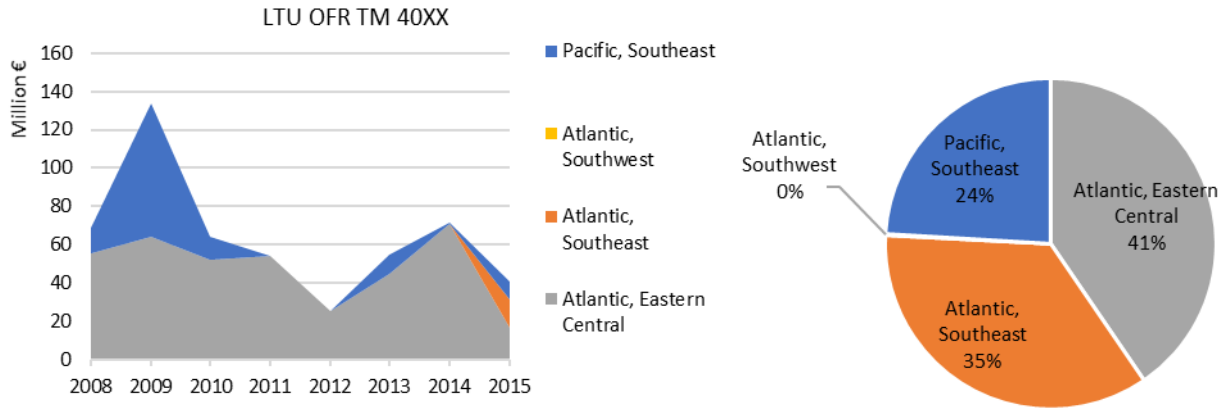
Nevertheless, some inconsistencies in the figures between 2014 and 2015 does not allow a proper analysis of the French OFR fishery.

For comparison, the table below provides results on some of the main fishing activity and social-economic indicators for the fleet segment as a whole, i.e. without regional disaggregation and thus, figures may vary to those provided in the regional tables at the end of the chapter.

		Total number of vessels	Full-time equivalent (national)	Days at sea	Live weight of landings	Value of landings	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	GVA per FTE (labour productivity)
		(#)	(#)	(day)	(tonne)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)
FRA OFR PS40XX	2009	18	488	10,878			1,440	1.6	- 28,118	- 31.1			3.0
	2010	16	415	9,732	85,239	100,859	20,267	21.3	- 9,042	- 9.5			48.8
	2011	16	438		82,000	118,438	58,228	46.0	21,131	16.7			132.9
	2012	18	413	117	78,525	150,634	72,198	47.3	30,682	20.1			174.8
	2013	17	413		79,290	138,080	65,439	46.7	24,998	17.8			158.4
	2014	22	578	720	99,950	143,907	50,883	36.9	7,249	5.3			88.0
	2015	21	553	8,050	92,801	108,441	33,509	29.8	- 5,263	- 4.7			60.6

LITHUANIA

Lithuanian distant water fleet is represented mainly by pelagic trawlers (TM) over 40m operating in Other Fishing regions, predominantly in Atlantic Eastern Central and Atlantic Southeast with around 80% of landings coming from these sub-regions. Atlantic horse mackerel, Chilean jack mackerel and Chub mackerel were the main species landed by the Lithuanian distant water fleet. In 2015, landing weight of these three species was 47.2 thousand tonnes and in 2016 increased by 21% to 57.2 thousand tonnes. In 2015, weight of landings in Other fishing regions declined by 42.7% compare to 2014. The decrease in landings was due to the delayed agreement on 2015 quota (endorsed in 2015) corresponding to the significantly low landings. However, quota agreed in 2015 protocol with Mauritania and 2014 protocol with Morocco is lower compare to the previous years. For example, according to the aforementioned agreements, Lithuanian quota for pelagic species approved in 2015 is 78.3 thousand tones, which is 14% lower compare to that which was in 2014 and substantially lower to the 2008 quota (136 thousand tones).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.100 Landings value and share in 2015 by sub-region for LTU OFR TM40XX

Since 2012, the value of landings has increased, to €91 million in 2014 and around 413 FTEs were employed in this fleet segment, contributing to 96% and 72% of the total income from landings and FTEs generated by the Lithuanian fishing fleet, respectively. This fleet segment was not completely profitable in 2014, with a reported gross profit of around €14 million but a net profit of around -€1 million. Net profit margin was healthy from 2011-2013 with an average of 12% before turning marginally negative in 2014. Labour productivity achieved €34 000 (GVA/FTE).

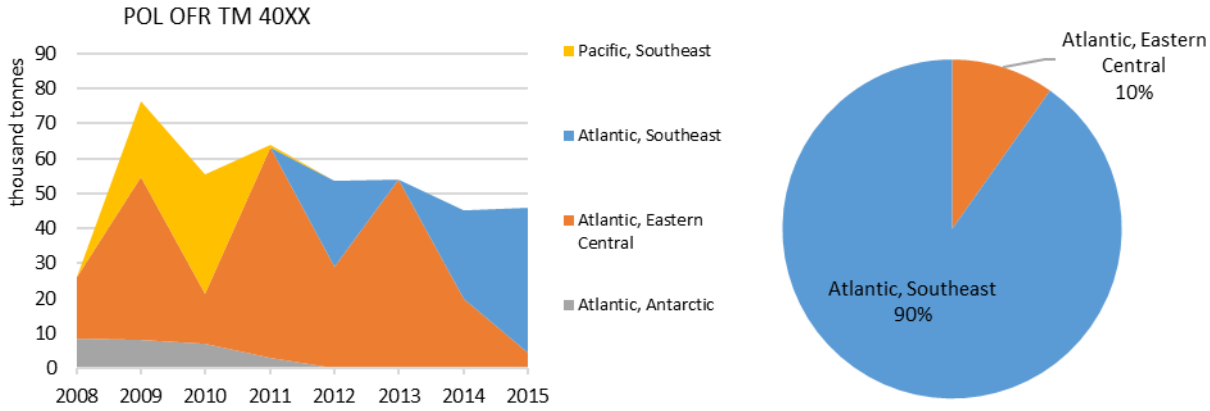
In the course of 2014, the distant water fleet segment was significantly extended, 5 modernized vessels were included to fleet register. In terms of environmental sustainability, renovated vessels decreased kW/GT ratio from 1 to 0.68. New investments are expected to raise profitability and improvement in competitiveness. In 2014, weight of landings by this fleet increased 46.4% compare to 2013 and considering the changes of the segment, further increases in landings were expected for 2015.

For comparison, the table below provides results on some of the main fishing activity indicators for the fleet segment as a whole, i.e. without regional disaggregation and thus, figures may vary to those provided in the regional tables at the end of the chapter.

		Total number of vessels	Full-time equivalent (national)	Days at sea	Live weight of landings	Value of landings
		(#)	(#)	(day)	(tonne)	(thousand €)
LTU OFR TM40XX °	2008	12	322	8,167	152,478	88,387
	2009	11	314	5,866	179,960	149,321
	2010	8	308	3,794	92,023	70,191
	2011	10	368	6,066	96,194	69,822
	2012	10	356	4,866	41,210	33,467
	2013	7	296	2,653	72,675	57,163
	2014	9	413	1,791	132,587	91,080
	2015	11	298	3,958	64,350	57,474

POLAND

The Polish distant water fleet was mainly operated in Atlantic Southeast with 90% of total landings in Other fishing regions and 10% was coming from Atlantic Eastern Central sub-region. The total 2015 landings in aforementioned sub-regions were 45.9 thousand tonnes, 1.4% higher than in 2014. The year 2015 for Polish distant water fleet was better in terms of CPUE, when effort decreased by 28.4% to 758 days at sea, whereas landings had a modest increase. In 2015, Atlantic horse mackerel was accounted for 86% of total landings by Polish distant water fleet corresponding to 39.7 thousand tonnes. Employment in the distant water fleet was 147 FTE in 2015, with a slight increase by 5% compared to 2014. Poland did not provide economic data for its distant water fleet segments.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.101 Landings value and share in 2015 by sub-region for POL OFR TM40XX

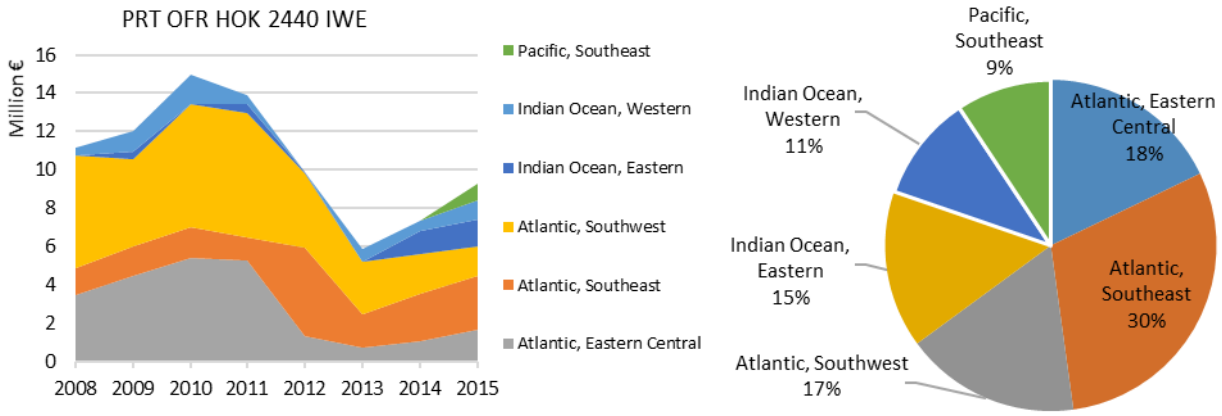
For comparison, the table below provides results on some of the main fishing activity indicators for the fleet segment as a whole, i.e. without regional disaggregation and thus, figures may vary to those provided in the regional tables at the end of the chapter.

		Total number of vessels	Full-time equivalent (national)	Days at sea	Live weight of landings
		(#)	(#)	(day)	(tonne)
POL OFR TM40XX	2008	1	270	976	26,102
	2009	3	258	1,756	76,495
	2010	3	270	1,802	55,362
	2011	3	270	1,676	63,889
	2012	2	180	904	53,788
	2013	2	137	1,036	54,137
	2014	2	140	1,058	45,259
	2015	2	147	758	45,914

PORTUGAL

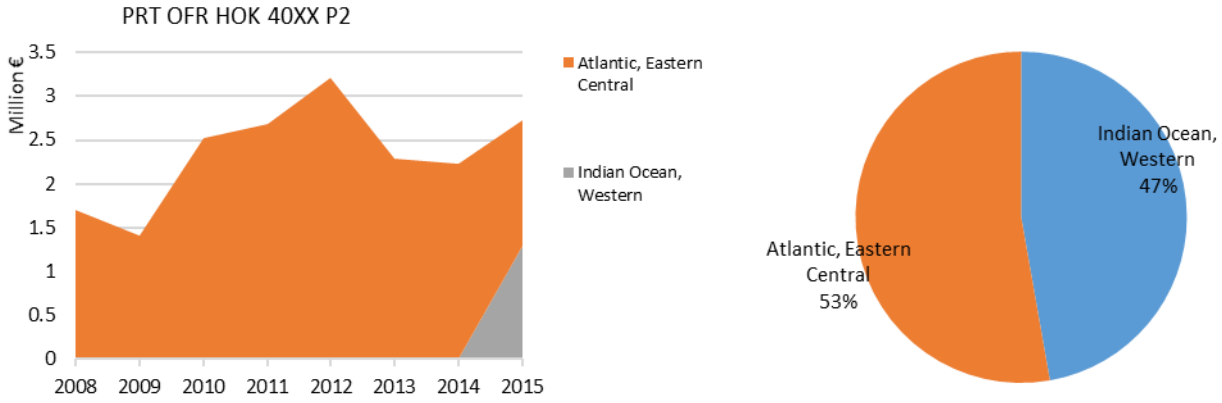
The Portuguese fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the Portuguese Exclusive Economic Zone (27.IX.a for the mainland fleet, 27.X for the Azores's fleet and CECAF 34.1.2 for the

Madeira's fleet). 18 vessels make up the longliners (HOK) 24-40m segment which operates in the Africa Coast, the outermost regions, Southwest Atlantic and Indian Ocean (FAO 34, 41, 51, 57). The fleet targets a variety of species but in particular large pelagic fishes with the main catches in most regions being blue shark, shortfin mako and swordfish however in outermost regions the fleet targets bigeye tune, skipjack tuna and albacore.



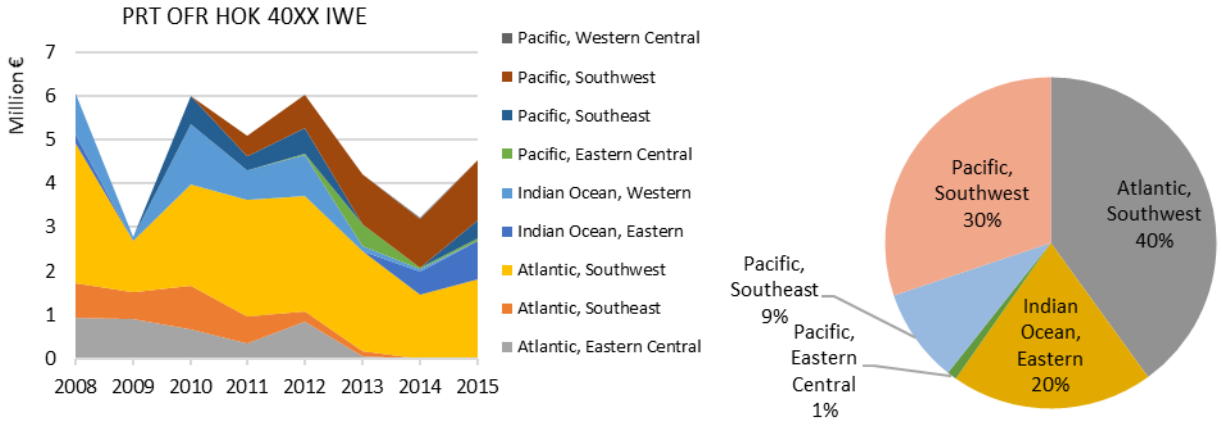
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.102 Trends on landings value and share in 2015 by sub-region for PRT OFR HOK2440 IWE



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.103 Trends on landings value and share in 2015 by sub-region for PRT OFR HOK2440 P2



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.104 Landings value and share in 2015 by sub-region for PRT OFR HOK40XX IWE

For comparison, the table below provides results on some of the main fishing activity and social-economic indicators for fleet segments as a whole, i.e. without regional disaggregation and thus, figures may vary to those provided in the regional tables at the end of the chapter.

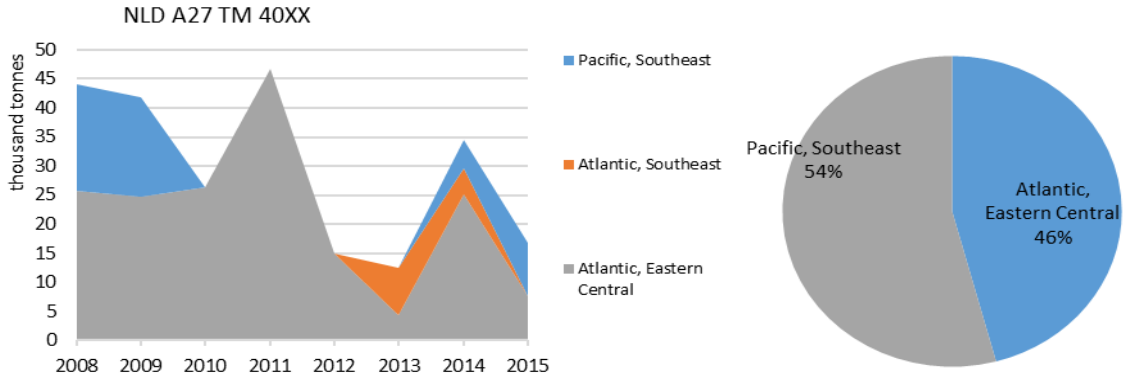
		Total number of vessels	Full-time equivalent (national)	Days at sea	Live weight of landings	Value of landings	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	GVA per FTE (labour productivity)
		(#)	(#)	(day)	(tonne)	(thousand €)	(thousand €)	(%)	(thousand €	(%)	(thousand €	(%)	(thousand €)
PRT OFR HOK2440 IWE	2008	15	133	8,249	4,471	12,110	3,051	25.2	928	7.7	- 1,295	- 10.7	22.9
	2009	15	178	7,953	4,584	14,074	6,759	47.7	5,298	37.4	2,456	17.3	38.0
	2010	14	142	8,585	4,824	16,486	7,270	40.9	5,071	28.5	2,546	14.3	51.2
	2011	14	158	8,359	4,448	14,976	6,690	41.6	3,884	24.2	707	4.4	42.3
	2012	13	124	5,159	3,962	10,362	1,260	15.5	189	2.3	- 2,735	- 33.6	10.2
	2013	9	102	3,931	2,509	6,422	3,022	38.8	1,965	25.2	- 13	- 0.2	29.6
	2014	9	115	4,641	3,846	7,922	3,508	39.0	2,334	25.9	629	7.0	30.5
	2015	9	108	4,746	3,774	9,473	5,250	47.6	3,922	35.6	2,161	19.6	48.6
PRT OFR HOK2440 P2	2008	4	45	1,672	1,102	1,843	384	20.8	- 114	- 6.2	- 799	- 43.4	8.5
	2009	5	56	1,448	1,145	1,527	935	41.7	345	15.4	- 843	- 37.6	16.7
	2010	6	58	1,978	2,432	2,703	2,011	55.4	815	22.5	- 191	- 5.3	34.7
	2011	6	63	1,930	2,238	2,779	2,167	55.1	1,002	25.5	- 38	- 1.0	34.4
	2012	6	92	1,790	2,326	3,243	2,411	56.9	1,270	30.0	6	0.1	26.2
	2013	6	57	2,172	1,658	2,300	1,160	36.7	516	16.3	- 576	- 18.2	20.4
	2014	6	95	2,190	1,606	2,247	1,768	59.5	624	21.0	- 193	- 6.5	18.6
	2015	7	108	2,222	1,230	2,733	456	26.0	- 334	- 19.1	- 1,095	- 62.5	4.2
PRT OFR HOK40XX IWE	2008	8	97	4,043	2,274	6,990	2,057	29.4	1,121	16.0	- 717	- 10.3	21.2
	2009	5	34	2,433	1,143	3,716	2,597	54.8	2,077	43.8	540	11.4	76.4
	2010	6	65	3,417	2,356	7,353	3,263	43.7	2,471	33.1	634	8.5	50.2
	2011	5	88	3,599	2,973	6,949	2,806	40.3	1,963	28.2	170	2.4	31.9
	2012	5	80	3,015	3,470	7,974	3,561	46.2	2,640	34.3	946	12.3	44.5
	2013	5	76	2,689	1,884	6,633	2,151	27.9	1,055	13.7	- 312	- 4.0	28.3
	2014	5	64	2,143	2,311	4,340	2,422	40.7	1,559	26.2	449	7.5	37.8
	2015	4	62	2,111	1,545	5,785	4,566	58.3	3,843	49.1	3,217	41.1	73.6

NETHERLANDS

The Dutch pelagic trawlers over 40m landed almost 243 thousand tonnes from OFR in 2015, with an estimated value of €102 million. This represents a significant reduction from previous years, with the segment moving to post gross losses in 2015 (-€3 million) and net losses of almost €21 million.

This segment included 8 vessels in 2015, which operated predominantly in the Northeast Atlantic Ocean and to a lesser extend in the North Sea. Only a small portion of its activity occurred in OFR. The fleet targets pelagic species, particularly herring, mackerel, horse mackerel, blue whiting, pilchard and sardinella. The total estimated value of landings was over €102 million and around 336 FTEs were employed in this fleet segment, representing 27% of the total Dutch value of landings and 21% of the FTEs of the Dutch fishing fleet.

It should be noted that the prices used to calculate the value of landings of the pelagic trawlers are obtained from the pelagic sector (see data issues in the Dutch national chapter). They are internal prices used to calculate the wage of the crew of the fishing vessel. The integrated companies cover the whole production chain from fishing to the consumer and there are no real ex-vessel prices available. Based on those prices, this fleet segment was not profitable. Information about the economic performance of the overall companies is not available, so it is hard to evaluate whether those profits resemble reality.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.105 Landings value and share in 2015 by sub-region for NLD A27 TM40XX

For comparison, the table below provides results on some of the main fishing activity and social-economic indicators for the fleet segment as a whole, i.e. without regional disaggregation and thus, figures may vary to those provided in the regional tables at the end of the chapter.

		Total number of vessels	FTE	Days at sea	Live weight of landings	Value of landings	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	GVA per FTE (labour productivity)
		(#)	(#)	(day)	(tonne)	(thousand €)	€)	(%)	€)	(%)	€)	(%)	€)
NLD A27 TM40XX °	2008	15	472	3,642	346,994	156,494	55,705	35.5	15,674	10.0	- 2,760	- 1.76	118.0
	2009	14	453	3,015	278,971	126,247	41,500	32.8	7,918	6.3	- 10,440	- 8.25	91.6
	2010	13	456	3,050	305,542	128,306	45,973	35.6	13,661	10.6	- 9,470	- 7.33	100.8
	2011	12	465	3,375	274,322	128,738	32,841	24.7	- 2,496	- 1.9	- 31,133	- 23.37	70.7
	2012	14	485	2,566	259,676	115,976	27,956	24.5	- 4,217	- 3.7	- 26,740	- 23.41	57.6
	2013	12	450	2,070	258,040	105,737	38,512	36.1	7,656	7.2	- 27,520	- 25.81	85.6
	2014	11	408	2,211	296,050	123,305	49,224	39.6	14,833	11.9	- 8,650	- 6.95	120.6
	2015	8	336	1,787	242,705	102,442	26,983	26.2	- 3,044	- 3.0	- 21,224	- 20.59	80.3

ITALY

At 1st of January 2015, 9 vessels were included in the vessel register as vessels operating outside the Mediterranean Sea. These are 8 trawlers, which operated in 2015 in the Eastern Central Atlantic on the basis of EU fisheries agreement with third parties, and a vessel operated as a purse seiner in Indian Ocean (IOTC area).

Only 2 trawlers reported catches and effort data in 2015. Economic data of the vessels operated in the CECAF area have been estimated using different sources of information: administrative data on fishing operations (landings, effort) and official balance sheets. An interview was carried out with a vessel owner to better understand the cost structure and to link the variable in the balance sheet with the ones required by the DCF.

The average GT for the 8 trawlers was 514 tonnes and average kW was 1 172. The fleet was targeting mainly demersal species, such as common octopus (37% of total landing value), cuttlefish (25% of total value), and sole (20%). This fleet suffered net losses in 2015 with a net profit margin of -2.2%.

The economic data for the purse seiner operated in the IOTC was collected, but not provided in the official data call on fleet economic because of confidentiality reasons (only one vessel).

For comparison, the table below provides results on some of the main fishing activity and social-economic indicators for the fleet segment as a whole, i.e. without regional disaggregation and thus, figures may vary to those provided in the regional tables at the end of the chapter.

		Total number of vessels	Full-time equivalent (national)	Days at sea	Live weight of landings	Value of landings	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	GVA per FTE (labour productivity)
		(#)	(#)	(day)	(tonne)	(thousand €)	(thousand €)	(%)	(thousand €	(%)	(thousand €	(%)	(thousand €)
ITA OFR DTS40XX IWE°	2008	17	148	4,016	2,800	16,614	8,880	53.4	7,071	42.6	1,936	11.7	59.8
	2009	17	97	2,472	2,893	20,268	16,050	79.2	14,698	72.5	8,035	39.6	165.2
	2015	8	20	656	569	4,100	1,212	29.6	374	9.1	- 90	- 2.2	61.5
ITA OFR DTS40XX IWE	2010	7	63	1,668	1,751	13,067	10,084	77.2	9,184	70.3	3,288	25.2	161.2
	2011	7	66	1,748	2,046	11,233	7,783	69.3	6,866	61.1	2,021	18.0	118.7
	2012	5	25	806	944	4,518	3,191	70.6	2,855	63.2	335	7.4	128.5

LATVIA

In 2015, the Latvian distant water fleet consisted of 2 registered vessels, with a combined gross tonnage of 8.8 thousand tonnes, a total engine power of 10.3 thousand kilowatts, an average age of 33 years and a length of 103 metres. One new vessel with similar parameters entered the distant water fishery in 2016. Their operational area is Morocco and Mauritania waters CECAF region (area 34). The distant fleet employment was estimated around 210 jobs; corresponding 126 FTEs in 2015. Non EU-residents may also be employed at the vessels whose salary is significantly lower than salary for EU citizens.

The Latvian long distant water fishing fleet spent a total of around 349 days at sea in 2015, 170 thousand of which were fishing days and only 13 trips were made during the year. The catches are landed in Morocco and Mauritania or could be trans-boarded at sea to other vessel in the Atlantic and share of the other vessel landings could be taken on board. The production as canned fish also could be processed on board during the vessel trip.

The segment is targeting horse mackerel, Atlantic mackerel, sardinella and sardine. The main ports for the distant water vessels landings in 2015 were Dakhla (Morocco) and Nouadhibou (Mauritania). The total weight landed by the distant water fleet in 2015 was 14.3 thousand tonnes of fish with a landed value of €7.6 million. In terms of landings composition in 2015, horse mackerel was the most common species landed in terms of weight 6.9 thousand tonnes, followed by Atlantic mackerel 6.7 thousand tonnes. In 2015, horse mackerel achieved the highest landed value €3.8 million followed by Atlantic mackerel €3.7 million. The horse and Atlantic mackerel accounted for 49% and 48%, respectively, of the total landings value in 2015 and contributed to 48% and 47%, to total landed weight.

ESTONIA

No economic data were provided for the Estonian distant water fleet.

OFR: 'Other Regions'

At a glance

Most of the fishing activity in 'Other regions' is carried out by the EU distant water fleet. According to the definition applied in the AER, the EU distant water fleet is defined as vessels over 24m operating predominately in Other Fishing Regions (OFR). The EU distant water fleet operates in international waters (high seas) and through bilateral agreements with countries outside the EU. These include fishing areas in the North, South and Central Atlantic, Indian, Pacific and Antarctic (or Southern) oceans.

The EU has 2 types of fishing agreements with non-EU countries: (1) sustainable fisheries partnership agreements (SFPA) – the EU gives financial and technical support in exchange for fishing rights, generally with southern partner countries and (2) the "northern agreements" – these are excluded from the Other Fishing Regions analysis and instead included, by definition, in either the North Atlantic or the North Sea regions.

The EU has currently 15 active SFPAs protocols in force with third countries:11 tuna agreements: Cape Verde, Ivory Coast, Gabon, Liberia, Sao Tomé and Principe, Senegal, Comoros, Madagascar, Mauritius, Seychelles, and Cook Islands and 4 mixed agreements: Guinea-Bissau, Mauritania, Morocco, and Greenland.

Figure 4.106 shows the cost of EU SFPAs by fishing region for the period 2013-2018. The reduction in costs in later years is due to the expiry of agreements and not necessarily reduction in costs of agreements.

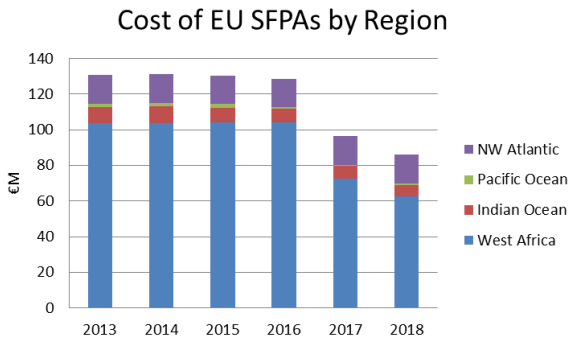
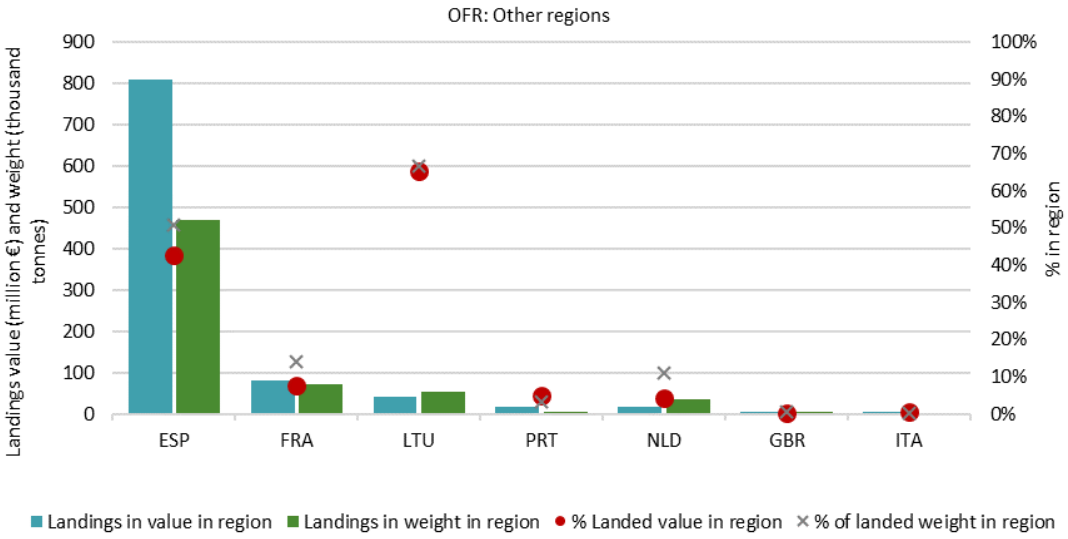


Figure 4.106 Estimated cost of SFPAs annually.

Source: own calculation using data from http://ec.europa.eu/fisheries/cfp/international/agreements/index_en.htm.
Note: costs reduce in later years due to the expiry of agreements and not necessarily reduction in costs of agreements.

In *Other Regions*, the Spanish fleet dominates by total landings (470.1 thousand tonnes; -2.9% on 2015) and value of landings (€808 million; -25% on 2015) with 73% and 83% of the totals respectively of this region. The French fleet landed 70.8 thousand tonnes in 2015 and generated €82 million, accounting for 11% and 8.5% of the regional total landings and value. The Lithuanian fleet accounted for 8.5% of the landing weight here (54.4 thousand tonnes; -47% on 2014) and the income from these landings declined to €40.6 million, representing only 4.2% of total value.

The highest importance of the fisheries in Other Regions in terms of landings in weight and value was observed for the Lithuanian and Spanish fleets corresponding to 67% and 56%, respectively (Figure 4.107).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.107 Importance of the *Other Regions* for Member States' fisheries in terms of landings in weight and value, 2015

The total live weight of landings in Other Regions in 2015 decreased by 8.2% to 643 thousand tonnes (Figure 4.108). The most important fleet segment operating in Other Regions is the Spanish purse seiners over 40m (registered in OFR) generating a landing value of €380.7 million (-8% on 2014), followed by the Spanish demersal trawlers over 40m (€177 million; -55% on 2014). The French purse seiners over 40m generated €82.3 million in 2015 (Table 4.39).

The effort of the EU distant water fleet in Other Regions was relatively stable during 2013-2015 period, with a slight increase to 51.6 thousand days on 2015. However, higher effort in 2015 was followed by the significant decline of landings value, profitability and productivity indicators. For example, value of landings and profitability in Other Regions decreased for the first time since 2010. Compared to 2014 value of landings decreased by 21%, gross profit by 36% and net profit by 74% (Figure 4.108).

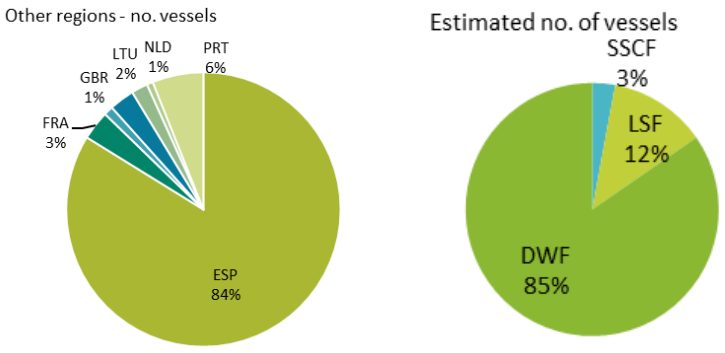
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.108 Trends on revenue, profits and profit margins for EU fleets operating in Other regions

MS fleet activity in the Other Regions: situation in 2015 and recent trends

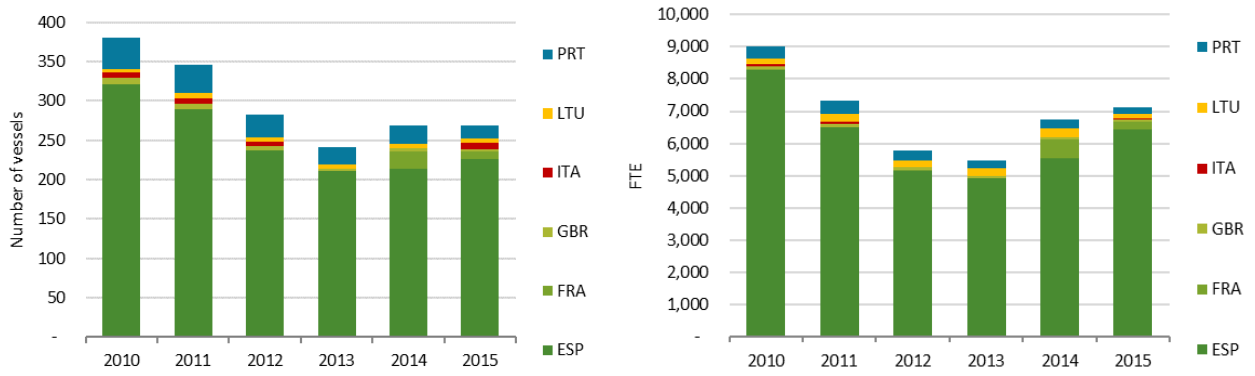
Fleet capacity and employment

The highest number of vessels, operating in Other Regions in 2015 was represented by Spanish fleet with 227 vessels and corresponding to 84% of total number of vessels in this region (Table 4.34, Figure 4.109). Compare to 2014 capacity in terms of number of vessels remained unchanged, but compare to 2010 it declined by 29%. However, despite the unchanged capacity and decreased economic performance in 2015, the increase of 4.5% in employment (FTE) was observed (Figure 4.110).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.109 Share of the number of vessels by MS fleet and fishing activity in Other regions, 2015

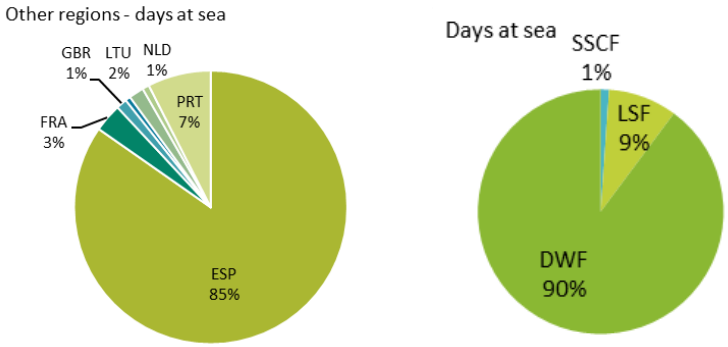


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.110 Trends on the number of vessels and employment (in FTE) for MS fleets operating in Other regions

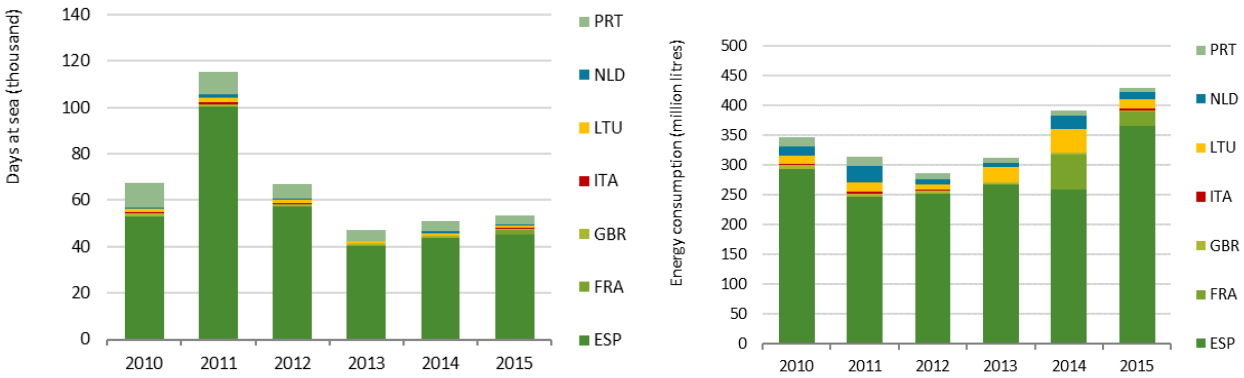
Fishing effort

Concerning fishing effort in Other Regions, by far the highest share of days at sea was spent by Spanish fleet, almost 85% of total effort in this region and corresponding to 45 thousand days. Compare to 2014 effort of Spanish fleet in this region increased by 4% (Figure 4.111). Annual effort increase in Other Regions was also observed in French and Lithuanian fleet, whereas other MS operating in this region decreased number of days at sea. Energy consumption in 2015 reached the highest level since 2010, with a constant annual increase from 2012. Compare to 2014 energy consumption increased by 13%, whereas days at sea remained relatively stable (5% increase) while weight of landings declined by 8.2% (Figure 4.112).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.111 Share of the effort deployed by MS fleet and fishing activity in Other regions, 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.112 Trends in fishing effort (days at sea) and fuel consumption for MS fleets operating in Other regions

Landings and top species

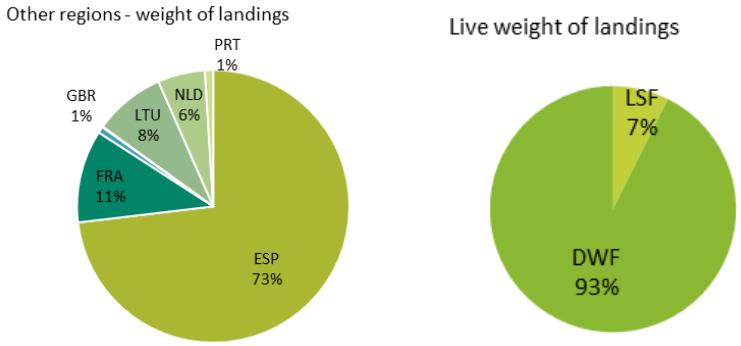
In terms of landed weight and value, Spain and France were again the leading countries, together accounting for 84% of the total weight and 91% of the value of landings; almost entirely landed by the DWF fleets (Figure 4.113 and 4.114).

The total value of landings in 2015 decreased by 20.9% compare to 2014, first time since 2010, when value of landings had a constant annual growth (Figure 4.115).

Based on the data available for the entire 'Other Regions', in 2015, skipjack tuna (165.9 thousand tonnes) was the most landed species in terms of landing weight followed by yellowfin tuna (142.9 thousand tonnes) and Atlantic horse mackerel (70 thousand tonnes) (Figure 4.116). These three species accounted for 61% of total weight of landings in Other Regions. Overall skipjack tuna and yellowfin tuna landings was shared mainly by Spanish and French fleet corresponding by 70.4% and 28.6% respectively. Atlantic horse mackerel landings were dominant in Polish and Lithuanian fleet corresponding to 56.6% and 34.5% of total landings in this region.

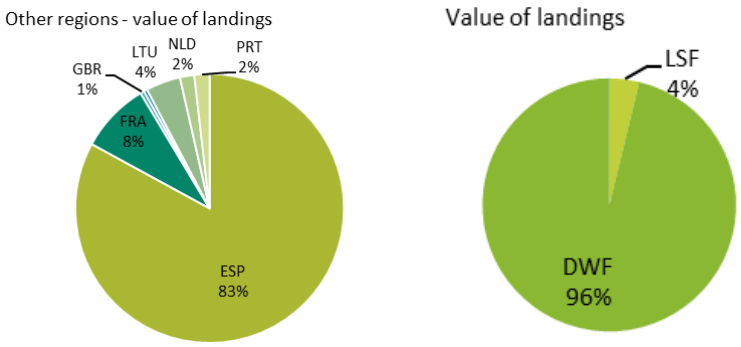
In terms of value, the most important species in 2015 were: yellowfin tuna (€372 million), followed by swordfish (€122.8 million), bigeye tuna (€88.8 million) and skipjack tuna (€63.1 million), however the most dominant was yellowfin tuna, representing 45.6% of total value of landings in the region (figure 4.116).

Decline in landings value was associated to the significant decline of average price for skipjack tuna from 1.1 €/kg in 2014 to 0.4 €/kg in 2015. However, average price of yellowfin tuna increased by 27.4% in 2015 and has an increasing trend since 2010 (Figure 4.117). The average price for swordfish is also has a tendency to increase, compare to 2014 it improved by 7% to 4.85 €/kg.



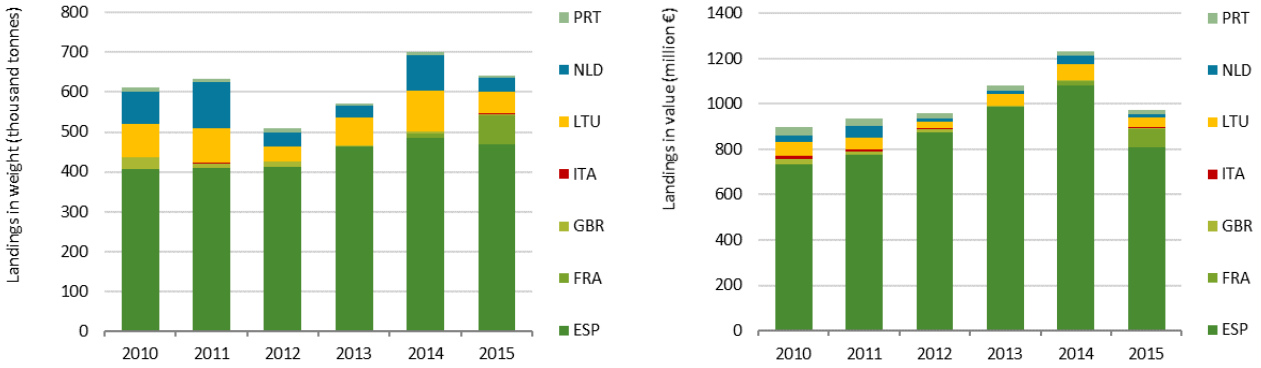
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.113 Share of landed weight by MS fleet and main type of fishing activity in Other regions, 2015



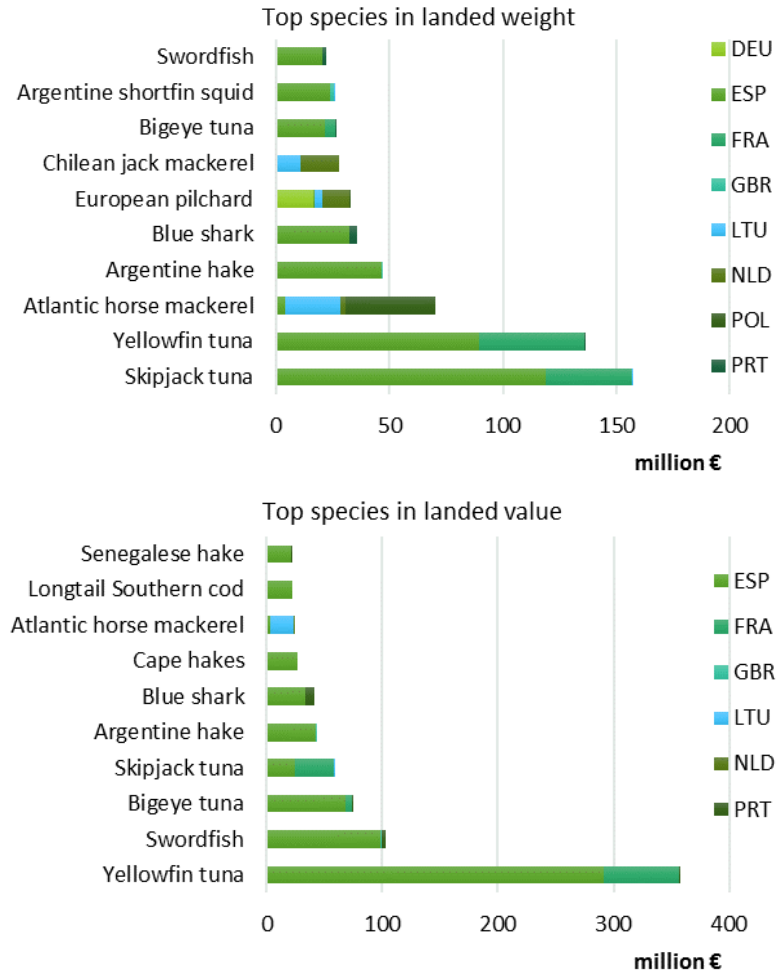
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.114 Share of landed value by MS fleet and main type of fishing activity in Other regions, 2015



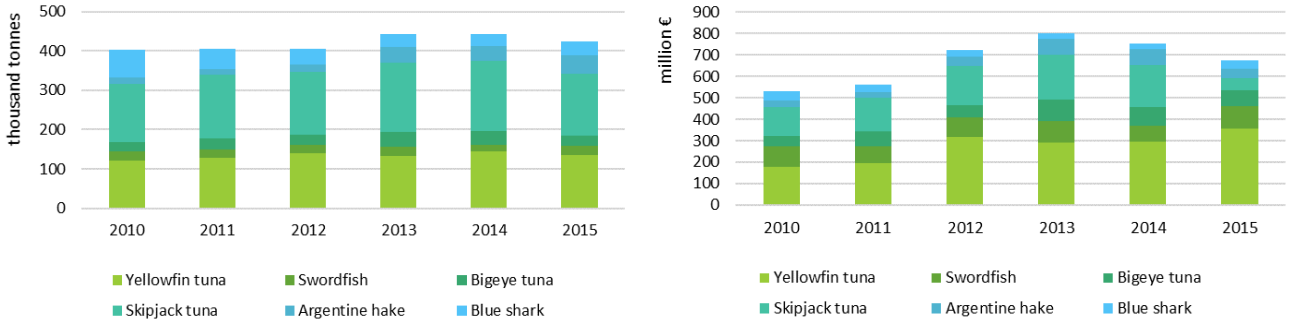
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.115 Trends on landings in weight and value by MS fleet operating in Other regions



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.116 Top 10 species in terms of weight and value landed by MS fleets operating in Other regions, 2015

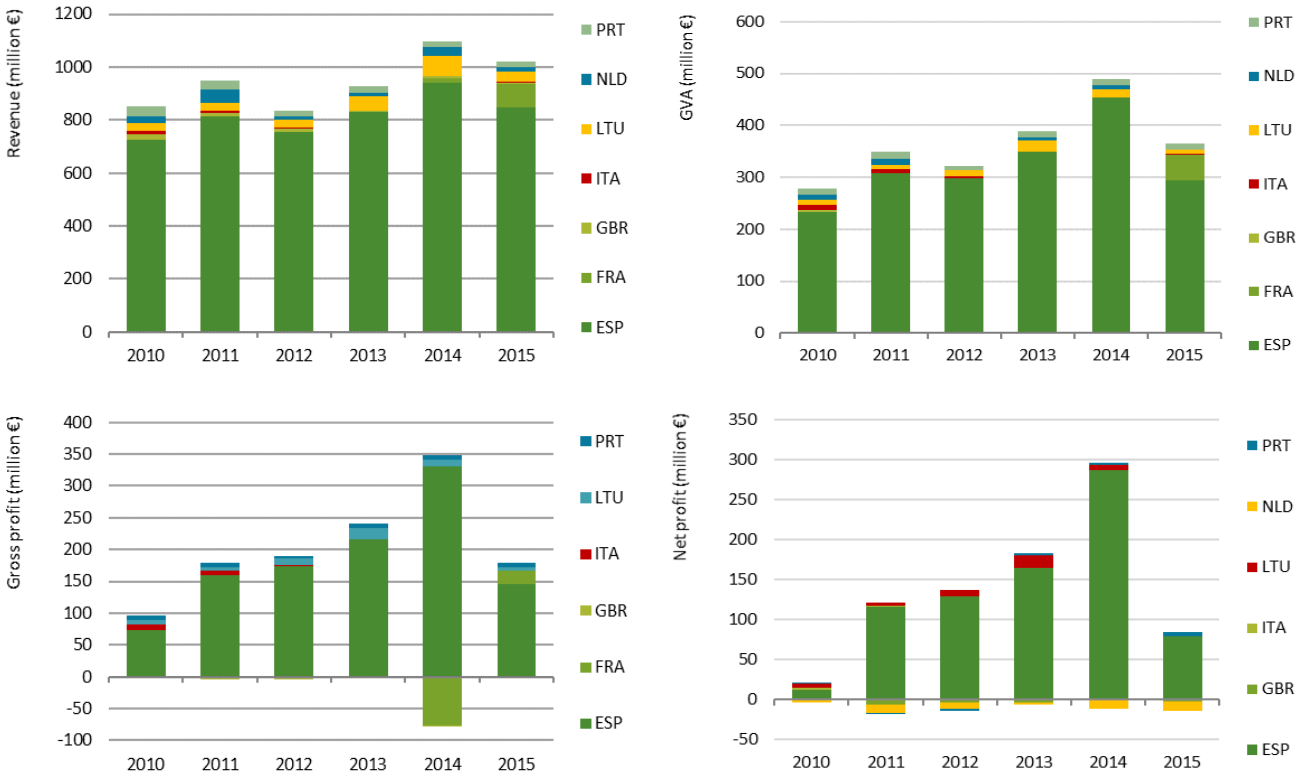


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.117 Trends on landings of the top six species in terms of landed value for MS fleets operating in Other regions

Socio-Economic performance

Socio-economic performance in the distant water fisheries, operating on Other Regions was mostly dependant on Spanish fleet as 83.3% of revenues and 81% of GVA was generated from this fleet. Second major player was France, generating 8.4% of total revenues and 14% of total GVA in the region. Together these two MS were representing 95% of total GVA generated in Other Regions. As Spain and France generally are targeting skipjack and bluefin tuna in Other Regions, almost all economic performance is represented by these fisheries, leaving other MS fleets and fisheries with minor importance in terms of generated GVA and profitability (Figure 4.118).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

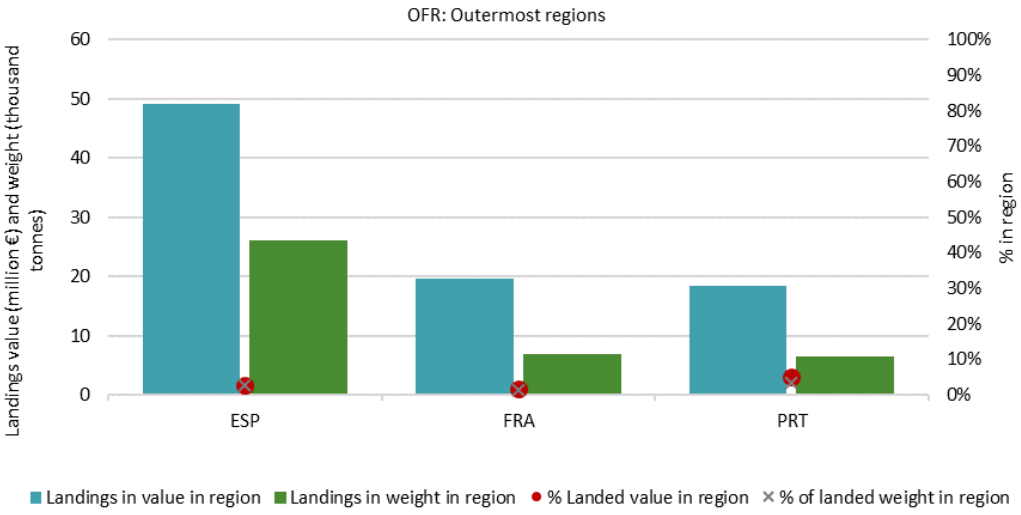
Figure 4.118 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) for MS fleets operating in Other regions (excludes Lithuania)

OFR: Outermost Regions

At a glance

While the majority of the production in *Other Fishing Regions* is the result of Member States high seas fleets (usually over 40m), several MS (France, Spain and Portugal) also have a substantial fleet, consisting mainly of small to large-scale coastal vessels, operating in the various EU outermost regions.

The Spanish outermost region fleet was the most important in terms of landed weight and value, generating around €49 million in landings, followed by the French (€19.6 million) and Portuguese fleets (€18.5 million). However, neither regional fleet is highly dependent on these fishing regions for their overall production (Figure 4.119).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

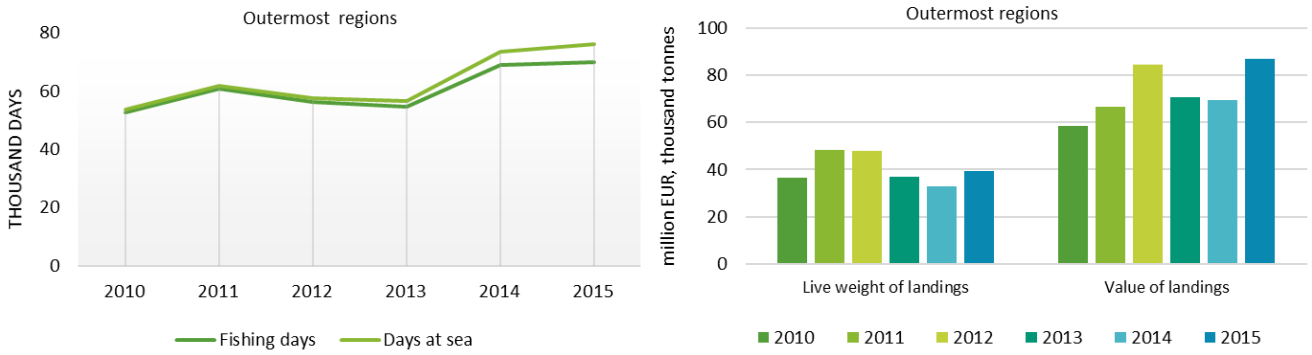
Figure 4.119 Importance of the EU *Outermost regions* for Member States' fisheries in terms of landings in weight and value, 2015

Overall, the latest official DCF data suggests that the EU Outermost regions fleet spent almost 76 thousand days at sea in 2015, to land approximately 40 thousand tonnes of seafood valued at €87 million. While effort, in days at sea had continue will continue to grow but at a slightly slower rate fishing days has remained stable. Landings have increased since 2011 achieving the higher value ever in the time series in 2015 (Figure 4.120).

Revenue (income from landings and other income) generated in 2015 was estimated at almost €85 million, increasing 8% compared to 2014 and 35% when compared with 2010.

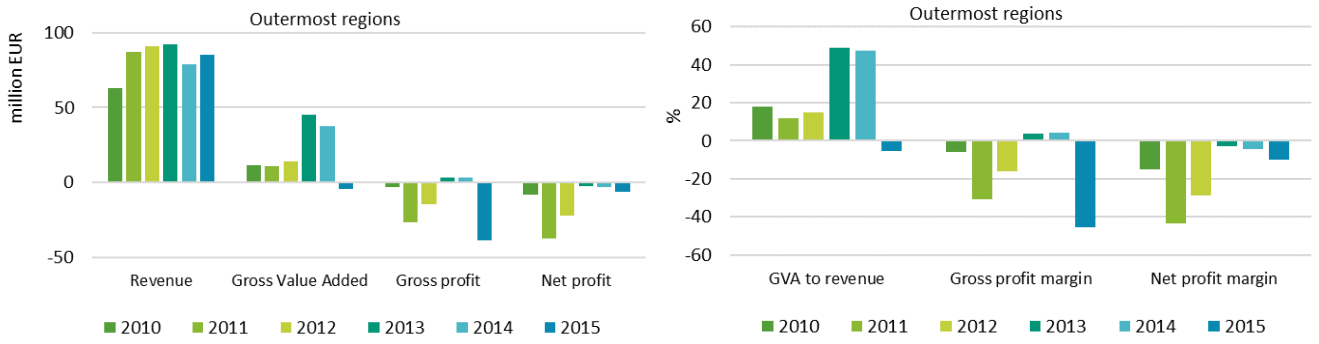
Increased landings in value and reduction in most of the operating costs (for Portugal and Spain), gives a different picture of the Outermost regions fleet performance once the overall values are influenced by the economic data estimated for some French fleet segments that presented effort in Outermost regions for the first time in 2015 as it is the case of PS40XX. The EWG strongly recommends the member state to make an effort to recover economic data for previous years.

GVA was estimated at €33 million in 2015 (not including France), representing an overall increase of 39% compared to the GVA generated in 2014 and a GVA to revenue of 45%. Gross profit was estimated in €2.7 million, while net profit was negative at almost €6 million.



Data source: Member State data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)).

Figure 4.120 Trends on fishing effort and landings by MS fleets operating in the EU outermost regions



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

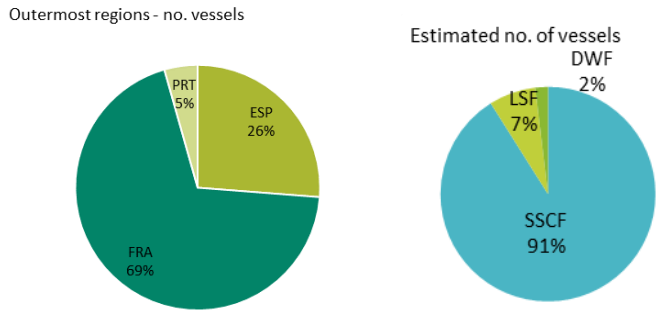
Figure 4.121 Trends on revenue and profits for MS fleets operating in the EU outermost regions

MS fleet activity in the EU outermost regions: situation in 2015 and recent trends

Fleet capacity and employment

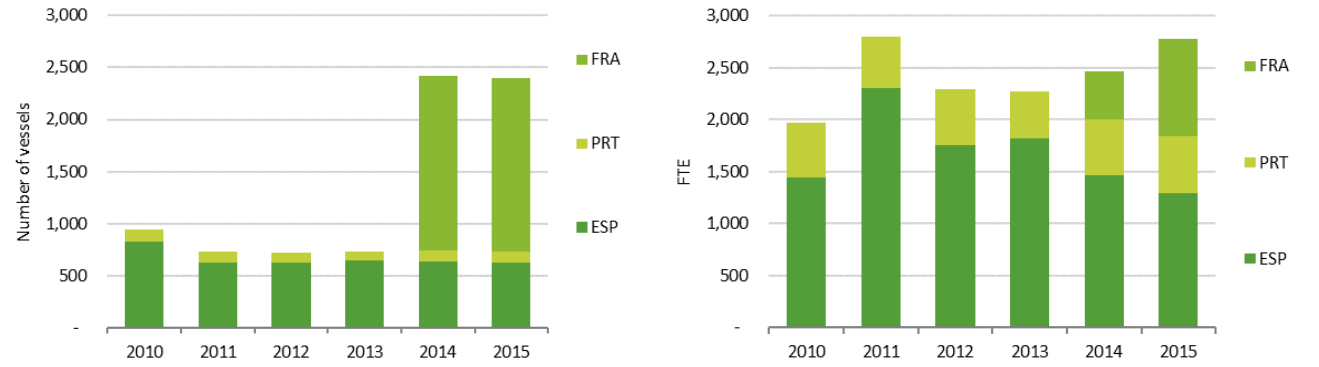
Member State fleets operating in the Outermost Regions in 2015 numbered 2 623 vessels. The French fleet comprises the largest fleet in number (1 664), accounting for 69% of the reported for those regions, the Spanish fleet comprises 629 vessels (26%) and the Portuguese fleet represents 5% of the Outermost Regions fleet with 105 vessels. The type of fishing activity in EU Outermost Regions is mostly small-scale coastal fisheries with 91% of representativeness (Figure 4.122).

The employment, measured in terms of Full Time Equivalents (FTE) showed in overall an increasing since 2013 to 2015. However, considering that the fishing segment FRPS40XX contributes with 308 FTE in 2015. In this way, considering only the fishing segments with data in 2014 and 2015 the FTE had remained stable (Figure 4.123).



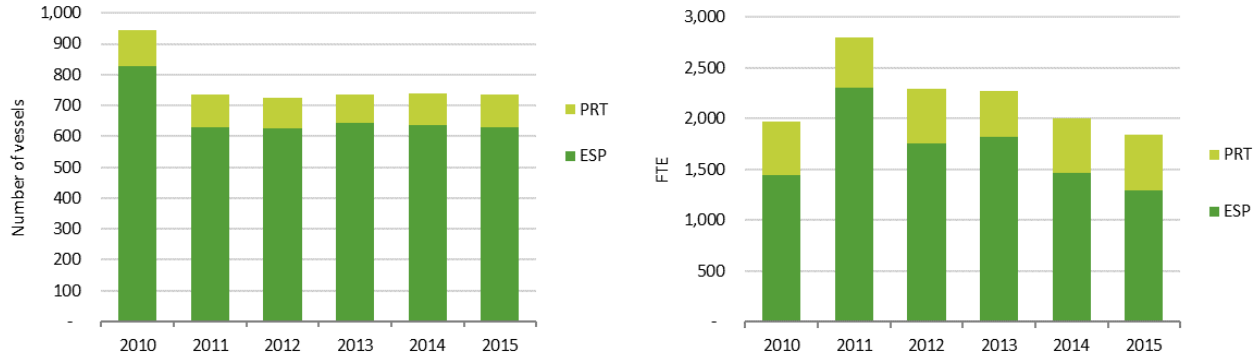
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.122 Share of capacity (no. vessels) by MS fleet and type of fishing activity in EU Outermost Regions, 2015 (includes France)



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.123 Trends on the number of vessels and employment (in FTE) for MS fleets operating in the EU Outermost Regions



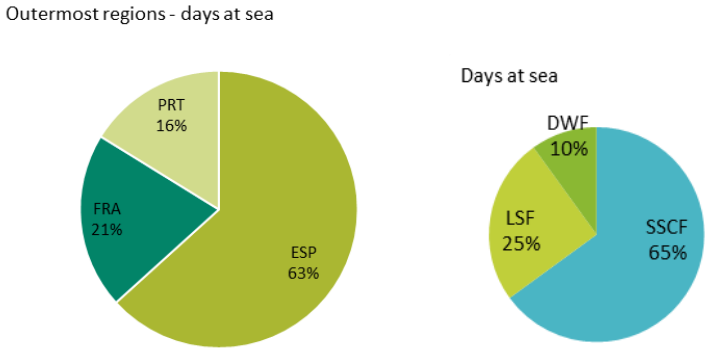
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.124 Trends on the number of vessels and employment (in FTE) for MS fleets operating in the EU Outermost Regions. Excludes France

Fishing effort

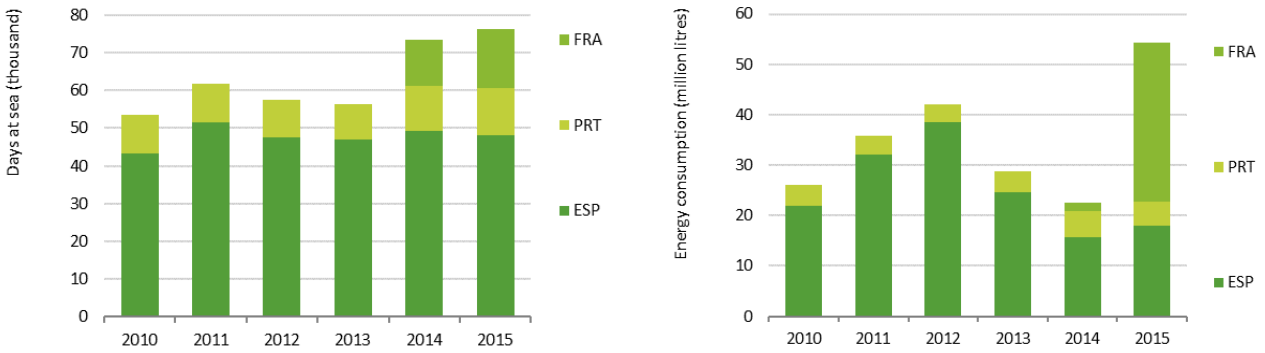
The pie charts presented in Figure 4.125 also indicate the proportion of days at sea attributable to each MS fleet in 2015. Spain accounted for around 63% of the total days at sea. Around 65% of the days at sea were allocated to the small-scale coastal fleet using passive gears. Large-scale fisheries (LSF) accounted for 25% of the days at sea.

Fishing effort has remained fairly constant for the Spanish outermost region fleet over the last few years while it increased for the Portuguese fleet in 2014 and 2015. On the other hand, fuel consumption has varied significantly, decreasing substantially in 2013 and 2014 and increasing again in 2015; reflecting the development of fuel prices (Figures 4.126 and 4.127).



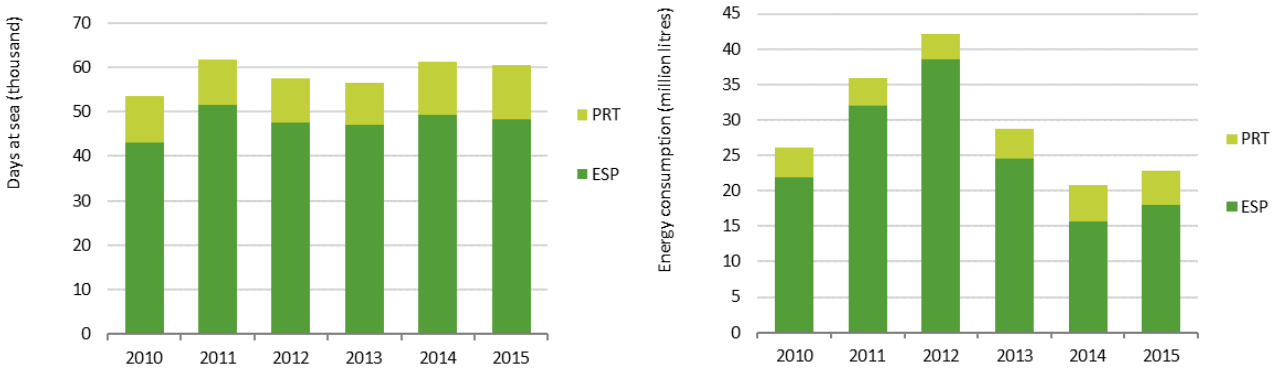
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.125 Share of fishing effort (in days at sea) by MS fleet and type of fishing activity in EU Outermost Regions, 2015 (includes France)



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.126 Trends on fishing effort (days at sea) and fuel consumption for the MS fleets operating in the EU Outermost regions

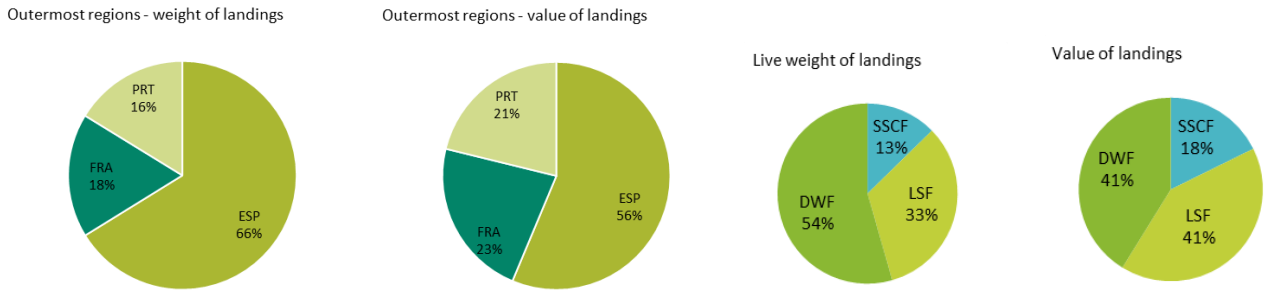


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.127 Trends on effort (days at sea) and fuel consumption for the MS fleets operating in the EU Outermost Regions. Excludes France

Landings and top species

The weight and value of landings was approximately 39.5 thousand tonnes and €87 million, with the Spanish fleet landing the majority of the total landings: 66% in weight and 56% in value. The DWF landed 54% of the total weight and 41% of the total value (Figure 4.128).

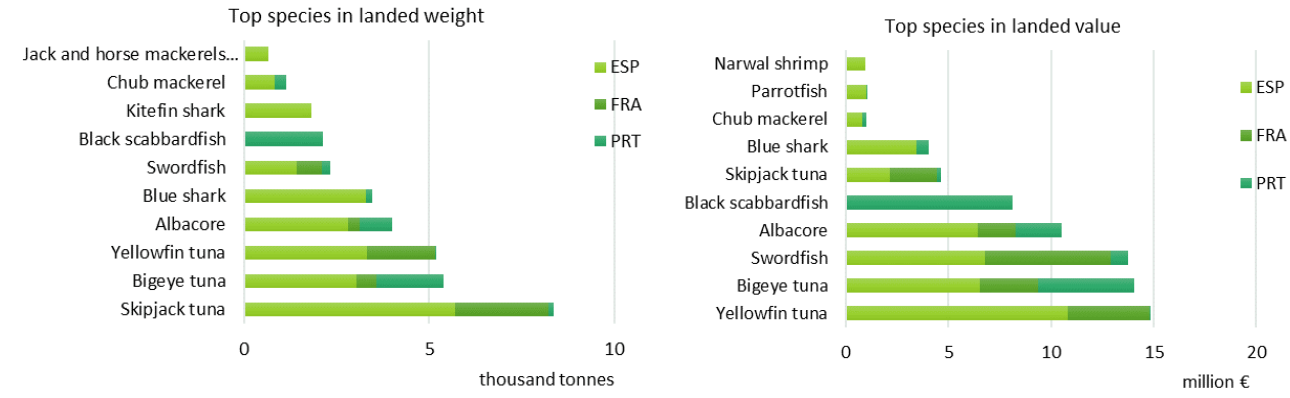


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.128 Share of landings in weight and value by MS fleet and fishing activity in the EU Outermost Regions, 2015

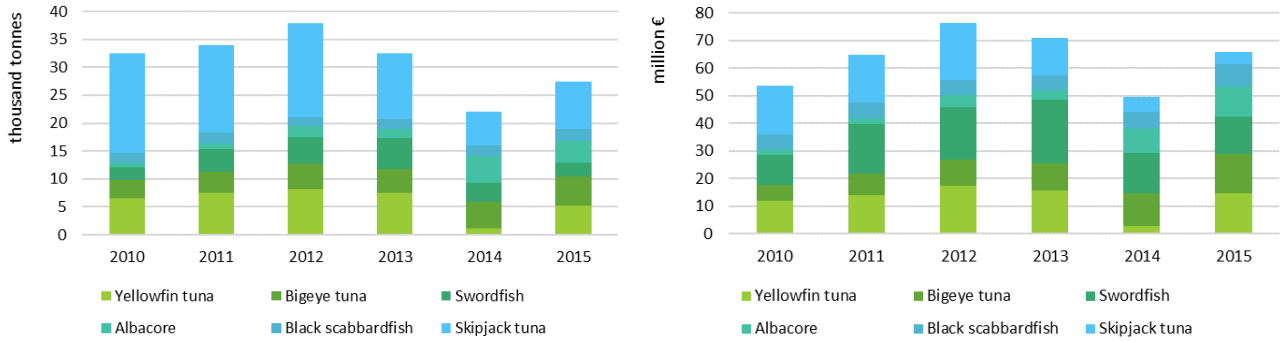
In 2015, the most important species landed in weight included skipjack tuna (8.3 thousand tonnes), bigeye tuna (5.4 thousand tonnes), followed by yellowfin tuna (5 thousand tonnes), albacore (4 thousand tonnes) and blue shark (3.5 thousand tonnes) (Figure 4.129).

Yellowfin tuna generated the highest value (€14.8 million), followed by bigeye (€14 million), swordfish (€13.7 million) and albacore ((€10.5 million). Black scabbardfish landings in 2015, amounted to 2 thousand tonnes with an estimated value of 8 million; landed almost exclusively by the Portuguese fleet operating in the region (Figures 4.129 and 4.130).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.129 Top 10 species in terms of weight and value landed by MS fleets operating in EU Outermost Regions, 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.130 Trends on landings of the top six species in terms of landed value for MS fleets operating in EU Outermost Regions

Socio-Economic performance

Overall, only the Portuguese outermost region fleet was profitable in 2015, generating €11.8 in GVA, €4.2 million in gross profit and a net profit of €1.9 million. Both the French and Spanish regional fleets suffered gross and net losses (Figure 4.131).

The revenue (income from landings and other income) generated in 2015 was estimated at €85 million, a rise of 7% from the year before. The Spanish fleet saw an increase of 5% compared to 2014, yet still well below revenues recorded over the period 2011 to 2013. The Portuguese fleet saw a reduction in revenue of 12% compared to 2014, the best year recorded over the period analysed. The Portuguese fleet was the most profitable and the only fleet to post profits in 2015 (Figure 4.132).

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.131 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) for MS fleets operating in the EU Outermost Regions

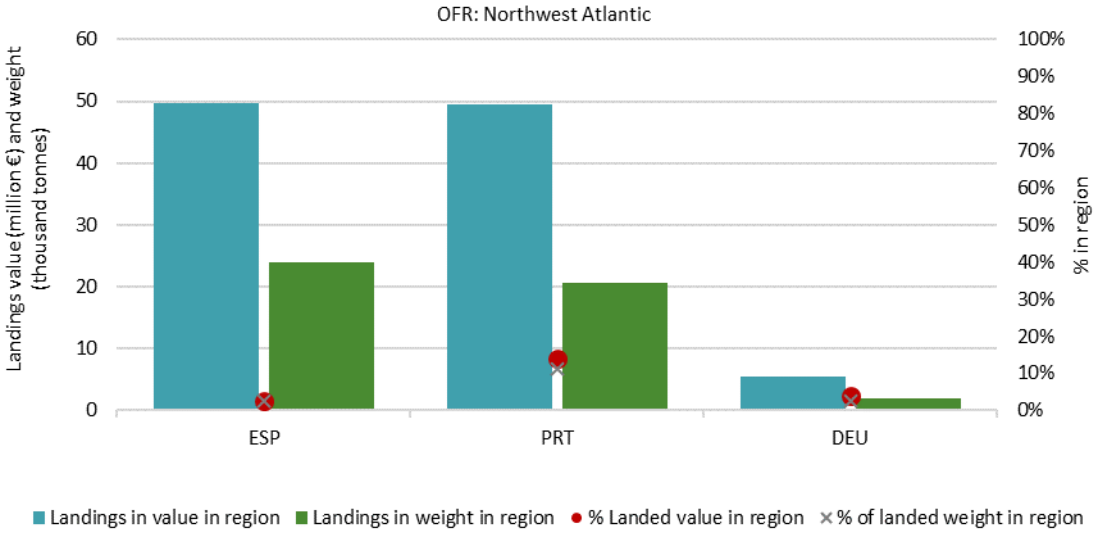
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.132 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) by MS fleets operating in the EU Outermost Regions. Excludes France

OFR: Northwest Atlantic

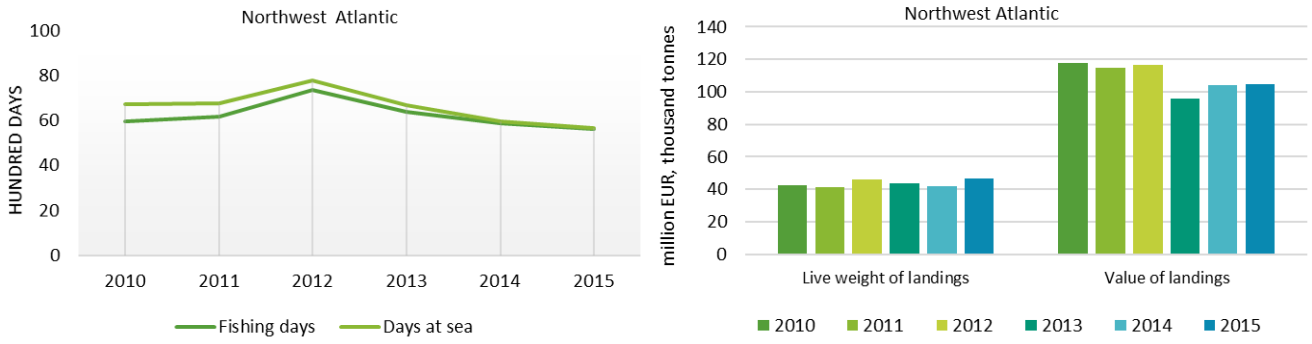
At a glance

Three Member State fleets registered fishing activity in the Northwest Atlantic in 2015, covering around 28 vessels and 5.7 thousand sea days to land 46.6 thousand tonnes valued at €105 million. The Portuguese and Spanish fleets accounted for over 95% of total landed weight and value with the rest being exploited by the German fleet. Landings caught in these fishing regions accounted for 11% of the total Portuguese production in weight and 14% of the value (Table 4.34 and Figure 4.133). Portuguese demersal trawlers over 40m reported the highest value of landings in this region (€49.4 million), followed by the Spanish demersal trawler over 40m homologous segment (€32.7 million). The German demersal trawl segment over 40m generated almost €5.6 million in this sub-region. All fleet segments were profitable in 2015 (Table 4.43). Overall, the economic performance of these fleets has steadily improved since 2013. The decrease in effort in 2013 initially triggered a decline in revenue and other economic indicators but which have since recovered to post record profits in 2015 (Figures 4.134 and 4.135).



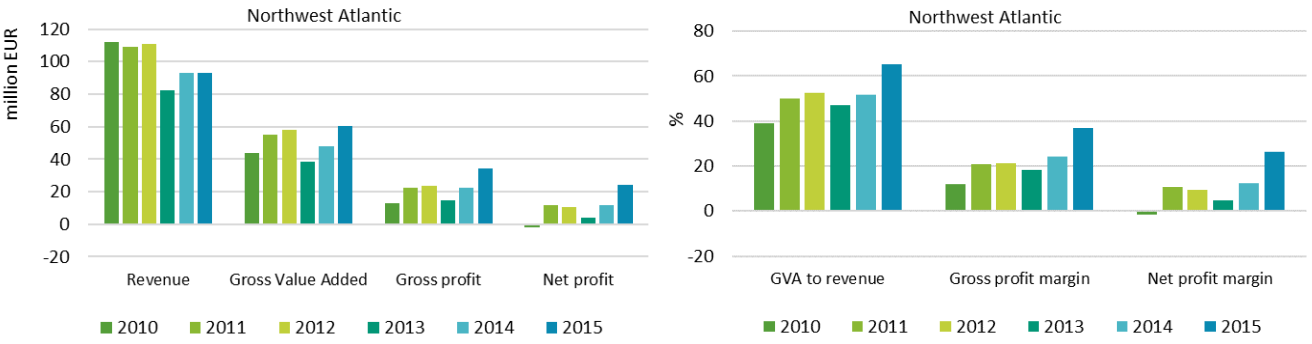
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.133 Importance of the Northwest Atlantic fishing regions for Member States' fisheries in terms of landings in weight and value, 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.134 Trends on effort and landings for MS fleets operating in the Northwest Atlantic region



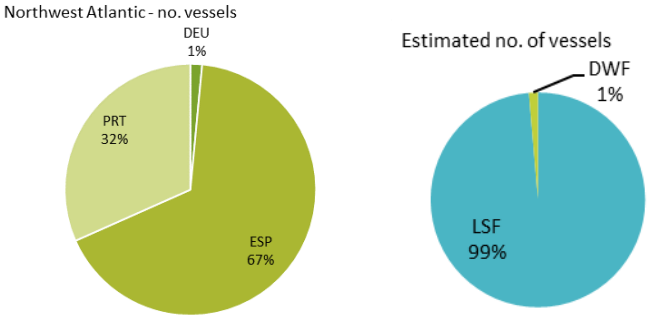
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.135 Trends on revenue and profits for MS fleets operating in the Northwest Atlantic region

MS fleet activity in the Northwest Atlantic: situation in 2015 and recent trends

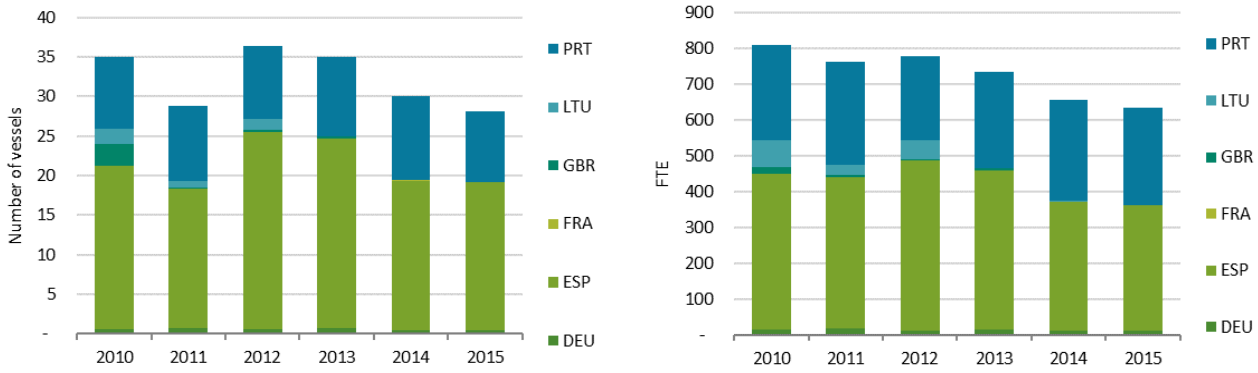
Fleet capacity and employment

Spain possessed the largest fleet in number operating in the Northwest Atlantic OFR sub-region in 2015, with 19 vessels and corresponding to 67% of total number of vessels in the region (Table 4.34, Figure 4.136). Compared to 2014, Spanish fleet capacity in terms of number of vessels remained unchanged, but has declined significantly compared to previous years, along with employment (FTE) (Figure 4.137). Several other MS fleets, including France, Lithuania, UK, were operational in the region up until 2014.



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.136 Share of the number of vessels by MS fleet and fishing activity in the Northwest Atlantic region, 2015

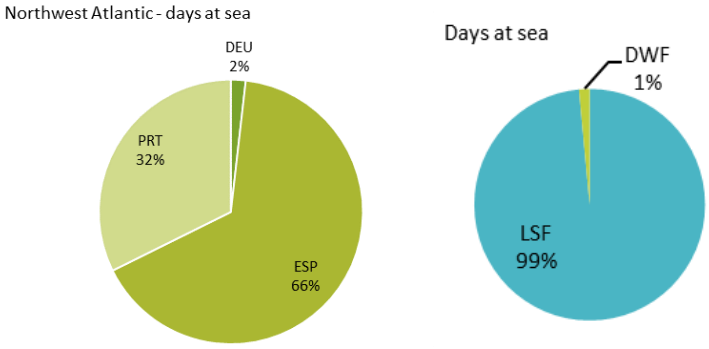


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.137 Trends on the number of vessels and employment in FTE for MS fleets operating in the Northwest Atlantic region

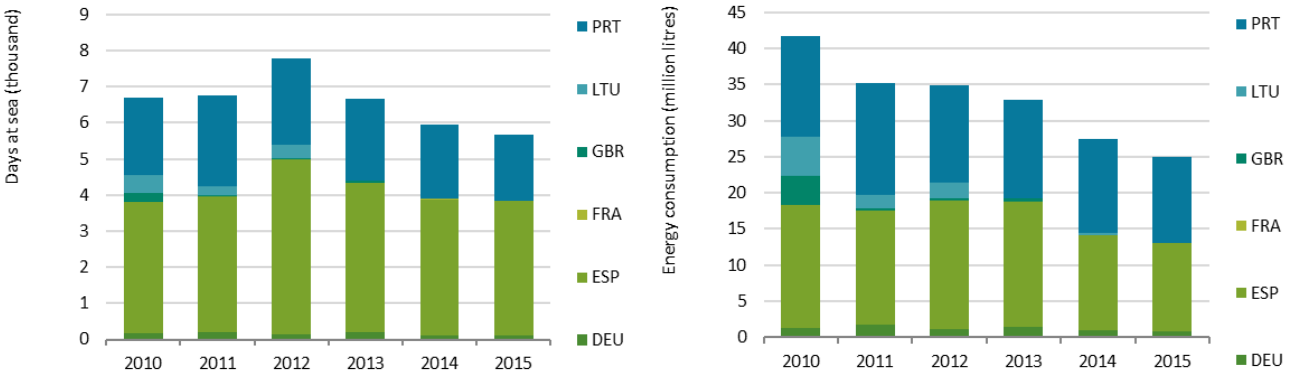
Fishing effort

The pie charts presented in figure 4.138 also indicate the proportion of days at sea attributable to each MS fleet in 2015. In line with capacity, the Spanish fleet dominates effort in the region with 66% of the days at sea, consisting mostly of large-scale vessels, and which has decreased steadily since 2012 (Figure 4.139).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.138 Share of the effort deployed by MS fleet and fishing activity in the Northwest Atlantic region, 2015

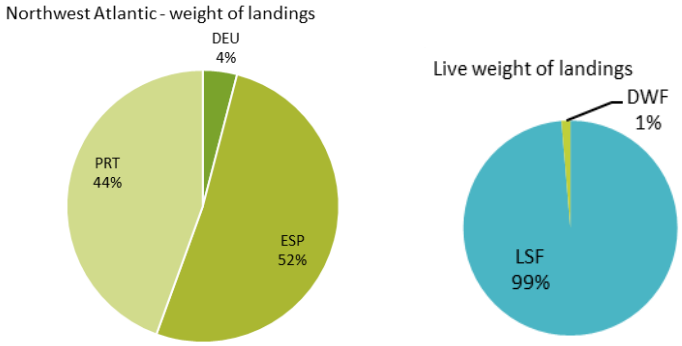


Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.139 Trends on effort (in days at sea) and fuel consumption for the MS fleets operating in the Northwest Atlantic region

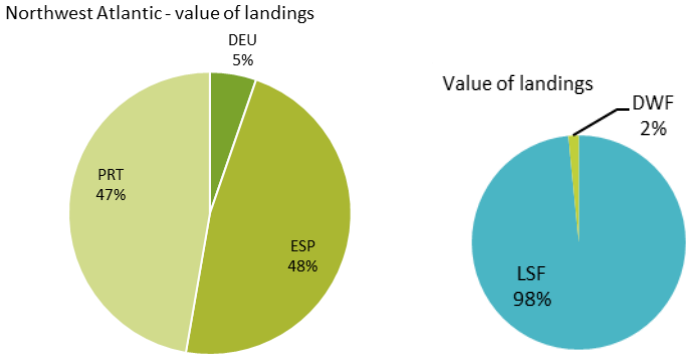
Landings and top species

The weight and value of landings generated by the fleet amounted to approximately 46.6 thousand tonnes and €105 million, respectively. The Northwest Atlantic region LSF landed 99% of the total weight and 98% of the total value (Figures 4.140 and 4.141). Landings in weight has oscillated over the period analysed mainly due to Spanish, and more recently Portuguese landings, while after suffering a significant decline in 2013, the landed value recovered slightly in 2014 to stabilise in 2015 (Figure 4.142).



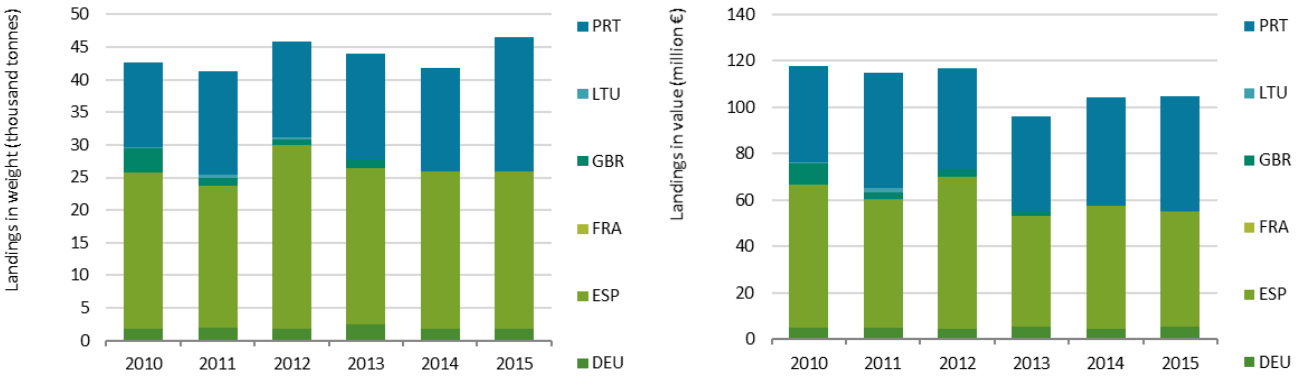
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.140 Share of landed weight by MS fleet and fishing activity in the Northwest Atlantic region, 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

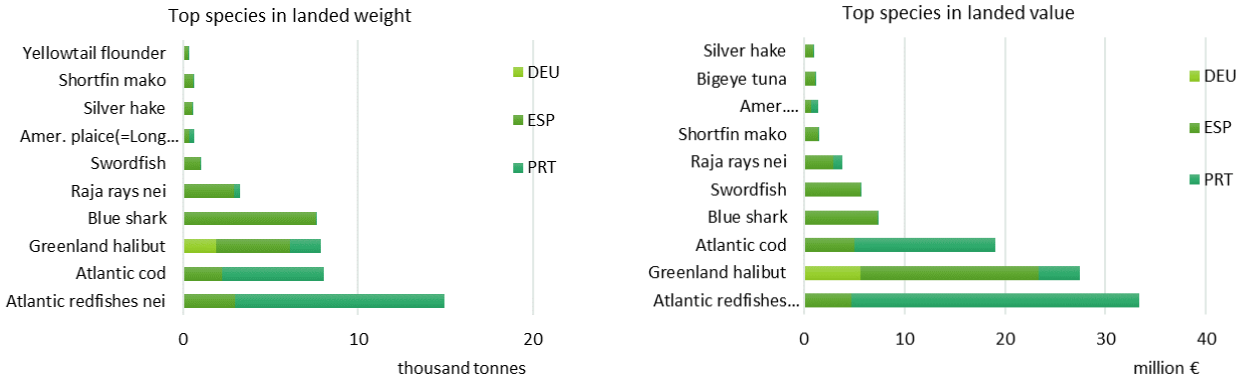
Figure 4.141 Share of landed value by MS fleet and fishing activity in the Northwest Atlantic region, 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

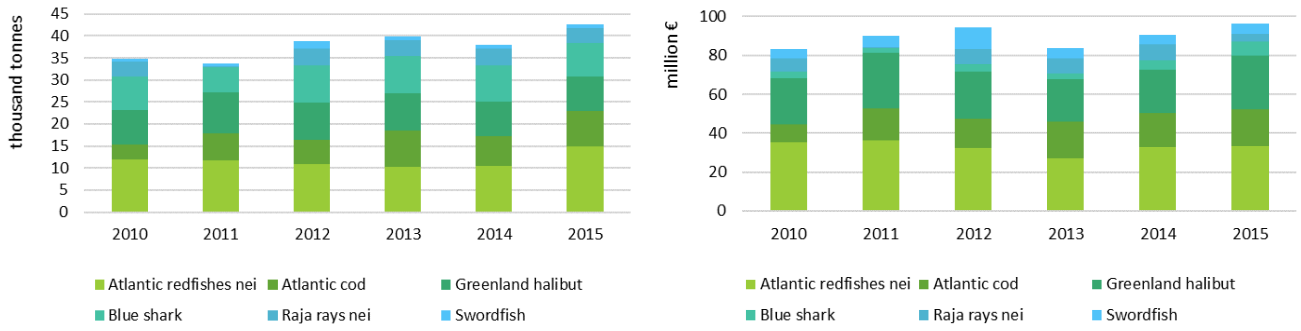
Figure 4.142 Trends in landings, weight and value, by MS fleet operating in the Northwest Atlantic region

Based on the data available, at 14.9 thousand tonnes, Atlantic redfish was the most landed species in weight in 2015, followed by Atlantic cod (8 thousand tonnes), Greenland halibut (7.8 thousand tonnes) and blue shark (7.6 thousand tonnes). The latter, almost exclusively landed by the Spanish fleet. In terms of value, the 5 most important species in 2015 were: Atlantic redfish (€33 million), Greenland halibut ((€27 million), Atlantic cod (€19 million), blue shark (€7.4 million) and swordfish (€5.6 million) (Figures 4.143 and 4.144).



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.143 List of the top 10 species in terms of weight and value for MS fleets operating in the Northwest Atlantic region, 2015



Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.144 Trends on landings of the top six species in terms of landed value for MS fleets operating in the Northwest Atlantic region, 2010-2015

Socio-Economic performance

Revenue (income from landings and other income) generated by the MS fleets operating in the Northwest Atlantic region amounted to an estimated €92.9 million in 2015, distributed as follows: Spanish fleet €45 million, Portuguese €42 million and Germany €5.7 million.

GVA produced by the fleet covered in the analysis was estimated at €60.4 million in 2015. After accounting for operating costs, the fleet made €34 million in gross profit. At the MS level, all fleets were profitable, and overall posted a net profit of over €24 million in 2015 (Figure 4.145).

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 4.145 Trends on revenue (landings income + other income) and profit (GVA, gross profit and net profit) for MS fleet operating in the Northwest Atlantic region

Table 4.34 *Other Fishing Region* fleet structure and economic performance estimates by MS in 2015

our productivity)		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Other regions	FRA	9	0%	19,016	31,070	245	245	1,785	0%	797	0%	70,770	14%	82,371	8%	85,317	85,317	29,451	11,408	50,367	59.0	20,915	24.5			5,410	205.4
Other regions	ITA	8	0%	4,108	9,375	20	20	328	0%	-	0%	569	0%	4,100	0%	4,100	4,100	839	2,006	1,212	29.6	374	9.1	- 90	- 2.2	152	61.5
Other regions	LTU	5	5%	22,804	20,852	160	142	943	10%	718	10%	54,409	67%	40,580	65%	37,596	37,756	3,922	6,653	8,298	22.0	4,376	11.6	- 452	- 1.2	1,584	58.4
Other regions	NLD	2	0%	14,773	15,169	82	82	436	1%	349	1%	36,074	11%	16,718	4%	16,772	16,846	4,900	3,786	- 1,705	- 10.1	- 6,605	- 39.2	- 11,037	- 65.5	- 874	- 20.8
Other regions	PRT	16	0%	5,476	9,728	226	209	4,006	1%	3,914	1%	6,271	3%	17,986	5%	20,682	20,767	3,060	3,836	11,690	56.3	8,630	41.6	6,061	29.2	716	56.0
Other regions	ESP	227	3%	155,168	215,080	4,842	6,442	45,326	5%	45,326	5%	470,124	51%	808,094	43%	835,033	849,051	148,059	149,718	293,723	34.6	145,665	17.2	78,898	9.3	1,295	45.6
Other regions	GBR	3	0%	1,889	3,308	33	54	683	0%	476	0%	4,804	1%	4,444	0%	4,445	5,347	1,170	1,103	- 501	- 9.4	- 1,671	- 31.3	- 2,187	- 40.9	- 168	- 9.3
Outermost regions	FRA	1,664	29%	30,307	230,828	3,520	933	15,646	3%	12,483	3%	6,937	1%	19,626	2%	12,426	12,450	4,073	15,463	- 37,131	- 298.2	- 41,203	- 331.0	- 967	- 12.1	- 1,167	- 97.8
Outermost regions	PRT	105	3%	4,304	15,435	788	544	12,333	3%	9,230	3%	6,419	4%	18,456	5%	17,860	17,918	7,592	2,400	11,777	65.7	4,185	23.4	1,899	10.6	116	21.6
Outermost regions	ESP	629	7%	10,808	32,347	1,619	1,295	48,203	5%	48,203	5%	26,161	3%	49,077	3%	54,467	54,618	22,427	8,186	20,943	38.4	- 1,484	- 2.7	- 7,587	- 18.7	33	16.2
Northwest Atlantic	DEU	0	0%	606	821	13	10	102	0%	86	0%	1,886	3%	5,560	4%	5,621	5,702	1,905	345	4,456	78.2	2,552	44.8	1,720	30.2	10,610	433.1
Northwest Atlantic	PRT	9	0%	16,460	18,002	285	272	1,832	1%	1,775	1%	20,701	11%	49,500	14%	41,915	41,941	12,372	4,668	32,594	77.7	20,222	48.2	14,984	35.7	3,671	119.8
Northwest Atlantic	ESP	19	0%	10,631	12,169	292	351	3,735	0%	3,735	0%	23,967	3%	49,641	3%	45,033	45,263	12,038	5,847	23,390	51.7	11,352	25.1	7,680	17.0	1,247	66.6
non EU Mediterranean Sea	CYP	7	1%	468	1,735	40	40	648	1%	648	1%	190	13%	1,068	14%	1,068	1,068	234	343	282	26.5	48	4.5	- 683	- 64.0	39	7.1
non EU Mediterranean Sea	PRT	1	0%	98	229	4	4	142	0%	149	0%	27	0%	257	0%	343	343	113	58	250	72.9	137	39.9	93	27.0	500	66.6
non EU Mediterranean Sea	ESP	4	0%	180	577	18	17	436	0%	436	0%	86	0%	753	0%	825	833	363	136	480	57.7	118	14.1	52	6.2	120	27.5

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.35 Other Fishing Region fleet structure and economic performance estimates by main type of fishery (pelagic, demersal, other) and region, 2015

our productivity)		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Other regions	Pelagic	51	3%	133,809	177,584	1,970	2,329	8,181	4%	6,881	3%	384,831	16%	524,464	30%	485,941	487,205	95,365	87,039	156,912	32.2	61,547	12.6	- 13,294	- 3.3	3,058	67.4
Other regions	Demersal	80	1%	51,070	70,408	1,916	2,796	17,337	1%	16,896	1%	179,439	10%	263,349	8%	336,015	348,671	62,482	61,201	125,773	36.1	63,291	18.2	50,943	14.6	1,568	45.0
Other regions	Other	139	0.4%	38,354	56,589	1,721	2,069	27,989	1%	27,803	1%	78,752	13%	186,481	11%	181,988	183,309	33,553	30,271	80,399	43.9	46,846	25.6	33,544	18.3	578	38.9
Outermost regions	Pelagic	54	3%	27,421	48,081	587	461	4,549	2%	3,221	2%	14,029	1%	19,747	1%	18,025	18,068	4,631	17,195	- 36,711	- 203.2	- 41,342	- 228.8	- 2,478	- 21.2	- 1,188	- 83.0
Outermost regions	Demersal	12	0.1%	1,293	3,737	58	18	770	0.1%	663	0.1%	426	0.0%	153	0.0%			-									
Outermost regions	Other	2,334	6%	16,706	226,793	5,283	2,293	70,863	2%	66,032	2%	25,063	4%	67,259	4%	66,729	66,918	29,460	8,854	32,300	48.3	2,840	4.2	- 4,176	- 7.6	44	18.2
Northwest Atlantic	Demersal	17	0.2%	25,124	27,300	471	488	3,260	0.2%	3,187	0.3%	37,127	2%	89,161	3%	79,185	79,520	21,589	8,906	52,924	66.6	31,335	39.4	22,124	27.8	3,204	108.4
Northwest Atlantic	Other	12	0.0%	2,572	3,692	120	145	2,409	0.1%	2,409	0.1%	9,427	2%	15,539	1%	13,384	13,385	4,726	1,954	7,517	56.2	2,791	20.9	2,259	16.9	651	51.7
non EU Mediterranean Sea	Demersal	5	0.0%	454	1,414	30	31	526	0.0%	526	0.0%	106	0.0%	919	0.0%	875	878	153	370	151	17.2	- 1	- 0.2	- 595	- 67.8	31	4.9
non EU Mediterranean Sea	Other	7	0.0%	292	1,127	32	30	700	0.0%	707	0.0%	197	0.0%	1,158	0.1%	1,361	1,365	557	168	861	63.1	304	22.3	56	4.1	124	28.2

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.36 Other Fishing Region fleet structure and economic performance estimates by MS, main type of fishery and region, 2015

			Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
			(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Other regions	Pelagic	ESP	35	6%	77,216	110,494	1,484	1,860	5,017	7%	5,017	7%	223,577	55%	384,796	61%	346,256	347,286	57,092	65,191	99,953	28.8	42,861	12.3	- 1,806	- 0.5	2,871.4	53.7
Other regions	Pelagic	FRA	9	6%	19,016	31,070	245	245	1,785	9%	797	6%	70,770	42%	82,371	48%	85,317	85,317	29,451	11,408	50,367	59.0	20,915	24.5			5,409.9	205.4
Other regions	Pelagic	LTU	5	26%	22,804	20,852	160	142	943	29%	718	33%	54,409	72%	40,580	68%	37,596	37,756	3,922	6,653	8,298	22.0	4,376	11.6	- 452	- 1.2	1,583.5	58.4
Other regions	Pelagic	NLD	2	24%	14,773	15,169	82	82	436	24%	349	24%	36,074	15%	16,718	16%	16,772	16,846	4,900	3,786	- 1,705	- 10.1	- 6,605	- 39.2	- 11,037	- 65.5	- 874.2	- 20.8
Other regions	Demersal	ESP	71	2%	45,644	58,828	1,884	2,763	16,813	5%	16,813	5%	174,588	54%	255,733	35%	328,399	340,173	60,761	58,463	123,454	36.3	62,693	18.4	50,983	15.0	1,732.9	44.7
Other regions	Demersal	GBR	1	0%	1,318	2,206	12	13	196	0%	83	0%	4,282	2%	3,515	1%	3,515	4,397	882	731	1,107	25.2	224	5.1	50	1.1	1,129.1	82.5
Other regions	Demersal	ITA	8	0%	4,108	9,375	20	20	328	0%	-	0%	569	1%	4,100	1%	4,100	4,100	839	2,006	1,212	29.6	374	9.1	- 90	- 2.2	151.5	61.5
Other regions	Other	ESP	121	2%	32,308	45,759	1,474	1,819	23,496	5%	23,496	5%	71,959	38%	167,565	32%	160,377	161,592	30,206	26,063	70,317	43.5	40,111	24.8	29,720	18.4	582.4	38.7
Other regions	Other	GBR	2	0%	571	1,103	20	41	487	0%	393	0%	523	1%	929	0%	930	950	287	372	- 1,608	- 169.3	- 1,895	- 199.5	- 2,237	- 235.5	- 799.9	- 39.5
Other regions	Other	PRT	16	0%	5,476	9,728	226	209	4,006	1%	3,914	1%	6,271	11%	17,986	9%	20,682	20,767	3,060	3,836	11,690	56.3	8,630	41.6	6,061	29.2	716.3	56.0
Outermost regions	Pelagic	ESP	19	3%	3,493	6,007	141	135	2,241	3%	2,241	3%	10,038	2%	15,434	2%	13,572	13,615	3,094	2,879	2,695	19.8	- 399	- 2.9	- 2,478	- 21.2	140.2	20.0
Outermost regions	Pelagic	FRA	35	23%	23,928	42,074	446	327	2,308	12%	980	7%	3,990	2%	4,314	2%	4,453	4,453	1,537	14,316	- 39,406	- 885.0	- 40,943	- 919.5			- 3,370.9	- 128.0
Outermost regions	Demersal	FRA	12	1%	1,293	3,737	58	18	770	0%	663	0%	426	0%	153	0%			-									
Outermost regions	Other	ESP	610	12%	7,315	26,340	1,478	1,160	45,962	9%	45,962	9%	16,122	9%	33,644	7%	40,895	41,003	19,332	5,307	18,248	44.5	- 1,085	- 2.7	- 5,108	- 17.7	29.9	15.7
Outermost regions	Other	FRA	1,618	36%	5,086	185,018	3,016	588	12,568	5%	10,840	4%	2,522	2%	15,159	4%	7,973	7,997	2,535	1,147	2,275	28.5	- 260	- 3.3	- 967	- 12.1	113.1	31.7
Outermost regions	Other	PRT	105	3%	4,304	15,435	788	544	12,333	4%	9,230	3%	6,419	11%	18,456	10%	17,860	17,918	7,592	2,400	11,777	65.7	4,185	23.4	1,899	10.6	116.2	21.6
Northwest Atlantic	Demersal	DEU	0	0%	606	821	13	10	102	0%	86	0%	1,886	3%	5,560	4%	5,621	5,702	1,905	345	4,456	78.2	2,552	44.8	1,720	30.2	10,610.4	433.1
Northwest Atlantic	Demersal	ESP	7	0%	8,069	8,497	174	206	1,339	0%	1,339	0%	14,555	4%	34,161	5%	31,710	31,939	7,329	3,898	15,920	49.8	8,591	26.9	5,446	17.1	2,186.8	77.1
Northwest Atlantic	Demersal	PRT	9	4%	16,449	17,981	285	272	1,819	5%	1,762	5%	20,686	38%	49,440	48%	41,853	41,879	12,356	4,663	32,548	77.7	20,192	48.2	14,958	35.7	3,690.3	119.9
Northwest Atlantic	Other	ESP	11	0%	2,562	3,671	119	145	2,396	0%	2,396	0%	9,413	5%	15,479	3%	13,322	13,323	4,710	1,949	7,471	56.1	2,761	20.7	2,234	16.8	650.7	51.6
Northwest Atlantic	Other	PRT	0	0%	10	21	1	1	13	0%	13	0%	15	0%	60	0%	62	62	16	5	46	74.5	30	48.6	26	41.3	769.3	76.9
non EU Mediterranean Sea	Demersal	CYP	3	47%	359	1,120	23	23	345	47%	345	47%	81	42%	740	50%	740	740	94	278	199	27.0	106	14.3	- 449	- 60.7	60.2	8.6
non EU Mediterranean Sea	Demersal	ESP	2	0%	95	293	7	8	181	0%	181	0%	24	0%	180	0%	135	139	59	92	- 48	- 34.5	- 107	- 77.2	- 146	- 105.3	- 30.5	- 6.3
non EU Mediterranean Sea	Other	CYP	4	0%	109	614	17	17	303	0%	303	0%	108	8%	328	5%	328	328	140	65	83	25.3	- 57	- 17.4	- 234	- 71.3	20.9	4.9
non EU Mediterranean Sea	Other	ESP	2	0%	85	284	11	10	255	0%	255	0%	61	0%	573	0%	690	694	303	44	528	76.1	225	32.4	198	28.5	216.4	53.3
non EU Mediterranean Sea	Other	PRT	1	0%	98	229	4	4	142	0%	149	0%	27	0%	257	0%	343	343	113	58	250	72.9	137	39.9	93	27.0	499.8	66.6

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.37 Other Fishing Region fleet structure and economic performance estimates by main type of fishing activity and region, 2015

our productivity)		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Other regions	SSCF	8	0%	53	417	25	22	583	0.0%	583	0.0%	173	0.1%	734	0.1%	945	945	492	64	708	75.0	216	22.9	180	20.2	90	32.5
Other regions	LSF	34	0%	18,987	23,728	360	385	4,850	0.3%	4,551	0.3%	47,156	1.2%	36,241	0.7%	36,230	37,240	12,198	6,470	7,151	19.2	-5,047	-13.6	-10,782	-29.0	212	18.6
Other regions	DWF	229	81%	204,194	280,437	5,222	6,787	48,074	84%	46,446	86%	595,694	95%	937,319	94%	966,770	981,000	178,710	171,976	355,225	36.2	176,515	18.0	81,795	9.1	1,551	52.3
Outermost regions	SSCF	2,185	6%	5,349	193,852	4,034	1,194	49,498	1.8%	48,482	1.8%	5,013	1.8%	15,421	1.9%	15,811	15,811	9,863	1,343	11,530	72.9	1,667	10.5	292	8.1	20	16.8
Outermost regions	LSF	169	1%	6,800	28,324	1,082	754	19,089	1.0%	15,504	0.9%	12,994	0.3%	35,841	0.7%	31,794	31,862	14,839	3,749	14,521	45.6	-318	-1.0	-3,321	-11.1	113	20.5
Outermost regions	DWF	46	16%	33,270	56,435	813	824	7,595	13%	5,930	11%	21,511	3.4%	35,898	3.6%	37,149	37,313	9,390	20,957	-30,462	-81.6	-39,852	-106.8	-3,625	-11.0	-668	-37.0
Northwest Atlantic	LSF	28	0.2%	27,380	30,619	582	622	5,585	0.3%	5,512	0.3%	45,933	1.2%	103,055	2.0%	90,620	90,857	25,913	10,501	59,695	65.7	33,782	37.2	24,125	26.6	2,157	96.0
Northwest Atlantic	DWF	0	0.1%	316	373	9	12	84	0.1%	84	0.2%	621	0.1%	1,645	0.2%	1,949	2,048	402	359	746	36.4	344	16.8	259	12.6	1,962	61.9
non EU Mediterranean	LSF	12	0.1%	746	2,540	62	61	1,226	0.1%	1,233	0.1%	302	0.0%	2,078	0.0%	2,236	2,243	710	537	1,013	45.1	303	13.5	-539	-24.0	86	16.5

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.38 Other Fishing Region fleet structure and economic performance estimates by MS, fishing activity and region, 2015

			Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
			(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Other regions	SSCF	ESP	8	0%	53	417	25	22	583	0%	583	0%	173	1%	734	1%	945	945	492	64	708	75.0	216	22.9	180	20.2	90	32.5
Other regions	LSF	ESP	26	1%	1,982	4,504	218	225	3,215	1%	3,215	1%	5,587	1%	12,164	1%	11,977	12,007	5,305	1,412	6,882	57.3	1,578	13.1	946	7.9	261	30.6
Other regions	LSF	GBR	3	0%	1,889	3,308	33	54	683	0%	476	0%	4,804	1%	4,444	0%	4,445	5,347	1,170	1,103	-501	-9.4	-1,671	-31.3	-2,187	-40.9	-168	-9.3
Other regions	LSF	NLD	2	1%	14,773	15,169	82	82	436	1%	349	1%	36,074	11%	16,718	4%	16,772	16,846	4,900	3,786	-1,705	-10.1	-6,605	-39.2	-11,037	-65.5	-874	-20.8
Other regions	LSF	PRT	2	0%	343	747	27	24	516	0%	511	0%	690	0%	2,915	1%	3,036	3,039	824	169	2,475	81.4	1,651	54.3	1,496	49.2	1,018	102.7
Other regions	DWF	ESP	193	87%	153,133	210,160	4,598	6,195	41,528	90%	41,528	90%	464,365	96%	795,197	96%	822,111	836,100	142,262	148,241	286,133	34.2	143,871	17.2	77,771	9.3	1,486	46.2
Other regions	DWF	FRA	9	44%	19,016	31,070	245	245	1,785	44%	797	47%	70,770	95%	82,371	95%	85,317	85,317	29,451	11,408	50,367	59.0	20,915	24.5			5,410	205.4
Other regions	DWF	ITA	8	100%	4,108	9,375	20	20	328	100%	-		569	100%	4,100	100%	4,100	4,100	839	2,006	1,212	29.6	374	9.1	-90	-2.2	152	61.5
Other regions	DWF	LTU	5	48%	22,804	20,852	160	142	943	48%	718	43%	54,409	86%	40,580	71%												
Other regions	DWF	PRT	14	70%	5,133	8,981	199	185	3,490	76%	3,403	82%	5,581	85%	15,072	84%	17,645	17,728	2,236	3,667	9,215	52.0	6,979	39.4	4,565	25.8	663	49.9
Outermost regions	SSCF	ESP	539	13%	1,300	12,744	961	625	37,705	10%	37,705	10%	3,763	14%	10,355	10%	14,800	14,800	9,428	1,242	10,808	73.0	1,380	9.3	129	5.0	20	17.3
Outermost regions	SSCF	FRA	1,596	39%	3,888	179,390	2,906	509	8,829	4%	8,360	4%	1,017	1%	4,065	2%			-									
Outermost regions	SSCF	PRT	50	2%	161	1,718	167	60	2,964	1%	2,417	1%	233	1%	1,002	1%	1,011	1,011	435	101	722	71.4	287	28.4	163	16.1	14	12.1
Outermost regions	LSF	ESP	63	2%	1,599	5,670	281	246	6,225	1%	6,225	1%	5,842	1%	10,044	1%	9,832	9,842	5,751	1,046	2,289	23.3	-3,462	-35.2	-4,319	-54.6	36	9.3
Outermost regions	LSF	FRA	57	4%	2,556	12,449	307	116	4,577	2%	3,211	2%	1,934	1%	11,262	1%	7,973	7,997	2,535	1,147	2,275	28.5	-260	-3.3	-967	-12.1	113	31.7
Outermost regions	LSF	PRT	49	6%	2,645	10,206	494	392	8,287	7%	6,068	6%	5,218	3%	14,534	6%	13,989	14,023	6,553	1,556	9,957	71.0	3,404	24.3	1,965	14.0	220	25.4
Outermost regions	DWF	ESP	28	13%	7,909	13,934	378	423	4,273	9%	4,273	9%	16,556	3%	28,679	3%	29,835	29,976	7,248	5,899	7,846	26.2	598	2.0	-3,396	-11.3	281	18.5
Outermost regions	DWF	FRA	12	56%	23,864	38,990	308	308	2,240	56%	912	53%	3,987	5%	4,299	5%	4,453	4,453	1,537	14,316	-39,406	-885.0	-40,943	-919.5			-3,371	-128.0
Outermost regions	DWF	PRT	6	30%	1,497	3,511	127	92	1,082	24%	745	18%	968	15%	2,920	16%	2,861	2,884	605	743	1,098	38.1	494	17.1	-229	-7.9	182	11.9
Northwest Atlantic	LSF	DEU	0	0%	606	821	13	10	102	0%	86	0%	1,886	3%	5,560	4%	5,621	5,702	1,905	345	4,456	78.2	2,552	44.8	1,720	30.2	10,610	433.1
Northwest Atlantic	LSF	ESP	18	0%	10,315	11,796	284	339	3,651	1%	3,651	1%	23,346	6%	47,995	5%	43,084	43,214	11,636	5,488	22,645	52.4	11,008	25.5	7,421	17.2	1,232	66.8
Northwest Atlantic	LSF	PRT	9	1%	16,460	18,002	285	272	1,832	2%	1,775	2%	20,701	13%	49,500	20%	41,915	41,941	12,372	4,668	32,594	77.7	20,222	48.2	14,984	35.7	3,671	119.8
Northwest Atlantic	DWF	ESP	0	0%	316	373	9	12	84	0%	84	0%	621	0%	1,645	0%	1,949	2,048	402	359	746	36.4	344	16.8	259	12.6	1,962	61.9

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.39 *Other Fishing Region* fleet structure and economic performance estimates by region and fleet segment - Other regions, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Other regions	ESP OFR PS40XX	29	96%	76,762	109,064	1,409	1,784	4,350	96%	4,350	96%	222,174	97%	380,740	97%	342,310	343,321	55,077	64,944	97,096	28.3	42,020	12.2	- 2,434	- 0.7	3,374	54.4
Other regions	ESP OFR DTS40XX	33	99%	33,949	39,451	900	1,223	7,274	99%	7,274	99%	144,110	100%	176,944	99%	214,060	225,668	44,749	39,268	82,680	36.6	37,931	16.8	28,738	12.7	2,527	67.6
Other regions	ESP OFR DTS2440	39	99%	11,696	19,377	984	1,540	9,538	99%	9,538	99%	30,477	100%	78,788	100%	114,338	114,504	16,011	19,195	40,773	35.6	24,762	21.6	22,246	19.4	1,059	26.5
Other regions	ESP OFR PGO2440 °	56	90%	14,941	20,720	742	926	12,575	90%	12,575	90%	40,562	92%	93,105	92%	85,996	86,264	14,560	13,907	38,291	44.4	23,731	27.5	20,015	23.2	686	41.3
Other regions	FRA OFR PS40XX	9	44%	19,016	31,070	245	245	1,785	44%	797	47%	70,770	95%	82,371	95%	85,317	85,317	29,451	11,408	50,367	59.0	20,915	24.5			5,410	205.4
Other regions	ESP OFR PGO40XX	22	96%	13,386	16,088	383	482	5,420	96%	5,420	96%	17,854	97%	56,721	98%	51,239	52,171	7,688	9,448	20,201	38.7	12,513	24.0	7,769	14.9	914	41.9
Other regions	LTU OFR TM40XX °	5	48%	22,804	20,852	160	142	943	48%	718	43%	54,409	86%	40,580	71%												
Other regions	NLD A27 TM40XX °	2	24%	14,773	15,169	82	82	436	24%	349	24%	36,074	15%	16,718	16%	16,772	16,846	4,900	3,786	- 1,705	- 10.1	- 6,605	- 39.2	- 11,037	- 65.5	- 874	- 20.8
Other regions	ESP OFR HOK2440 °	13	63%	2,252	5,053	165	228	2,223	63%	2,223	63%	9,026	73%	8,744	71%	13,971	13,971	4,075	1,414	7,079	50.7	3,004	21.5	1,611	11.5	536	31.0
Other regions	PRT OFR HOK2440 IWE	9	97%	2,875	5,306	104	104	2,331	97%	2,291	97%	3,688	98%	9,257	98%	10,764	10,778	1,298	2,285	5,197	48.2	3,899	36.2	2,199	20.4	598	49.8
Other regions	PRT OFR HOK40XX IWE	3	78%	1,881	2,559	48	48	829	78%	829	79%	1,211	78%	4,524	78%	6,057	6,123	566	1,243	3,577	58.4	3,012	49.2	2,524	41.2	1,147	74.0
Other regions	ESP A27 PGO2440	5	14%	1,193	1,710	55	67	1,117	14%	1,117	14%	3,666	14%	5,923	13%	5,094	5,095	1,810	906	2,380	46.7	570	11.2	325	6.4	444	35.3
Other regions	ITA OFR DTS40XX IWE°	8	100%	4,108	9,375	20	20	328	100%	-	#DIV/0!	569	100%	4,100	100%	4,100	4,100	839	2,006	1,212	29.6	374	9.1	- 90	- 2.2	152	61.5
Other regions	GBR A27 DTS40XX °	1	10%	1,318	2,206	12	13	196	10%	83	5%	4,282	16%	3,515	8%	3,515	4,397	882	731	1,107	25.2	224	5.1	50	1.1	1,129	82.5
Other regions	PRT A27 HOK2440	2	10%	287	571	18	17	361	10%	361	11%	629	20%	2,657	20%	2,764	2,764	715	131	2,324	84.1	1,610	58.2	1,484	53.7	1,426	140.0
Other regions	ESP OFR HOK1218	13	42%	187	1,041	73	65	1,190	42%	1,190	42%	399	30%	1,683	39%	2,431	2,431	1,263	191	1,477	60.8	214	8.8	105	4.3	115	22.6
Other regions	ESP A27 PS1824	3	4%	201	726	45	43	379	4%	379	4%	809	2%	2,295	5%	2,386	2,395	1,217	122	1,778	74.2	561	23.4	431	18.0	512	41.6
Other regions	ESP A27 PS2440	2	2%	231	593	22	27	193	2%	193	2%	374	1%	1,099	1%	953	961	509	110	533	55.5	25	2.6	- 46	- 4.8	329	19.9
Other regions	GBR A27 HOK2440 °	2	15%	571	1,103	20	41	487	15%	393	17%	523	6%	929	3%	930	950	287	372	- 1,608	- 169.3	- 1,895	- 199.5	- 2,237	- 235.5	- 800	- 39.5
Other regions	PRT OFR HOK2440 P2	2	30%	376	1,116	47	32	330	30%	283	39%	682	55%	1,291	47%	824	826	373	139	441	53.4	68	8.3	- 158	- 19.1	212	13.8
Other regions	ESP OFR HOK1012 °	7	17%	50	383	23	21	487	17%	487	17%	144	11%	612	19%	748	748	445	61	526	70.3	81	10.8	75	10.1	75	25.6
Other regions	ESP A27 PS1218	1	1%	17	90	7	5	81	1%	81	1%	179	1%	540	2%	495	496	228	13	443	89.3	215	43.4	205	41.2	528	84.4
Other regions	ESP A37 PGO1824 °	1	5%	117	230	12	12	166	5%	166	5%	88	5%	398	4%	351	361	152	41	155	42.9	3	0.9	- 46	- 12.8	119	12.4
Other regions	PRT A27 HOK1824	1	3%	50	145	7	6	115	3%	114	3%	52	2%	216	2%	230	233	92	34	124	53.1	32	13.6	5	2.3	213	21.7
Other regions	ESP OFR PMP2440 °	1	10%	148	408	15	12	148	10%	148	10%	161	8%	154	4%	197	201	102	64	12	6.1	- 89	- 44.5	- 172	- 85.6	9	1.1
Other regions	ESP A37 PMP0612	1	0%	2	25	1	1	78	0%	78	0%	25	0%	90	0%	145	145	29	2	135	93.3	106	73.4	105	72.6	180	150.2

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.40 Structure and economic performance estimates for MS fleet segments operating 90% or more in Other Regions, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
ITA OFR DTS40XX IWE	8	100%	4,108	9,375	20	20	328	100%	-		569	100%	4,100	100%	4,100	4,100	839	2,006	1,212	29.6	374	9.1	- 90	- 2.2	152	61.5
ESP OFR DTS40XX	33	99%	33,949	39,451	900	1,223	7,274	99%	7,274	99%	144,110	100%	176,944	99%	214,060	225,668	44,749	39,268	82,680	36.6	37,931	16.8	28,738	12.7	2,527	67.6
ESP OFR DTS2440	39	99%	11,696	19,377	984	1,540	9,538	99%	9,538	99%	30,477	100%	78,788	100%	114,338	114,504	16,011	19,195	40,773	35.6	24,762	21.6	22,246	19.4	1,059	26.5
PRT OFR HOK2440 IW	9	97%	2,875	5,306	104	104	2,331	97%	2,291	97%	3,688	98%	9,257	98%	10,764	10,778	1,298	2,285	5,197	48.2	3,899	36.2	2,199	20.4	598	49.8
ESP OFR PGO40XX	22	96%	13,386	16,088	383	482	5,420	96%	5,420	96%	17,854	97%	56,721	98%	51,239	52,171	7,688	9,448	20,201	38.7	12,513	24.0	7,769	14.9	914	41.9
ESP OFR PS40XX	29	96%	76,762	109,064	1,409	1,784	4,350	96%	4,350	96%	222,174	97%	380,740	97%	342,310	343,321	55,077	64,944	97,096	28.3	42,020	12.2	- 2,434	- 0.7	3,374	54.4
ESP OFR PGO2440 °	56	90%	14,941	20,720	742	926	12,575	90%	12,575	90%	40,562	92%	93,105	92%	85,996	86,264	14,560	13,907	38,291	44.4	23,731	27.5	20,015	23.2	686	41.3
7	195		157,717	219,380	4,542	6,079	41,816		41,448		459,435		799,656		822,808	836,807	140,221	151,054	285,450		145,229		78,441		9,308	343

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.41 EU Other Fishing Region fleet structure and economic performance estimates by region and fleet segment - EU Outermost regions, 2015

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Outermost regions	ESP OFR PS1218 °	18	100%	246	1,394	82	59	2,057	100%	2,057	100%	2,077	100%	2,477	100%	1,924	1,924	1,220	132	1,419	73.8	199	10.3			79	24.0
Outermost regions	ESP OFR PS40XX	1	4%	3,247	4,613	60	75	184	4%	184	4%	7,962	3%	12,956	3%	11,649	11,691	1,874	2,747	1,276	10.9	- 598	- 5.1	- 2,478	- 21.2	1,046	16.9
Outermost regions	FRA OFR HOK1218	16	100%	443	3,364	76	58	2,998	100%	2,055	100%	1,221	100%	8,900	100%	6,954	6,971	2,143	857	2,352	33.7	208	3.0	- 303	- 4.3	147	40.7
Outermost regions	ESP OFR PMP0010	492	100%	987	10,266	800	484	35,089	100%	35,089	100%	2,663	100%	7,978	100%	11,055	11,055	6,979	866	8,302	75.1	1,323	12.0			17	17.2
Outermost regions	ESP OFR PGO2440 °	5	9%	1,466	2,033	73	91	1,234	9%	1,234	9%	2,857	7%	7,170	7%	6,623	6,649	1,123	1,365	1,941	29.2	818	12.3	453	6.8	354	21.4
Outermost regions	PRT OFR HOK1218 P2	18	100%	417	2,844	189	182	4,152	100%	2,720	100%	1,931	100%	7,037	100%	7,381	7,409	3,615	670	5,531	74.7	1,916	25.9	1,666	22.5	307	30.4
Outermost regions	FRA OFR PS40XX	12	56%	23,864	38,990	308	308	2,240	56%	912	53%	3,987	5%	4,299	5%	4,453	4,453	1,537	14,316	- 39,406	- 885.0	- 40,943	- 919.5			- 3,371	- 128.0
Outermost regions	PRT A27 HOK2440 P3°	12	46%	1,729	4,848	197	130	1,613	46%	1,244	45%	1,715	45%	4,007	49%	4,656	4,656	1,968	677	3,094	66.5	1,126	24.2	75	1.6	252	23.7
Outermost regions	ESP OFR PMP2440 °	13	90%	1,347	3,698	134	105	1,343	90%	1,343	90%	1,818	92%	3,641	96%	4,653	4,686	2,399	584	2,977	63.5	578	12.3	- 170	- 3.6	236	28.4
Outermost regions	ESP OFR HOK2440 °	8	37%	1,311	2,942	96	133	1,294	37%	1,294	37%	3,320	27%	3,564	29%	5,695	5,695	1,668	823	1,683	29.6	15	0.3	- 796	- 14.0	219	12.7
Outermost regions	ESP A27 PGO2440	3	7%	617	885	29	35	578	7%	578	7%	1,894	7%	3,241	7%	2,788	2,788	991	469	1,383	49.6	392	14.1	266	9.5	499	39.7
Outermost regions	FRA OFR HOK0010	489	100%	1,190	52,934	824	170	6,211	100%	6,193	100%	450	100%	2,864	100%			-									
Outermost regions	ESP OFR HOK1012 °	27	64%	192	1,478	90	79	1,880	64%	1,880	64%	990	78%	2,060	65%	2,517	2,517	1,555	237	1,659	65.9	104	4.1	82	3.3	61	20.9
Outermost regions	FRA OFR HOK1824 °	4	100%	656	1,749	25	14	570	100%	372	100%	257	100%	1,934	100%	1,019	1,026	392	290	- 76	- 7.4	- 468	- 45.7	- 664	- 64.7	- 18	- 5.5
Outermost regions	ESP OFR PMP1218	17	99%	337	1,541	78	75	1,173	99%	1,173	99%	817	100%	1,713	100%	2,108	2,108	1,666	230	- 2,588	- 122.8	- 4,254	- 201.8	- 4,645	- 220.4	- 154	- 34.4
Outermost regions	ESP OFR HOK1218	8	26%	117	648	45	41	741	26%	741	26%	754	56%	1,608	37%	2,323	2,323	1,166	119	1,729	74.4	562	24.2	495	21.3	216	42.5
Outermost regions	PRT OFR HOK1824 P2	3	100%	189	774			531	100%	305	100%	461	100%	1,570	100%			-									
Outermost regions	PRT OFR HOK2440 P2	5	70%	890	2,641	110	76	781	70%	449	61%	548	45%	1,442	53%	921	926	417	329	15	1.6	- 402	- 43.5	- 937	- 101.3	3	0.2
Outermost regions	ESP OFR PGO40XX	1	4%	538	647	15	19	218	4%	218	4%	599	3%	1,347	2%	1,217	1,254	183	380	- 32	- 2.5	- 214	- 17.1	- 405	- 32.3	- 36	- 1.6
Outermost regions	PRT OFR HOK40XX IWE	1	22%	517	704	13	13	228	22%	226	21%	335	22%	1,261	22%	1,689	1,707	158	342	1,007	59.0	849	49.7	715	41.9	1,170	75.7
Outermost regions	FRA OFR HOK1012	18	100%	162	4,943	48	21	987	100%	860	100%	177	100%	1,035	100%			-									
Outermost regions	PRT OFR HOK0010 P2°	49	100%	151	1,632	160	55	2,840	100%	2,336	100%	210	100%	912	100%	921	921	398	93	653	71.0	256	27.8	142	15.4	13	11.9
Outermost regions	PRT OFR MGP0010 P2	10	100%	30	410	50	29	918	100%	837	100%	149	100%	687	100%	868	868	474	81	680	78.3	206	23.7	181	20.8	68	23.4
Outermost regions	PRT OFR MGP1824 P2°	3	100%	136	777	37	35	579	100%	539	100%	769	100%	545	100%	550	552	306	52	357	64.7	51	9.2	9	1.6	119	10.2
Outermost regions	ESP OFR FPO1218 °	16	100%	164	968	35	24	1,508	100%	1,508	100%	197	100%	514	100%	248	248	526	52	110	44.5	- 415	- 167.3	- 438	- 176.4	7	4.6
Outermost regions	ESP A37 PGO1824 °	1	5%	113	223	11	12	161	5%	161	5%	100	6%	478	5%	422	432	175	40	231	53.6	56	13.1	8	1.9	182	19.1
Outermost regions	ESP OFR PMP1012	19	100%	120	986	70	61	676	100%	676	100%	94	100%	268	100%	1,152	1,152	871	137	778	67.5	- 94	- 8.1			41	12.7
Outermost regions	FRA OFR FPO1218	2	100%	99	515	10	7	171	100%	53	100%	27	100%	261	100%			-									
Outermost regions	PRT A27 HOK1824	1	3%	59	170	8	7	134	3%	123	3%	44	2%	179	2%	190	194	76	39	66	34.3	- 10	- 5.2	- 41	- 20.9	99	10.0
Outermost regions	PRT OFR MGP1012 P2	1	100%	9	136			159	100%	159	100%	36	100%	178	100%			-									
Outermost regions	FRA OFR DTS1824	12	100%	1,293	3,737	58	18	770	100%	663	100%	426	100%	153	100%			-									
Outermost regions	PRT A27 HOK1218 P3	1	3%	23	140	10	6	134	3%	78	2%	64	4%	135	2%	139	139	60	13	105	75.5	45	32.4	28	20.4	95	17.8
Outermost regions	FRA OFR DFN0010	149	100%	347	15,720	327	45	628	100%	553	100%	179	100%	95	100%			-									
Outermost regions	PRT A27 HOK1012 P3	1	1%	10	87	7	5	124	1%	81	1%	24	2%	89	1%	90	90	37	9	68	76.1	31	35.0	20	22.8	68	14.2
Outermost regions	FRA OFR PGP0010	561	100%	1,304	74,245	976	156	240	100%	240	100%	8	100%	45	100%			-									
Outermost regions	ESP A27 PMP0010	1	0%	1	12	1	1	54	0%	54	0%	7	0%	30	0%	45	45	17	2	39	88.2	22	49.7	22	48.7	68	47.5
Outermost regions	FRA OFR PGO0010	54	100%	64	2,418	99	6	72	100%	72	100%	3	100%	17	100%			-									
Outermost regions	FRA OFR PS0010	23	100%	64	3,084	138	19	68	100%	68	100%	3	100%	15	100%			-									
Outermost regions	FRA OFR FPO0010	275	100%	472	25,089	468	82	44	100%	44	100%	1	100%	6	100%			-									
Outermost regions	FRA OFR DFN1012	49	100%	348	4,040	163	28	647	100%	398	100%	199	100%	2	100%			-									

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.42 Structure and economic performance estimates for MS fleet segments operating 90% or more in EU Outermost regions, including the Portuguese Azorean fleet, 2015

	Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total DAS	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
	(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
ESP OFR PS1218 °	18	100%	246	1,394	82	59	2,057	100%	2,057	100%	2,077	100%	2,477	100%	1,924	1,924	1,220	132	1,419	73.8	199	10.3			79	24.0
ESP OFR FPO1218 °	16	100%	164	968	35	24	1,508	100%	1,508	100%	197	100%	514	100%	248	248	526	52	110	44.5	- 415	- 167.3	- 438	- 176.4	7	4.6
ESP OFR PMP0010	492	100%	987	10,266	800	484	35,089	100%	35,089	100%	2,663	100%	7,978	100%	11,055	11,055	6,979	866	8,302	75.1	1,323	12.0			17	17.2
ESP OFR PMP1012	19	100%	120	986	70	61	676	100%	676	100%	94	100%	268	100%	1,152	1,152	871	137	778	67.5	- 94	- 8.1			41	12.7
FRA OFR FPO0010	275	100%	472	25,089	468	82	44	100%	44	100%	1	100%	6	100%			-									
FRA OFR HOK1012	18	100%	162	4,943	48	21	987	100%	860	100%	177	100%	1,035	100%			-									
FRA OFR HOK1824 °	4	100%	656	1,749	25	14	570	100%	372	100%	257	100%	1,934	100%	1,019	1,026	392	290	- 76	- 7.4	- 468	- 45.7	- 664	- 64.7	- 18	- 5.5
FRA OFR DFN1012	49	100%	348	4,040	163	28	647	100%	398	100%	199	100%	2	100%			-									
FRA OFR DTS1824	12	100%	1,293	3,737	58	18	770	100%	663	100%	426	100%	153	100%			-									
FRA OFR HOK0010	489	100%	1,190	52,934	824	170	6,211	100%	6,193	100%	450	100%	2,864	100%			-									
FRA OFR PGO0010	54	100%	64	2,418	99	6	72	100%	72	100%	3	100%	17	100%			-									
FRA OFR PGP0010	561	100%	1,304	74,245	976	156	240	100%	240	100%	8	100%	45	100%			-									
FRA OFR PS0010	23	100%	64	3,084	138	19	68	100%	68	100%	3	100%	15	100%			-									
FRA OFR HOK1218	16	100%	443	3,364	76	58	2,998	100%	2,055	100%	1,221	100%	8,900	100%	6,954	6,971	2,143	857	2,352	33.7	208	3.0	- 303	- 4.3	147	40.7
FRA OFR DFN0010	149	100%	347	15,720	327	45	628	100%	553	100%	179	100%	95	100%			-									
FRA OFR FPO1218	2	100%	99	515	10	7	171	100%	53	100%	27	100%	261	100%			-									
PRT OFR HOK1218 P2	18	100%	417	2,844	189	182	4,152	100%	2,720	100%	1,931	100%	7,037	100%	7,381	7,409	3,615	670	5,531	74.7	1,916	25.9	1,666	22.5	307	30.4
PRT OFR HOK0010 P2	49	100%	151	1,632	160	55	2,840	100%	2,336	100%	210	100%	912	100%	921	921	398	93	653	71.0	256	27.8	142	15.4	13	11.9
PRT OFR MGP1012 P2	1	100%	9	136			159	100%	159	100%	36	100%	178	100%			-									
PRT OFR MGP1824 P2	3	100%	136	777	37	35	579	100%	539	100%	769	100%	545	100%	550	552	306	52	357	64.7	51	9.2	9	1.6	119	10.2
PRT OFR MGP0010 P2	10	100%	30	410	50	29	918	100%	837	100%	149	100%	687	100%	868	868	474	81	680	78.3	206	23.7	181	20.8	68	23.4
PRT OFR HOK1824 P2	3	100%	189	774			531	100%	305	100%	461	100%	1,570	100%			-									
ESP OFR PMP1218	17	99%	337	1,541	78	75	1,173	99%	1,173	99%	817	100%	1,713	100%	2,108	2,108	1,666	230	- 2,588	- 122.8	- 4,254	- 201.8	- 4,645	- 220.4	- 154	- 34.4
ESP OFR PMP2440 °	13	90%	1,347	3,698	134	105	1,343	90%	1,343	90%	1,818	92%	3,641	96%	4,653	4,686	2,399	584	2,977	63.5	578	12.3	- 170	- 3.6	236	28.4
24	2,311		10,577	217,266	4,847	1,734	64,431		60,313		14,173		42,847		38,832	38,921	20,990	4,043	20,495	517	- 496	- 299	- 4,222	- 409	862	164
PRT A27 DFN0010 P3	42	100%	63	1,282	91	42	2,699	100%	2,699	100%	273	100%	760	100%	854	854	344	118	662	77.5	318	37.2	230	26.9	16	15.8
PRT A27 HOK0010 P3	351	100%	999	15,094	860	316	26,380	100%	26,380	100%	1,868	100%	9,418	100%	9,611	9,612	3,997	688	7,835	81.5	3,838	39.9	2,417	25.2	22	24.8
PRT A27 HOK1012 P3	69	100%	712	5,951	492	332	8,527	100%	8,046	100%	1,467	100%	6,280	100%	6,302	6,303	2,589	590	4,829	76.6	2,209	35.6	1,466	23.6	70	15
PRT A27 HOK1218 P3	40	100%	811	5,046	348	211	4,815	100%	4,155	100%	1,807	100%	5,529	100%	5,696	5,696	2,447	454	4,472	78.6	1,980	35.6	1,395	25.1	113	21
PRT A27 HOK2440 P3	27	100%	3,744	10,496	427	282	3,492	100%	2,779	100%	3,818	100%	8,148	100%	9,469	9,469	4,003	1,466	6,087	64.3	2,084	22.1	- 191	- 2.0	230.9	21.7
PRT A27 PGP0010 P3	10	100%	32	501	36	17	1,522	100%	1,522	100%	120	100%	622	100%	175	175	58	30	107	61.3	49	28.0	6	3.3	11	6.3
PRT A27 PS0010 P3	25	100%	44	966	62	31	2,132	100%	2,132	100%	259	100%	383	100%	442	443	178	83	311	70.2	133	30.1	68	15.3	12	10.0
PRT A27 PS1012 P3°	13	100%	130	1,028	122	103	2,502	100%	2,313	100%	785	100%	996	100%	998	998	340	171	640	64.1	299	30.0	153	15.4	49	6.2
PRT OFR MGP0010 P2	10	100%	30	410	50	29	918	100%	837	100%	149	100%	687	100%	868	868	474	81	680	78.3	206	23.7	181	20.8	68	23.4
9	586		6,566	40,775	2,488	1,364	52,987		50,863		10,546		32,823		34,417	34,418	14,430	3,682	25,623		11,116		5,724		592	144
EU OMR 33	**2,897**		**17,143**	**258,041**	**7,335**	**3,097**	**117,418**		**111,176**	**33**	**24,719**		**75,670**		**73,249**	**73,339**	**35,420**	**7,725**	**46,117**		**10,621**		**1,502**		**1,454**	**308**

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.43 ***Other Fishing Region*** **fleet structure and economic performance estimates by region and fleet segment - Northwest Atlantic, 2015**

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
Northwest Atlantic	PRT A27 DTS40XX IWE	9	92%	16,449	17,981	285	272	1,819	92%	1,762	92%	20,686	95%	49,440	95%	41,853	41,879	12,356	4,663	32,548	77.7	20,192	48.2	14,958	35.7	3,690	119.9
Northwest Atlantic	ESP A27 DTS40XX °	7	39%	7,780	8,161	166	196	1,277	39%	1,277	39%	14,023	34%	32,661	28%	29,895	30,025	6,949	3,563	15,224	50.7	8,275	27.6	5,209	17.4	2,175	77.7
Northwest Atlantic	ESP A27 PGO2440	11	30%	2,535	3,635	118	143	2,374	30%	2,374	30%	9,323	36%	15,335	35%	13,189	13,189	4,687	1,925	7,420	56.3	2,733	20.7	2,213	16.8	652	51.8
Northwest Atlantic	DEU A27 DTS40XX	0	7%	606	821	13	10	102	7%	86	7%	1,886	9%	5,560	13%	5,621	5,702	1,905	345	4,456	78.2	2,552	44.8	1,720	30.2	10,610	433.1
Northwest Atlantic	ESP OFR DTS40XX	0	1%	289	336	8	10	62	1%	62	1%	531	0%	1,501	1%	1,815	1,914	379	335	695	36.3	316	16.5	238	12.4	2,484	66.7
Northwest Atlantic	ESP OFR PGO2440 °	0	0%	26	36	1	2	22	0%	22	0%	90	0%	145	0%	134	134	23	24	50	37.4	28	20.5	21	15.7	502	31.0
Northwest Atlantic	PRT A27 HOK2440	0	0%	10	21	1	1	13	0%	13	0%	15	0%	60	0%	62	62	16	5	46	74.5	30	48.6	26	41.3	769	76.9

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 4.44 *Other Fishing Region* fleet structure and economic performance estimates **by region and fleet segment - non-EU Mediterranean Sea, 2015**

		Estimated no. of vessels	% of total no. of vessels	Vessel tonnage	Engine power	Total employed	Full-time equivalent (national)	Days at sea	as a % of total fishing days	Fishing days	as a % of total fishing days	Live weight of landings	as a % of total landed weight	Value of landings	as a % of total landed value	Income from landings	Revenue	Labour costs	Energy costs	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average GVA	GVA per FTE (labour productivi
		(#)	(%)	(GT)	(kW)		(person)	(day)	(%)	(day)	(%)	(tonnes)	(%)	(K €)	(%)	(K €)	(K €)	(K €)	(K €)	(K €)	%	(K €)	%	(K €)	%	(K €)	(K €)
non EU Mediterranean Sea	CYP A37 DTS2440 °	3	47%	359	1,120	23	23	345	47%	345	47%	81	42%	740	50%	740	740	94	278	199	27.0	106	14.3	- 449	- 60.7	60	8.6
non EU Mediterranean Sea	PRT A37 FPO2440	1	25%	98	229	4	4	142	25%	149	27%	27	28%	257	28%	343	343	113	58	250	72.9	137	39.9	93	27.0	500	66.6
non EU Mediterranean Sea	CYP A37 PGP1218 °	4	15%	109	614	17	17	303	15%	303	15%	108	18%	328	22%	328	328	140	65	83	25.3	- 57	- 17.4	- 234	- 71.3	21	4.9
non EU Mediterranean Sea	ESP A37 FPO1218 °	1	5%	31	121	4	4	127	5%	127	5%	29	10%	250	10%	303	303	139	18	250	82.7	111	36.7	103	34.1	234	65.4
non EU Mediterranean Sea	ESP A37 HOK1218 °	1	3%	13	73	2	1	56	3%	56	3%	21	9%	180	13%	266	266	106	11	232	87.5	127	47.7	124	46.7	318	180.2
non EU Mediterranean Sea	ESP A37 DTS1824	2	1%	95	293	7	8	181	1%	181	1%	24	0%	180	0%	135	139	59	92	- 48	- 34.5	- 107	- 77.2	- 146	- 105.3	- 30	- 6.3

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5 NATIONAL CHAPTERS

BELGIUM: overall improved performance and operating at a net profit of €2.9 million (+197%). Revenue slightly increased by 1%, amounting to €86.3 million; GVA estimated at €41.6 million (+14%) and gross profit €11.2 million (+51%). Energy costs decreased to €17.1 million (-27%).

BULGARIA: overall improved performance, moving from a loss making position to post profits in 2015. Revenue increased 30%, amounting to €7.1 million; GVA estimated at €4.7 million (+74%), gross profit €2.3 million and net profit €1.2 million.

CROATIA: although operating at a loss, overall economic performance continues to improve, despite reporting low activity vessels (recreational) in the last 2 years. Revenue amounted to €74.6 million; GVA estimated at €39.4 million (+8%), gross profit €16.2 million (+17%) and a net loss of -€14.5 million (+6%).

CYPRUS: still operating at a loss. Revenue increased 1%, amounting to €7.6 million; GVA estimated at €1.1 million (+10%), gross profit -€0.03 million and net profit -€6.5 million (-12%).

DENMARK: overall improved performance. Revenue increased 17%, amounting to €451 million; GVA increased by 32%, amounting to €313 million, gross profit increased 52%, amounting to €199 million and net profit increased by 186%, amounting to €106 million.

ESTONIA: overall stable situation and operating at a profit. Revenue remained stable, amounting to €14.7 million; GVA estimated at €9.4 million (+0.5%), gross profit €3.7 million (-6.8%) and net profit €1.7 million (+4.6%).

FINLAND: profitability deteriorated with decreased revenues (-8%); GVA was €14.9 million, 4% less than the year before. Gross profit decreased also (-4%) to €7.8 million and was not high enough to cover the estimated capital costs of the fleet resulting in a net loss of -€8.2 million.

FRANCE: improved performance. Revenue increased 2%, amounting to €1.2 billion; GVA estimated at €651 million (+13%), gross profit €193 million (+33%) and net profit €97 million (+94%).

GERMANY: overall improved performance, varying by fishery; operating at a profit. Revenue increased 9%, amounting to €147 million (excluding the pelagic trawler fleet); GVA estimated at €82 million (+16%), gross profit €32.1 million (+35%) and net profit €7.1 million (+11%).

GREECE: Improved economic results according to AGRERI, 2017 report. The cost of wages and salaries increased compared to 2014.

IRELAND: 2015 is characterised by an overall declining performance: Revenue (€248.5 million) down 22%, GVA (€114.4 million) down 32%, Gross profit (€33.8 million) down 61%; and Net profit (€-14.8 million) down 130%. The value of landings in 2015 (€237.4 million) was 19% lower than the previous year. This is explained by reduced quotas for some key stocks, particularly mackerel.

ITALY: in 2015, the Italian fleet signalled the best performance since 2010 with revenue increased 9.4%, amounting to €899.1 million; GVA estimated at €552 million (+20%), gross profit €274 million (+22%) and net profit €106 million (+99%).

LATVIA: the fleet operated at a profit. Revenue increased by 2%, amounting to €20.7 million; GVA estimated at €11.4 million, gross profit €7.5 million and net profit €5.8 million.

LITHUANIA: In 2015 overall economic performance in terms of profitability was negative. GVA was estimated at -€6.3 million, gross loss -€13.3 million and net loss was -€23.9 million.

MALTA: Overall improved performance. Revenue increased 7%, amounting to €12.5 million; GVA estimated at €5.9 million (+13%), gross profit €2.1 million (+352%) with a net loss of -€0.9 million (+83%).

NETHERLANDS: Overall improved performance. Revenue decreased 2%, amounting to €378.6 million; GVA estimated at €184.2 million (+7%), gross profit €68.6 million (+6%) and net profit €33.1 million (+60%).

POLAND: overall improved situation, moving to a profit making position. Revenue increased 3%, amounting to €49.6 million; GVA estimated at €28 million (19%), gross profit €13.5 million (70%) and net profit €5.6 million (compared to €0.9 million in 2014).

PORTUGAL: overall improved performance even though revenue decreased 2%, amounting to €357 million; GVA estimated at €254 million (+8%), gross profit €121 million (+22%) and net profit €76.5 million (+92%).

ROMANIA: overall improved performance. Revenue increased 74%, amounting to €4.3 million; GVA estimated at €3.5 million (+137%), gross profit €3.0 million (+568%) and net profit €2.7 million.

SLOVENIA: overall deteriorated performance. Revenue decreased 26%, amounting to €2 million; GVA estimated at €1.6 million (-31%), gross profit €0.6 million (-55%) and net profit €0.2 million (-75%).

SPAIN: overall deteriorated performance - revenue decreased 2%, amounting to €1.98 billion; GVA estimated at €970 million (-8%), gross profit €355 million (-20%) and net profit €217.5 million (-35%).

SWEDEN: overall improved performance. Revenue increased 15%, amounting to €129 million; GVA estimated at €67.9 million (+26%), gross profit €38 million (+78%) and net profit of €15.1 million (from a loss situation).

UNITED KINGDOM: overall performance remained strong despite a decline compared to 2014. Revenue decreased less than a percentage point, amounting to €1.1 billion; GVA estimated at €567.1 million (-3%), gross profit €277.5 million (-13%) and net profit €188.2 million (-22.6%).

5.1 Belgium

Short description of the national fleet

Fleet capacity

Throughout 2016 there were 77 vessels registered in the Belgian national fleet; 68 (88%) of these vessels were active. Gross tonnage (GT) decreased to 14.1 thousand tonnes and engine power slightly decreased to 46.2 thousand kW. In total 6 vessels were removed and 1 was added leading to 72 vessels by the end of 2016.

Fleet structure

As the Belgian fleet is small, fleet segment aggregation (clustering) has been inevitable. The Belgian fleet was mainly composed of demersal trawlers and beam trawlers. Only a few other fishing gears were in use (dredges, gill nets and trammel nets). As the number of vessels using these as their main gear has been very low throughout the years, they were grouped in a separate fleet segment (PMP VL1824). However, analysing this very small and heterogeneous fleet segment is senseless. Three important fleet segments as defined in the Data Collection Framework were identified after clustering: DTS VL2440, TBB VL1824 and TBB VL2440. Belgium does not have vessels of more than 40m.

Nationally the fishing fleet is divided into a "*large-fleet segment*" with an engine power of >221 kW (47% of the vessels in 2015) and a "*small-fleet segment*" with an engine power of ≤221 kW (53% of the vessels in 2015) (Devogel & Velghe, 2016). This division is of importance as it forms the basis for management measures such as effort limitations and quota distribution. In general, "*large-fleet segment*" vessels visit the far-off fishing grounds and are not permitted to fish within 12nm from the Belgian coast. On the other hand, the "*small-fleet segment*" is mainly active closer to shore in the southern and central part of the North Sea and English Channel.

Employment

Total number of crew on board was estimated at 340 in 2015, without taking into account rotation, corresponding to a total employment of 406 FTEs. Employment was relatively highest in TBB VL2440 with an average of 8.3 FTE per vessel, corresponding to an average of 6 crew on board. In TBB VL1824 there were 3.5 FTE per vessel, corresponding to 3.4 crew on board. These numbers are close to one another in the last group, indicating little rotation, which is not surprising as vessels in this fleet segment make shorter trips.

According to the Social Secretariat of the Coast, 18% of the fishers were over 50 years of age while 26% were under 30 (data for 2016, Platteau et al., 2016). In 2003, a law on employment ended the "No catch, no pay" era, assuring income security for each trip through a set minimum wage per day at sea. This is unique in Europe. Compared to other member states, Belgian fishers have a relatively high income as they receive a fixed percentage of the gross value of landings that is usually much higher than the guaranteed minimum wage. So a larger catch usually leads to a higher income. In 2015 the estimated gross average wage per FTE was around €70 thousand a year. Even so, finding appropriate crew remains a challenge, as young people who graduate from the Maritime Institute prefer to work for dredging companies or in tourism. Working days on board can be extremely long (between 4 and 24 hours) and fishing remains a dangerous profession. In 2015 there were 35 accident declarations, some of which were deadly (Platteau et al., 2016).

Effort

Belgian vessels operate mainly in the North Sea, the English Channel, the Bristol Channel and other areas of the North Atlantic. In 2015, a total of 15.3 thousand days were spent at sea; 6% less than in 2014.

Production

Despite a declining fleet in terms of number of vessels, total landed weight has been increasing since 2008 with the exception of 2009 and 2015. The value of landings does not follow this trend illustrating the volatile nature of fish prices. However, the value of landings per day at sea has overall been increasing since 2008. 2009 and 2013 represent the years with the lowest total value of landings. Coincidently both these years follow a year where fuel prices were extremely high.

In 2015, 24.5 thousand tonnes of seafood were landed by the Belgian fleet, with a value of €82 million. The fleet targets mainly demersal species. Sole remained the dominant species, generating the highest landed value (€30.7 million) and representing about 40% of the total landings value. In terms of weight, European plaice remained the top landed species (7.8 thousand tonnes or 32% of the total landed weight) and generated the second highest landed value (€11.6 million).

The North Sea was the most important area in terms of total landed value (46%), followed by the Eastern Channel (26.6%), the Bristol Channel (27.VII.f) and the Celtic Sea (27.VII.g) (together 17%) and the Bay of Biscay (5%). However, when considering average prices, landings from the Bay of Biscay were the most valuable, followed by fishing areas in the Western Waters. Landings from the North Sea had the lowest value per kg. These differences are a reflection of the sole proportions in the catches (highest in the Bay of Biscay and lowest in the Central North Sea). Another contributing factor is the amount of anglerfish caught in the Bay of Biscay (Devogel & Velghe, 2016).

Economic results for 2015 and recent trends

National fleet performance

The fleet's economic performance improved compared to previous years. After years of being in a loss making position, net profit was positive in 2015. Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €41.6 million, €11.2 million and €2.9 million, respectively. GVA increased by 14%, gross profit and net profit increased by 51% and 197%, respectively. These results indicate a still fragile, yet significantly improved economic situation compared to previous years.

Revenue, estimated at €86.3 million, only increased by 1% as income from landings remained comparable to 2014 (other income increased by 25%). On the other hand, direct income subsidies decreased by 11% (€1.6 million). Therefore, total income (no income from fishing rights) amounted to €87.9 million, a comparable figure to 2014. On the other hand, total operating costs decreased to €83.5 million due to a 27% decrease in energy costs, while crew costs increased by 5%. Therefore, total revenue exceeded total costs generating a net profit.

Overall, the cost structure has remained relatively constant over the years. However, in 2015 there was an apparent decrease in the proportion of the energy costs to 21% of the overall costs. In general, the proportion of labour costs is relatively high, amounting to 34% in 2015. Contrary to the situation in some other European countries, the crew share is a direct percentage of the gross value of landings (without subtracting variable costs first). The crew share usually amounts to about 30% of the value of landings. In 2015, the wages and salaries of the crew represented 34% of the value of landings.

The (depreciated) replacement value of the Belgian fleet was estimated at €53 million and investments amounted to €6.9 million, a 41% increase compared to 2014. The average age of the vessels is high and increases by one unit every year. Newly built or younger vessels rarely enter the fleet to replace older ones. Repair and maintenance costs increased in 2015.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 13%, indicating a low operating efficiency of the sector. However, this is an increase of 49% compared to the previous year and of 231% compared to the average of all previous years since 2008. Net profit margin was estimated at 3.3%, a 196% increase on 2014. The Rate of Return on Fixed Tangible Assets (RoFTA) improved in comparison to previous years and was positive at 5.6%.

In 2015, a total of 15.3 thousand days were spent at sea, a decrease of 6% compared to 2014. Average days at sea per vessel have been slightly increasing since 2008. More striking, the **landings per unit of fishing effort** (kg per day at sea) has been increasing since 2009. In 2016 it increased by 54% compared to the values in 2008.

Fuel consumption per active vessel drastically decreased between 2008 and 2009, however it has been slowly increasing again since 2011. In general, efforts have been made since the fuel crisis to use more fuel-efficient engines and fishing techniques. Fuel prices were particularly high in 2008 and 2012. **Fuel consumption per day at sea** steeply decreased between 2008 and 2011, stagnated until 2013 and seemed to be increasing again in 2014 and 2015. In 2015 the total amount of energy consumed by the fleet increased by 4% compared to 2014, while energy costs decreased by 27% as a result of lower fuel prices. Similar figures were already observed for 2014 compared to 2013.

Energy consumption per landed tonne has followed an overall decreasing trend since 2008 (-18% on average), but is still relatively high around 1.7 thousand litres per landed tonne (2015). One of the reasons behind this high fuel consumption is that the fishing grounds are spread out and sometimes far away from the Belgian coast. Another explanation is related to the use of trawling gear, as the focus remains on catching demersal species.

Overall, these figures indicate an improved efficiency. However, with lower fuel prices since 2013, relative energy consumption seems to be on the rise again.

Performance by fishing activity

Small-scale coastal fleet

In 2014, there was only one active fishing vessel under 12m long, but there were no vessels belonging to a SSCF according to the European definition. In 2016 one vessel was introduced that could meet the requirements (vessel under 12m using passive gears).

Performance of selected fleet segments

The Belgian fleet is dominated by trawlers (beam, shrimp and otter). The larger beam trawlers (TBB VL2440) appear to perform better than the smaller ones (TBB VL1824). This is not as straightforward for the demersal trawlers (DTS VL2440) as this is a clustered fleet segment containing a wide range of length categories.

Roughly TBB VL2440 corresponds to the nationally defined "*large-fleet segment*", consisting of vessels that make longer trips and visit the faraway fishing grounds. On the other hand, TBB VL1824 is a clustered segment and more or less corresponds to the "*small-fleet segment*". These are the coastal vessels and *Eurocutters* that are allowed to fish within 12 nm of the coast.

Beam Trawl 24-40m: 29 active vessels operating in FAO fishing area 27, predominantly in ICES area VII, but also in IV and VIII, employing 59% of total FTE. With fishing rights in the distant North Sea and the Northeast Atlantic, many vessels fish in campaigns. In between two fishing trips, these vessels do not return home but land fish in foreign harbours. In 2015, the value of landings amounted to €56 million, representing 69% of total landed value. As stated before, this fleet segment is active on a number of spread-out fishing grounds. For 2015 this breaks down to the following:

Area	Percentage of the value of landings
27.IV.a,b,c	39%
27.VII.d,e	27%
27.VII.f,g,h	24%
27.VII.a	3%
27.VIII.a,b	7%

The vessels in this fleet segment target a variety of species, particularly common sole (€23 million), European plaice (€8.5 million), lemon sole (€4 million), anglerfish (€3.8 million), turbot (€3 million) and cod (€2.9 million).

This fleet segment reported a positive gross profit of €10.3 million and a net profit of €4.6 million in 2015, an improved situation to 2012, 2013 and 2014. Average crew wage per FTE was highest in this fleet segment. Labour productivity was also relatively high. The profitability of this fleet segment was still relatively weak in 2015, however the economic development trend suggests improvement. The net profit margin increased considerably in comparison to the average of the previous years (+282%). Two major external factors had an influence on this outcome: a favourable fish price combined with an important decrease in fuel prices. The price of sole for this fleet segment increased from 8.8 €/kg to 10.2 €/kg between 2014 and 2015. Similarly, the prices of plaice, lemon sole, anglerfish and cod increased.

Beam trawl 18-24m: 28 active vessels operating predominantly in Area IV and Area VII d,e, employing 24% of total FTE. Value of landings amounted to €12.2 million, 15% of total national landings. The value of landings was mostly accounted for by some variant of the beam or shrimp trawler (96%). These vessels target a variety of species including common sole (€5.2 million), common shrimp (€2.9 million), European plaice (€1.2 million), scallop (€0.6 million) and turbot (€0.5 million). As in 2014, they reported a negative gross profit (€1.5 thousand) and a net loss of €3.0 million in 2015. The GVA was €4.3 million.

The profitability of this fleet segment was very weak in 2015 with a deteriorated economic development trend. The net profit margin decreased in comparison to the average of the previous years (-6%). Although common shrimp and sole prices for this fleet segment increased compared to 2014, the total landings of shrimp decreased. The total value of landings remained the same as in 2014. Compared to TBB VL2440 and DTS VL2440, this fleet segment received the lowest price for sole (9.1 €/kg compared to 10.1 and 10.2 €/kg). Energy consumed per landed ton was highest for this fleet segment (1.8 litre/ton).

Demersal trawlers: This segment included 7 active vessels between 18 and 24 m, 5 active vessels between 24 and 40 m, and 1 active vessel under 18 m, operating predominantly in Area VII and IV. This segment employed 13.5% of total FTE. Value of landings amounted to €12.2 million of which 70% was caught with otter trawlers and 20% with seiners. Targeted species include *Nephrops* or Norway lobster (€3.8 million), European plaice (€1.9 million) and common sole (€1.6 million).

Profitability in 2015 was reasonable with a net profit of €1.7 million and an improved economic development trend. The net profit margin increased significantly in comparison to the average of the previous years (+189%). Sole and plaice prices increased for this fleet segment, but more significantly was an increase in the total value of landed Norway lobster in 2015 compared to 2014 (€2.4 million). Energy consumed per landed ton was lowest for this fleet segment (1.19 litre/ton). With the low energy prices, this fleet segment found itself in a favourable position in 2015.

Drivers affecting the economic performance trends

Higher average fish prices together with lower fuel costs were the main driving forces behind the overall improvement in the profitability of the fleet.

Markets and Trade (including fish price)

Even though total landed weight decreased by 6% in 2015, the average fish price increased by 8%. More specifically, the average price of several important species such as sole (37% of the value of landings) and plaice (14% of the value of landings) increased. Furthermore, prices of lemon sole, cod, common shrimp and Norway lobster also increased. The prices of angler fish remained relatively comparable to 2014, but landings were slightly higher. Overall this led to a similar income from landings as in 2014, the year where things started to improve for the Belgian fishery. In addition, the average income from landings per active vessel was never as high as in 2015 and increased even further in 2016.

In 2015, about 12% of landings was sold in foreign harbours. Of the Belgian harbours, Zeebrugge was the most important with about 65% of domestic landings. The dependency on the Netherlands is significant. Around 90% of landings in foreign harbours occurred in the Netherlands and 7% in the UK. Most important species sold in Dutch harbours in 2015 in terms of weight were plaice (41%), Norway lobster (13%), shrimp (9%) and sole (6%). About a third of the fleet was owned by Dutch nationals. These owners tend to land in their home ports, where the price for plaice is generally higher. However, this was not the case in 2014 and 2015. Sales in Dutch harbours in those years were lower than in 2013. In 2015, the Belgian fleet landed and sold 1.5 thousand tonnes of plaice in Dutch harbours, representing about 21% of the total landed plaice. In addition, about 52% of total landed shrimp and 83% of Norway lobster were landed in Dutch harbours (Devogel & Velghe, 2016). Sole tends to remain more valuable on internal Belgian markets. Belgium is a net exporter for both plaice and sole. In 2015, a total of 7.8 thousand tonnes of plaice was exported and a total of 1.9 thousand tonnes of sole with respectively 82% and 62% of these values destined for the Netherlands (EUMOFA).

Management instruments and regulation (policy)

The fleet is managed mainly through total allowable catches (TACs) for some species together with a range of additional effort limitations. Fishing rights are collectively managed by the Flemish authorities in Belgium. Several rather complex mechanisms have been put into place to manage catches. They usually use species, area and the nationally defined fleet segment (mainly based on engine power) as parameters. Sometimes gear is an additional specification and there exist a number of exceptions, especially for passive gears. It may be interesting to note that quota allocation and effort restrictions are on a vessel level and not on a company level. Leasing or hiring fishing rights is not possible.

A first mechanism is limiting daily catches. For example, a limit of 300 kg of sole per day in 27.VII.d for the "*small-fleet segment*" and 600 kg per day for the "*large-fleet segment*" in 2015 (Devogel & Velghe 2016). A second mechanism involves distributing quota a number of times during the year. For example, a total allowed catch for sole in the North Sea between 1st of January and 30th of June 2015 depending on the amount of kilowatts of the vessel. Not all areas are open to all vessels. For example, 27.VII.h,j,k and 27.VII.f,g were basically closed in 2015 for vessels of the "*small-fleet segment*" (i.e., ≤221 kW). The fishery in the Bay of Biscay (27.VIII.a,b) is restricted to only a few months a year. National restrictions are set on the maximum number of days at sea that a vessel may reach within a year. In 2015, this maximum was set at 270 days for all vessels, regardless of the area and fishing stock.

In the context of the cod recovery plan, additional effort restrictions apply depending on the nationally defined fleet segment as well as the fishing gear. For the "*large-fleet segment*", or roughly TBB VL2440, a vessel was only permitted to spend 160 days in the North Sea and 27.VII.d. For most vessels of TBB VL1824, this would translate into 180 days at sea in these areas, while for DTS VL2440 it depended on the mesh sizes used. For shrimp trawlers no restrictions were set, however this is a seasonal fishery. In the context of the sole recovery plan, 27.VII.e was only accessible to beam trawlers that had been active in the area between 2002 and 2013. No restrictions applied to otter trawlers.

The Landing Obligation

There is much concern about discarding in mixed fisheries, especially in terms of sustainability of fish populations which is in turn a threat to the future of fisheries. This led to the implementation of a landing obligation (or discard ban) for European fisheries in the latest CFP reform in 2013. The landing obligation will prohibit discarding all species with a TAC by 2019, with a gradual implementation. The aim is to incentivise fishers to avoid non-target species, juvenile fish and catches that exceed quota. Measures were put into place to allow for some flexibility, such as quota uplifts. Furthermore, in Belgium a *de minimis* exemption was set in 2016 in the sole fisheries that allows for a 7% discard of the catch in the North Sea, 3% in Western waters and 5% in the Bay of Biscay.

Fishers fear that the discard ban will have a large impact on their profitability. The revenue from undersized fish and low value species will most likely not cover the **costs of processing** this fish on board and at shore (labour, storage, ice, unloading and transportation). If the catch is processed on board additional crew will be needed and crew costs are already around 30% of the value of landings in Belgium. **Capacity problems** on board will most likely entail additional costs as a result of increased steaming back and forth to fishing areas. A third concern is related to **choke species**[11], i.e. losing catches of species where quota are still available. Discards are highly variable depending on the fishery in terms of quantity and composition. It is expected that a quota uplift may not be sufficient in some fisheries to prevent a "choke". In such a situation, the fishing activities are halted regardless of the available quota for other species. Particularly in a mixed fishery this could be an issue as many species are caught at the same time and multiple choke species may occur. Plaice, dab, turbot and brill are potential choke species candidates in mixed demersal fisheries (Batsleer, 2016). Therefore, to continue fishing throughout the year, it will be vital to have either enough quota available or adapt fishing strategies.

Stock status, TACs and quotas

Status of some Key Stocks

The good news. The sole stock in the North Sea (27.4) was exploited below sustainable levels (Fmsy) in 2015. Its spawning stock biomass has been above conservation limit (Blim[12]) and even above MSY Btrigger[13] since 2012. Similarly, sole in the Western Channel (27.VII.e) has been below Fmsy since 2009 while the spawning-stock biomass has been above MSY Btrigger since 1999 (ICES advice, 2016).

Plaice stocks have developed favorably under the current management plans. Plaice stocks in the North Sea, the Irish Sea (27.VII.a), the Eastern Channel (27.VII.d), the Western Channel (27.VII.e) and the Bristol Channel (27.VII.f,g) were exploited below Fmsy, while their spawning stock biomass has been estimated above Blim and MSY Btrigger. Caution must still be applied as discard rates for plaice were estimated to be high. However, this information points towards a healthy stock status. Therefore, it is not surprising that TACs for plaice increased.

Room for improvement. Fishing mortality for sole in 27.7.d has been above Fmsy since the 1980s and increased between 2012 and 2015. Spawning-stock biomass was estimated to be above MSY Btrigger since 2002, but is predicted to drop below the trigger in 2016. The sole stocks in 27.7.f,g and in 27.8.ab were exploited above Fmsy, while their spawning stock biomass was above MSY Btrigger. The stock in 27.7.a was exploited at Fmsy, but spawning-stock biomass was below MSY Btrigger (ICES advice, 2016).

North Sea cod was harvested unsustainably for many years. Despite the implementation of the cod management plan since 2003 and some signs of stock recovery, cod in the North Sea and eastern Channel (27.VII.d) remained a point of concern. Fishing mortality declined since 2000, but was still estimated to be above Fmsy in 2015. Furthermore, spawning-stock biomass was at Blim, but still below Btrigger in 2015. On a brighter note, biomass is expected to be above MSY Btrigger in 2016 (ICES advice, 2016).

TACs and quotas

[11] A choke species is a species for which available quota is insufficient to cover catches.

[12]Blim is a biomass-based biological reference point. It may be identified as the stock size below which there may be reduced reproduction resulting in reduced recruitment. A precautionary safety margin incorporating the uncertainty in ICES stock estimates leads to a precautionary reference point Bpa, which is a biomass reference point designed to avoid reaching Blim.

[13]MSY Btrigger is a biomass reference point that triggers a cautious response. This cautious response is to reduce fishing mortality to allow a stock to rebuild and fluctuate around a notional value of BMSY (=the average biomass expected if the stock is exploited at FMSY).

Total initial available quota (TAC) for the Belgian fleet in 2015 was 35 thousand tonnes (an increase of 9%).

The total quota for sole, which is especially important for the Belgian fleet, further decreased by 15% to 2.6 thousand tonnes (it was 3 thousand tonnes in 2014). Changes varied according to fishing regions and included: -4% in the Irish Sea (27.VII.a), -15% in the Bristol Channel and Celtic Sea (27.VII.f,g), -28% in the Eastern Channel (27.VII.d), but a 3% increase in the Western Channel (27.VII.e). No change in initial quota compared to 2014 were observed for the North Sea, the Bay of Biscay (27.VIII.a,b) or 27.VII.h,j,k.

The total quota for European plaice on the other hand further increased by almost 15% to 8.5 thousand tonnes (it was 7.4 thousand tonnes in 2014), while the quota for anglerfish increased by 2.4% to 3.67 thousand tonnes. It remained the same for turbot, brill, ray and lemon sole, but decreased further for cod (-3.6%).

Belgium conducted 79 quota trades with 7 other member states in 2015. This made it possible to fish throughout the year. Trading with other member states led to a 25% increase in sole quota, amounting to a total of 3.25 thousand tonnes. For European plaice this amounted to a total of 10.4 thousand tonnes (+22%). Furthermore, an increase of turbot and brill (5%), rays (22%) and cod (+24%) were realised. The Netherlands is an important trading partner and accounted for 261 tonnes in the Bay of Biscay and 7 tonnes in the Irish Sea. Germany provided 435 tonnes of cod and 60 tonnes of sole in the North Sea, mainly in exchange for herring. Even so, five closings of the fishing grounds were necessary and a number of quota exceeds were reported mainly for ray and sole in the North Sea (about 10 tonnes each). For the commercially important species, it has been stated that the aim is to go for a quota usage of 100%. In 2015 this was 95% of the adapted quota for sole (119% of the initial quota). Similarly, quota utilisation came close to 100% of the adapted quota for cod and rays. For plaice it was only 72% of the adapted quota.

Operational costs (external factors)

Crew costs and fuel costs represent the most important operational costs. Crew shares have been legally set and are therefore not as variable as energy costs. The only possibility for vessel owners to save on crew costs is by taking-on less crew. However, this option is also very limited, as a minimum number of members on board has been nationally defined for safety reasons. On the other hand, vessel owners seem to agree that high salaries for their crew is a fair measure given the tough character of the work.

The average fuel price in 2015 was lower than in 2014. Average fuel prices have been decreasing since 2013. The Belgian fleet is dominated by trawlers, both beam and demersal trawlers. Therefore, as trawling is typically fuel intensive, even slight decreases of the fuel price make a difference. Fluctuations in fuel prices are therefore a key driver for the profitability of the fleet.

Innovation and Development

Research on technical innovations and alternatives for the beam trawler in the flatfish and shrimp fishery is on-going. The fuel crisis of 2008 forced the fleet to adjust to the rapidly increasing fuel costs. A number of vessels changed from traditional beam trawling to alternative beam trawling methods. For example, to reduce drag forces, a beam on wheels was introduced (Ecoroll) or the beam was replaced by a wing (SumWing). Some vessels even adopted a combination of both. Other adjustments were to reduce the overall weight of the used gears and replace old engines, nozzles and propellers. Subsidies were granted to encourage taking these measures.

Facing the soon to be implemented landing obligation, research on gear selectivity is on-going as well. Selectivity can be improved by using more selective gears (or by reallocating activities to areas with a different catch composition). Therefore, devices such as cut-away top panels, square mesh top panels, benthos release panels, T-90 cod-ends, square mesh cod-ends, narrow cod-ends and tunnels in square meshes are being developed and tested in Belgium. Gear modifications can be challenging in a mixed fishery context as an improved selectivity for one species or size may entail loss or additional catch of others.

However, such adjustments are not of the same scale as in the Dutch fleet, where a significant transition from the traditional beam trawl to the pulse trawl has been observed. The pulse trawl is more fuel efficient and more selective in terms of undersized fish or shrimp. Only one Belgian commercial vessel is currently using the pulse trawl technique (on shrimp). The Flemish government issued three permits to use the pulse technique. However, two of them have not been used. One of the reasons may be that the decreasing initial quota since 2012 for sole in the North Sea (the only area where the pulse technique is partly permitted) do not justify the investment (Hamon et al. in preparation, BENTHIS project). Most enterprises own only one vessel and therefore the risk of trying something new can be perceived as higher if an economic return is not assured. In general, the implementation of new techniques in the sector is slow as fishers are hesitant due to high investments, the uncertainty of the impact of the techniques and the possible catch losses and market effects.

The need for vessel modernisation has been widely expressed within the sector. However, current vessel owners do not seem to have the capital to undertake large investments that come with the construction of a new vessel. Furthermore, banks are reluctant to hand out loans (Hamon et al. in preparation, BENTHIS project). Without first selling an older vessel it is hardly feasible to buy a younger one. This is an important issue as it also restricts gear choice. Existing vessels were conceived to accommodate the use of beam trawling gear and not adapted to switch to alternatives such as seiners, pulse trawling or passive gears.

Socioeconomic impact

Specific programmes of the EU CFP oriented to decommissioning lead to an exponential decline in the number of active vessels. In 1992 there were 205 fishing vessels, while in 2002 there were 130 (-37%). This number remained relatively stable for some years. The fuel crisis in 2008 led to a further large decrease in the capacity and to poor economic performances. Furthermore, the commercial market plays an important role in determining fish prices. These have been

low, leading to relatively lower revenue from landings. The decreasing number of vessels has had an impact on the number of jobs on board, presumably making the fishing profession much less attractive.

Since 2013, fuel prices have been decreasing and efforts have been made to reduce average fuel consumption leading to proportionally lower energy costs. Fish prices have increased leading to lucrative wages for the crew members. Economic performance is improving and it generally appears that the remaining fleet is now slowly recovering from the slaps delivered by the crisis. At first sight, the future looks bright.

However, there lies another storm on the horizon that is moving fast. Even though there is justifiable concern about the amount of discarding in mixed fisheries, the socioeconomic impact that the landing obligation will likely entail, is not negligible. Fishers can indeed to a certain degree adapt their fishing behaviour in response to this challenge. For example, they could choose to change their effort allocation (where, when and what to fish) and modify towing speed and duration. The latter has indeed been observed when fuel prices were high. Technical adjustments are a second option. Fishers benefit from catching larger fish as they receive higher prices. Increasing mesh sizes and introducing escape panels present several options. On the other hand, in a mixed fisheries context improved selectivity for one species or size may entail loss or additional catch of others. Technical and behaviour adaptations may lead to a reduction in profitability (which reduces the incentive to focus on selectivity). Furthermore, there seems to be a lack of capital to make large investments. Costs are bound to increase (labour, storage, ice, etc.), while revenue will remain the same or even decrease (more low value and unmarketable fish). This in turn may have an impact on crew wages (a percentage of the gross value of landings), potentially making the profession less attractive yet again.

Belgium seems highly dependent on quota exchanges, especially for sole, and this presents another potential weak spot. The fact that sole is the major contributor to the value of landings (40%) is another threat in itself, especially when considering the choke species issue. It seems that having "sufficient" quota will become an important point. In addition, there is no guarantee that fuel prices will not steeply increase again in the near future. Fishers should already be prepared for this to use as little fuel as possible, but it will still have an additional impact on their profitability.

Then there is Brexit. It is still very unclear what the UK exit will imply, however, it is certain that at least half of the Belgian fleet is dependent on fishing areas in UK waters. British political leaders have made it clear that Britain will take back control of its fisheries. Therefore, it is not unreasonable to fear that Brexit may potentially have large consequences for the current Belgian fishing fleet. These consequences are also likely to interact with the landing obligation in terms of available quota and possibilities of adapting fishing strategies such as changing effort allocation.

Therefore, even though things have been looking up for the Belgian fleet, the true question for the future will be whether the fleet will be resilient enough to overcome these fast approaching challenges.

Projections for 2016 and outlook

Higher average fish prices, together with lower fuel costs were the main driving forces behind the overall improvement in the profitability of the fleet. Profitability is expected to increase even further in 2016.

In 2016, 26.7 thousand tonnes of seafood were landed by the Belgian fleet, with a value of €91.30 million, the highest it has been since 2008. **Sole prices** remained high throughout 2016, with a weighted average of €9.6 per kg. Prices slightly decreased in January and February 2017, but were comparable to prices at the beginning of 2015. Similarly, **plaice prices** increased in 2016 and then slightly decreased in January and February 2017, but were still relatively high (source EUMOFA). **Fuel prices** have been slowly increasing between January 2016 and 2017, but were still relatively low. At the end of 2016 the average fuel price for fisheries was around €0.45 per litre (FPS Economy, Federal Belgian Government). **Initial quota** for sole in 2016 were comparable to those in 2015, but increased to 3 097 tonnes by June through quota swaps. Initial quota for sole in 2017 increased to 2 730 tonnes, mainly due to increased quota in the North Sea. Initial quota for plaice were higher in 2016, but decreased slightly in 2017 (but were still higher than in 2015).

Therefore, it is to be expected that 2016 will be the most profitable year since 2008. Given this current setting, where fuel prices are low, fish prices for important species are high and TAC are not dramatically decreasing, the outcome for 2017 can be expected to be positive as well.

MODEL FORECAST

Preliminary results for 2016 indicate a 9% increase in landed weight, with an 11% increase in landed value. Projections suggest that despite increases in effort and fuel consumption, they will not lead to increases in operating costs (expected to remain stable, with an increase below 1%) as mainly fuel costs will decrease by 17%. This together with a 13% reduction in capital costs fostered a forecasted economic performance improvement in 2016: GVA (+31%), gross profit (+84%) and net profit (+367%).

Projection results suggest that the Belgian fleet operated at a profit in 2016: with an estimated net profit margin of 14%. Positive economic developments can also be seen in performance indicators GVA to revenue (57%), GVA per FTE (€130 000) and gross and net profit margins.

The 2016 gains are offset slightly in 2017 as a slight decrease in landings (2%) is matched by low prices, resulting in a 12% decrease in revenue. With fuel costs increasing in 2017 (12%) the fleet still remains profitable with gross and net profit margins of 14% and 6% (compared to the 21% and 14% in 2016), respectively.

Data issues

No major issues need to be reported. There has been a change in data management: from manually adjusted queries to an automated database since 2015. The data comes from the Department of Agriculture and Fisheries of the Flemish Government who conducts the data collection. Response for economical values of 2015 was obtained from 96% of the active fleet. For effort and landings, the coverage was very close to 100%. Therefore, the overall coverage of the national fleet was very adequate.

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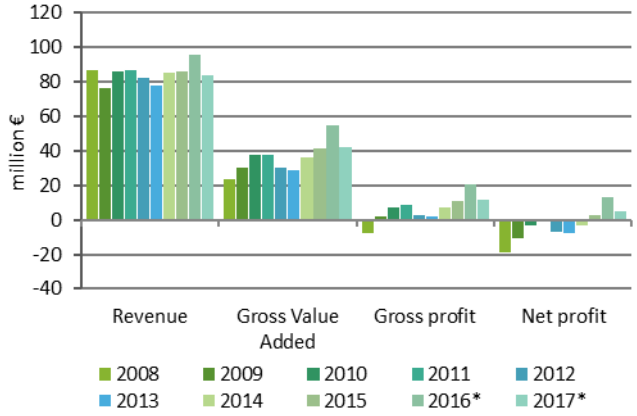
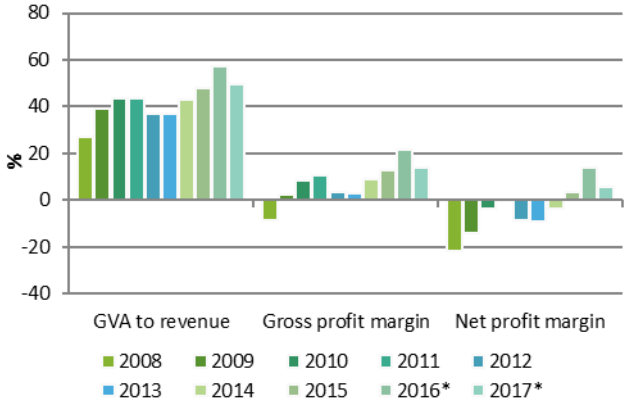
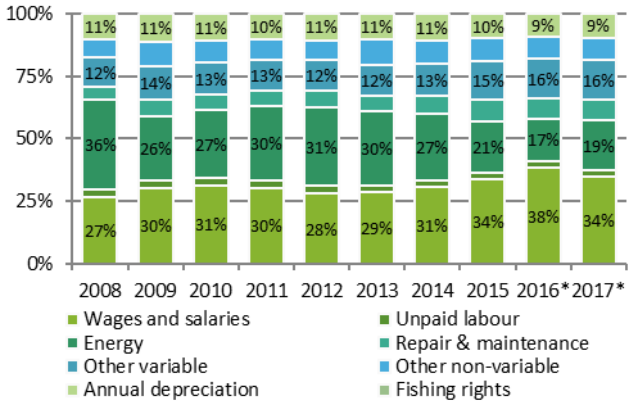
Table 5.1 Belgium: National fleet statistics and economic performance results. *projections

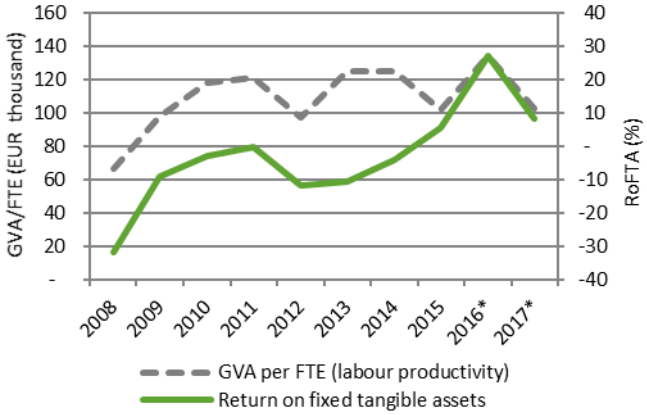
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	102	102	91	90	88	83	80	79	*68*	*70*		-1%	-13%
Number of Inactive vessels_ms	(#)	4	8	3	4	7	7	4	6	*9*			50%	14%
Vessel tonnage	(thousand GT)	19.3	19.5	16.1	15.8	15.8	15.1	14.6	14.6				-1%	-12%
Engine power	(thousand kW)	62.2	63.1	52.3	51.3	51.1	47.6	46.5	47.6				2%	-11%
Total employed	(person)	472	421	394	382	376	345	345	340	*320*	*330*		-1%	-13%
FTE	(#)	353	305	317	312	312	230	293	406	*419*	*407*		39%	34%
Days at sea	(thousand day)	19.5	19.3	18.2	17.4	16.8	16.3	16.3	15.3	*15.5*	*15.1*		-6%	-14%
Fishing days	(thousand day)	19.6	19.6	18.7	17.6	17.2	17.0	16.9	15.7				-7%	-13%
Number of fishing trips	(thousand)	4.3	4.6	5.1	4.8	4.7	4.8	4.7	4.3				-9%	-9%
Energy consumption	(million litre)	60.6	54.6	47.8	40.6	39.7	38.5	39.8	41.4	*42.0*	*40.7*		4%	-10%
Live weight of landings	(thousand tonne)	21.8	19.4	21.7	22.2	24.2	25.2	26.2	24.5	*26.7*	*26.3*		-6%	7%
Value of landings	(million €)	84.3	71.8	82.8	83.3	78.0	74.0	81.5	82.0	*91.3*	*80.2*		1%	3%
Income from landings	(million €)	84.3	71.8	82.3	83.5	78.2	73.9	81.8	81.8	*91.6*	*80.0*		0%	3%
Other income	(million €)	2.7	4.9	3.9	3.6	4.2	3.8	3.6	4.5	*4.3*	*4.2*		25%	18%
Direct income subsidies	(million €)	1.6	1.0	1.5	2.8	1.9	1.8	1.8	1.6				-11%	-9%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	28.1	25.5	27.7	26.4	25.1	24.3	27.1	28.3	*31.8*	*27.9*		5%	8%
Unpaid labour value	(million €)	3.2	2.5	2.5	2.4	2.7	2.1	2.1	2.1	*2.3*	*2.1*		1%	-15%
Energy costs	(million €)	37.9	21.6	24.2	26.3	28.1	25.1	23.5	17.1	*14.2*	*15.9*		-27%	-36%
Repair & maintenance costs	(million €)	5.7	5.5	5.5	5.1	5.7	5.2	5.9	7.1	*6.7*	*6.6*		20%	29%
Other variable costs	(million €)	12.7	11.4	11.1	10.9	11.2	10.1	11.3	12.9	*13.2*	*12.9*		14%	15%
Other non-variable costs	(million €)	7.2	8.2	8.0	6.9	7.0	8.5	8.0	7.6	*7.2*	*7.0*		-5%	-1%
Annual depreciation costs	(million €)	11.2	9.6	9.6	9.1	9.6	8.9	9.7	8.2	*7.8*	*7.7*		-15%	-15%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	- 0.0	3.3	0.8	0.5	0.2	0.7	0.7	0.1	- *0.6*	- *0.6*		-85%	-88%
Tangible asset value (replacement)	(million €)	59.8	84.2	74.6	59.3	59.5	62.1	58.0	53.1	*50.4*	*49.3*		-8%	-19%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	4.4	12.0	12.8	14.8	12.2	5.4	4.9	6.9				41%	-27%
Financial position	(%)	49.0	67.3	87.5	84.5	91.9	82.3	96.6	91.3				-5%	14%
Gross Value Added	(million €)	23.6	29.9	37.5	37.8	30.4	28.7	36.6	41.6	*54.7*	*41.8*		14%	30%
GVA to revenue	(%)	27.1	39.1	43.5	43.4	36.9	37.0	42.8	48.2	*57.0*	*49.7*		12%	25%
Gross profit	(million €)	- 7.8	1.9	7.3	9.1	2.6	2.3	7.4	11.2	*20.6*	*11.9*		51%	241%
Gross profit margin	(%)	- 8.9	2.5	8.5	10.4	3.2	3.0	8.7	13.0	*21.5*	*14.1*		49%	231%
Net profit	(million €)	- 18.9	- 11.0	- 3.1	- 0.5	- 7.2	- 7.3	- 2.9	2.9	*13.4*	*4.8*		197%	139%
Net profit margin	(%)	- 21.7	- 14.3	- 3.6	- 0.6	- 8.7	- 9.4	- 3.4	3.3	*13.9*	*5.7*		196%	138%
GVA per FTE (labour productivity)	(thousand €)	66.9	98.1	118.1	121.3	97.4	125.1	124.9	102.5	*130.5*	*102.8*		-18%	-5%
Return on fixed tangible assets	(%)	- 31.7	- 9.1	- 3.0	- 0.0	- 11.7	- 10.5	- 3.9	5.6	*25.3*	*8.6*		244%	156%

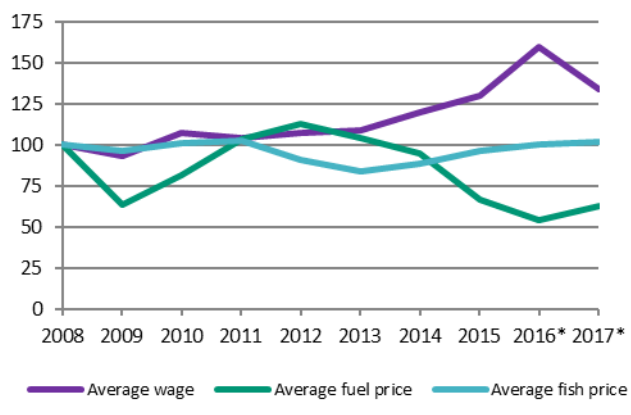
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

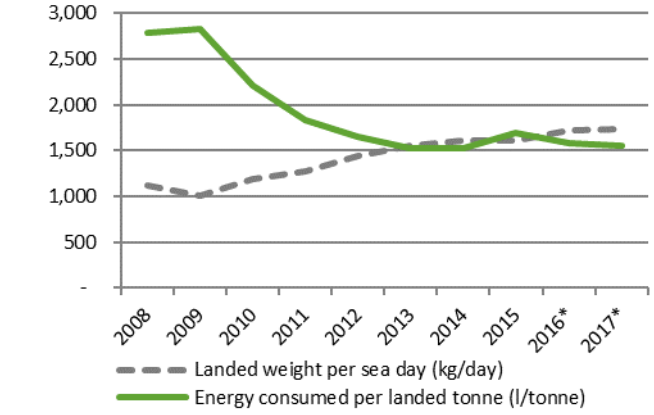


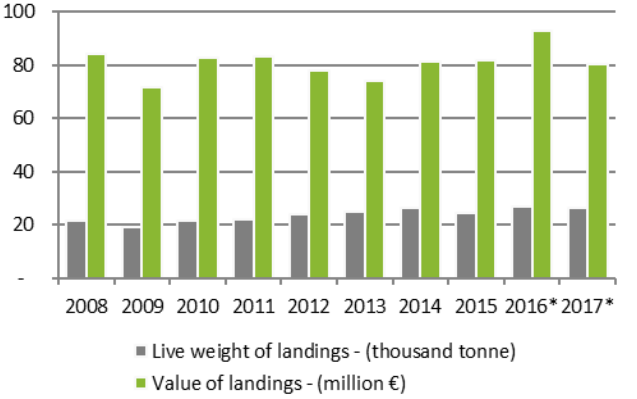












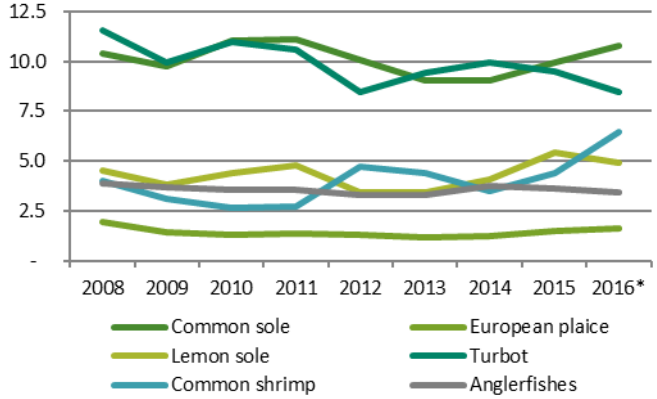


Figure 5.1 Belgium: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.2 Belgium: National fleet statistics and economic performance results by fishing activity. *projections

		LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**			
Total number of vessels	(#)	98	94	88	86	81	76	76	73	*68*	*70*		-4%	-15%
Vessel tonnage	(thousand GT)	18.8	18.3	15.7	15.0	14.9	14.4	14.2	14.1				0%	-11%
Engine power	(thousand kW)	61	59	51	49	47	46	45	45				1%	-11%
FTE	(#)	353	305	317	312	312	230	293	406	*419*	*407*		39%	34%
Total employed	(person)	472	421	394	382	376	345	345	340	*320*	*330*		-1%	-13%
Days at sea	(thousand day)	19.5	19.3	18.2	17.4	16.8	16.3	16.3	15.3	*15.5*	*15.1*		-6%	-14%
Fishing days	(thousand day)	19.6	19.6	18.7	17.6	17.2	17.0	16.9	15.7				-7%	-13%
Number of fishing trips	(thousand)	4.3	4.6	5.1	4.8	4.7	4.8	4.7	4.3				-9%	-9%
Energy consumption	(million litre)	60.6	54.6	47.8	40.6	39.7	38.5	39.8	41.4	*42.0*	*40.7*		4%	-10%
Live weight of landings	(thousand tonne)	21.8	19.4	21.7	22.2	24.2	25.2	26.2	24.5	*26.7*	*26.3*		-6%	7%
Value of landings	(million €)	84.3	71.8	82.8	83.3	78.0	74.0	81.5	82.0	*91.3*	*80.2*		1%	3%
Income from landings	(million €)	84.3	71.8	82.3	83.5	78.2	73.9	81.8	81.8	*91.6*	*80.0*		0%	3%
Other income	(million €)	2.7	4.9	3.9	3.6	4.2	3.8	3.6	4.5	*4.3*	*4.2*		25%	18%
Direct income subsidies	(million €)	1.6	1.0	1.5	2.8	1.9	1.8	1.8	1.6				-11%	-9%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	28.1	25.5	27.7	26.4	25.1	24.3	27.1	28.3	*31.8*	*27.9*		5%	8%
Unpaid labour value	(million €)	3.2	2.5	2.5	2.4	2.7	2.1	2.1	2.1	*2.3*	*2.1*		1%	-15%
Energy costs	(million €)	37.9	21.6	24.2	26.3	28.1	25.1	23.5	17.1	*14.2*	*15.9*		-27%	-36%
Repair & maintenance costs	(million €)	5.7	5.5	5.5	5.1	5.7	5.2	5.9	7.1	*6.7*	*6.6*		20%	29%
Other variable costs	(million €)	12.7	11.4	11.1	10.9	11.2	10.1	11.3	12.9	*13.2*	*12.9*		14%	15%
Other non-variable costs	(million €)	7.2	8.2	8.0	6.9	7.0	8.5	8.0	7.6	*7.2*	*7.0*		-5%	-1%
Annual depreciation costs	(million €)	11.2	9.6	9.6	9.1	9.6	8.9	9.7	8.2	*7.8*	*7.7*		-15%	-15%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	- 0.0	3.3	0.8	0.5	0.2	0.7	0.7	0.1	- *0.6*	- *0.6*		-85%	-88%
Tangible asset value (replacement)	(million €)	59.8	84.2	74.6	59.3	59.5	62.1	58.0	53.1	*50.4*	*49.3*		-8%	-19%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	4.4	12.0	12.8	14.8	12.2	5.4	4.9	6.9				41%	-27%
Gross Value Added	(million €)	23.6	29.9	37.5	37.8	30.4	28.7	36.6	41.6	*54.7*	*41.8*		14%	30%
GVA to revenue	(%)	27.1	39.1	43.5	43.4	36.9	37.0	42.8	48.2	*57.0*	*49.7*		12%	25%
Gross profit	(million €)	- 7.8	1.9	7.3	9.1	2.6	2.3	7.4	11.2	*20.6*	*11.9*		51%	241%
Gross profit margin	(%)	- 8.9	2.5	8.5	10.4	3.2	3.0	8.7	13.0	*21.5*	*14.1*		49%	231%
Net profit	(million €)	- 18.9	- 11.0	- 3.1	- 0.5	- 7.2	- 7.3	- 2.9	2.9	*13.4*	*4.8*		197%	139%
Net profit margin	(%)	- 21.7	- 14.3	- 3.6	- 0.6	- 8.7	- 9.4	- 3.4	3.3	*13.9*	*5.7*		196%	138%
Return on fixed tangible assets	(%)	- 31.7	- 9.1	- 3.0	- 0.0	- 11.7	- 10.5	- 3.9	5.6	*25.3*	*8.6*		244%	156%
GVA per FTE (labour productivity)	(thousand €)	66.9	98.1	118.1	121.3	97.4	125.1	124.9	102.5	*130.6*	*102.8*		0%	19%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.3 Belgium: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
BEL A27 TBB2440	29	239	8,069	1,782	16,855	56,389	58,505	29,831	51.0	10,264	17.5	4,605	7.87	81.8	124.8	16.1	Weak	282%	Improved	68%
BEL A27 DTS2440 °	13	55	2,352	1,194	3,948	12,238	13,844	6,899	49.8	2,509	18.1	1,668	12.05	80.2	126.0	16.8	Reasonable	189%	Improved	16%
BEL A27 TBB1824 °	28	98	4,544	1,813	3,368	12,216	12,651	4,383	34.6	- 1,489	- 11.8	- 2,999	- 23.70	60.1	44.9	- 25.2	Weak	-6%	Deteriorated	15%
BEL A27 PMP1824 °	3	14	305	1,446	352	1,188	1,319	470	35.6	- 104	- 7.9	- 408	- 30.89	40.1	32.8	- 17.9	Weak	-1681%	Deteriorated	2%

Table 5.4 Belgium: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
BEL A27 TBB2440	28	241	8,128	1,638	18,470	60,495	62,985	36,721	58.3	15,566	24.7	10,514	16.69	87.8	152.5	36.2	Weak	66%
BEL A27 DTS2440 °	12	59	2,530	1,109	4,571	15,728	17,174	10,495	61.1	4,873	28.4	4,232	24.64	95.5	178.2	44.4	Reasonable	18%
BEL A27 TBB1824 °	24	93	4,309	1,822	3,178	13,339	13,839	6,804	49.2	324	2.3	- 821	- 5.93	69.9	73.4	- 9.4	Weak	14%
BEL A27 PMP1824 °	4	26	557	1,890	492	1,736	1,911	649	34.0	- 189	- 9.9	- 550	- 28.79	32.1	24.8	- 19.6	Weak	2%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.5 Belgium: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in EUR	in weight
Common sole	38.9	38.3	42.6	39.4	30.8	26.2	32.6	30.7	27.7	3.7	3.9	3.9	3.5	3.1	2.9	3.6	3.1	2.6	10.4	9.8	11.0	11.1	10.1	9.1	9.1	9.9	10.8	37%	13%
European plaice	10.0	6.4	7.0	8.8	8.7	9.8	10.8	11.6	14.9	5.2	4.6	5.4	6.4	6.7	8.2	8.8	7.8	9.3	1.9	1.4	1.3	1.4	1.3	1.2	1.2	1.5	1.6	14%	32%
Lemon sole	4.0	2.5	3.0	3.9	3.2	3.7	4.9	4.6	3.9	0.9	0.7	0.7	0.8	1.0	1.1	1.2	0.8	0.8	4.5	3.8	4.4	4.8	3.4	3.4	4.1	5.5	4.9	6%	3%
Turbot	4.3	3.8	3.8	4.1	3.5	3.8	4.4	4.3	4.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	11.6	10.0	11.0	10.6	8.5	9.4	10.0	9.5	8.5	5%	2%
Common shrimp	3.3	2.1	4.5	2.0	4.1	5.3	4.1	2.9	7.2	0.8	0.7	1.7	0.8	0.9	1.2	1.2	0.7	1.1	4.0	3.1	2.7	2.7	4.7	4.4	3.5	4.4	6.5	4%	3%
Anglerfishes	3.8	3.1	3.7	4.5	5.7	5.5	3.8	4.0	5.0	1.0	0.9	1.0	1.3	1.7	1.7	1.0	1.1	1.5	3.9	3.7	3.6	3.5	3.3	3.3	3.8	3.6	3.5	5%	5%
Atlantic cod	3.4	2.6	2.5	2.6	3.3	3.3	3.2	3.4	3.3	1.1	1.0	0.8	0.9	1.2	1.3	1.5	1.4	1.2	3.0	2.6	3.1	3.0	2.7	2.5	2.2	2.4	2.7	4%	6%
Great Atlantic scallop	1.3	1.4	1.8	2.0	1.8	1.4	2.8	2.4	2.4	0.7	0.8	1.0	0.9	0.7	0.6	1.2	0.8	0.8	2.0	1.7	1.9	2.3	2.4	2.2	2.3	3.1	3.1	3%	3%
Norway lobster	1.0	0.6	0.9	1.8	1.9	1.9	2.4	3.9	6.0	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.6	0.9	4.7	3.8	4.8	6.3	5.1	5.7	5.8	6.2	6.8	5%	3%
Brill	3.0	2.5	2.5	2.5	2.0	2.1	2.3	2.3	2.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	8.1	7.3	6.9	7.4	6.3	6.7	7.6	6.2	6.2	3%	2%
																												85%	70%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.2 Bulgaria

Short description of the national fleet

Fleet capacity

In 2016, the Bulgarian fishing fleet consisted of 1 918 registered vessels, of which 1 206 were active and the remaining 712 vessels were inactive. The active fleet had a combined gross tonnage (GT) of 5.1 thousand tonnes, engine power of 40.7 thousand kilowatts (kW) and an average age of 23 years.

Fleet structure

The Bulgarian fishing fleet is divided into a small-scale segment (89.9% in 2016) with an engine power of 23.1 kW and a large-scale fleet segment (10.1% in 2016) with an engine power of 17.6 kW. The overall size of the Bulgarian fishing fleet decreased 2% between 2014 and 2015, and by 13% compared with the average for the period 2008-2014. Between 2014 and 2015 the inactive vessels decreased by 14%. Compared to 2014 in 2015 the active SSCF increased by 8%, and the active large-scale fleet increased by 12%. In the active SSCF, GT and kW increased by 6% and 10%, and in the active large-scale fleet, GT and kW also increased by 5% and 8%, respectively.

Employment

Total Employment in 2015 was estimated at 1 728 jobs, corresponding to 608 FTEs with an average of 0.5 FTE per active vessel. The level of employment increased between 2014 and 2015 with 14%, and the total employed for 2015 increased by 33%, compared to the average total employed for the period 2008-2014.

Effort

The Bulgarian fleet spent over 22.7 thousand days at sea in 2015, an 8% increase compared to 2014 and 25% increase over the period 2008-2014. While the days at sea remained steady in the period 2013-2015, data for 2016 indicate a 19% increase compared to the period.

The quantity of fuel consumed in 2014 totalled 2.23 million litres, decrease by 9% in 2015, totalling 2.02 million litres. According to preliminary data, the stable trend seems reliable in 2015 compared to the average million litres for the period 2008-2016, which is 2.03 million litres.

Production

The total landed weight in 2015 was 8.3 thousand tonnes of seafood, with a landed value of €3.77 million. Compared to the period analysed (2008-2014) the total weight of landings increased by 4% while the value decreased by 16%.

Regarding the top species in terms of value, the average first sale price for 2016 for European sprat remained stable compared to 2014-2015. The price of sea snails for 2016 increased by more than 50% compared to 2015 but compared to the period 2008-2015, remained stable. The price of turbot has decreased since 2012, and in 2016 achieved an average price of 5.0 €/kg. The price of European anchovy, Mediterranean horse mackerel, and red mullet for 2016 is increased by 38%, 57%, and 18% respectively over the period 2008-2015. The price of picked dogfish for 2016 is stable compared to the period 2008-2015 but compared to 2015 increase be 46%. The main landed species for the Bulgarian fleet as a percentage of over the total are sea snails with 37% in value and 49% in weight, and European sprat with 32% in value and 40% in weight.

Economic results for 2015 and recent trends

National fleet performance

The amount of income from landings generated in 2015 was €4.9 million while non-fishing income amounted to a further €2.2, and the total amount of income €7.1 million. In 2015 the income from landings increased by 24% from 2014 and the non-fishing income increased by 43%.

Costs decreased 18% between 2014 and 2015, except 'other non-variable costs' only. The 'wages and salaries of crew' in 2015 decreased by 10% compared to 2014 but the variable is stable compared to the period 2008-2014.

The operating costs in 2015 amounted to €4.79 million. Crew cost and energy costs were the two major cost items (€2.36 million and €1.37 million, respectively). However, €0.38 million of crew cost were estimated for the unpaid labour which remained in the hands of the fishers as working capital. Between 2014 and 2015, operating costs decreased by 13%.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €5 million, €2.3 million and €1.2 million, respectively. Although in the past, the economic performance is constantly negative, the economic situation for 2015 has improved.

In 2015, the Bulgarian fleet had an estimated (depreciated) replacement value of €20.2 million and investments amounted to €6 million, which is 1% increasing of the replacement value and 45% enlargement of investments, compared to 2014.

The distribution of the fleet has not changed over time. According to the number of vessels, SSCF is the main fleet in Bulgaria, with 1 084 active vessels in 2016. They spent 16.5 thousand days at sea and landed 1.9 thousand tonnes of fish for €1.1 million. The LSF spent 9.3 thousand days at sea and landed 5.1 thousand tonnes of fish €3.5 million.

Resource productivity and efficiency indicators

In 2015, the gross profit margin was 32.7%, indicating an improvement of operating efficiency of the sector, and at the same time marked also an improvement over the period 2008-2014. This is also seen in the net profit margin for 2015 which was raised to 16.2% from -32.3% (2014) and also increased over the period 2008-2014.

The Rate of Return on Fixed Tangible Assets (RoFTA) of 9%, in 2015, shows a high improvement when comparing it to previous years.

After an overall improved development trend since 2008, labour productivity (GVA/FTE) has increased by 53% in 2015 compared to 2014. This is due to the fact that GVA increased by 74% and the number of FTE increased by 14% thus indicating an increase in efficiency.

Fuel consumption per landed tonne has followed an overall increasing trend since 2008. In 2015, it is estimated of 243 litres per landed tonne which is 14% decrease compared to the amount of 282 litres per landed tonne in 2014. This is a standard consumption for a typical fishing vessel in the Black Sea region.

Landings in weight per unit of effort (in days at sea) followed a decreasing trend since 2008 and decreased a further 2% in 2015 compared to 2014.

Socioeconomic impact

Market and trades as a key factor is affecting the activity, especially for the level of prices. The domestic market has not increased the demand for the local fishery so that the catches are similar/comparative levels for small pelagic, as well as for demersal species.

In Bulgaria, the local products are facing the competition of imported fish, especially from the super market chains. These supermarkets are offering a large variety of species, oceanic fish mainly, also salmon (even it is from aquaculture), especially mackerel, bream, and sea food, trout with a very competitive price, well presented and in large quantities. The lack of organization measures of the fisher associations in this respect is another major factor affecting the level of fish prices and the capacity to increase the number of fishers in the sector. That would be a future task in order to maintain the possibilities to consolidate the evolution of the sector.

Young people have no motivation to enter in the sector, even to invest money, because of the low level of interest from local authorities to ensure minimum conditions for developing activities for the fishery. That's why the technical level on board on the small boats is quite impossible to be done, also to the position of the financial sector which is not friendly with this kind of investors.

Performance by fishing activity

Large-scale

The Bulgarian large-scale fleet consisted of 124 vessels in 2015: 39 of these were under 12 metres, but with active gears; 18 of them were between 0-6m using beach seines, 10 were between 6-12m using beach seines, 5 were between 6-12m using mid-water trawls and 6 vessels between 6-12m were with beam trawls. 225 FTEs (represented 299 total employed) were employed in LSF segment.

This LSF had 6.53 thousand tonnes landings, which is 78.6% of the landings of the whole fleet and value of the landings €3.07 million, which represents 81.4% of the value of all landings.

The income from landings increased 29% and the other income increased 38%. In 2015 wages and salaries of crew increased 24% compared to 2014. Costs generally decreased, except the repair & maintenance costs which remained stable, and other non-variable costs which increased by 14%.

Small-scale coastal fleet

The majority of the vessels in 2015 (1 080 from 1 204 active vessels) are with a total length under 12 meters, using only passive gears and are carrying out mainly small-scale coastal, seasonal fishing. Their preferred fishing gear is gillnet (anchored) and for catching of Rapana they use the diving manual method. The total employees were 1 429, which is 19% more than the employees in 2014. For the majority of people involved in this type of fishing, this is a seasonal activity closer to a hobby than a business. Most of the small-scale fishers use the catches for private consumption by themselves and their families. The live weight of landings is 1.77 thousand tonnes, decreased by 15% compared to 2014 and by 21% from the period 2008-2014. The value of the landings decreased by 43% to 2014 and by 44% from the average for the 2008-2014. The net profit and net profit margin remained positive with a very high increase compared to 2014 and over the period 2008-2014.

Performance results of selected fleet segments

The fleet is diverse with a broad range of vessel types targeting different species predominantly in the Black Sea. The national fleet consisted of 23 (DCF) fleet segments in 2015, with a further 775 inactive vessels. Since the clustering scheme was changed last year consistency in clusters remains and the provision of data is shown more detailed.

In 2015, the Bulgarian fleet was clustered in 5 segments: drift net 12-18 (12 vessels), purse seiners 0-6 (28 vessels), vessels using active and passive gears 18-24 (5 vessels), vessels using polyvalent passive gears only 6-12 (19 vessels) and pelagic trawls 12-18 (38 vessels).

Four fleet segments obtained more than 1 000 tonnes in live weight of landings:

Pelagic trawl 24-40m – In 2015, 12 vessels made up this segment that targets a variety of species but in particular European sprat, Mediterranean horse mackerel, Rapa whelk, and red mullet. In 2015, the total live weight of landings was 2 602 thousand tonnes with value €1 027 thousand (increased 17% compared to 2014) and around 55 FTEs were employed in this fleet segment. The profitability of the segment is still weak, but according to the net profit margin in 2015 and the segment still decreased by 77% compared over the period 2008-2014. **Pelagic trawl 12-18m** – In 2015, 38 vessels made up this clustered segment that targets a variety of species but in particular European sprat, red mullet and sea snails exploited by some beam trawlers falling into this segment. In 2015, the total live weight of landings was 1 485 thousand tonnes with value €822 thousand (increased 313% compared to 2014) and around 75 FTEs were employed in this fleet segment.

Polyvalent active and passive gears 6-12m – In 2015, 135 vessels made up this segment that targets a variety of species but in particular sea snails. In 2015, the total live weight of landings was 1 329 thousand tonnes with value €465 thousand and the fleet segment employed around 80 FTEs. **Polyvalent active and passive gears 12-18m** – In 2015, 22 vessels made up this segment that targets mainly sea snails and horse mackerel. In 2015, the total live weight of landings was 1 481 thousand tonnes with value €701 thousand and the fleet segment employed around 50 FTEs.

The profitability of more than the half of the fleet segments remains weak for 2015, except all drift netters, polyvalent active and passive gears 6-12m, polyvalent active and passive gears 18-24m and pelagic trawlers 18-24m, but we should also mention that these segments include 898 vessels or 75% of the whole active fleet.

Drivers affecting the economic performance trends

The income from landings during last years and prices of fish and fuel were the main driving forces behind the overall sustainability of the fleet.

The stable average price of some important species as European sprat and increase of the average price of sea snail, Mediterranean horse mackerel, red mullet and European anchovy, had a positive impact on profitability. Another reason for sustainability of the fleet is a decrease of energy consumption and stable price of fuel.

Markets and Trade

According to the weight and value of landings, the most important species in Bulgaria remain sea snails and sprat. In terms of TAC species, the other important species is turbot. Only the price of sprat has remained stable in the last years while the prices of sea snails and turbot have decreased.

According to the data from the National Statistical Institute, in 2015, total imports of fish and fishery products in Bulgaria amounted to 38 019 tonnes. The volume of import increased by 25% compared to 2014.

Over 67% of the total quantities of imported fish and fisheries products in 2015 are from Member States of the EU. Quantities from the Member States reached 23 560 tonnes, 9% more than in the previous year. The most significant amounts were supplied by Netherlands (4.6 thousand tonnes) and Spain (4.3 thousand tonnes).

On the other hand, in 2015 imports of fish and fisheries products from third countries increased significantly by 29% annually to 11 458 tonnes. Major exporters to Bulgaria were Vietnam (1.4 thousand tonnes) and China (1 thousand tonnes), followed by Morocco (0.6 thousand tonnes).

The total export of fish, aquatic and fishery products in 2015 amounted to 9 748 tonnes, 8% higher than the previous year, which is explained by the increase in catches and aquaculture production during the year.

Nearly 80% of total export of fish and fish products during 2015 was for the EU. The amount of 7 754 tonnes allocated to the Member States of the EU increased 15% compared to 2014; the most significant dispatches were for Romania (4 thousand tonnes), Sweden (1.6 thousand tonnes) and Greece (0.9 thousand tonnes).

Exports of fish and fishery products to third countries decreased 14% compared to 2014 to 1 994 tonnes, realised mainly to the Republic of Korea, Japan, and Serbia.

The situation in front of Bulgarian fleet is complicated because the big quantity of imported fish and fish products are imported in the country with a lower price than the price of Bulgarian catches from the Black sea and for the fishers is impossible to compete in this respect.

Management instruments

Bulgaria is currently applying a set of measures to increase the control and monitoring of landings of turbot, which have a positive impact on reducing IUU-fishing, including:

- Designated ports to land turbot;

- Equipment of all turbot fishing vessels with a tracking device;
- Introduced minimum size for turbot.

Bulgaria has introduced extremely stringent requirements, ensuring a low risk of IUU-fishing, to all fishing vessels who receive a permit to catch turbot. Under national legislation, all vessels fishing turbot are required to be equipped with tracking devices regardless of their length. The fleet is managed mainly through TACs, together with a range of input controls.

TACs and quotas

There are two species with quotas in Bulgaria. Turbot and sprat TAC for the Black Sea (quota system) was introduced in 2008 following the accession of Bulgaria and Romania to the European Union (EU).

In regards to negotiation during forming of TAC regulation for Black sea and to prevent IUU fisheries, the total number of vessels engaged in fishing for turbot is reduced year by year. In 2015, a total of 145 fishing vessels were engaged in fishing for turbot, and in 2016, their number decreased to 116. Maintaining of levels of landings of turbot by Bulgarian fishing vessels in recent years as a result of compliance with the level of the total allowable catch of turbot set by the Council in the amount of 43.2 tonnes and a strict regime for fishing of turbot. From 2013 to date, approximately 50% of the total number of vessels fishing for turbot are fishing vessels with an overall length of less than 12 meters. During the same period, more than 50% of all active fishing vessels with an overall length of over 12 meters were involved in the turbot fishery.

In 2016, quotas were 43.2 tonnes of turbot and 8 032.5 tonnes of sprat and landings were 43 tonnes of turbot and 2 295 of tonnes sprat, respectively.

Operational costs (external factors)

Crew cost and energy costs were the two major cost items during the last 5 years. The price of fuel is not particularly constant, but in 2014 and 2015 there is a decrease compared to 2013 when it reached its peak. The value of the variables Wages and salaries and Unpaid labour decreased between 2014 and 2015 but increased as a percentage of the operating costs. Between 2014 and 2015, operating costs decreased by 13%. Unfortunately, due to the specifics of the fishing activities in Bulgaria and the seasonal fishing, the sector continues to offer relatively low wages, compared to the other sectors in the country. This is why the larger percentage of vessels` owners perceive fishing as a hobby, not as a business.

Innovation and Development

Nowadays the basic development in Bulgarian fleet is based on the gear or engine reparation, as well as on improving terms of fish preservation or processing aiming at increasing product quality and value.

In compliance with the Operational Programme for support from the European Maritime and Fisheries Fund for the development of the Bulgarian fisheries sector for a Programming period 2014-2020, with the aim to ensure the viability and sustainable development of the Bulgarian fisheries sector as well as the protection of its fishing/marine resources. €25 514.5 thousand, i.e., 22.47% of the total OP allocation, aims at ensuring the viability and sustainable development of the Bulgarian fisheries sector as well as the protection of its fishing/marine resources. This includes investments in the modernisation of fishing infrastructure, protection and restoration of marine biodiversity, promotion of innovation, a collection of marine litter, and development of complementary activities /new forms of income for fishers. It could also cover permanent cessation of fishing activities and on board - investments to increase gear selectivity.

Projections for 2016 and outlook

The increasing of average fish prices, together with decreasing of fuel costs were the main driving forces behind the overall improvement in the profitability of the fleet. Profitability is expected to increase even further in 2016.

In 2016, 7.0 thousand tonnes of seafood were landed by the Bulgarian fleet, with a value of €4.6 million, the highest value it has been since 2012.

MODEL FORECAST

Preliminary results for 2016 suggest a 16% decrease in landed weight, but the value increased by a 23%. The price of sea snails for 2016 increased by more than 50% compared to 2015 which is good for fishers according to the constant demand on the fish market. Other good news for fishers is that the average first sale price for 2016 for European sprat is stable.

Projections and 2016 preliminary data suggest that increased fuel consumption and a 38% increase in operating costs (energy costs increase 45%), together with a 12% reduction in capital costs, does not foster further economic performance improvements in 2016: gross profit (-67%), net profit (-122%) and net profit margin (-121%), and decrease of GVA (-8%) and GVA per FTE (-9%). Projections suggest that overall, the fleet operated at a gross profit (€0.8 million) but suffered net losses (€0.3 million) in 2016.

Despite the fuel prices increase while fish prices for important species and TAC remain stable, the outcome for 2017 seems favourable. 2016 gains are improved in 2017 with decreasing operating costs and a landings increase of 2% compared to projected 2016 figures. With fuel costs decreasing 34% in 2017, the fleet retains a positive gross profit (€1.4 million) and sees its net profits increase to €0.8 million due to also lower capital costs.

Data issues

In Bulgaria data collection and processing is conducted by the Executive Agency for Fisheries and Aquaculture. Compared to the previous annual economic report, data may differ due to the changes in data processing and estimating procedures. The missing data from 2008 to 2012 about the transversal variables and missing economic data were estimated and provided, according to data submission procedure in 2017.

Since the data collection procedures were recently implemented in Bulgaria between 2008 and 2012, anonymous economic questionnaires were collected and the collection rate was extremely low, which made the calculation per segments impossible. Thus, it was considered that it would be more adequate if during the Fleet-economic data call this year, to report again all the data for the period 2008 to 2012. All transversal variables from the group – Capacity, Effort and Landings were recalculated from the data available in the fleet register, landing declaration and first sales notes in EAFA`s register. The economic variables for the period 2008-2012 were estimated based on the most recent and reliable data - 2013, 2014 and 2015.

Energy cost was calculated as a product of the multiplication of the hours at sea of each vessel in the segment, multiplied by the average reported litres per hour for the segment, based on the most reliable years, multiplied by the average price of the fuel during the year. Vessels below 12 meters usually are refuelling at the public rate, while the vessels over 12 meters are usually refuelling with fuel without excise tax. Income from landings is corresponding to Value of landings for each segment.

The reason for differences between the value of landings and the total income for some fleet segments is the use of different data sources. The income from landings is from questionnaires that the owner of every vessel is obliged to provide every year and the value of landings is estimated as multiplied the total weight that was landed by the vessels in the fleet segment by the average price per kilogram. Bulgaria is currently working to align the discrepancy between the data from both sources and to avoid discrepancies in the future.

Table 5.6 Bulgaria: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	2,548	2,207	2,344	2,345	2,387	2,043	2,011	1,979	*1,206*	*1,210*		-2%	-13%
Number of Inactive vessels_ms	(#)	1,957	1,309	1,316	1,337	1,198	862	901	775	*712*			-14%	-39%
Vessel tonnage	(thousand GT)	8.3	7.6	7.9	7.5	7.4	6.6	6.4	6.4				-1%	-13%
Engine power	(thousand kW)	65.9	60.4	63.5	62.1	62.9	57.4	56.6	56.0				-1%	-9%
Total employed	(person)	811	1,195	1,368	1,344	1,541	1,312	1,517	1,728	*1,739*	*1,750*		14%	33%
FTE	(#)	319	441	504	501	544	488	532	608	*616*	*624*		14%	28%
Days at sea	(thousand day)	9.1	14.5	21.8	18.6	20.6	21.6	21.1	22.7	*25.9*	*26.2*		8%	25%
Fishing days	(thousand day)	9.1	14.5	21.8	18.6	20.6	21.6	21.1	22.7				8%	25%
Number of fishing trips	(thousand)	9.1	14.5	21.8	18.6	20.6	21.6	21.1	22.7				8%	25%
Energy consumption	(million litre)	1.4	1.7	2.2	2.4	2.4	1.9	2.2	2.0	*2.6*	*2.6*		-9%	-1%
Live weight of landings	(thousand tonne)	7.5	7.1	9.3	7.8	7.2	9.2	7.9	8.3	*7.0*	*7.1*		5%	4%
Value of landings	(million €)	4.9	4.4	4.2	4.5	4.9	4.4	4.3	3.8	*4.6*	*4.6*		-13%	-16%
Income from landings	(million €)	3.2	2.9	2.3	2.9	3.5	4.1	4.0	4.9	*5.2*	*5.1*		24%	51%
Other income	(million €)	1.3	1.8	2.0	1.9	2.3	2.6	1.5	2.2	*2.2*	*2.2*		43%	14%
Direct income subsidies	(million €)	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0				-65%	-32%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	1.41	1.91	2.06	2.06	2.06	2.15	2.20	1.98	*2.90*	*2.88*		-10%	0%
Unpaid labour value	(million €)	0.34	0.50	0.55	0.51	0.58	0.81	0.54	0.38	*0.63*	*0.62*		-30%	-30%
Energy costs	(million €)	0.72	0.87	1.42	1.77	1.79	1.69	1.51	1.37	*1.99*	*1.31*		-9%	-2%
Repair & maintenance costs	(million €)	0.46	0.56	0.62	0.59	0.61	0.70	0.56	0.55	*0.56*	*0.56*		-1%	-6%
Other variable costs	(million €)	0.77	0.94	1.01	0.94	0.97	2.13	0.49	0.24	*0.25*	*0.25*		-51%	-76%
Other non-variable costs	(million €)	0.15	0.21	0.23	0.22	0.23	0.19	0.24	0.27	*0.27*	*0.27*		9%	28%
Annual depreciation costs	(million €)	0.33	0.41	0.43	0.40	0.46	0.15	0.72	0.43	*0.41*	*0.41*		-41%	2%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-	-			
Opportunity cost of capital	(million €)	- 1.43	1.07	0.69	0.42	0.45	0.61	1.00	0.75	*0.62*	*0.16*		-25%	88%
Tangible asset value (replacement)	(million €)	24.2	23.2	23.5	22.1	21.9	19.8	19.9	20.2	*17.0*	*17.2*		1%	-8%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	3.9	5.5	6.1	5.5	5.9	7.8	3.9	5.7				45%	3%
Financial position	(%)	-	-	-	-	-	4.8	5.4	3.6				-34%	144%
Gross Value Added	(million €)	2.4	2.2	1.0	1.3	2.2	2.0	2.7	4.7	*4.3*	*4.9*		74%	139%
GVA to revenue	(%)	53.6	45.7	23.8	26.9	37.5	29.5	49.0	65.8	*58.5*	*67.3*		34%	73%
Gross profit	(million €)	0.7	- 0.2	- 1.6	- 1.3	- 0.5	- 1.0	- 0.0	2.3	*0.8*	*1.4*		4906%	512%
Gross profit margin	(%)	15.0	- 5.1	- 36.7	- 26.7	- 8.6	- 14.8	- 0.9	32.7	*10.6*	*19.4*		3804%	395%
Net profit	(million €)	1.8	- 1.7	- 2.7	- 2.1	- 1.4	- 1.7	- 1.8	1.2	- *0.3*	*0.8*		165%	183%
Net profit margin	(%)	39.3	- 36.1	- 62.6	- 43.8	- 24.3	- 26.2	- 32.3	16.2	- *3.5*	*11.5*		150%	161%
GVA per FTE (labour productivity)	(thousand €)	7.6	4.9	2.0	2.6	4.0	4.0	5.0	7.7	*7.0*	*7.9*		53%	79%
Return on fixed tangible assets	(%)	1.4	- 2.8	- 8.6	- 7.6	- 4.4	- 5.8	- 3.9	9.4	*2.2*	*5.8*		343%	309%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

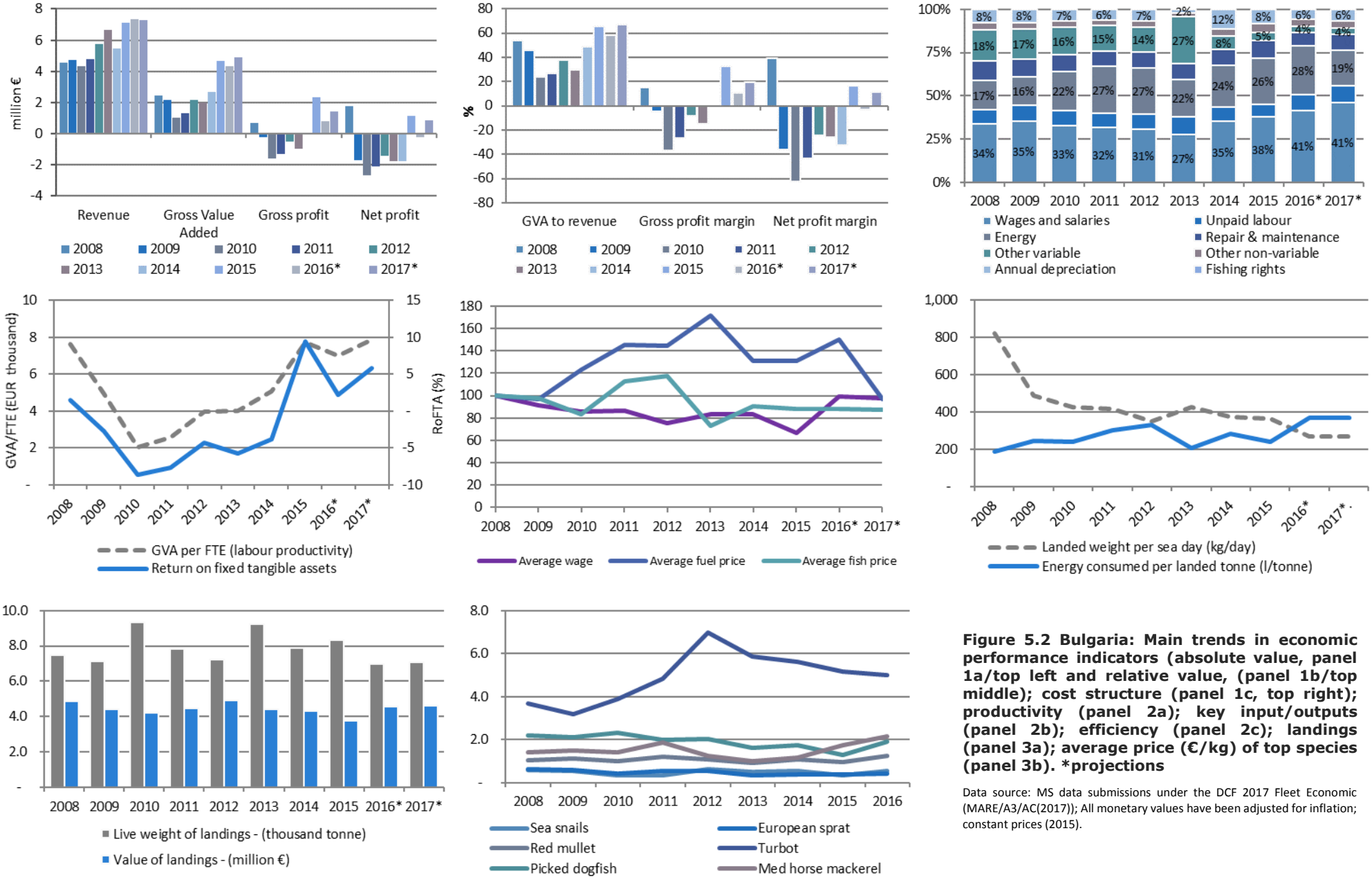


Figure 5.2 Bulgaria: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.7 Bulgaria: National fleet statistics and economic performance results by fishing activity.*projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14	LSF									Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**				2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**			
Total number of vessels	(#)	502	803	922	910	1074	1100	999	1080	*1084*	*1084*		8%	20%	89	95	106	98	115	104	111	124	*122*	*126*		12%	21%
Vessel tonnage	(thousand GT)	1.07	1.48	1.67	1.85	1.93	1.97	1.69	1.80				6%	8%	3.0	3.2	3.5	3.1	3.2	3.0	3.1	3.2				5%	2%
Engine power	(thousand kW)	11.82	16.67	19.37	20.47	23.02	23.98	20.76	22.78				10%	17%	11.9	12.8	14.9	13.2	14.5	14.8	15.6	16.9				8%	21%
FTE	(#)	179	283	322	327	362	366	343	382	*392*	*392*		12%	23%	140	158	183	173	182	122	189	225	*224*	*231*		19%	37%
Total employed	(person)	598	961	1096	1094	1263	1140	1196	1429	*1446*	*1446*		19%	36%	213	234	272	250	278	172	321	299	*293*	*303*		-7%	20%
Days at sea	(thousand day)	5.80	9.33	15.47	12.16	13.59	14.35	13.31	13.77	*16.52*	*16.52*		3%	15%	3.3	5.2	6.4	6.5	7.0	7.3	8.0	8.9	*9.3*	*9.7*		12%	44%
Fishing days	(thousand day)	5.80	9.33	15.47	12.16	13.59	14.35	13.31	13.77				3%	15%	3.3	5.2	6.4	6.5	7.0	7.3	8.0	8.9				12%	44%
Number of fishing trips	(thousand)	5.80	9.33	15.47	12.16	13.59	14.35	13.31	13.77				3%	15%	3.3	5.2	6.4	6.5	7.0	7.3	8.0	8.9				12%	44%
Energy consumption	(million litre)	0.26	0.30	0.45	0.43	0.43	0.42	0.37	0.33	*0.46*	*0.46*		-10%	-12%	1.1	1.4	1.8	1.9	2.0	1.5	1.9	1.7	*2.1*	*2.2*		-9%	2%
Live weight of landings	(thousand tonne)	2.61	1.78	2.95	2.33	1.87	2.18	2.09	1.77	*1.89*	*1.89*		-15%	-21%	4.9	5.3	6.4	5.5	5.4	7.0	5.8	6.5	*5.1*	*5.2*		12%	14%
Value of landings	(million €)	1.68	1.09	1.23	1.05	1.33	1.21	1.22	0.70	*1.13*	*1.10*		-43%	-44%	3.2	3.3	3.0	3.4	3.6	3.2	3.1	3.1	*3.5*	*3.5*		-1%	-6%
Income from landings	(million €)	1.68	1.09	1.23	1.05	1.33	1.20	1.39	1.62	*2.39*	*2.34*		17%	26%	3.2	3.3	3.0	3.4	3.6	2.9	2.6	3.3	*2.8*	*2.8*		29%	5%
Other income	(million €)	1.00	1.48	1.61	1.49	1.84	1.77	1.43	2.05	*2.06*	*2.03*		44%	35%	0.3	0.4	0.4	0.4	0.4	0.8	0.1	0.1	*0.2*	*0.2*		38%	-64%
Direct income subsidies	(million €)	0.02	0.04	0.04	0.05	0.03	0.03	0.10	0.00				-100%	-100%	0.00	0.01	0.01	0.01	0.01	0.02	0.00	0.04					409%
Income from leasing fishing rights	(million €)	0	0	0	0	0	0	0	0						0	0	0	0	0	0	0	0					
Wages and salaries of crew	(million €)	0.79	1.21	1.29	1.36	1.35	1.51	1.49	1.10	*1.79*	*1.75*		-26%	-14%	0.62	0.70	0.77	0.70	0.72	0.64	0.71	0.88	*1.11*	*1.13*		24%	27%
Unpaid labour value	(million €)	0.25	0.39	0.43	0.41	0.47	0.72	0.34	0.33	*0.55*	*0.53*		-5%	-24%	0.09	0.11	0.12	0.10	0.12	0.09	0.20	0.05	*0.08*	*0.08*		-73%	-54%
Energy costs	(million €)	0.23	0.26	0.45	0.49	0.50	0.34	0.39	0.28	*0.31*	*0.28*		-28%	-26%	0.49	0.60	0.98	1.28	1.29	1.35	1.12	1.09	*1.68*	*1.04*		-3%	7%
Repair & maintenance costs	(million €)	0.12	0.18	0.20	0.20	0.21	0.24	0.22	0.20	*0.21*	*0.20*		-9%	1%	0.33	0.38	0.43	0.39	0.40	0.46	0.34	0.35	*0.35*	*0.36*		4%	-9%
Other variable costs	(million €)	0.17	0.24	0.25	0.25	0.26	0.53	0.21	0.11	*0.12*	*0.12*		-45%	-59%	0.60	0.70	0.76	0.69	0.71	1.60	0.29	0.13	*0.13*	*0.13*		-54%	-83%
Other non-variable costs	(million €)	0.07	0.11	0.12	0.13	0.13	0.12	0.14	0.14	*0.15*	*0.15*		6%	24%	0.08	0.09	0.10	0.09	0.10	0.06	0.11	0.12	*0.12*	*0.12*		14%	33%
Annual depreciation costs	(million €)	0.11	0.18	0.19	0.19	0.21	0.15	0.27	0.20	*0.20*	*0.20*		-27%	6%	0.22	0.23	0.25	0.21	0.25	0.00	0.46	0.23	*0.21*	*0.21*		-50%	0%
Rights costs	(million €)	0	0	0	0	0	0	0	0	*0*	*0*				0	0	0	0	0	0	0	0	*0*	*0*			
Opportunity cost of capital	(million €)	-0.16	0.20	0.13	0.09	0.10	0.14	0.24	0.20	*0.20*	*0.05*		-20%	82%	-0.5	0.5	0.3	0.2	0.2	0.3	0.5	0.4	*0.4*	*0.1*		-19%	99%
Tangible asset value (replacement)	(million €)	2.77	4.36	4.55	4.76	5.01	4.64	4.86	5.25	*5.38*	*5.31*		8%	19%	9.3	10.3	11.2	10.1	10.7	9.9	10.5	11.4	*11.6*	*11.9*		9%	11%
Fishing rights	(million €)	0	0	0	0	0	0	0	0						0	0	0	0	0	0	0	0					
Investments	(million €)	1.86	3.21	3.53	3.28	3.69	7.05	2.30	1.41				-39%	-60%	2.0	2.2	2.6	2.2	2.2	0.8	1.6	4.2				163%	117%
Gross Value Added	(million €)	2.09	1.78	1.82	1.48	2.06	1.73	1.87	2.94	*3.67*	*3.63*		57%	60%	2.0	1.9	1.1	1.4	1.5	0.2	0.8	1.7	*0.6*	*1.3*		114%	37%
GVA to revenue	(%)	77.95	69.15	64.16	58.24	65.29	58.41	66.34	79.97	*82.50*	*82.99*		21%	22%	56.5	51.7	33.4	35.9	37.5	6.3	30.6	50.8	*21.9*	*44.0*		66%	41%
Gross profit	(million €)	1.05	0.18	0.09	-0.28	0.25	-0.50	0.04	1.51	*1.33*	*1.34*		3744%	1161%	1.3	1.1	0.3	0.6	0.7	-0.5	-0.1	0.8	*-0.6*	*0.1*		1029%	75%
Gross profit margin	(%)	39.14	7.10	3.33	-11.17	8.03	-16.71	1.40	41.18	*29.92*	*30.66*		2849%	827%	36.3	29.7	7.4	14.8	16.6	-13.2	-3.3	23.7	*-18.9*	*2.6*		819%	88%
Net profit	(million €)	1.10	-0.20	-0.22	-0.57	-0.06	-0.86	-0.47	1.12	*0.93*	*1.09*		338%	715%	1.6	0.4	-0.3	0.2	0.2	-0.3	-1.1	0.2	*-1.2*	*-0.3*		115%	89%
Net profit margin	(%)	41.12	-7.74	-7.89	-22.30	-1.80	-64.78	-16.72	30.55	*21.00*	*24.99*		283%	367%	45.6	10.6	-9.5	4.3	4.9	-74.3	-40.2	4.7	*-40.7*	*-8.6*		112%	156%
Return on fixed tangible assets	(%)	33.93	0.03	-2.00	-10.04	0.91	-25.34	-4.66	25.10	*21.02*	*21.49*		639%	2554%	11.2	8.4	0.0	3.5	3.9	-19.5	-5.2	5.1	*-6.6*	*-1.2*		198%	1500%
GVA per FTE (labour productivity)	(thousand €)	11.68	6.31	5.65	4.53	5.71	4.73	5.45	7.68	*9.35*	*9.24*		15%	-15%	14.0	12.0	6.2	7.9	8.2	1.9	4.3	7.8	*2.9*	*5.6*		124%	-49%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.8 Bulgaria: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
BGR A37 DFN0612	442	120	4,134	2,239	36	49	2,385	2,074	87.0	1,307	54.8	1,120	46.96	6.4	17.4	45.6	High	10418%	Improved	33.5%
BGR A37 TM1218 °	38	75	2,947	677	1,485	822	1,050	559	53.3	174	16.6	- 37	- 3.56	5.1	7.5	2.8	Weak	94%	Improved	14.7%
BGR A37 TM2440	12	55	1,896	69	2,602	1,027	812	405	49.9	213	26.2	74	9.13	3.5	7.3	6.6	Weak	-77%	Deteriorated	11.4%
BGR A37 PMP1218	22	50	2,189	217	1,481	701	733	310	42.3	117	15.9	- 50	- 6.83	3.9	6.2	1.5	Weak	91%	Improved	10.3%
BGR A37 PMP0612	135	80	3,753	106	1,329	465	689	489	71.0	198	28.7	116	16.79	3.6	6.1	15.2	Reasonable	4%	Stable	9.7%
BGR A37 TM1824	7	18	727	76	595	292	344	180	52.3	95	27.6	50	14.55	4.8	10.3	9.3	Reasonable	22%	Improved	4.8%
BGR A37 PMP1824 °	5	6	511	350	303	172	326	180	55.3	145	44.3	91	28.05	5.5	27.8	15.6	High	235%	Improved	4.6%
BGR A37 DFN0006	297	92	2,869	3,182	17	11	319	224	70.4	106	33.3	45	14.12	1.3	2.4	9.4	Reasonable	117%	Improved	4.5%
BGR A37 DFN1218 °	12	11	302	521	51	44	167	110	65.6	72	43.2	37	22.02	3.5	10.4	8.8	High	127%	Improved	2.4%
BGR A37 FPO0612	39	36	526	126	81	59	122	64	52.2	- 26	- 21.2	- 41	- 33.18	2.5	1.8	- 12.3	Weak	46%	Improved	1.7%
BGR A37 PMP0006	51	24	1,314	95	309	114	80	53	66.1	- 79	- 99.3	- 88	- 110.50	5.6	2.2	- 81.9	Weak	-418%	Deteriorated	1.1%
BGR A37 HOK0612	57	16	648	5,174	1.7	2.3	60.2	31.7	52.7	16.1	26.7	- 13.0	- 21.55	1.0	2.0	- 1.1	Weak	-2050%	Deteriorated	0.8%
BGR A37 HOK0006	33	8	311	6,208	0.8	1.2	13.6	4.5	32.9	- 0.6	- 4.5	- 4.0	- 29.41	0.6	0.6	- 0.9	Weak	97%	Improved	0.2%
BGR A37 PS0006 °	28	10	365	272	17.6	12.5	13.0	4.9	37.7	0.3	2.3	- 4.5	- 34.50	0.4	0.5	- 11.1	Weak	-477%	Deteriorated	0.2%
BGR A37 PGP0612 °	19	6	170	6,250	0.5	0.3	4.3	- 0.7	- 16.1	- 1.5	- 34.3	- 4.7	- 109.70	0.1	- 0.1	- 4.6	Weak	20%	Improved	0.1%
BGR A37 FPO0006	7	2	47	10,375	0.1	0.2	2.6	- 0.8	- 30.4	- 6.1	- 234.9	- 7.3	- 282.47	3.4	- 0.5	- 36.4	Weak	87%	Improved	0.0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.9 Bulgaria: National fleet statistics and economic performance results by fleet segment, 2016

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
BGR A37 DFN0612	430	116	4,845	1,516	68	75	3,004	2,693	89.7	1,519	50.6	1,337	44.50	10.1	23.2	54	High	40.4%
BGR A37 TM1218 °	47	93	4,021	505	1,757	1,481	1,262	822	65.1	127	10.1	- 135	- 10.67	7.5	8.9	1	Weak	17.0%
BGR A37 PMP0612	154	91	4,852	166	1,111	619	639	417	65.3	30	4.7	- 64	- 9.97	4.2	4.6	- 2	Weak	8.6%
BGR A37 TM2440	12	55	1,615	318	1,753	842	554	- 298	- 53.8	- 456	- 82.3	- 595	- 107.38	2.9	- 5.4	- 19	Weak	7.5%
BGR A37 TM1824	9	23	1,122	552	625	437	379	- 238	- 62.8	- 365	- 96.1	- 423	- 111.34	5.6	- 10.6	- 33	Weak	5.1%
BGR A37 DFN0006	304	94	2,924	5,090	17	15	334	225	67.3	59	17.7	- 4	- 1.09	1.8	2.4	3	Weak	4.5%
BGR A37 PMP1824 °	4	5	456	238	272	205	299	212	71.0	169	56.8	127	42.48	8.2	40.9	24	High	4.0%
BGR A37 PMP1218	14	32	1,367	355	515	402	261	37	14.0	- 75	- 28.8	- 182	- 69.56	3.5	1.1	- 9	Weak	3.5%
BGR A37 FPO0612	42	38	764	115	117	99	182	118	65.1	- 34	- 18.9	- 50	- 27.67	4.0	3.1	- 15	Reasonable	2.4%
BGR A37 DFN1218 °	8	7	342	690	56	65	159	105	66.1	49	31.1	26	16.29	7.9	14.9	9	Weak	2.1%
BGR A37 PMP0006	53	25	1,895	96	571	308	150	117	78.0	- 240	- 159.8	- 249	- 165.96	14.5	4.7	- 226	Weak	2.0%
BGR A37 HOK0612	49	14	765	3,426	3.0	5.4	77.1	51.7	67.1	15.5	20.1	- 9.7	- 12.53	2.6	3.8	- 0	Weak	1.0%
BGR A37 PGP1218	2		96	198	73	54	54										Weak	0.7%
BGR A37 FPO0006	6	1	167	2,229	1.5	1.8	32.5	28.3	87.2	- 24.7	- 75.9	- 25.7	- 79.19	40.1	21.4	- 159	Weak	0.4%
BGR A37 HOK0006	26	6	196	3,294	1.0	2.0	17.5	11.0	62.8	2.4	13.6	- 0.3	- 1.64	1.3	1.7	3	Weak	0.2%
BGR A37 PGP0612 °	20	6	116	1,469	1.4	1.8	11.7	7.3	62.6	3.0	25.3	- 0.4	- 3.83	0.7	1.2	3	Weak	0.2%
BGR A37 PS0006 °	25	9	302	586	9.7	8.5	7.3	- 0.1	- 1.6	- 3.3	- 45.3	- 7.6	- 104.50	0.3	- 0.0	- 24		0.1%
BGR A37 HOK1218	1		26	255	4	7	7											0.1%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.10 Bulgaria: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Sea snails	1.7	1.2	1.7	1.0	2.4	2.4	2.5	1.4	1.8	2.9	2.2	4.8	3.1	3.8	4.8	4.7	4.1	3.4	0.6	0.5	0.4	0.3	0.6	0.5	0.5	0.3	0.5	37%	49%
European sprat	2.7	2.7	1.7	2.1	1.6	1.2	0.8	1.2	0.9	4.3	4.5	4.0	4.0	2.8	3.8	2.3	3.3	2.3	0.6	0.6	0.4	0.5	0.6	0.3	0.4	0.4	0.4	32%	40%
Red mullet	0.0	0.1	0.1	0.3	0.2	0.2	0.4	0.6	1.1	0.0	0.1	0.1	0.2	0.1	0.3	0.3	0.6	0.9	1.0	1.1	1.0	1.2	1.1	0.9	1.1	1.0	1.3	16%	8%
Turbot	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.7	3.2	3.9	4.9	7.0	5.9	5.6	5.2	5.0	6%	0.5%
Picked dogfish	0.0	0.0	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	2.2	2.1	2.3	2.0	2.0	1.6	1.8	1.3	1.9	5%	1.6%
Mediterranean horse	0.3	0.3	0.2	0.7	0.5	0.3	0.1	0.2	0.4	0.2	0.2	0.2	0.4	0.4	0.3	0.1	0.1	0.2	1.4	1.5	1.4	1.9	1.3	1.0	1.2	1.7	2.2	4%	1%
European anchovy	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.1	0.7	1.1	1.2	0.8	0.9	0.5	0.6	0.7	1.1	0.3%	0%
																												100%	100%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.3 Croatia

Short description of the national fleet

Fleet capacity

In 2015, the fleet has increased to 7 849 vessels of which 2 813 were active, with a combined gross tonnage (GT) of 53.8 thousand tonnes and engine power of 429.7 thousand kilowatts (kW). In 2015, the proportion of inactive vessels represented 64% of the overall fleet.

Fleet structure

The Croatian fleet is divided to the main commercial fleet and a category of small-scale artisanal coastal fisheries for personal needs consisting of some 3 500 vessels, and defined by national legislation. Pursuant to the accession negotiations, 3 500 small-scale vessels were transferred into the commercial SSCF in 2015. Although in the commercial fleet, the vessels are mostly operating for personal needs and are kept as a separate category, with specific requirements and constrains. Out of 2 813 active vessels, 2 353 vessels are small-scale and 470 large-scale vessels. While the active small-scale vessels constitute 83% of the active fleet, their contribution in gross tonnage is 21% and in engine power 49%. In total 2 823 vessels were active; 289 vessels, or 10% between 12 and 18 m LoA, 93 vessels, or 3% between 18 m and 24 m LoA and 88 vessels, or 3% over 24 m LoA.

Employment

Employment was estimated at 5 067 in 2015, corresponding to 2 384 FTEs; on average 2 persons are employed with an average of 1 FTE per active vessel. The level of employment is steadily increasing since 2012, and compared to 2014 employment increased by 5%, while the number of FTEs remained stable. As expected, the increase in the number of employed corresponds to the increased number of active vessels in 2015.

Effort

In total 242 thousand days were spent at sea in 2015. While the days at sea remained steady in the period, preliminary data for 2016 indicate a slight decrease, in line with the limitation of effort for purse seiners for small-pelagic fish. The quantity of fuel consumed in 2015 totalled 25.46 million litres, increasing by 5% compared to 2014, in correlation to the increase in the size of the active fleet. Overall the fleet is working more efficiently with a positive trend in landings weight, value and income, and declining trend in total sea days. The fleet operates exclusively in the Northern Adriatic, GSA 17.

Production

The overall landing of seafood has been slowly decreasing since 2013. While compared to 2014 landings decreased 8% to 72.91 thousand tonnes of seafood in 2015, at the same time landed value has remained stable over the period with slight positive trend, amounting to €60.92 million in 2015.

Small pelagic species targeted in purse seine fisheries, of which sardine and anchovy are most important, by far dominate the overall structure and account for 90% of total landing weight in 2015. Small pelagic species are also the most important species in terms of value, accounting for over 50% of total landing value. On the other hand, species targeted by demersal trawling, red mullet, Norway lobster and hake, account for less than 1.6%, 0.4% and 1% respectively in terms of quantity, but almost 3%, 6% and 5% respectively in terms of the value. In 2015 the most important fleet segment in terms of contribution to total landings is purse seines from 24 to 40 meters LoA. This fleet segment accounts for 55% of landings in 2015. Overall, purse seine segments make up 90% of Croatian landings, and are managed under the provisions of a multiannual management plan for small pelagic in GSA 17 as adopted under the GFCM. As of October 2014, further restrictions apply in this regard, with limitations of days at sea and increased provisions on recording. The effect of these measures by the end of 2015 was a decrease in the landing of small pelagic species by over 9%, mostly due to a 10% decrease in the landing of sardine.

Economic results for 2015 and recent trends

National fleet performance

In 2015, the economic performance of the fleet greatly improved compared to previous years. The total amount of Gross Value Added (GVA) and gross profit increased by 8% and by 18%, respectively. Net profit was at very low levels, €-14.5 million with an increase of 26% since 2013. This general trend confirms a general improvement in the sector in 2015.

In 2015, revenue was estimated at €74.6 million, an increase of 10% since 2013 confirming an upward trend in the period. This increase is mainly a consequence of an increase in income from landings as well as other income items over the same period.

Total expenditures amounted to €83.31 million in 2015, while the costs structure remained stable over the period. Total operating costs decreased by 7% in 2015, amounting to €51.9 million, mostly due to a decrease in energy costs as the fuel price decreased in 2015.

The tangible asset value of the fleet further increased in 2015, amounting to €419.1 million. Investments remained stable, increasing by 5% in 2015 and amounted to €7.8 million.

Resource productivity and efficiency indicators

The gross profit in 2015 was €16.2 million, a 17% increase on 2014. Net profit margin was estimated at -19.4% with an improvement of 4% on 2014. The Rate of Return on Fixed Tangible Assets (RoFTA) decreased in 2015 to -0.6%.

Labour productivity (GVA/FTE) decreased by 3% since 2014, as FTE decreased slightly, and GVA increased by 8% on 2014.

Energy consumption per landed tonne is showing an increase in 2015, same as energy consumption per day at sea.

Landings in weight per unit of effort has decreased from the past trend since 2012 and showing decrease of 8% in 2015 in compare to 2014.

Performance by fishing activity

Although 110 species are caught commercially in Croatia, four species account for more than 91% of the total landing weight: European pilchard, European anchovy, red mullet and hake. European pilchard has the highest landing value (€19.3 million), followed by European anchovy, Norway lobster and hake. This fact indicates very high dependency of fleet segments targeting these species and also high sensitivity on any management measures related to these species.

Small-scale coastal fleet

Small-scale coastal fleet of vessels of less than 12 metres' length overall consisting mainly of vessels using passive gears, is not economically significant, however it is of significant social importance due to the large number of vessels and corresponding FTE. Small-scale coastal fleet segments, with 1 771 active vessels cover almost 63% of active vessels in 2015 and less than 2% of landings in 2015. Average length of these vessels is only 7 m and average age 33 years, which limits their fishing activities to fishing grounds near the port and to one-day fishing trips. Days at sea have a distinct seasonal character, especially for passive gears, depending on migration of target species to the inner sea during the warmer period of the year as well as the increased consumer demand during the tourist season.

In 2014, the total value of landings of small-scale fishery was €7.96 million, covering 13% of total value of landings. Most of the catch is sold on the local market, and income is often used as an addition to the home budget. For large majority of SSCF fishers commercial benefit from fisheries in not a priority since they depend on other sources of income and they operate only seasonal.

The most prominent fleet segments with an important traditional and social character within the small-scale fisheries are the segments using fixed nets a fishery.

Even though low profitability is indicated for the fleet, with very low landing values, fixed nets segments are considered to be primarily highly artisanal and important in terms of social and economic elements for local population and communities. It is also expected that this fleet segment shall in the forthcoming years be the one mostly encompassed by the EMFF measures of diversification of activities and provision of services complementary to fisheries.

Performance results of selected fleet segments

In 2015, the most important fleet segment in terms of landing percentage was purse seiners (PS, over 90% of total landings), whereas the largest number of vessels were active in fixed nets segment (DFN, in Croatia fixed nets – gill nets and trammel nets, 1 033 active vessels or 38% of the fleet), but less than 1% of landing weight. In terms of landing of demersal fish most important segment is DTS1218 with 43% of total DTS landing. In PS segments, most significant are PS2440 with 60% and PS1824 with 29% of total PS landing.

Purse seine 24-40m – 71 active vessels targeting sardine and anchovy and operating predominantly in GSA 17. This segment is employing 21% of total FTE, and it has value of landing amounted to €18.9 million, 31% of total national landings value. It reported a gross profit of €3.9 million and a net loss of €4.6 million in 2015. Its GVA is €11.5 million, and it has average wage per FTE of €14.6 thousand.

Purse seine 18-24m – 52 active vessels operating predominantly in GSA 17, and targeting mostly sardine and anchovy. This segment is employing 13% of total FTE, and its landings amounts to €9.4 million, representing 15% of total landing value. Positive gross profit of €2.4 million is reported with net loss of €0.5 million in 2015. Average crew wage per FTE was €12.4 thousand.

Demersal trawl 12-18m **–** 191 active vessels, operating in GSA 17 and targeting different demersal species, mostly European hake, Norway lobster, Red mullet and Deep-water rose shrimp. This segment is employing 8% of total FTE, and it has €6.2 million value of landing, representing 10% of total of landing value. It reported a positive gross profit of €2.1 million, but a net loss of €0.4 million in 2015. Average crew wage per FTE was €9.9 thousand.

Drift and fixed nets 6-12m – 713 active vessels, operating predominantly in coastal areas, targeting different species and using fixed nets and longlines. This segment is employing 14% of total FTE, and in 2015 it had value of landing of €4.2 million, representing 7% of total landing value. It reported a positive gross profit of €2 million and a net profit of €0.4 million in 2015. Average crew wage per FTE was €5.5 thousand.

Drivers affecting the economic performance trends

Markets and Trade

Market is mostly domestic, with an important influence of the Italian market.

A high influence on fish prices of small pelagic species has the product destination. As Croatia is a bluefin tuna farming country, meaning that all bluefin tuna caught by purse seiners is transferred to cages for farming, and a large quantity of small pelagic fish landed on the landing sites is designated for tuna feeding. The small pelagics intended for tuna feeding are declared with low prices in the sales notes. These low prices have a minimizing effect on the average price of small pelagic fish. For the purpose of tuna feeding Croatia has a pronounced import of haring from other countries.

Operating costs

It can be noticed that trends from the five-year period are followed in the terms of share of wages and salaries, and energy costs in total costs. In 2015 share of energy cost has been decreased to 19%, compare to 25% in 2014. At the same time share of wages and salaries has been increased to 29%, compared to 25% in 2014. This is in line with trend of increase of average wage and increase of efficiency of vessels. Other costs such as repair and maintenance, unpaid labour and other variable cost have been stable over period amount for 9%, 3% and 10% in 2015.

Management instruments

Croatian fleet in managed through the capacity and effort limitations, as well as though time and spatial restrictions. Effort regulations is related to restrictions on issuing fishing licences and transfer of fishing rights from one license to other in terms of permitted fishing gears or fishing zones as well as through issuing additional authorisations for demersal trawlers and purse seiners. This system is preventing increase of fishing effort related to fishing gear or fishing zone, or even subzone. Capacity limitation is related to increase of vessel power and length in terms of total national fleet capacity and total capacity for specific fisheries. Besides that, by the national regulations there are restrictions related to transfer of effort between fishing zones of inner and outer fishing sea preventing increase of effort in the most vulnerable areas of inner sea. Spatial and temporal closures have been used in the past years for management of purse seine and trawling fishery. In the recent period this has become effective measure in preventing catch of smaller categories of small pelagic as well as in protection of areas important for recruitment of target species.

In addition to the aforementioned, from 2014 GFCM management plan for small pelagic fish in GSA 17 has been in force. By the provisions of this plan maximum number of fishing days for targeting sardine and anchovy has been set, as well as temporal closure period. Given the full implementation of these measures and additional national restrictions implemented for protection of small pelagic, the total number of days at sea will probably decrease further in the future.

Status of Key Stocks TACs and quotas

Having in mind that fishery in Croatia is based on effort management, only bluefin tuna fishery is restricted by TAC. Annual quota has been set by ICCAT and allocated by the national allocation key. At the national level total quota is allocated to purse seine fishery for farming purposes, hand lines and recreational fishery. Total Croatian quota for 2015 was 461.16 tonnes, 551.22 tonnes for 2016, and 661.82 tonnes for 2017 with an increasing trend. Since almost all BFT catch is intended for farming purposes it has very limited influence on the economics of PS fleet.

In terms of landing weight most important stock for Croatian fishery are sardine and anchovy which contribute with 71% (sardine) and 17.5% (anchovy) to total landing weight. Stock assessment for these two species was performed in 2016 by GFCM Working Group on Stock Assessment of Small Pelagic Species (WGSASP). According to WGSASP the proposed advice on the status of sardine and anchovy in GSAs 17 and 18 was to reduce F. The biomass of the stocks was above the limit (B/Blim= 1.46 and 1.92 for sardine and anchovy respectively) but below the precautionary reference point (B/Bpa= 0.73 and 0.94 for sardine and anchovy respectively). F was higher than the reference point (F/FMSY= 2.03 and 1.79 for sardine and anchovy respectively). Both stocks were considered overexploited and in overexploitation.

On the GFCM WGSAD meeting (Rome, Italy 7 – 12 November 2016) following demersal stocks in geographical subareas (GSAs) 17 and 18 were assessed:

-Red mullet (*Mullus barbatus*) was assessed separately in GSA 17 and GSA 18. According to these two assessments, the former stock was subjected to low overfishing at relatively high biomass, with current fishing mortality (F) at 1.3 times higher than the fishing mortality at maximum sustainable yield (FMSY) proxy (F0.1). The latter stock was sustainably exploited at relatively high biomass, with current fishing mortality (F) at 0.7 times F0.1

-European hake (*Merluccius merluccius*) was assessed jointly for GSAs 17 and 18 using a fleet-based SS3 model. The stock was found in overexploitation and at low biomass levels, with current F at 2.3 times higher than F0.1.

-Deep-water rose shrimp (*Parapenaeus longirostris*) was assessed jointly for GSAs 17 and GSA 18 using a fleet-based SS3 model. The stock was found in overexploitation and at low biomass levels, with current F at 2.4 times higher than F0. 1.

-The common sole (*Solea solea*) stock was assessed in GSA 17 using a fleet-based SS3 model. Current F was 1.35 times higher than F0.1. The stock was found in overexploitation and at relatively low biomass levels.

Norway Lobster stock assessment was done on the EWG STECF 16-17. The stock assessment shows that the relative biomass (B/BMSYd) is continuously decreasing since the 1960s, dropping below BMSYd (6355 t) in the last ten years (B=2450 t in 2015; B2015/BMSYd = 0.383. The stock biomass is considered to be depleted (B<<BMSYd). The fishing mortality has increasing since mid-1980's with F estimated to be above FMSYd in the last ten years (F2015/FMSYd= 1.253). The stock is considered to be over exploited F>FMSYd. STECF (PLEN 17-01) comment that the results show a relatively poor retrospective

performance in estimation of F, while retrospectives on Biomass are less problematic. In any case, all retrospective runs fall inside the uncertainty regions. STECF also notes some uncertainty catches from the early part of the time series, but when testing the results with and without early historic catches the conclusions on stock status did not change. So the method is considered sufficiently robust to these issues and informative of stock status. STECF notes that the biomass of *Nephrops* in GSA 17-18 is estimated to be at 0.38Bmsy, close to the lowest observed of the time series. The short-term forecast carried out suggests that reducing fishing mortality at F=Fmsy in 2017 and beyond are expected to lead to a slow increase in biomass, recovering to BMSY in around 8 years. The forecast suggests that catches corresponding to F=Fmsy in 2017 could be slightly higher than in 2015 (+8%), but still substantially below the catches observed up to 2014.

Improvements and Development

After Croatian accession to EU in 2013, there have been some changes in gears due to a full implementation of Mediterranean regulation, mostly referring to new mesh size of towing gears. Some of these changes had highly negative effect reflecting to small-scale fishery enabling use of traditional gears such as shore seines that target costal species. On the other side this had effect in the improving selectivity in demersal trawl nets. Beside modifications that arise from MEDREG (Council Regulation (EC) No 1967/2006), there has been very few development of fleet in terms of innovation. Investments are based on the gear or engine reparation, as well as on improving terms of fish preservation or processing aiming at increasing product quality and value. In 2016 GFCM adopted Recommendation GFCM/40/2016/3 with additional restricting measures for 2017 and 2018 for small pelagic fisheries in Adriatic. It should also be mentioned that in 2017 EC presented a proposal for Multiannual plan for small pelagic stocks in the Adriatic Sea and the fisheries exploiting those stocks. This plan is still in the pipeline but it can be expected that it will have significant impact on Croatian national fleet and fisheries.

Socio-economic impact

Overexploitation remains to have a significant influence on the economic performance of the sector. Assuming that fuel prices remain fairly constant and fish prices continue to increase, the effects of conservation measures are expected to have a positive impact on the general recovery of the sector.

As the sector is heavily dependent on small-pelagic fish the effects of management measures, mainly temporary and permanent cessation of fishing activities, is expected to have a positive impact as Croatia intends to continue with the measures provided within the framework of the EMFF. In addition, Croatia intends to reduce fishing effort through diversification of activities.

Projections for 2016 and outlook

Preliminary results for 2016 suggest that total landed weight remained constant, matched by a similar value of landing as in 2015. Effort restrictions in the purse seine fishery continue to preliminary data and projections for 2015 indicate a drop in number fishing days and energy costs, same as in cost of crew wages and salaries. At the same time projections of economic indicators are showing an increase for 2016 in terms of GVA (23%), gross profit (49%) and GVA per FTE (24%), but decrease of net profit (-38%) and net profit margin (-28%).

Concerning the future period, beyond 2016, status of stocks and MSY obligation, it can be expected that the main characteristic of fishery will be reduction of fishing effort. Regarding the process of introduction of multiannual management plan for small pelagic species in the Adriatic it can be assumed that PS segments will be affected the most. Since these segments continued to show weak profitability in 2015 we can expect some negative influence on their economic performances in the following years. At the same time, 2017 is the beginning for implementation of landing obligation for demersal species which will mostly have an effect on DTS fleet.

MODEL FORECAST

Preliminary results for 2016 indicate a 1% decrease in landed weight, with a 7% decrease in landed value. Projections suggest that decreases in effort and fuel consumption and low fuel prices lead to a 60% reduction in fuel costs. This together lower variable costs fostered a forecasted performance improvement in 2016 for gross profit (+71%). Yet, with a 52% reduction in wages GVA decreased 1% and higher capital costs due to increased capacity, net profit decreased 109%.

Projection results suggest that the Croatian fleet operated at a gross profit in 2016: with an estimated gross profit margin of 42%. However, the fleet remained at a net loss-making position (-€30 million) and GVA per FTE (estimated at €15 600) decreased 6%.

Further deterioration is expected in 2017 as fuel prices increase and landings are projected to decrease by 1% in weight and 7% in value. The fleet retains a gross profit margin (33%) while net losses are estimated at -€34 million.

Data issues

In Croatia data collection and processing is conducted by the Directorate of Fisheries of the Ministry of Agriculture. Compared to previous annual economic report, data may differ due to the improvements in data processing and estimating procedures, however no major differences were found in regards to trends. Economic data were collected via a sample survey in 2015 with a total sample rate of 37%. The sample rate for the large-scale-fleet on average was 59% and 25% for the SSCF. Taking into account the size of the fleet, overall coverage of the fleet was adequate. In contrast, capacity and fleet activity data is collected for the entire fleet.

As Croatia has been a member of the EU since July 1st 2013, data submitted under the DCF is available for a short time series, therefore any conclusions on trends are limited. The capacity ceiling has been fixed by way of Regulation (EU) 1380/2013. Under these circumstances, there are no data currently at our disposal to compare with relevant provisions or trends.

Table 5.11 Croatia: National fleet statistics and economic performance results. *projections

		2012	2013	2014	2015	*2016**	*2017**	Trend 2012-2017	Δ2015 to 2014	Δ2015 to avg. 12-14
Total number of vessels	(#)	4,211	4,358	4,385	7,849	*5,280*	*6,169*		79%	82%
Number of Inactive vessels_ms	(#)	1,403	1,551	1,669	5,026	*2,466*			201%	226%
Vessel tonnage	(thousand GT)	45.2	46.0	46.1	53.8				17%	18%
Engine power	(thousand kW)	329.7	346.2	347.9	429.7				24%	26%
Total employed	(person)	4,897	4,946	4,842	5,067	*5,797*	*7,048*		5%	4%
FTE	(#)	2,467	2,448	2,151	2,384	*2,512*	*3,035*		11%	1%
Days at sea	(thousand day)	235.5	240.4	241.2	242.0	*210.3*	*202.3*		0%	1%
Fishing days	(thousand day)	201.1	204.0	206.1	206.7				0%	1%
Number of fishing trips	(thousand)	194	199	203	205				1%	3%
Energy consumption	(million litre)	24.52	24.57	24.20	25.46	*24.87*	*22.90*		5%	4%
Live weight of landings	(thousand tonne)	63.14	74.92	79.41	72.91	*72.00*	*70.34*		-8%	1%
Value of landings	(million €)	48.55	59.89	60.84	60.92	*56.95*	*53.25*		0%	8%
Income from landings	(million €)	48.55	59.89	60.84	60.92	*56.95*	*53.25*		0%	8%
Other income	(million €)	5.52	12.41	15.64	13.63	*8.39*	*7.62*		-13%	22%
Direct income subsidies	(million €)	9.92	2.70	8.04	5.50				-32%	-20%
Income from leasing fishing rights	(million €)	0.58	0.41	0.35	0.43				25%	-3%
Wages and salaries of crew	(million €)	18.31	19.14	20.59	21.42	*10.32*	*9.46*		4%	11%
Unpaid labour value	(million €)	0.70	1.34	2.20	1.84	*1.14*	*1.07*		-16%	30%
Energy costs	(million €)	20.43	19.82	19.19	14.25	*5.76*	*5.85*		-26%	-28%
Repair & maintenance costs	(million €)	6.90	6.22	6.45	6.72	*5.01*	*5.35*		4%	3%
Other variable costs	(million €)	8.31	10.34	7.22	7.66	*5.52*	*5.96*		6%	-11%
Other non-variable costs	(million €)	6.74	5.82	7.01	6.49	*9.94*	*13.18*		-7%	0%
Annual depreciation costs	(million €)	14.35	12.94	14.17	14.69	*31.65*	*43.93*		4%	6%
Rights costs	(million €)	0.21	0.09	0.35	0.23	*0.03*	*0.03*		-34%	6%
Opportunity cost of capital	(million €)	9.92	8.31	15.11	15.97	*26.30*	*9.97*		6%	44%
Tangible asset value (replacement)	(million €)	375.7	356.6	393.4	419.1	*633.7*	*882.2*		7%	12%
Fishing rights	(million €)									
Investments	(million €)	6.71	9.12	7.43	7.82				5%	1%
Financial position	(%)	36.47	19.12	25.88	22.83				-12%	-16%
Gross Value Added	(million €)	11.69	30.10	36.60	39.42	*39.11*	*30.53*		8%	51%
GVA to revenue	(%)	21.6	41.6	47.9	52.9	*59.9*	*50.2*		11%	43%
Gross profit	(million €)	- 7.33	9.61	13.81	16.16	*27.65*	*20.00*		17%	201%
Gross profit margin	(%)	- 13.6	13.3	18.1	21.7	*42.3*	*32.9*		20%	265%
Net profit	(million €)	-31.59	-11.64	-15.47	-14.50	- *30.30*	- *33.90*		6%	26%
Net profit margin	(%)	- 58.4	- 16.1	- 20.2	- 19.4	- *46.4*	- *55.7*		4%	38%
GVA per FTE (labour productivity)	(thousand €)	4.74	12.29	17.02	16.54	*15.57*	*10.06*		-3%	46%
Return on fixed tangible assets	(%)	- 5.77	- 0.93	- 0.09	0.35	- *0.63*	- *2.71*		484%	115%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

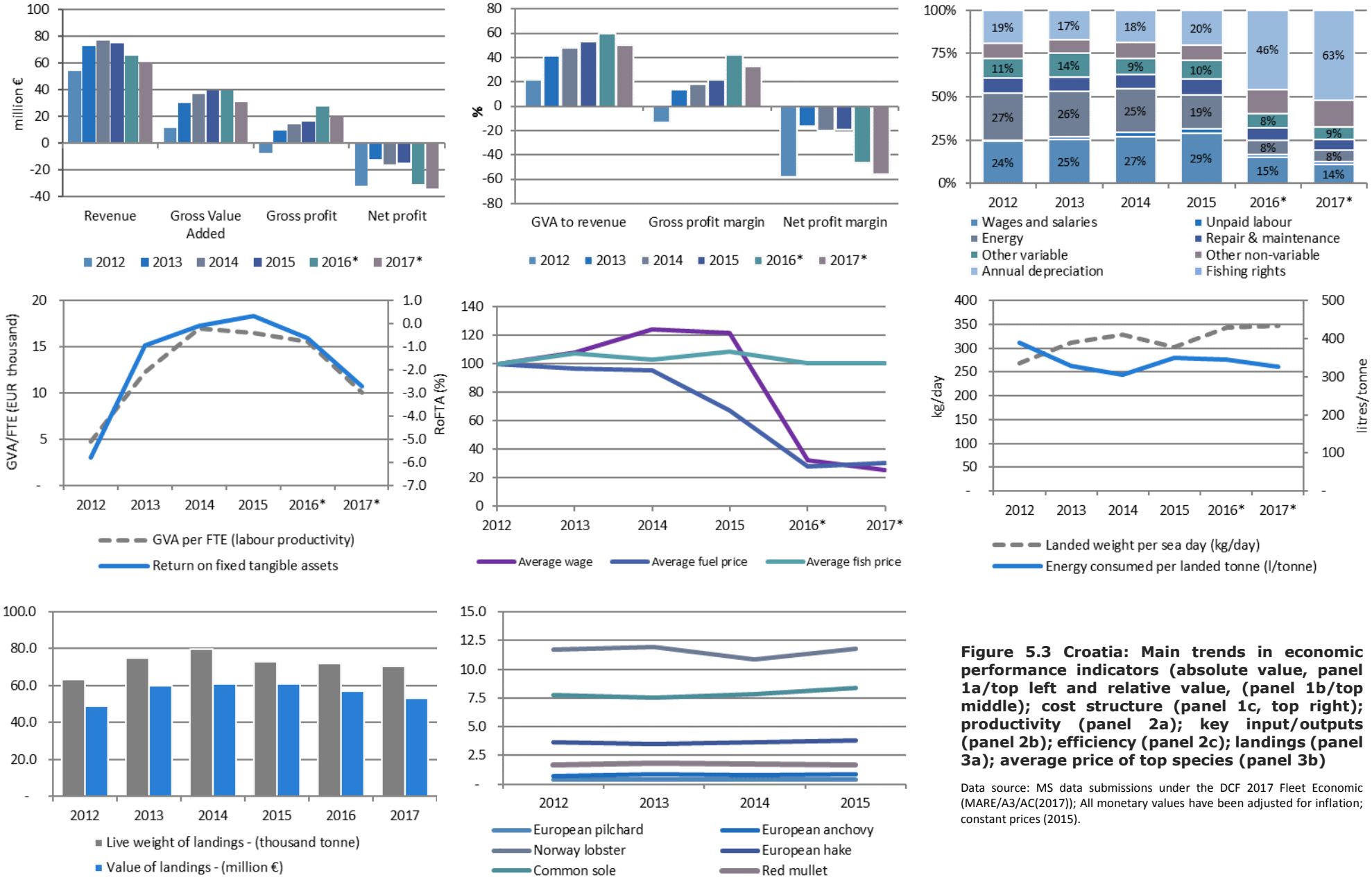


Figure 5.3 Croatia: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price of top species (panel 3b)

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.12 Croatia: National fleet statistics and economic performance results by fishing activity. *projections

		SCF						Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14	LSF						Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2012	2013	2014	2015	*2016**	*2017**				2012	2013	2014	2015	*2016**	*2017**			
Total number of vessels	(#)	1,707	1,726	1,665	1,771	*4,292*	*5,155*		6%	4%	1,101	1,081	1,051	1,052	*988*	*1,014*		0%	-2%
Vessel tonnage	(thousand GT)	5.0	5.1	5.0	4.9				-2%	-2%	28.1	27.3	27.2	27.8				2%	1%
Engine power	(thousand kW)	90	96	94	94				0%	0%	152	151	150	152				2%	1%
FTE	(#)	779	701	537	745	*1,763*	*2,285*		39%	11%	1,688	1,747	1,614	1,638	*749*	*751*		1%	-3%
Total employed	(person)	2,170	2,156	2,076	2,402	*4,496*	*5,712*		16%	13%	2,727	2,790	2,766	2,665	*1,301*	*1,336*		-4%	-3%
Days at sea	(thousand day)	135.2	135.7	134.9	136.1	*111.7*	*104.4*		1%	1%	100.3	104.7	106.3	105.9	*98.5*	*97.8*		0%	2%
Fishing days	(thousand day)	115.2	114.2	115.0	116.5				1%	1%	85.9	89.8	91.1	90.2				-1%	1%
Number of fishing trips	(thousand)	122.1	122.1	123.4	125.7				2%	3%	72.2	76.9	79.3	79.0				0%	4%
Energy consumption	(million litre)	2.8	2.7	2.6	2.7	*2.7*	*2.1*		2%	-1%	21.8	21.8	21.6	22.8	*22.1*	*20.8*		6%	5%
Live weight of landings	(thousand tonne)	1.2	1.2	1.3	1.4	*1.1*	*1.0*		5%	11%	62.0	73.7	78.1	71.5	*70.9*	*69.4*		-8%	0%
Value of landings	(million €)	6.1	7.1	7.0	8.0	*6.9*	*5.4*		13%	18%	42.5	52.8	53.8	53.0	*50.1*	*47.8*		-2%	7%
Income from landings	(million €)	6.1	7.1	7.0	8.0	*6.9*	*5.4*		13%	18%	42.5	52.8	53.8	53.0	*50.1*	*47.8*		-2%	7%
Other income	(million €)	2.2	4.9	8.6	6.5	*6.3*	*5.3*		-24%	24%	3.4	7.5	7.0	7.1	*2.1*	*2.3*		1%	20%
Direct income subsidies	(million €)	1.1	0.2	0.8	0.0				-97%	-96%	8.8	2.5	7.3	5.5				-25%	-12%
Income from leasing fishing rights	(million €)	-	0.0	-	-					-100%	0.6	0.4	0.3	0.4				25%	-2%
Wages and salaries of crew	(million €)	3.5	3.6	3.9	3.9	*3.6*	*3.0*		0%	7%	14.9	15.5	16.7	17.5	*6.7*	*6.5*		5%	12%
Unpaid labour value	(million €)	0.3	0.8	1.2	1.0	*0.8*	*0.7*		-15%	28%	0.4	0.5	1.0	0.9	*0.3*	*0.4*		-18%	33%
Energy costs	(million €)	2.1	2.0	1.9	1.5	*1.2*	*1.0*		-20%	-26%	18.3	17.8	17.3	12.8	*4.6*	*4.8*		-26%	-28%
Repair & maintenance costs	(million €)	1.7	1.3	1.3	1.5	*2.8*	*3.2*		15%	7%	5.3	4.9	5.1	5.2	*2.2*	*2.2*		1%	2%
Other variable costs	(million €)	2.5	2.3	1.0	1.6	*3.2*	*3.7*		60%	-15%	5.8	8.0	6.2	6.0	*2.3*	*2.3*		-3%	-10%
Other non-variable costs	(million €)	1.6	1.3	1.3	1.5	*8.0*	*11.3*		13%	6%	5.1	4.5	5.7	5.0	*1.9*	*1.9*		-12%	-2%
Annual depreciation costs	(million €)	2.0	2.0	2.1	3.0	*27.4*	*39.9*		41%	47%	12.3	11.0	12.0	11.7	*4.2*	*4.0*		-3%	-1%
Rights costs	(million €)	0.0	-	0.0	-	-	-		-100%	-100%	0.2	0.1	0.3	0.2	*0.0*	*0.0*		-34%	6%
Opportunity cost of capital	(million €)	1.1	0.9	1.6	2.3	*23.0*	*9.1*		40%	88%	6.2	4.9	8.9	8.6	*3.3*	*0.8*		-4%	29%
Tangible asset value (replacement)	(million €)	41.3	39.8	42.9	60.4	*553.9*	*807.3*		41%	46%	233.4	211.7	232.5	225.7	*79.8*	*74.9*		-3%	0%
Fishing rights	(million €)																		
Investments	(million €)	2.1	3.0	2.6	2.8				7%	8%	4.6	6.1	4.8	5.0				4%	-3%
Gross Value Added	(million €)	0.4	5.0	10.0	8.3	- *2.2*	- *8.5*		-18%	61%	11.3	25.1	26.6	31.2	*13.4*	*13.0*		17%	48%
GVA to revenue	(%)	4.7	41.7	64.2	57.1	- *17.1*	- *79.8*		-11%	55%	24.7	41.6	43.6	51.9	*54.9*	*53.8*		19%	41%
Gross profit	(million €)	- 3.4	0.6	4.9	3.4	- *6.6*	- *12.2*		-32%	374%	- 3.9	9.0	8.9	12.8	*6.4*	*6.1*		44%	175%
Gross profit margin	(%)	- 41.2	4.9	31.6	23.2	- *51.2*	- *114.3*		-27%	1599%	- 8.6	15.0	14.6	21.3	*26.1*	*25.4*		46%	205%
Net profit	(million €)	- 6.5	- 2.3	1.2	- 1.9	- *57.0*	- *61.3*		-268%	24%	- 22.4	- 6.9	- 12.1	- 7.5	- *1.2*	*1.3*		38%	46%
Net profit margin	(%)	- 78.8	- 19.3	7.4	- 13.5	- *440.1*	- *574.1*		-282%	55%	- 48.9	- 11.4	- 19.9	- 12.5	- *4.7*	*5.4*		37%	53%
Return on fixed tangible assets	(%)	- 13.1	- 3.5	6.5	0.6	- *6.1*	- *6.5*		-91%	118%	- 7.0	- 0.9	- 1.4	0.5	*2.7*	*2.9*		136%	116%
GVA per FTE (labour productivity)	(thousand €)	0.5	7.1	18.7	11.1	- *1.3*	- *3.7*		-41%	26%	6.7	14.4	16.5	19.0	*18.0*	*17.3*		16%	52%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.13 Croatia: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2012-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
HRV A37 PS2440 °	71	515	12,072	135	40,789	18,928	20,875	11,456	54.9	3,916	18.8	- 4,619	- 22.13	14.6	22.2	- 1.0	Weak	5%	Improved	28.0%
HRV A37 PS1824	52	308	8,033	118	19,322	9,386	10,264	6,266	61.0	2,462	24.0	- 504	- 4.91	12.4	20.3	2.3	Weak	71%	Improved	13.8%
HRV A37 DTS1218 °	191	197	18,561	2,425	2,007	6,235	8,588	4,069	47.4	2,113	24.6	- 386	- 4.50	9.9	20.7	2.4	Weak			11.5%
HRV A37 DFN0612	713	345	67,090	2,012	702	4,210	6,684	3,924	58.7	2,013	30.1	353	5.28	5.5	11.4	5.7	Weak	115%	Improved	9.0%
HRV A37 DTS2440	17	74	3,462	3,847	836	3,515	3,669	1,178	32.1	378	10.3	- 1,293	- 35.23	10.9	16.0	- 3.7	Weak	21%	Improved	4.9%
HRV A37 HOK0612 °	235	91	13,158	2,969	201	1,219	3,463	1,965	56.7	939	27.1	273	7.88	11.2	21.5	7.4	Weak	121%	Improved	4.6%
HRV A37 DTS1824	40	103	5,394	3,298	791	2,917	3,316	1,073	32.4	366	11.0	- 1,376	- 41.50	6.9	10.4	- 3.3	Weak	24%	Improved	4.4%
HRV A37 DTS0612 °	180	98	15,310	2,121	855	2,718	3,073	1,164	37.9	214	7.0	- 836	- 27.21	9.7	11.9	- 3.2	Weak	40%	Improved	4.1%
HRV A37 PS1218	38	107	5,053	143	5,188	2,826	2,968	1,473	49.6	447	15.1	- 159	- 5.37	9.6	13.7	1.3	Weak	80%	Improved	4.0%
HRV A37 MGO0006	273	98	19,498	174	414	2,022	2,606	1,809	69.4	1,254	48.1	1,105	42.40	5.7	18.5	68.7	High	236%	Improved	3.5%
HRV A37 DRB1218 °	29	44	3,885	1,455	583	2,145	2,168	1,356	62.5	1,019	47.0	612	28.20	7.7	30.9	18.0	High	226%	Improved	2.9%
HRV A37 DRB0612	18	21	1,991	1,382	248	889	935	622	66.6	471	50.4	341	36.44	7.4	30.2	27.9	High	91%	Improved	1.3%
HRV A37 DFN0006	328	76	26,670	679	172	768	929	562	60.5	149	16.0	- 77	- 8.26	5.4	7.4	0.8	Weak	81%	Improved	1.2%
HRV A37 FPO0006	44	12	3,241	1,529	25	151	858	781	91.0	665	77.5	627	73.07	9.4	63.6	154.8	High	315%	Improved	1.2%
HRV A37 FPO0612 °	109	45	10,375	1,962	109	756	756	405	53.7	- 181	- 24.0	- 409	- 54.18	13.1	9.1	- 12.1	Weak			1.0%
HRV A37 HOK0006	100	15	4,283	1,552	26	152	694	605	87.1	322	46.3	281	40.55	18.8	40.1	67.5	High	116%	Improved	0.9%
HRV A37 PMP0612 °	52	34	3,422	2,777	61	265	631	365	57.9	193	30.7	91	14.39	5.1	10.7	11.7	Reasonable	113%	Improved	0.8%
HRV A37 PS0612 °	40	32	3,737	655	330	561	569	285	50.0	92	16.1	- 79	- 13.85	6.0	8.9	- 0.3	Weak	85%	Improved	0.8%
HRV A37 MGO0612 °	82	26	7,636	1,359	134	486	546	113	20.7	- 64	- 11.7	- 264	- 48.30	6.9	4.4	- 8.2	Weak	47%	Improved	0.7%
HRV A37 DFN1218	21	16	1,232	2,442	47	334	520	299	57.5	131	25.2	- 27	- 5.23	10.3	18.4	2.2	Weak	81%	Improved	0.7%
HRV A37 PGP0612	92	65	4,475	2,427	30	244	244	- 71	- 29.1	- 309	- 126.8	- 1,311	- 537.84	3.7	- 1.1	- 7.7	Weak			0.3%
HRV A37 PMP0006	36	29	1,850	157	33	166	166	- 20	- 12.0	- 48	- 29.1	- 66	- 39.42	1.0	- 0.7	- 31.5	Weak	92%	Improved	0.2%
HRV A37 PGP0006 °	62	33	1,564	72	5	28	28	- 260	- 914.4	- 385	- 1,354.8	- 1,710	- 6,015.14	3.8	- 7.8	- 7.5	Weak	-2601%	Deteriorated	0.0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.14 Croatia: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
HRV A37 PS2440	70		12,687	137	41,606	19,083	19,083											29.2%
HRV A37 PS1824	48	284	8,403	126	19,154	8,906	9,722	6,105	62.8	2,506	25.8	- 355	- 3.6	12.7	21.5	3.0	Weak	14.9%
HRV A37 DTS1218	180		17,956	2,626	1,678	5,691	5,691											8.7%
HRV A37 DFN0612	649	314	50,491	2,791	474	2,996	5,263	2,861	54.4	1,495	28.4	- 84	- 1.6	4.4	9.1	3.7	Weak	8.1%
HRV A37 HOK0612 °	239	93	13,608	2,713	272	1,874	4,171	2,648	63.5	1,068	25.6	360	8.6	17.0	28.5	8.8	Weak	6.4%
HRV A37 DTS1824	34	88	5,552	3,323	948	3,409	3,750	1,658	44.2	833	22.2	- 713	- 19.0	9.4	18.9	- 0.2	Weak	5.7%
HRV A37 DTS0612	164		13,673	2,288	784	2,761	2,761											4.2%
HRV A37 DTS2440	14	61	2,576	3,483	650	2,567	2,695	1,108	41.1	520	19.3	- 913	- 33.9	9.7	18.3	- 2.2	Weak	4.1%
HRV A37 MGO0006	263	94	17,633	302	386	2,062	2,628	1,842	70.1	1,278	48.6	1,127	42.9	6.0	19.5	72.4	High	4.0%
HRV A37 PS1218	35	99	4,495	151	4,668	2,342	2,473	1,155	46.7	308	12.5	- 274	- 11.1	8.6	11.7	- 0.5	Weak	3.8%
HRV A37 DRB1218 °	33	50	3,829	1,998	433	1,776	1,803	1,026	56.9	748	41.5	265	14.7	5.6	20.6	9.5	Reasonable	2.8%
HRV A37 FPO0006	45	13	2,653	2,498	17	122	849	772	90.9	679	80.0	639	75.2	7.4	61.5	153.6	High	1.3%
HRV A37 DFN0006	321	75	21,377	971	136	602	760	404	53.1	79	10.5	- 151	- 19.9	4.4	5.4	- 1.8	Weak	1.2%
HRV A37 DRB0612	19	22	1,679	1,599	171	617	666	414	62.2	309	46.4	165	24.8	4.8	19.1	15.1	High	1.0%
HRV A37 PMP0612 °	54	35	4,024	1,363	88	233	615	383	62.3	233	37.8	121	19.7	4.3	10.9	14.3	Reasonable	0.9%
HRV A37 FPO0612 °	122	50	8,074	3,002	74	605	605	245	40.6	- 227	- 37.5	- 494	- 81.6	9.4	4.9	- 12.9	Weak	0.9%
HRV A37 HOK0006	80	12	2,838	1,875	16	89	525	457	87.1	292	55.6	259	49.3	13.7	37.9	76.9	High	0.8%
HRV A37 MGO0612 °	77	24	5,997	2,016	94	362	419	20	4.7	- 112	- 26.7	- 308	- 73.5	5.5	0.8	- 10.7	Weak	0.6%
HRV A37 PS0612 °	34	27	3,164	599	272	326	333	119	35.8	6	1.9	- 145	- 43.5	4.1	4.4	- 4.7	Weak	0.5%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.15 Croatia: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)					Live weight of landings (thousand tonne)					Average landed price (real) (€)					% over total (2015)	
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016	in value	in weight
European pilchard(=Sardine)	17.3	21.6	22.0	19.3	20.9	44.4	53.8	56.9	51.1	54.3	0.4	0.4	0.4	0.4	0.4	32%	70%
European anchovy	6.2	8.2	7.0	10.7	7.8	8.5	9.3	9.1	12.6	8.2	0.7	0.9	0.8	0.9	1.0	18%	17%
Norway lobster	2.8	3.6	3.7	3.6	2.9	0.2	0.3	0.3	0.3	0.2	11.8	12.0	10.9	11.8	12.7	6%	0%
European hake	3.3	3.9	3.3	2.9	2.5	0.9	1.1	0.9	0.8	0.7	3.6	3.5	3.6	3.8	3.7	5%	1%
Common sole	1.5	1.9	1.5	2.3	1.5	0.2	0.3	0.2	0.3	0.2	7.7	7.6	7.9	8.4	8.8	4%	0%
Red mullet	2.1	2.1	2.0	1.9	1.7	1.3	1.1	1.2	1.1	1.0	1.7	1.9	1.8	1.7	1.7	3%	2%
Deep-water rose shrimp	0.9	1.7	1.7	1.8	2.0	0.2	0.3	0.4	0.5	0.7	5.5	5.2	4.5	3.4	3.1	3%	1%
Common octopus	0.9	1.1	1.6	1.6	1.2	0.2	0.2	0.3	0.3	0.2	5.5	5.7	5.3	5.0	5.5	3%	0%
European flat oyster	0.2	0.5	0.9	1.3	1.0	0.1	0.2	0.4	0.5	0.3	3.2	2.3	2.1	2.6	3.0	2%	1%
Horned and musky octopuses	1.3	1.6	1.6	1.2	1.0	0.5	0.6	0.7	0.5	0.4	2.9	2.8	2.3	2.4	2.7	2%	1%
																77%	93%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.4 Cyprus

Short description of the national fleet

Characteristics and specificities of Cyprus fishery

Cyprus is an island in the Mediterranean Sea. Mediterranean, an oligotrophic semi-enclosed sea is exposed to severe pressures from climate change, environmental pollution, intensive coastal development, depletion of fish stocks and overfishing leading to degradation and destruction of important habitats and species.

Cyprus fishery is dominated by small-scale vessels dispersed across many landing places that use a variety of fishing gears even in the same fishing trip. Fisheries in Mediterranean Sea are of mixed-species type-one that more than one species are present in the area being fished and caught by the fishing gear no matter if these species are not the targeted ones. Usually a variety of fishing gears are used by fishers even in the same fishing day/trip.

Another important issue about Mediterranean is that with the exception of bluefin tuna (T*hunnus thynnus*) none of the other species has catch quotas until 2016. However, in 2017 a Total Allowable Catch (TAC) was set for the first time for the Mediterranean swordfish (*Xiphias gladius),* based on the ICCAT Recommendation (16-06) regarding the Multiannual recovery plan of this species and thus it becomes the second species that will have catch quotas in Mediterranean.

Fleet capacity

The Cypriot national fleet capacity in 2015 reduced by 5% compared to last year. On average there was a reduction of 16% in the number of vessels of the period 2008-2014 compared to 2015. Consequently, GT and KW decreased due to the reduction in the number of vessels. Most of the vessels which ceased their fishing activities were scrapped in 2013 and end of 2015 through structural aid within the framework of the EFF 2007-2013 and EMFF 2014-2020. However, the capacity in 2016 it increased compared to 2015 by 7.7% and the one related with the active vessels increased slightly by 0.36% (3 vessels) ending the declining trend of the period 2008-2015, with a total of 908 vessels in 2016, a combined gross tonnage (GT) of 3.6 thousand tonnes (same as in 2015) and a total engine power of 39.3 thousand kilowatts (kW) (41.2 in 2015).

Fleet structure

In Cyprus, the fishing fleet related with the active vessels can be divided into a large-fleet segment consisting of vessels over 12 metres length overall with a total engine power of 6.38 thousand kW in 2015 (a remarkable increase of 32% compared to 2014) and a small-fleet segment consisting of vessels of less than 12 metres length overall with total engine power of 31.8 thousand kW in 2015, more or less the same as last year.

The large-fleet segment is mainly composed of polyvalent vessels with passive gears and few trawlers fishing in international and territorial waters. The large-fleet segment represents about 16.7% of the overall engine power for 2015 (19.7% for 2016) and 44% of the overall GT of the active fleet for 2015 (47.6% for 2016).

The vessels using *Polyvalent 'passive' gears with length ≥12m* range from 12-26m. The large majority of the vessels belong in the length group 12-18m and thus, for sampling purposes, as well as for confidentiality reasons due to small number of vessels all the polyvalent vessels were regrouped in the 12-<18m length group. It is noted that all the groups of vessels using polyvalent passive gears with length>12m are engaged in the same metiers since these vessels target the same group of species with the same gears despite their vessels length. The vessels of this fleet segment are engaged in two fisheries; mainly in the large pelagic fishery using drifting longlines and operating around Cyprus waters and the eastern Mediterranean (targeting swordfish, bluefin tuna and albacore), but also in the inshore demersal fishery using mostly set nets and set longlines. A limited number of licenses are provided for this segment annually.

Demersal trawlers range from 22-27 m. The demersal trawlers fleet segment below 24m is only 1 and thus, for confidentiality reasons as it is impossible to report data without identifying this company it was regrouped in the >24m length group (up to 28m). It is emphasised though that both groups are engaged in the same metier and they target the same group of species with the same gear despite their vessels length. The licensed trawlers are categorised, based on their type of license, in those fishing in the territorial waters of Cyprus and those fishing in international waters (eastern and central Mediterranean). For the trawlers fishing in territorial waters a limited number of licenses is provided every year, and an extended closed season (from 1st of June until the 7th of November) is employed.

The SSCF segment is mainly operated with bottom set nets and bottom longlines, targeting demersal species. Cyprus Fisheries Law[14] provides for a limited number of licenses for this segment annually and divides it into three (3) subcategories: vessels with fishing license category A', vessels with fishing license category B' and vessels with fishing license category C'. The professional fishing license category (C) was introduced by a new national law and based on this law their fishing activity is performed on a periodic basis since they are allowed to fish only a total of 70 days each year. Consequently, their income from fisheries activities is too low.

Employment

Employment was estimated at 1 285 jobs in 2015, a 5% increase from the 1 219 jobs in 2014. In 2015, these jobs corresponded to 794 FTEs, an increase of 5% compared to 2014, or an average of 2 fishers per vessel or 1 FTE per vessel

[14] Basic Fisheries Law Cap. 135 and subsequent amendments of 1961 to 2007, Fisheries Regulations of 1990 to 2012 based on Article 6 of the Basic Law.

in 2015. This trend is not expected to continue in 2016 especially in regards to small-scale fishery because of the scrapping of 66 vessels of the small-scale coastal fleet segment in the end of 2015 and the cancellation of those licenses.

Effort

An estimated 65.2 thousand days were spent at sea in 2015, a small decrease of 1% compared to 2014, while the amount of energy consumed increased by 4% to 2.82 million litres. This is mainly due to the decrease in the number of small-scale vessels, but an increase in the large-scale fleet since the large-scale vessels perform longer trips and consequently, they consume higher amount of fuels. However, energy costs decreased by 11% to €1.99 million, as a result of lower fuel prices.

Cypriot vessels, including the trawlers fishing in international waters, operate only in the Mediterranean Sea.

Production

Landings increased by 12% to 1.48 thousand tonnes of seafood, with a value of €7.56 million in 2015. However, this represents only a 1% increase in value compared with 2014 due to the reduction in fish prices.

The bottom trawl fishery in the territorial waters and the inshore fishery with polyvalent passive gears target a mix of demersal species, as it is the case in all Mediterranean demersal fisheries. The exploited stocks are not shared with other countries' fleets. Landings of both fisheries are mainly composed by picarel (*Spicara smaris)*, *Boops boops*, red mullet *(Mullus barbatus)*, surmullet *(M. surmuletus)*, common pandora *(Pagellus erythrinus)* and cephalopods: common octopus (*Octopus vulgaris)*, musky octopus (*Eledone moschata)*, European squid (*Loligo vulgaris)* and common cuttlefish *(Sepia officinalis*). The inshore fishery with polyvalent passive gears catches also relatively large quantities of parrotfish (*Sparisoma cretense),* blotched picarel *(Spicara maena)* and spinefeet or rabbitfishes *(Siganus* spp.).

Concerning the large pelagic fishery, polyvalent vessels operate in the Eastern Mediterranean, catching basically swordfish (*Xiphias gladius)*, albacore (*Thunnus alalunga)* and Atlantic bluefin tuna (*Thunnus thynnus)* with drifting longlines.

Economic results for 2015 and recent trends

National fleet performance

The Cypriot national fleet remained in a net loss making position in 2015 and its economic performance was slightly in a worse position compared to the previous year 2014. This trend is expected to have continued into 2016, as fuel prices and fishing prices remained stable as in previous years and the sustainability of some of the main commercially exploited resources is still at a risk.

In 2015, Revenue was estimated at €7.84 million showing an increase of 4.4% despite the smaller increase in income from landings which was around to 1%. The rise in income was due to an increase in direct subsidies; de minims aid was given to *Polyvalent 'passive' gears vessels with length ≥12m* and also to small-scale coastal vessels (fishers of category A' and B' fishing licenses).

Gross Value Added (GVA) in 2015 was estimated at €1.1 million, increased by 10% compared to 2014. Gross profit and net profit in 2015 were estimated at -€0.03 million and -€6.5 million, respectively, showing a deterioration in the economic performance compared to the previous year 2014.

Other variable costs, annual depreciation, energy (fuel) costs and repair & maintenance are the main costs items with €3.16 million, €3.08 million, €1.99 million and €1.05 million, respectively. While energy costs have decreased by 11%, the costs related to capital have increased, due to the entrance of larger vessels. Furthermore, there was a slight increase in other variable costs and an increase of 6% in the repair & maintenance costs. The opportunity cost of capital is another very important expenditure with a rising trend that reached the amount of €3.41 million in 2015. The increase in most of the expenditures has driven the deterioration of the economic performance. The poor economic situation implies that the Cypriot fleet may have difficulties in the future to maintain the fleet. This would explain the cessation of the activity of many small-scale vessels, despite the incorporation of a few larger ones.

It worth mentioning that during the second semester of 2015, 66 vessels of A' and B' category of small-scale fleet segment were scrapped with public aid within the framework of the Scheme of Permanent Cessation, co-funded by the European Maritime and Fisheries Fund 2014-2020.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was negative (-0.4%), indicating operating inefficiency of the fisheries sector. It shows deterioration compared to the previous year where the gross profit margin was positive. However, this is an increase of 98% compared to the average of all previous years since 2008. Net Profit margin remained negative since it was estimated at -86%, a decrease of 11% in comparison to 2014 but an increase of 6% compared to the average of the previous period 2008-2014. Despite the fact that the Return on Fixed Tangible Assets (RoFTA) is still negative for 2015 at -6%, this is an increase of 51% compared to the average of all previous years since 2008.

It is clear that there is an overall improved development trend since 2008 and this is also shown in labour productivity (GVA/FTE) which after many years is positive for the last two years and it has increased greatly in compared to the average of previous years 2008-2014 at 489%. GVA and GVA to revenue have increased significantly compared to the average of the previous period 2008-2014. However, the economic performance was worsening compared to previous year. The number of FTE has increased by 9% compared to 2014 mainly because of the entrance of large vessels in the fleet that have higher number of crew members than the small-scale vessels.

Average fuel consumption for the whole fleet increased by 6% since last year but, it has been reduced by 16% compared to the average of all previous years since 2008. Fuel consumption per landed tonne has followed a decreasing trend since 2011 and there was a reduction of (-26%) compared to the average of the previous period 2008-2014. The fuel consumption per landed weight is still high since it reaches 1.9 thousand litres per landed tonne. Only in 2008 the fuel consumption per landed weight was much less compared to 2015. One of the reasons behind this high fuel consumption is the small production, an indication of overexploitation of stocks.

Landings in weight per unit of effort (in weight per days at sea) followed a decreasing trend for the period 2008-2012 and an increasing one for the period 2013-2015. In 2015, landed weight per sea day increased by 13% compared to 2014 and by 34% compared to the period 2008-2014.

Performance by fishing activity

Small-scale coastal fleet

The Cyprus fleet is dominated by small-scale-vessels. The small-scale fleet (vessels under 12m using passive gears) is by far the most significant segment of the Cyprus fleet since it represents the 95% of the total fleet in 2016 in terms of number of vessels and thus, employment. In addition, it represents 47% in regards to total weight of landings and 60% regarding to value of landings. The higher percentage in relation to value of landings compared to weight of landings is that SSCF generally improves production price to a higher degree than the Large-scale Fleet (LSF), and the gap between prices at first sale can be very high. These gaps may be explained by both the differences in quality linked to freshness and the size of the products but also the marketing channels. The selling prices of SSCF are really high. The same species caught by SSCF are much higher than the ones caught by demersal trawlers. This is evident if looking two of the main commercial species surmullet (*Mullus surmuletus*) and red mullet (*Mullus barbatus*) of the Cyprus fishery. The wholesale price of surmullet when caught by SSCF was around €20.5 for 2016 whereas the same species caught by demersal trawlers was sold only for €14.8. More or less the same picture applies for red mullet whose wholesale price from SSCF was about €18 but only €10.6 when caught by demersal trawlers.

Apart from the high quality of the landings and high selling prices the main patterns of this part of the Cyprus fleet are the small family–owned businesses usually of one physical person, area of operation closest to landing points (operated in Cyprus waters i.e., less than 12 n.m.), use of one or more passive gears even to the same fishing trip and very limited daily landings. The main gears used are trammel nets (GTR), set gillnets (GNS) and set longlines (LLS).

Polyvalent 'passive' gears 6-12m

The most important SSCF segment is the *Polyvalent 'passive' gears with length 6-12m.* In 2015 there were 361 active vessels operating in territorial waters i.e. less than 12 n.m., a reduction of 17% compared to the average number of vessels during the period 2008-2014. The value of landings amounted to €3.9 million. A stable economic development trend is shown for this fleet segment which for 2015 was in a net loss making position (€2.1 million). The improved economic performance was mainly due to the increase in value of landings, the decrease in fuel prices and the reduction in the overall operating costs. Although there was a slight increase in fishing effort compared to the previous year, a downfall in fuel consumption together with a significant reduction in fuel prices from 0.677 €/l in 2014 to 0.578€/l in 2015 have driven the significant reduction in fuel cost. The GVA (around €1 million) was significantly improved by 194% compared to 2014. Although the main economic indicators improved during 2015, the economic performance indicators are still low or negative showing low productivity.

Large-scale fleet

The large –scale fleet composes of Polyvalent passive gears vessels and trawlers with length ≥ 12m.

Vessels using Polyvalent 'passive' gears with length ≥12m

Vessels using *Polyvalent 'passive' gears with length ≥12m* range from 12-26m (the large majority from 12-18m) and are engaged in two fisheries; mainly in the large pelagic fishery using drifting longlines and operating around Cyprus waters and the eastern Mediterranean (targeting swordfish, bluefin tuna and albacore), but also in the inshore demersal fishery using mostly set nets and set longlines. A limited number of licenses are provided for this segment annually.

The fleet segment was operating at a net loss making situation. Its economic performance was significantly deteriorated compared to the previous year. The factors behind it were the increase of all expenditures (repairs & maintenance, energy costs, other variable costs, wages and salaries) and at the same time the decrease in the value of landings. The value of landings was significantly decreased by 18% compared to 2014 and at the same time the fishing effort was increased by 18%. In both 2013 and 2014 the GVA was positive but in 2015 it was negative. Both the Gross Profit margin and the Net Profit margin were significantly decreased compared to the previous year indicating deterioration of the economic performance.

Drivers affecting the economic performance trends

The future of Cyprus fishery is at stake right now mainly due to the bad condition of some of the main commercially exploited fish stocks. Furthermore, the lessepsians species like *Lagocephalos sceleratus* and the recently reported in Cyprus waters lionfish greatly affect the biodiversity and thus, the economic performance of the fisheries sector.

The attacks to the fisher's nets and catch by some of the protected species mainly by dolphins and sea turtles can have a negative impact on the limited fishing income and as a result, put at a risk the economic sustainability of the fleet segments especially the one of the small-scale inshore fishery fleet and of the polyvalent *'passive' gears* vessels *with length ≥12m*.

Recreational fishery is another driver that can negatively affect the economic performance of the professional fishers. The sport fishers are many in numbers and can have important production in some species even in overfished species.

A significant reduction in the number of small-scale fishery vessels, 107 in 2013 and 66 in the end of 2015, after decommissioning schemes through structural funds can become a driving force for the improvement of the economic performance of the Cyprus fleet overall but especially for the SSCF for the near future.

The only species managed in the Mediterranean by quotas until 2016 was the bluefin tuna. From 2017 swordfish will be the second species that will be managed by quotas. The allocation of quotas between the EU countries is still unknown but the recovery plan for the species that has already started been implemented from the beginning of 2017 is expected to have a negative impact on the activities and economic performance of the *Polyvalent 'passive' gears with length ≥12m* fleet segment at least in the short-run. This fleet segment is mainly engaged in the large pelagic fishery (targeting swordfish, bluefin tuna and albacore) using drifting longlines.

Cyprus after many years has issued a purse seiner license for bluefin tuna. Thus, from 2017 a new fleet segment will exist.

Markets and Trade (including fish prices)

In Cyprus the fish is mostly sold fresh. The processing fishing industry in Cyprus is at its early stages.

Cyprus has a negative trade balance in fresh fishery products both in value and weight. The average fishing prices are indicating a decreasing trend since 2011 mainly due to the financial crisis where the purchase power of the customers was significantly reduced. However, they are relatively high compared to other Mediterranean countries and the main reason must be the Cyprus trade deficit of fresh products.

It is noted that the small-scale fishery has limited daily landings that are of high quality and thus they can enjoy higher selling prices compared with the ones enjoyed by trawlers for the same species caught.

Management instruments

The fleet in Cyprus is managed mainly through effort limitations and technical measures. A limited number of licenses are provided for each segment annually. Furthermore, closed seasons, restriction measures on the use of gears and minimum landing sizes are employed, in accordance to national and European regulations.

In regards to the SSCF, the fleet segments *Polyvalent passive gears with length 0-< 6m and 6-< 12m* (category license A' and B') are allowed to operate every day all year round, with a number of restriction measures on the use of fishing gears and minimum landing sizes, according to the national and community law. In 2015, 66 vessels of A' and B' category of small-scale fleet segment were scrapped with public aid within the framework of the Scheme of Permanent Cessation, co-funded by the European Maritime and Fisheries Fund 2014-2020 and their licences were cancelled, resulting in a significant reduction in the number of licenced vessels.

The fleet segments *Polyvalent passive gears with length 0-< 6m and 6-< 12m* (vessels with license category C') have a limited fishing effort, with a maximum of 70 working days and stricter measures on the use of fishing gears.

For the trawlers fishing in territorial waters a limited number of licenses (two) is provided every year, and an extended closed season (from 1st of June until the 7th of November) is employed. Furthermore, restriction measures on the use of trawl nets and minimum landing sizes are employed for all licensed trawlers, in accordance with national and community law.

As for the Polyvalent passive gears with length ≥12m, a closed period for the swordfish is employed based on European law.

TACs and quotas

The only species managed in the Mediterranean by quotas is the bluefin tuna and the total initial available quotas (TAC) for the Cyprus fleet in 2015 amounted to around 98 tonnes. The quota was distributed only on the *Polyvalent 'passive' gears with length ≥12m* fleet segment operating with drifting longlines. The bluefin tuna TAC for 2016 also increased.

From 2017, swordfish will be the second species in Mediterranean that it is having TAC within the recovery plan of this species adopted by ICCAT. The actual allocation key between the EU Member States has not been decided yet, but the implementation of such a management measure is going to negatively affect the *Polyvalent 'passive' gears with length ≥12m* fleet segment at least in the short-run.

Status of Key Stocks

In 2016, Cyprus has performed stock assessment for two of the main commercially important demersal stocks in GSA 25, picarel (*Spicara smaris*) and red mullet (*Mullus barbatus*) and both were found sustainably exploited. The time series used was 2005-2015 for both stock assessments performed. They were presented and endorsed by GFCM relevant scientific group.

Operational costs (external factors)

The most important operational costs are the wages and salaries of the crew members and the fuel cost. Personnel costs include all the expenditures paid by the employers, including social security. The SSCF employs only individuals and their assistants. Neither the vessels owners-fishers nor their assistants are paid any wages and salaries. They get share of the value of landings. Consequently, for the SSCF the value of the unpaid labour (for example the vessel owner's own labour)

is estimated based on a minimum wage. Thus, this amount per vessel is fixed according to the number of assistants. On the other hand, the large-scale vessels fleet owners (trawlers and *Polyvalent passive gears with length ≥12m)* employ crew from third countries and these crew members are paid based on an agreed salary. It includes temporary crew as well as rotation crew. These wages can vary from year to year but not remarkably.

Fuel prices are following a decreasing trend since 2013. There was a significant reduction in fuel prices from 0.677 €/l in 2014 to 0.578€/l in 2015. These are happy news for the vessel owners but especially for the trawlers fishing in territorial waters and for those *Polyvalent passive gears with length ≥12m* which perform long trips when targeting large pelagics. Any fluctuations in fuel prices can drive positive or negative the profitability of a fleet.

Innovation and Development

The small-scale coastal fleet is not very technical advanced and neither the polyvalent segment. Only the trawlers segment does it use more advanced technology but even in this case not at a great extent. Investing in new technology needs much capital and the return is not assured.

The vessels can get funding for modernisation of their vessel for specific purposes such as hygiene from the EMFF 2014-2020. However, an action plan for the small-scale inshore fleet (0-12m with category license A&B) was implemented in 2015, based on the conclusions of the annual report on efforts to achieve a sustainable balance between fishing capacity and fishing opportunities. The target of the action plan has been to achieve balance of the fleet by 2020, with basic tool for achieving it the permanent cessation of fishing activities, through the withdrawal of a number of fishing vessels from this fleet. As long as the action plan is implemented no funding can get for modernisation through structural funds. The owners of the vessels of the SSCF have greatly expressed the need to modernise their vessels.

Socioeconomic Impact

The fishery sector does not contribute much (less than 0.5%) to the Cyprus Gross National Product. However, it is an important sector for the fisheries dependent areas for direct employment (vessel owners and crew members) and auxiliary services such as fish taverns and restaurants, fishmongers, gear repair, vessel repair and construction and families of fishers who help them in getting the fish out of the nets and fishery tourism.

Projections for 2016 and outlook

MODEL FORECAST

Preliminary results for 2016 forecast a 6% decrease in landed weight, matched by a 9% decrease in landed value. Projections suggest operating costs decrease, most notably energy costs which are estimated to decrease by 27% due to the continued low fuel prices. Together with lower other variable, fixed and capital costs, fostered economic performance improvements in 2016 for GVA (+19%), gross profit (+614%) and net profit (+20%).

Results indicate that the Cypriot fleet continued to operate at a net losing making position in 2016: net profit is estimated at -€5.2 million. However, projection suggest that gross profit was positive (€0.2 million) for the first time since 2009. Positive economic developments can also be seen in performance indicators GVA to revenue (+31%), and GVA per FTE, estimated at €1 900 in 2016 (+35%).

The 2016 gains continue into 2017 as increased landings (+5% compared to projected 2016 figures) are matched with a 3% increase in value. Fuel costs increase slightly in 2017 (+1%), the fleet remains in a gross profit making position while net losses are estimated at -€3.7 million.

Data issues

No major issues that need reporting.

Table 5.16 Cyprus: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	1,197	1,177	1,013	1,079	1,082	1,001	951	905	*768*	*800*		-5%	-16%
Number of Inactive vessels_ms	(#)	666	266	104	122	175	68	97	65	*70*			-33%	-70%
Vessel tonnage	(thousand GT)	6.2	5.1	4.4	4.1	4.0	3.4	3.5	3.6				3%	-18%
Engine power	(thousand kW)	52.8	49.5	44.4	45.9	45.9	41.5	41.1	41.2				0%	-10%
Total employed	(person)	1,085	909	1,329	1,344	1,301	1,334	1,219	1,285	*1,156*	*1,205*		5%	6%
FTE	(#)	875	777	871	839	810	824	729	794	*695*	*726*		9%	-3%
Days at sea	(thousand day)	100.2	81.3	75.6	66.4	85.1	80.7	65.6	65.2	*55.5*	*57.8*		-1%	-18%
Fishing days	(thousand day)	100.2	81.3	75.6	66.4	85.1	80.2	65.6	65.2				-1%	-18%
Number of fishing trips	(thousand)	99.6	80.6	74.2	65.5	84.7	79.5	64.7	64.2				-1%	-18%
Energy consumption	(million litre)	3.13	4.29	4.33	3.20	3.23	2.69	2.71	2.82	*2.55*	*2.65*		4%	-16%
Live weight of landings	(thousand tonne)	1.99	1.40	1.38	1.12	1.05	1.15	1.32	1.48	*1.40*	*1.47*		12%	10%
Value of landings	(million €)	13.72	9.77	10.74	8.08	6.61	7.46	7.51	7.56	*6.91*	*7.12*		1%	-17%
Income from landings	(million €)	13.72	9.77	10.74	8.08	6.61	7.46	7.50	7.56	*6.91*	*7.12*		1%	-17%
Other income	(million €)	-	-	-	-	-	-	-	-	-	-			
Direct income subsidies	(million €)	0.57	0.52	2.02	0.55	1.00	0.29	0.02	0.28				1410%	-61%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	1.12	0.89	0.97	0.49	0.49	0.55	0.55	0.84	*0.92*	*0.96*		52%	16%
Unpaid labour value	(million €)	0.42	0.34	0.41	0.35	0.49	0.33	0.28	0.29	*0.25*	*0.25*		5%	-22%
Energy costs	(million €)	2.59	2.40	2.96	2.66	2.96	2.40	2.23	1.99	*1.46*	*1.48*		-11%	-23%
Repair & maintenance costs	(million €)	0.87	0.96	2.02	1.23	1.63	1.30	0.99	1.05	*0.98*	*0.99*		6%	-18%
Other variable costs	(million €)	5.37	6.92	9.63	4.62	4.45	3.41	3.14	3.16	*2.91*	*2.97*		0%	-41%
Other non-variable costs	(million €)	0.17	0.15	0.39	0.13	0.14	0.12	0.13	0.25	*0.25*	*0.25*		98%	46%
Annual depreciation costs	(million €)	4.59	4.19	4.06	4.80	6.81	2.77	2.79	3.07	*2.81*	*2.84*		10%	-28%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-	-			
Opportunity cost of capital	(million €)	0.10	2.41	0.72	1.54	2.20	2.67	3.18	3.41	*2.56*	*1.06*		7%	86%
Tangible asset value (replacement)	(million €)	50.9	55.0	37.0	69.9	58.2	43.9	50.3	55.2	*50.8*	*51.3*		10%	6%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	0.34	0.21	0.43	0.51	0.44	0.22	0.16	0.13				-24%	-62%
Financial position	(%)	0.30	0.30	0.30	0.50	1.00	1.00	1.00	1.00				0%	59%
Gross Value Added	(million €)	4.72	- 0.67	- 4.27	- 0.55	- 2.57	0.24	1.00	1.10	*1.31*	*1.44*		10%	468%
GVA to revenue	(%)	34.4	- 6.8	- 39.7	- 6.8	- 38.9	3.2	13.4	14.6	*19.0*	*20.2*		9%	347%
Gross profit	(million €)	3.2	- 1.9	- 5.6	- 1.4	- 3.5	- 0.6	0.2	- 0.0	*0.2*	*0.2*		-117%	98%
Gross profit margin	(%)	23.1	- 19.4	- 52.6	- 17.1	- 53.6	- 8.7	2.3	- 0.4	*2.2*	*3.1*		-117%	98%
Net profit	(million €)	- 1.5	- 8.5	- 10.4	- 7.7	- 12.6	- 6.1	- 5.8	- 6.5	- *5.2*	- *3.7*		-12%	13%
Net profit margin	(%)	- 11.0	- 87.0	- 97.1	- 95.6	-189.9	- 81.6	- 77.4	- 86.1	- *75.6*	- *51.5*		-11%	6%
GVA per FTE (labour productivity)	(thousand €)	5.4	- 0.9	- 4.9	- 0.7	- 3.2	0.3	1.4	1.4	*1.9*	*2.0*		1%	483%
Return on fixed tangible assets	(%)	- 2.8	- 11.1	- 26.2	- 8.8	- 17.8	- 7.8	- 5.2	- 5.6	- *5.2*	- *5.1*		-8%	51%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

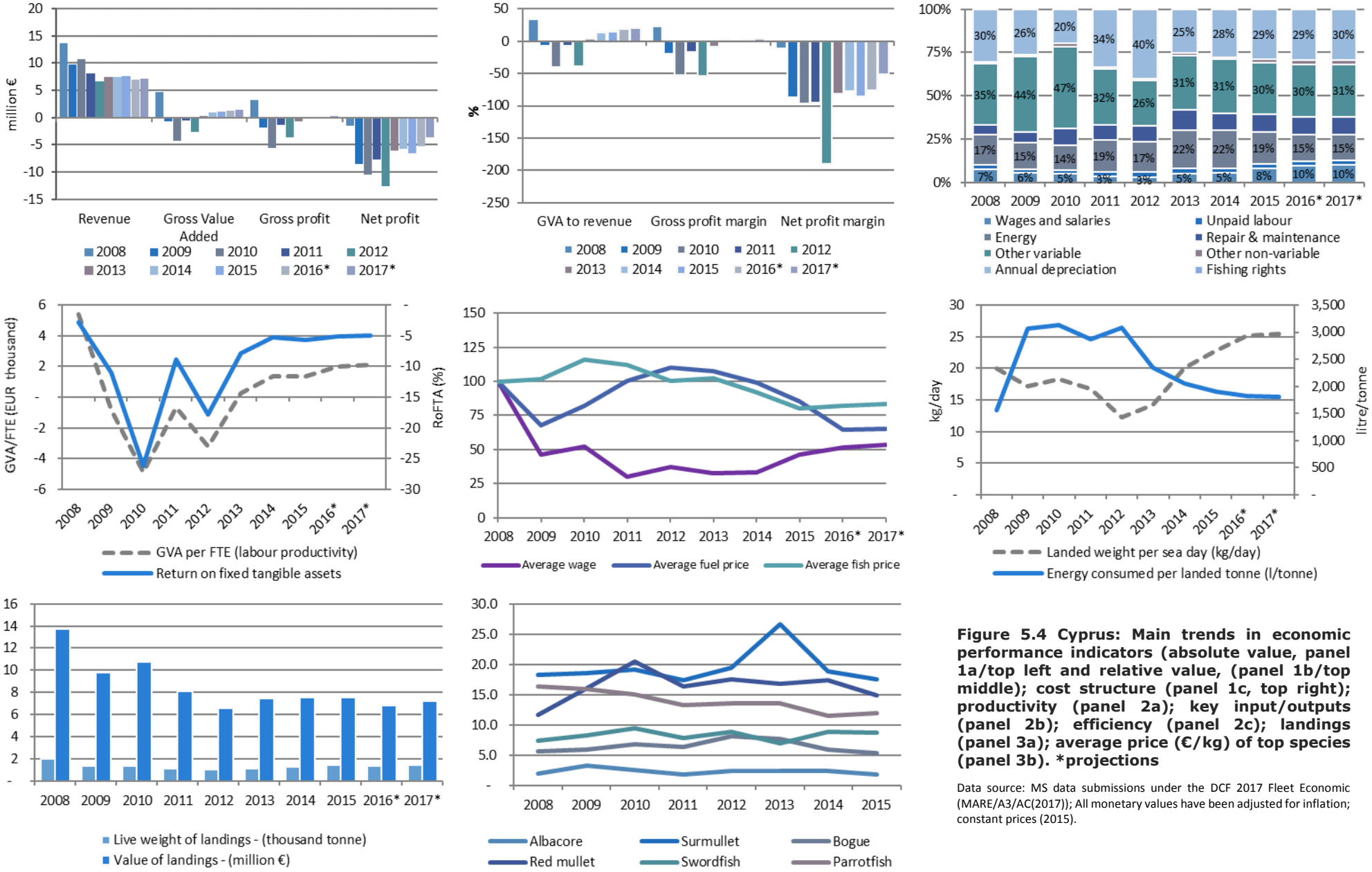


Figure 5.4 Cyprus: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.17 Cyprus: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	497	880	882	931	880	907	827	807	*733*	*762*		-2%	-3%
Vessel tonnage	(thousand GT)	1.57	2.21	2.18	2.24	2.08	2.10	1.94	1.87				-3%	-8%
Engine power	(thousand kW)	20.81	33.57	34.05	35.47	33.16	34.11	31.94	31.83				0%	0%
FTE	(#)	697	629	723	740	701	723	616	635	*530*	*551*		3%	-8%
Total employed	(person)	895	761	1181	1245	1192	1233	1106	1126	*991*	*1031*		2%	4%
Days at sea	(thousand day)	96.73	78.55	72.92	63.92	82.82	77.84	63.21	62.44	*52.64*	*54.74*		-1%	-18%
Fishing days	(thousand day)	96.73	78.55	72.92	63.92	82.82	77.84	63.21	62.44				-1%	-18%
Number of fishing trips	(thousand)	96.73	78.55	72.92	63.92	82.82	77.84	63.21	62.44				-1%	-18%
Energy consumption	(million litre)	1.18	1.85	2.59	2.00	2.26	1.66	1.67	1.45	*1.21*	*1.26*		-13%	-23%
Live weight of landings	(thousand tonne)	1.15	0.81	0.85	0.70	0.54	0.52	0.58	0.69	*0.57*	*0.59*		20%	-6%
Value of landings	(million €)	9.26	6.82	7.39	6.18	4.32	4.19	4.35	4.55	*3.86*	*3.97*		5%	-25%
Income from landings	(million €)	9.26	6.82	7.39	6.18	4.32	4.19	4.35	4.55	*3.85*	*3.96*		5%	-25%
Other income	(million €)	0	0	0	0	0	0	0	0	*0*	*0*			
Direct income subsidies	(million €)	0.53	0.51	1.97	0.52	1.00	0.28	0.02	0.26				1335%	-62%
Income from leasing fishing rights	(million €)	0	0	0	0	0	0	0	0					
Wages and salaries of crew	(million €)	0	0	0	0	0	0	0	0	*0*	*0*			
Unpaid labour value	(million €)	0.42	0.34	0.41	0.35	0.49	0.33	0.28	0.29	*0.25*	*0.25*		5%	-22%
Energy costs	(million €)	0.98	1.04	1.77	1.66	2.09	1.48	1.42	0.98	*0.71*	*0.73*		-31%	-34%
Repair & maintenance costs	(million €)	0.53	0.65	1.42	0.94	1.25	0.85	0.65	0.54	*0.47*	*0.47*		-17%	-39%
Other variable costs	(million €)	3.49	5.27	7.93	3.71	3.59	2.61	2.42	2.18	*1.85*	*1.86*		-10%	-47%
Other non-variable costs	(million €)	0.01	0.01	0.02	0.02	0.01	0.02	0.02	0.01	*0.01*	*0.01*		-27%	-8%
Annual depreciation costs	(million €)	1.99	1.90	1.60	2.46	3.00	1.76	1.98	1.97	*1.72*	*1.73*		0%	-6%
Rights costs	(million €)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*0.00*	*0.00*			
Opportunity cost of capital	(million €)	0.06	1.78	0.49	1.24	1.77	1.80	2.24	2.18	*1.56*	*0.64*		-3%	62%
Tangible asset value (replacement)	(million €)	33.49	40.45	25.32	56.29	46.71	29.65	35.50	35.22	*30.82*	*31.07*		-1%	-8%
Fishing rights	(million €)	0	0	0	0	0	0	0	0					
Investments	(million €)	0.13	0.13	0.13	0.11	0.08	0.06	0.02	0.02				-8%	-84%
Gross Value Added	(million €)	4.26	-0.14	-2.13	0.71	-0.46	-0.77	-0.15	0.84	*0.81*	*0.88*		649%	344%
GVA to revenue	(%)	45.98	-2.00	-28.79	11.54	-10.62	-18.40	-3.51	18.43	*20.93*	*22.30*		625%	2318%
Gross profit	(million €)	3.84	-0.48	-2.47	0.38	-0.76	-1.10	-0.43	0.55	*0.56*	*0.63*		227%	473%
Gross profit margin	(%)	41.43	-6.97	-33.42	6.14	-17.71	-26.31	-9.91	12.03	*14.52*	*15.89*		221%	280%
Net profit	(million €)	1.78	-4.15	-4.56	-1.98	-4.52	-4.66	-4.65	-3.60	*-2.71*	*-1.74*		23%	-11%
Net profit margin	(%)	19.26	-60.85	-61.71	-32.07	-104.55	-111.32	-106.88	-79.08	*-70.55*	*-44.03*		26%	-21%
Return on fixed tangible assets	(%)	5.52	-5.87	-16.06	-2.66	-10.04	-9.65	-6.78	-4.04	*-3.76*	*-3.55*		40%	38%
GVA per FTE (labour productivity)	(thousand €)	6.11	-0.22	-3.28	1.09	-0.74	-1.07	-0.25	1.32	*1.52*	*1.60*		77%	-179%

		LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	34	31	27	26	27	26	27	33	*35*	*37*		22%	17%
Vessel tonnage	(thousand GT)	1.80	1.57	1.65	1.21	1.23	1.09	1.13	1.47				31%	6%
Engine power	(thousand kW)	8.18	6.60	6.33	5.32	5.31	4.69	4.84	6.38				32%	8%
FTE	(#)	178	148	148	99	109	101	113	159	*165*	*175*		41%	24%
Total employed	(person)	190	148	148	99	109	101	113	159	*165*	*175*		41%	23%
Days at sea	(thousand day)	3.48	2.71	2.69	2.47	2.29	2.86	2.43	2.71	*2.83*	*3.01*		12%	0%
Fishing days	(thousand day)	3.48	2.71	2.66	2.47	2.29	2.41	2.43	2.71				12%	3%
Number of fishing trips	(thousand)	2.84	2.07	1.32	1.61	1.83	1.71	1.53	1.74				13%	-6%
Energy consumption	(million litre)	1.95	2.44	1.74	1.20	0.97	1.03	1.04	1.37	*1.34*	*1.39*		32%	-7%
Live weight of landings	(thousand tonne)	0.85	0.58	0.53	0.42	0.51	0.63	0.74	0.79	*0.83*	*0.88*		6%	29%
Value of landings	(million €)	4.46	2.95	3.34	1.90	2.30	3.27	3.14	3.00	*3.05*	*3.15*		-4%	-2%
Income from landings	(million €)	4.46	2.95	3.34	1.90	2.30	3.19	3.14	3.00	*3.06*	*3.16*		-4%	-1%
Other income	(million €)	0	0	0	0	0	0	0	0	*0*	*0*			
Direct income subsidies	(million €)	0.04	0.01	0.05	0.03	0.00	0.01	0.00	0.01					-35%
Income from leasing fishing rights	(million €)	0	0	0	0	0	0	0	0					
Wages and salaries of crew	(million €)	1.12	0.89	0.97	0.49	0.49	0.55	0.55	0.84	*0.92*	*0.96*		52%	16%
Unpaid labour value	(million €)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*0.00*	*0.00*			
Energy costs	(million €)	1.62	1.37	1.19	1.00	0.86	0.92	0.81	1.01	*0.74*	*0.75*		24%	-9%
Repair & maintenance costs	(million €)	0.34	0.32	0.61	0.28	0.38	0.45	0.34	0.51	*0.51*	*0.51*		50%	31%
Other variable costs	(million €)	1.88	1.65	1.70	0.91	0.86	0.80	0.73	0.98	*1.07*	*1.11*		35%	-19%
Other non-variable costs	(million €)	0.16	0.14	0.38	0.11	0.13	0.10	0.08	0.24	*0.24*	*0.24*		190%	54%
Annual depreciation costs	(million €)	2.60	2.29	2.46	2.34	3.81	1.01	0.81	1.09	*1.09*	*1.10*		35%	-50%
Rights costs	(million €)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*0.00*	*0.00*			
Opportunity cost of capital	(million €)	0.03	0.64	0.23	0.30	0.44	0.86	0.94	1.23	*1.01*	*0.42*		32%	151%
Tangible asset value (replacement)	(million €)	17.44	14.56	11.67	13.61	11.53	14.22	14.81	19.98	*19.94*	*20.20*		35%	43%
Fishing rights	(million €)	0	0	0	0	0	0	0	0					
Investments	(million €)	0.21	0.09	0.29	0.40	0.36	0.16	0.15	0.11				-26%	-54%
Gross Value Added	(million €)	0.46	-0.53	-0.53	-0.40	0.07	0.93	1.18	0.26	*0.51*	*0.56*		-78%	55%
GVA to revenue	(%)	10.39	-18.00	-15.76	-21.16	2.89	29.12	37.59	8.71	*16.60*	*17.63*		-77%	143%
Gross profit	(million €)	-0.66	-1.42	-1.50	-0.89	-0.42	0.38	0.63	-0.58	*-0.41*	*-0.41*		-192%	-4%
Gross profit margin	(%)	-14.80	-48.23	-44.74	-46.81	-18.32	11.86	20.01	-19.21	*-13.33*	*-12.84*		-196%	5%
Net profit	(million €)	-3.30	-4.35	-4.18	-3.53	-4.67	-1.50	-1.12	-2.91	*-2.51*	*-1.93*		-159%	10%
Net profit margin	(%)	-73.92	-147.59	-125.01	-185.82	-203.34	-47.00	-35.62	-96.72	*-81.85*	*-60.87*		-172%	17%
Return on fixed tangible assets	(%)	-18.72	-25.47	-33.88	-23.71	-36.69	-4.48	-1.24	-8.36	*-7.51*	*-7.48*		-575%	59%
GVA per FTE (labour productivity)	(thousand €)	2.60	-3.58	-3.56	-4.06	0.61	9.21	10.46	1.64	*3.09*	*3.20*		14%	5063%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.18 Cyprus: National fleet statistics and economic performance results by fleet segment

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
CYP A37 PG0612	361	508	48,027	1,941	610	3,884	3,884	988	25.4	734	18.9	- 2,161	- 55.64	0.5	1.9	- 2.7	Weak	5%	Stable	51%
CYP A37 PGP1218 °	26	110	1,980	1,061	592	1,521	1,521	- 79	- 5.2	- 730	- 48.0	- 1,886	- 123.96	5.9	- 0.7	- 12.7	Weak	10%	Improved	20%
CYP A37 DTS2440 °	7	49	729	3,820	195	1,482	1,482	341	23.0	153	10.3	- 1,019	- 68.76	3.8	7.0	- 4.0	Weak	39%	Improved	20%
CYP A37 PGO0006	343	69	9,362	5,130	33	327	327	- 164	- 50.2	- 176	- 54.1	- 910	- 278.77	0.2	- 2.4	- 8.5	Weak	32%	Improved	4%
CYP A37 PG0006	32	45	3,116	1,083	44	275	275	63	22.8	40	14.6	- 47	- 17.26	0.5	1.4	- 0.4	Weak	-86%	Deteriorated	4%
CYP A37 PGO0612	71	14	1,938	6,745	6.9	67.8	67.8	- 47.6	- 70.2	- 50	- 74.1	- 482	- 710.10	0.2	- 3.4	- 5.9	Weak	37%	Improved	1%

Table 5.19 Cyprus: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
CYP A37 PG0612	290	408	38,581	1,941	490	3,206	3,193	910	28.5	699	21.9	- 1,432	- 44.86	0.5	2.2	- 2.2	Weak	46%
CYP A37 PGP1218 °	29	123	2,208	1,061	660	1,744	1,751	136	7.7	- 615	- 35.1	- 1,793	- 102.42	6.1	1.1	- 10.9	Weak	25%
CYP A37 DTS2440 °	6	42	625	3,820	167	1,306	1,310	373	28.4	207	15.8	- 712	- 54.34	3.9	8.9	- 3.1	Weak	19%
CYP A37 PGO0006	342	68	9,335	5,130	33	335	336	- 123	- 36.7	- 136	- 40.6	- 806	- 240.24	0.2	- 1.8	- 7.8	Weak	5%
CYP A37 PG0006	28	39	2,727	1,083	38	247	248	53	21.3	33	13.1	- 38	- 15.15	0.5	1.3	- 0.8	Weak	4%
CYP A37 PGO0612	73	15	1,993	6,745	7.1	71.7	71.8	- 34.1	- 47.4	- 37	- 51.3	- 439	- 611.32	0.2	- 2.3	- 5.5	Weak	1%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.20 Cyprus: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)								Live weight of landings (thousand tonne)								Average landed price (real) (€)								% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015	in value	in weight
Albacore	0.5	0.8	0.6	0.4	0.8	0.9	1.1	1.0	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.5	2.1	3.2	2.6	1.8	2.4	2.4	2.4	1.9	13%	34%
Surmullet	2.2	1.3	1.7	0.8	0.7	1.2	0.9	1.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	18.4	18.6	19.2	17.5	19.5	26.7	18.9	17.6	13%	3%
Bogue	1.9	1.5	1.8	0.7	0.7	0.6	0.7	0.7	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	5.7	6.0	6.8	6.4	8.2	7.8	6.0	5.4	9%	8%
Red mullet	0.6	0.4	0.7	0.4	0.3	0.5	0.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.7	16.1	20.6	16.4	17.5	16.8	17.4	14.9	7%	3%
Swordfish	0.5	0.2	0.3	0.3	0.3	0.3	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	7.4	8.3	9.5	7.8	8.9	6.9	8.9	8.8	5%	3%
Parrotfish	0.6	0.8	0.8	0.3	0.3	0.3	0.3	0.3	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	16.4	16.0	15.0	13.3	13.6	13.6	11.5	11.9	4%	2%
Picarel						0.1	0.3	0.3						0.0	0.1	0.1						4.8	5.1	4.1	4%	5%
White seabream				0.5		0.1	0.2	0.2				0.0		0.0	0.0	0.0				18.5		15.6	16.3	15.3	3%	1%
Comber	0.0	0.0	0.1	0.1	0.1	0.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	2.4	1.9	3.2	3.0	2.6	2.6	2.9	2.8	3%	5%
Blotched picarel	0.3	0.1	0.1	0.3	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	5.9	5.1	6.1	5.3	6.7	6.6	5.0	3.9	3%	3%
																									63%	68%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.5 Denmark

Short description of the national fleet

Fleet capacity

In 2015, the Danish fishing fleet consisted of 1 851 registered vessels, with a combined vessel tonnage of 66 thousand gross tonnages (GT) and engine power (kW) of 208 thousand kW. The 1 851 vessels represent production units, which may be active or inactive. In 2015, there were 1 392 active and 459 inactive units. Some of the 1 392 active production units include more than one vessel. The number of registered fishing vessels decreased with 5% between 2014 and 2015, whereas vessel tonnage and engine power decreased with 3% and 1%, respectively. The decrease in fishing capacity between 2014 and 2015 is in line with the long-term trend of declining fishing capacity. Thus, between 2008 and 2015, the total vessel numbers decreased 34%, whereas vessel tonnage (GT) and engine power (kW) decreased 16% and 26%, respectively. The decrease has partly happened as a result of a cleaning up of inactive vessels in the register, initiated by a yearly fee for vessel registering.

Fleet structure

Around two-thirds of the active part of the fleet consisted of vessels below 10 meters in 2015. These made up an even larger part of the fleet when including inactive vessels. The vessels between 24-40m and the ones above 40m corresponded to respectively 2% and 5% of the total number of active vessels in 2015, but accounted for 14% and 45% of the total landings value, respectively. 58% of the Danish active vessels used passive gears only, 17% used demersal trawlers or seiners or both, 13% used both active and passive gears, while a minority of vessels used dredge, pelagic trawl or beam trawl. The largest landings in 2015 in terms of value and weight were made by the pelagic trawlers above 40m vessels, catching species for human consumption (Atlantic herring and Atlantic mackerel) and species for fish meal and fish oil production (sprat, sandeels, blue whiting, etc.).

Employment

Total employed in 2015 was estimated at 1 330 jobs, corresponding to 1 570 FTEs. The reason that the FTE is higher than the number of jobs is that the FTEs is estimated based on the DK-standard that a full working year consists of 1 665 working hours. However, in reality yearly working hours in the Danish fishing fleet are more likely to be around 2 000 hours. The total number of employed decreased 6% between 2014 and 2015 and the number of FTEs decreased 3%. This is in line with the long-term trend of decreasing employees and FTEs in Danish fisheries. Thus, from 2008-2015 the total employed and FTE have decreased 26% and 24%, respectively.

Effort

In 2015, the Danish fleet spent a total of around 97 thousand days at sea. The total number of days at sea decreased with 7% between 2014 and 2015. Fuel consumption was at 93 million litres and increased slightly (2%) compared to 2014.

Production

In 2015, the total weight landed by the Danish fleet was 866 thousand tonnes of seafood with a landing value of €440 million. The total weight of landings increased from 2014 to 2015 by 17%, while the value of landings increased by 16%.

One of the species driving this total increase in both weight and value is sprat. The weight of landed sprat increased significantly (78%) from 2014 to 2015 and the prices increased with 9%. This resulted in almost a doubling of the landings value of sprat, going from €37 million in 2014 to €73 million in 2015. Also sandeels and European plaice contributed significantly to the total increase in landings value with weight increasing 11% and 16% respectively and prices increasing 11% and 15% respectively. The economically important species Atlantic cod contributed significantly to increase in both landings weight and value, since the landed weight increased by 18%, while prices decreased slightly by 1%. Whereas the fishers experienced larger landings value for most species in 2015, the landings value of the Atlantic mackerel and Norway lobster decreased by €2.8 million (-7%) and €2.9 million (-10%). The reason for this is for mackerel a decrease in the average price, while for Norway lobster decreasing catch weight.

The large increases in landings weight between 2014 and 2015 by the industrial species, sprat (by 133 thousand tonnes) and sandeels (by 13 thousand tonnes) has contributed positively to the production of fish meal and fish oil.

Economic results for 2015 and recent trends

National fleet performance

The total income generated by the Danish fleet in 2015 was €473 million, corresponding to an increase of 18% compared to 2014. The total income consisted of €440 million in income from landings value (+16%), €11 million in non-fishing income (+95%) and €22 million from leasing fishing rights (+35%). The three major variable costs consist of labour (excl. the value of unpaid labour), energy, and repair & maintenance. In 2015, the costs for labour were €79 million, while energy cost and repair & maintenance costs accounted for €43 and €42 million each. While the labour costs and repair & maintenance costs increased with 11 and 5% respectively from 2014 to 2015, the energy costs decreased with 24%, as a result of significant

lower fuel prices in 2015 relative to 2014. The annual depreciation costs are the major group of capital costs and accounted of 90 million in 2015. It increased slightly (2%) from 2014 to 2015.

In terms of economic fleet performance, the total amount of gross value added (GVA), gross profit, and net profit generated by the Danish national fleet in 2015 were €313 million, €199 million and €106 million, respectively. This corresponded to increases of 32%, 52% and 186%, compared to 2014. These large increases in economic indicators is a result of increased landings weight (17%) and values (16%) and minor decreases in variable costs. The decrease in variable costs despite the increase in landings weight was largely driven by decreasing energy costs due to decreasing fuel prices.

In 2015, the Danish fleet had an estimated (depreciated) replacement value of €608 million and an estimated value of fishing rights of around €1 billion. Compared to 2014, both the estimated replacement value and the estimated value of fishing rights increased 5%. Investments by the fleet amounted to €40 million in 2015, corresponding to a fall in investments by 45% from 2014. Factors causing a change in the capital value of the fleet include variation in investments from year to year, including negative investments by some fleet segments, as well as the variation in the value of fishing rights.

Resource productivity and efficiency indicators

The Danish fleet performed well in 2015 with a gross profit margin of 44%. Compared to 2014, the gross profit margin increased 30% and compared to the average of 2008-2014, it increased 40%. The net profit margin was 24% in 2015, corresponding to an increase of 144% compared to 2014. Labour productivity, measured as GVA against FTE increased by 36% from 2014 to 2015.

Performance results of selected fleet segments

Overall, the Danish fleet consists of 19 fleet segments, covering both static and active gears and targeting both demersal and pelagic species. The capacity of the Danish fleet has in the period 2008-2015 decreased, both in terms of numbers (-34%), gross tonnage (-16%) and engine power (-26%). The period 2014-2015 has followed the trend with a decrease in number of vessels, gross tonnage and engine power with 5%, 3% and 1% respectively. Employment, measured in terms of Full Time Equivalents (FTE) decreased slightly in 2015 compared to 2014.

In economic terms, the gross profit has increased with 52% from €131 million to €199 million, whereas the net profit increased with 186% from €37 million to €106 million. Despite variations, both the gross and the net profit show a significant positive trend if evaluated for the period 2008-2015. This gain is driven by the large-scale fleet. Conversely, the SSCF is experiencing a minor loss. However, the profitability of the SSCF has improved during 2008-2015. The same positive trend of increasing profitability is the case for the large-scale fisheries and could partly be the effect of the Vessel Quota Share (VQS) system that was introduced in 1st January 2007.

Performance by fishing activity

The large-scale fleet (vessels above 12 meters) targets a large variety of species including codfish, flatfish, Norway lobster, herring, mackerel, sprat and sandeels in the Baltic Sea, the Sounds, Kattegat, Skagerrak, the North Sea and the Norwegian Sea. In 2015, the large-scale fishing fleet consisted of 419 registered vessels, with a combined vessel tonnage of 61 thousand GT and engine power of 156 thousand kW. The size of the large-scale fleet decreased between 2014 and 2015 in terms of number of vessels (-3%), vessel tonnage (-2%) and engine power (-1%). Comparing 2015 to the average of 2008-2014, the number of vessels in the large-scale fisheries decreased by 17%, the gross tonnage increased by 4%, while the total engine power decreased by 6%.

The value of landings generated by the large-scale fleet accounted for €418 million in 2015, which was 95% of the total national landings value for fisheries. The revenue increased by 19% from 2014 to 2015. Total operating costs incurred by the large-scale fleet in 2015 equated to €228 million. Of these, crew costs (incl. unpaid labour value) are the major fishing expense for the large-scale fleet and accounted for €101 million. Annual depreciation is also a major expense for the large-scale fleet and amounted to €87 million in 2015. The large-scale fleet had a gross profit and net profit of €200 million and €110 million in 2015, which is an increase of 50% and 149% compared to 2014.

The small-scale coastal fleet, which is defined as vessels below 12 meters using static gears, operates mostly in the Baltic Sea, the Sounds and the Kattegat. In 2015, the small-scale fishing fleet consisted of 973 registered vessels, with a combined vessel tonnage of 3.8 thousand GT and engine power of 40.8 thousand kW. The number of vessels decreased by 3% between 2014 and 2015, while vessel tonnage decreased by 2%. The total engine power of the small-scale coastal fleet remained constant between 2014 and 2015. Compared to the average in the period 2008-2014, there was a decrease in number of vessels, gross tonnage and engine power of 12%, 9% and 5%, respectively.

The value of landings generated by the SSCF amounted to €22 million in 2015, which is 5% of the national landings value for fisheries. The landing value generated by the Danish SSCF increased by 2% from 2014-2015. Total operating costs incurred by the SSCF in 2015 equated to €24 million. Crew costs are a major fishing expense for the SSCF and accounted for €13 million in 2015 (incl. unpaid labour value). Between 2014 and 2015, total operating costs decreased by 5%, due to decreases in wages, energy costs, repair and maintenance costs, as well as other variable costs. The SSCF made a loss in 2015 with gross profit and net profit of -€0.9 million and -€4.4 million, respectively. The loss in gross profit decreased by 64% from 2014 to 2015, while the loss in net profit decreased by 39%. The reduction in the loss of the SSCF was mainly driven by a decrease in landings volumes of 8% from 2014 to 2015. Compared to the average between 2008 and 2014, the gross profit margin and net profit margin increased (reduced the negative net profit margin) with 59% and 35%, respectively in 2015.

Fleet Segment Level Economic performance

The Danish fleet is highly diversified with a broad range of vessel types operating and targeting different species predominantly in the North Sea, Baltic Sea, and North Atlantic. The national fleet consisted of 19 DCF fleet segments in 2015. 10 fleets made losses in 2014, while 9 made an overall profit. A breakdown of the 2015 key performance indicators by all 19 fleet segments is provided in table at the end of the chapter. A short description of four important fleet segments in terms of either value of landings or number of vessel is provided below.

Pelagic trawl >40m – 18 vessels make up this segment which operates predominantly in the North Sea and the Norwegian Sea. The fleet targets pelagic species for consumption (mackerel and herring) as well as reduction species such as sandeels, sprat, and blue whiting. In 2015, the total value of landings was €156 million and 174 FTEs were employed in this fleet segment, contributing to 35% of the total income from landings and 11% of FTEs generated by the Danish fishing fleet. This fleet segment reported a total gross profit of €107 million and total net profit of €59 million in 2015, corresponding to an increase of 45% and 100% respectively compared to 2014. Major reasons for this increase are the significant increases of both price and landings volume of sprat and sandeels.

Demersal trawl / seine 24-40m – 33 vessels make up this segment which operates predominantly in the North Sea and Skagerrak. The fleet targets a variety of species but in particular cod, plaice, saithe, and Northern prawn. In 2015, the total value of landings was around €63 million and 268 FTEs were employed in this fleet segment, contributing to 14% of the total landings value and 17% of the FTEs generated by the Danish fishing fleet. This fleet had a gross profit of €23 million and a net profit of €12 million in 2015.

Demersal trawl / seine 18-24m – 18 vessels make up this segment which conducts fisheries in Skagerrak and Kattegat, the North Sea, and the Baltic Sea, targeting a variety of species but where cod, Norway lobster, plaice, sprat, sandeels, and haddock are the most important. The total value of landings in this segment was €46 million in 2015 and the segment employed 88 FTEs, making up 11% of the total value of landings and 6% of the FTEs generated by the Danish fishing fleet. This segment increased its gross profit from €11 million in 2014 to €26 million in 2015 and increased its net profit from €3 million in 2014 to €18 million 2015.

Polyvalent passive gears 0-10m – In terms of landings value, this is not the most important fleet segment, but this small-scale fishery contains 775 vessels and 137 FTEs, fishing in the coastal waters of Denmark. This corresponds to 56% of the total active fleet and 9% of the total number of full time employed in the active Danish fleet. Their main landings are cod and plaice. Other species include other codfish and flatfish as well as herring and mackerel. The total weight of landings was 4 thousand tonnes, corresponding to a value of landings of €12 million in 2015. Their largely dependencies of cod and plaice makes the fleet sensitive to quota changes of these species.

Drivers affecting the economic performance trends

Overall, 2015 showed increased landings weight and values. The gross- and net profits increased even more, mostly as a result of decreasing fuel prices. Fluctuations in fish prices have large economic effect of the individual fleets, but did not affect the overall performance of the Danish fleet significantly. For the period 2008-2015, there are significant fluctuations in the economic performance indicators and external factors such as fuel prices and fish prices have significant influence of economic indicators such as gross profit margin and net profit margin.

Markets and trade

The trade ban between the EU and Russia may have affected supplies on the world market and thereby prices for Danish fishers usually catching and exporting e.g. Atlantic herring and Atlantic mackerel to Russia.

Management instruments

As reported in the Danish Annual Report on the fishing fleet capacity 2015 (The Danish AgriFish Agency) the number of vessels, tonnage and engine power have decreased since a Vessel Quota Share (VQS) system was put in place in the period 2003-2007. There are indications of a continuous restructuring of the fleet towards fewer, but, on average, larger vessels.

Also as reported in Danish Annual Report on the fishing fleet capacity 2015 (The Danish AgriFish Agency), cod fishery in the Baltic as well as the North Sea and surrounding areas is managed by restricting effort. The period 2003-2015 saw a significant decrease in capacity in the fleets operating in those areas.

TACs and quotas

The quotas of the most valuable species to the Danish fishery were in 2015 the following; European sprat 353 421 tonnes, Atlantic herring 152 630 tonnes, Atlantic cod 30 007 tonnes, Atlantic mackerel 49 562 tonnes, sandeels 305 166 tonnes, European plaice 38 704 tonnes and Norway lobster 6 292 tonnes. The quotas for European sprat, sandeels, European plaice and Norway lobster increased with 98%, 78%, 20% and 5% compared to 2014, while the quotas for Atlantic herring and Atlantic cod decreased with 2% and 8%. The quota for Atlantic mackerel remained on the same level as in 2014 (The Danish AgriFish Agency).

Not all Danish quotas have been utilised completely in 2015. Overall quota utilisation for sprat, herring, cod and mackerel were 86%, 89%, 87% and 94% respectively, while there was significant lower quota utilisation for sandeels (56%), plaice (63%) and Norway lobster (44%). Reasons for low quota utilisation include low catch rates, choke species limitations, marked consideration, and capacity limitations of specific fishing gears, seasons and/or areas.

Status of key stocks

The "Communication from the Commission to the European Parliament and the Council. Consultation on the Fishing opportunities for 2017 under the Common Fisheries Policies" (SWD(2016) 199 final) (European Commission 2016) lists the species that were fished below, at, or above MSY levels. The following species, most relevant to the Danish fishing fleets, are fished at MSY in 2016:

- Herring: The Eastern Baltic Sea (area 25-29), Western Baltic Sea (22-24), the North Sea area IV,
- Cod: Subarea IV (North Sea),
- Norway lobster: Fladen Ground (FU7), Firth of Forth (FU8), Moray Firth (FU9),
- Plaice: Subarea 21-23 (Kattegat, Belts and Sound).

Other important stocks are either fished above FMSY or they lack MSY assessment. The Kattegat cod remains at a low level in 2016, but the biomass has increased since 2009. Mackerel in the North East Atlantic is fished above MSY, but is reduced with 20% according to mackerel management plan between Norway, Faroe Island and EU. Sandeels are fished above MSY in the Dogger Bank area SA1, the South Eastern and Central Eastern North Sea.

Innovation and Development

A potential for increased earnings has been identified by improving the cuts and thus quality of fish on board vessels. Other opportunities for quality and price increases could be to freeze the fish faster, thereby increasing the shelf life on fish products. Furthermore, research on how to improve the utilization of species below the minimum reference size for non-consumption purposes could potentially lead to higher prices and income for these species.

There are currently focus on developing and testing innovative gear technologies that can reduce energy efficiency, improve selectivity etc. As an example, researchers and managers are currently cooperating in the EMFF funded FASTTRACK project to develop new fishing gears that is better suitable to comply with reform of EC and the landings obligation. The H2020 project DISCARDLESS is also doing research related to how to mitigate the effects of the landings obligation and have, among other, developed a gear catalogue of existing sea trials related to innovative fishing technology.

Projections for 2016 and outlook

Management and regulation - The TACs and quotas is the factor, influencing the fleet performance most. A look at some of the most significant changes in the Danish quotas will be used to foresee trends in economic performance in 2017. Among the large quota changes are sandeels, going from approximately 82 000 tonnes for 2016 to 458 000 tonnes in 2017. The sandeels quota is especially interesting for Denmark, because it has 94% of the TAC. The large quota increase will significantly improve the revenue of the Danish pelagic trawlers.

The cod quota in the Western Baltic Sea has declined from 6 248 tonnes in 2016 to 2 444 tonnes. This will affect the small static gear fleet segments. Especially the vessels using polyvalent passive gears below 12 meters will be affected significantly, as cod takes up 35% and 41% of the total landings value for PGP 0-10 and PGP 10-12, respectively.

Another factor of uncertainty in the coming years is the implementation of the landing obligation, which is being implemented as part of the EU's reform of the Common Fishery Policy. The landing obligation may reduce the profitability by inducing higher operating costs and lower catches depending on the related regulation. It could however, also be a source of innovation in the longer term that brings about a more efficient use of the resources. The gradual implementation of the EU wide landing obligation began in January 2015 and data from 2015 and onwards will show any short-term effects of this. How the landing obligation may affect the economic performance in the long term remains to be seen.

Markets and price - The trade ban between the EU and Russia may have affected supplies on the world market and thereby prices for Danish fishers usually catching and exporting, e.g. Atlantic herring and Atlantic mackerel to Russia.

Operating costs -The average fuel prices did not change significantly between for 2015 and 2016. The fuel prices the first 3 months of 2017 has been 14% higher than 2016. Therefore, if we assume that the fuel prices stay at that level, the vessels will experience a minor increase in fuel costs for 2017.

There has been no observed effect on operational costs as a consequence of the landings for 2015 and 2016. Therefore, no significant changes in operational cost due to the landings obligation will be expected for 2017.

Biological/stocks - The socioeconomic consequences of the large increase in the sandeels quota will make a larger turnover for the fishmeal factories. It is uncertain whether the fish meal factories have capacity enough to utilize such a large quota. Although the fish meal factories are not labour intensive, it is expected that employment will increase in the fish meal and oil sector.

MODEL FORECAST

Preliminary results for 2016 forecast a 19% decrease in landed weight, matched by a 1% decrease in landed value. Projections suggest operating costs decrease, most notably energy costs which are estimated to decrease by 21% due to the continued low fuel prices but is partly offset by the loss in revenue and performance results improves slightly in 2016: GVA (+2%), gross profit (+2%) and net profit (+3%).

Results indicate that the Danish fleet operated at a profit in 2016: with an estimated net profit of €109.3 million and a margin of 24%. Positive economic developments can also be seen in GVA to revenue (+3%) and gross profit margin decreases (+2%), but GVA per FTE deteriorated, estimated at €193 thousand in 2016, by 3%.

Any gains in 2016 are slightly offset in 2017 as landed weight decreases further (-12% compared to projected 2016 figures) with value being stable. With fuel costs increasing 16% in 2017, most economic performance indicators deteriorate (e.g. GVA by -2% and gross profit by -4%), the fleet remains profitable with gross and net profit margins of 44% and 25%, respectively. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Data issues

For 2012, 2013, and 2014, the value of fishing rights has been calculated based on all registered privately owned quota shares. Previously the calculation had been based on a sample. The comprehensive data give a much better coverage of the quota value, and have changed the level from €764 million to €1 billion from 2011 to 2014. But the result has to be seen as preliminary, as the shadow prices used in the estimations are based on the calculated gain in profit at the individual level instead of the macro level.

Sources:

European Commission (2016), Communication from the Commission to the European Parliament and the Council. Consultation on the Fishing Opportunities for 2017 under the Common Fisheries Policies, COM(2016) 545 final.

The Danish AgriFish Agency (2016), Danish Annual Report on the fishing fleet capacity 2015.

Table 5.21 Denmark: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	2,813	2,786	2,682	2,663	2,052	2,048	1,956	1,851	*1,343*	*1,326*		-5%	-24%
Number of Inactive vessels_ms	(#)	1,003	1,017	1,043	1,060	515	567	518	459				-11%	-44%
Vessel tonnage	(thousand GT)	78.8	74.4	68.0	67.5	62.2	64.6	68.2	66.3				-3%	-4%
Engine power	(thousand kW)	282.9	269.2	247.4	238.8	212.6	215.2	211.0	208.2				-1%	-13%
Total employed	(person)	1,801	1,694	1,528	1,460	1,472	1,489	1,405	1,330	*1,272*	*1,258*		-5%	-14%
FTE	(#)	2,061	1,854	1,804	1,661	1,558	1,652	1,619	1,570	*1,661*	*1,719*		-3%	-10%
Days at sea	(thousand day)	129.2	127.5	119.4	116.0	109.4	106.2	103.8	96.8	*107.2*	*111.6*		-7%	-16%
Fishing days	(thousand day)	122.5	120.6	112.5	108.5	103.1	102.0	99.2	91.5				-8%	-17%
Number of fishing trips	(thousand)	98.8	96.0	89.3	87.7	82.1	78.7	77.4	71.7				-7%	-18%
Energy consumption	(million litre)	94.1	94.5	94.7	88.1	81.0	91.5	91.7	93.3	*91.8*	*94.6*		2%	3%
Live weight of landings	(thousand tonne)	690.5	773.0	822.3	711.0	499.3	665.0	741.9	865.9	*705.2*	*617.6*		17%	24%
Value of landings	(million €)	366.8	310.3	408.3	427.4	382.8	395.3	380.0	440.3	*437.7*	*435.9*		16%	15%
Income from landings	(million €)	361.9	306.1	411.5	399.5	381.9	394.9	380.1	440.3	*437.7*	*435.9*		16%	17%
Other income	(million €)	14.6	11.7	18.5	8.9	8.1	7.4	5.5	10.7	*10.9*	*10.5*		95%	0%
Direct income subsidies	(million €)	0.2	0.0	0.1	0.2	0.5	0.0	0.1	0.0				-94%	-96%
Income from leasing fishing rights	(million €)				8.3	9.1	25.9	16.5	22.2				35%	49%
Wages and salaries of crew	(million €)	84.7	73.4	84.0	78.1	69.6	73.1	71.3	79.2	*79.9*	*80.2*		11%	4%
Unpaid labour value	(million €)	48.6	43.0	43.1	40.6	37.1	37.1	35.8	35.0	*38.1*	*38.9*		-2%	-14%
Energy costs	(million €)	56.8	36.8	47.9	55.1	57.0	60.9	56.4	42.7	*33.6*	*39.1*		-24%	-19%
Repair & maintenance costs	(million €)	40.7	38.8	41.5	42.3	36.6	38.2	39.5	41.6	*40.5*	*38.7*		5%	5%
Other variable costs	(million €)	35.4	32.4	34.1	32.2	30.3	30.1	30.9	33.2	*34.8*	*35.9*		7%	3%
Other non-variable costs	(million €)	23.8	22.3	22.7	21.3	20.9	20.8	20.4	20.0	*19.5*	*18.6*		-2%	-8%
Annual depreciation costs	(million €)	97.3	89.7	90.8	91.7	92.7	89.2	88.2	90.3	*91.0*	*87.6*		2%	-1%
Rights costs	(million €)	7.8	7.1	12.3	17.6	17.7	19.1	18.3	32.1				76%	126%
Opportunity cost of capital	(million €)	3.2	11.3	3.3	0.1	- 5.1	6.7	5.9	2.8	*1.9*	- *5.7*		-53%	-23%
Tangible asset value (replacement)	(million €)	475.1	458.3	469.4	420.8	519.7	542.8	577.2	607.9	*608.4*	*584.8*		5%	23%
Fishing rights	(million €)	381.8	918.9	785.7	763.8	868.8	969.3	1,008.1	1,060.8				5%	30%
Investments	(million €)	63.4	75.9	24.7	20.4	331.3	109.8	73.5	40.1				-45%	-60%
Financial position	(%)	64.8	60.1	73.2	79.3	58.2	62.5	68.5	64.8				-5%	-3%
Gross Value Added	(million €)	219.8	187.4	283.8	257.5	245.2	252.3	238.4	313.5	*320.2*	*314.2*		32%	30%
GVA to revenue	(%)	58.4	59.0	66.0	63.0	62.9	62.7	61.8	69.5	*71.4*	*70.4*		12%	12%
Gross profit	(million €)	86.5	70.9	156.7	138.8	138.5	142.1	131.3	199.2	*202.2*	*195.1*		52%	61%
Gross profit margin	(%)	23.0	22.3	36.4	34.0	35.5	35.3	34.0	44.2	*45.1*	*43.7*		30%	40%
Net profit	(million €)	- 13.9	- 30.1	62.6	47.0	50.9	46.1	37.1	106.1	*109.3*	*113.1*		186%	272%
Net profit margin	(%)	- 3.7	- 9.5	14.6	11.5	13.0	11.5	9.6	23.5	*24.4*	*25.3*		144%	250%
GVA per FTE (labour productivity)	(thousand €)	106.7	101.1	157.3	155.0	157.4	152.8	147.3	199.7	*192.8*	*182.8*		36%	43%
Return on fixed tangible assets	(%)	- 2.3	- 4.1	14.0	11.2	8.8	9.7	7.5	17.9	*18.3*	*18.4*		140%	179%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

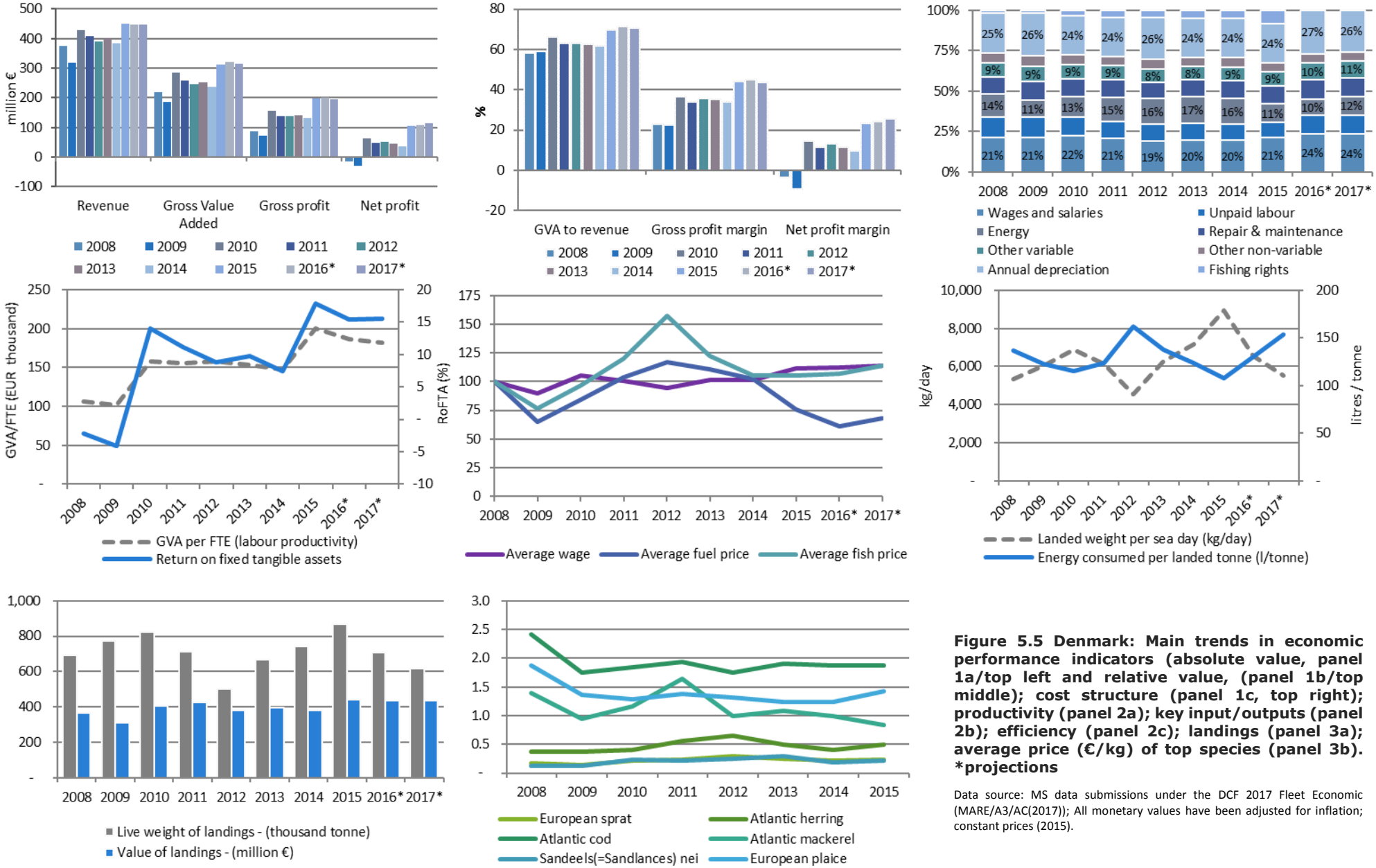


Figure 5.5 Denmark: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.22 Denmark: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14	LSF									Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*				2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	1228	1203	1118	1102	1075	1025	1004	973	947	934		-3%	-12%	582	566	521	501	462	456	434	419	396	393		-3%	-17%
Vessel tonnage	(thousand GT)	4.4	4.3	4.2	4.2	4.1	3.9	3.8	3.8				-2%	-9%	59	60	59	59	56	58	63	61				-2%	4%
Engine power	(thousand kW)	44.9	44.1	44.0	43.7	42.9	41.2	40.9	40.8				0%	-5%	181	178	171	167	154	156	157	156				-1%	-6%
FTE	(#)	379	319	281	276	252	239	225	219	242	254		-3%	-22%	1682	1535	1523	1385	1307	1413	1394	1351	1419	1466		-3%	-8%
Total employed	(person)	420	378	333	342	345	362	307	326	318	309		6%	-8%	1380	1317	1195	1119	1127	1127	1099	1004	954	950		-9%	-16%
Days at sea	(thousand day)					45.6	43.6	42.6	39.5	43.8	46.1		-7%	-10%					63.8	62.6	61.1	57.3	63.4	65.5		-6%	-8%
Fishing days	(thousand day)					45.3	43.4	42.4	39.5				-7%	-10%					57.8	58.6	56.8	51.9				-8%	-10%
Number of fishing trips	(thousand)	55.4	52.6	48.4	49.9	44.9	43.1	42.2	39.1				-7%	-19%	43.4	43.4	40.9	37.8	37.2	35.7	35.2	32.6				-7%	-17%
Energy consumption	(million litre)	3.7	3.7	3.2	3.2	3.1	3.0	2.9	2.6	2.9	3.0		-10%	-20%	90.4	90.9	91.5	84.8	77.9	88.5	88.8	90.7	88.9	91.6		2%	4%
Live weight of landings	(thousand tonne)	12.9	11.8	11.2	12.3	11.8	11.2	11.1	10.2	10.2	10.2		-8%	-14%	677.5	761.2	811.1	698.7	487.5	653.8	730.8	855.7	695.0	607.3		17%	24%
Value of landings	(million €)	32.0	24.8	24.6	26.9	24.9	23.3	21.6	22.2	24.2	25.0		2%	-13%	334.7	285.5	383.7	400.3	358.0	372.0	358.3	418.1	413.4	410.9		17%	17%
Income from landings	(million €)	31.2	23.3	22.8	24.6	25.3	23.6	22.0	22.3	24.3	25.2		2%	-10%	330.7	282.8	388.6	374.9	356.7	371.3	358.1	418.0	413.3	410.8		17%	19%
Other income	(million €)	1.6	1.9	3.5	1.2	2.0	2.4	1.1	1.0	1.0	0.9		-11%	-48%	13.0	9.9	15.1	7.7	6.1	5.0	4.4	9.7	9.9	9.6		122%	11%
Direct income subsidies	(million €)	0	0	0	0	0	0	0	0					-100%	0.2	0.0	0.1	0.2	0.5	0.0	0.1	0.0				-94%	-96%
Income from leasing fishing rights	(million €)				1.6	0.6	1.1	0.7	1.3				102%	31%				6.7	8.5	24.8	15.8	20.9				32%	50%
Wages and salaries of crew	(million €)	3.7	3.1	2.3	3.0	2.6	3.1	2.6	2.5	2.7	2.7		-3%	-15%	81.0	70.4	81.7	75.1	67.0	70.0	68.8	76.8	77.2	77.5		12%	5%
Unpaid labour value	(million €)	17.0	14.2	13.2	11.7	11.4	10.8	10.8	10.4	11.4	11.8		-3%	-18%	31.6	28.8	29.8	28.9	25.7	26.3	25.0	24.6	26.7	27.1		-2%	-12%
Energy costs	(million €)	2.4	1.7	1.8	2.3	2.5	2.2	1.9	1.4	1.2	1.5		-29%	-34%	54.4	35.1	46.2	52.8	54.6	58.7	54.4	41.3	32.4	37.6		-24%	-19%
Repair & maintenance costs	(million €)	5.3	4.2	3.8	4.2	3.8	3.9	3.7	3.4	3.3	3.1		-7%	-18%	35.4	34.6	37.8	38.1	32.7	34.4	35.8	38.2	37.2	35.6		7%	8%
Other variable costs	(million €)	4.5	3.3	3.2	3.1	4.2	3.9	4.0	3.8	4.2	4.4		-5%	2%	30.9	29.1	30.9	29.1	26.1	26.2	26.9	29.4	30.5	31.5		9%	3%
Other non-variable costs	(million €)	3.9	3.5	3.5	3.4	3.7	3.3	2.5	2.6	2.6	2.4		4%	-23%	19.9	18.8	19.2	17.9	17.2	17.5	17.9	17.3	17.0	16.2		-3%	-5%
Annual depreciation costs	(million €)	7.1	5.8	4.7	4.3	4.6	4.1	4.3	3.3	3.3	3.1		-23%	-33%	90.2	84.0	86.2	87.4	88.0	85.1	83.9	87.0	87.7	84.6		4%	1%
Rights costs	(million €)	0.5	0.5	0.5	0.6	1.1	0.8	0.8	1.1				44%	61%	7.2	6.7	11.8	16.9	16.6	18.3	17.5	31.0				78%	129%
Opportunity cost of capital	(million €)	0.3	0.8	0.2	0.0	-0.4	0.5	0.4	0.2	0.1	-0.3		-63%	-45%	2.9	10.4	3.1	0.1	-4.7	6.2	5.5	2.6	1.8	-5.4		-52%	-21%
Tangible asset value (replacement)	(million €)	42.3	34.3	32.4	28.8	37.1	44.2	39.6	33.2	32.4	30.5		-16%	-10%	432.8	424.0	437.0	392.0	482.5	498.7	537.5	574.8	576.0	554.3		7%	26%
Fishing rights	(million €)	6.6	52.1	34.7	40.3	39.6	34.2	33.8	35.6				5%	3%	375.2	866.8	750.9	723.5	829.2	935.2	974.3	1025.2				5%	32%
Investments	(million €)	5.0	3.0	3.0	2.3	7.0	1.9	0.8	0.0				-100%	-100%	58.5	73.1	22.3	20.8	324.3	126.1	93.9	58.9				-37%	-43%
Gross Value Added	(million €)	16.6	12.3	14.0	12.8	13.1	12.7	10.9	12.1	14.0	14.7		10%	-9%	203.2	175.1	269.7	244.7	232.1	239.6	227.4	301.4	306.2	299.5		33%	33%
GVA to revenue	(%)	50.8	49.1	53.4	49.6	48.0	48.8	47.4	51.8	55.2	56.2		9%	4%	59.1	59.8	66.8	63.9	64.0	63.7	62.7	70.5	72.3	71.3		12%	12%
Gross profit	(million €)	-4.1	-5.0	-1.4	-1.9	-0.9	-1.2	-2.4	-0.9	-0.1	0.1		64%	64%	90.6	75.9	158.2	140.7	139.4	143.3	133.7	200.1	202.3	195.0		50%	59%
Gross profit margin	(%)	-12.5	-19.8	-5.5	-7.3	-3.3	-4.5	-10.4	-3.7	-0.3	0.5		65%	59%	26.4	25.9	39.2	36.8	38.4	38.1	36.9	46.8	47.8	46.4		27%	36%
Net profit	(million €)	-11.4	-11.6	-6.3	-6.2	-5.2	-5.8	-7.2	-4.4	-3.5	-2.6		39%	43%	-2.5	-18.5	68.9	53.2	56.1	52.0	44.3	110.4	112.8	115.7		149%	205%
Net profit margin	(%)	-34.9	-46.0	-24.1	-24.1	-19.0	-22.4	-31.0	-18.7	-13.7	-10.1		40%	35%	-0.7	-6.3	17.1	13.9	15.5	13.8	12.2	25.8	26.6	27.5		111%	176%
Return on fixed tangible assets	(%)	-26.4	-31.3	-18.9	-21.5	-14.9	-11.9	-17.0	-12.7	-10.4	-9.6		26%	38%	0.1	-1.9	16.5	13.6	10.6	11.7	9.3	19.7	19.9	19.9		112%	130%
GVA per FTE (labour productivity)	(thousand €)	44.0	38.7	50.0	46.3	51.9	53.1	48.6	55.1	57.8	57.8		-9%	3%	120.8	114.1	177.1	176.6	177.7	169.6	163.2	223.1	215.7	204.3		-4%	5%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.23 Denmark: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
DNK A27 TM40XX	18	174	3,195	67	416,390	155,575	161,039	129,917	80.7	107,195	66.6	59,090	36.69	130.4	745.6	21	High	26%	Improved	35.7%
DNK A27 DTS2440 °	33	268	7,599	246	82,066	63,543	64,445	40,691	63.1	22,626	35.1	11,990	18.60	67.4	151.9	18	Reasonable	492%	Improved	14.3%
DNK A27 DTS40XX	12	88	2,069	77	151,807	46,442	48,402	34,700	71.7	25,742	53.2	17,795	36.76	101.9	394.7	42	High	72%	Improved	10.7%
DNK A27 DTS1824 °	51	222	8,577	135	69,329	44,734	45,338	28,203	62.2	13,196	29.1	6,722	14.83	67.7	127.2	16	Reasonable	1113%	Improved	10.1%
DNK A27 DTS1218	124	216	14,928	315	24,646	33,922	34,083	19,366	56.8	6,700	19.7	1,809	5.31	58.7	89.7	5	Weak	276%	Improved	7.6%
DNK A27 PMP1824	17	120	3,605	540	8,852	22,852	23,007	15,345	66.7	7,886	34.3	4,398	19.12	62.2	128.0	19	Reasonable	158%	Improved	5.1%
DNK A27 PGP0010	775	137	26,367	267	4,388	11,753	12,453	6,526	52.4	- 1,782	- 14.3	- 3,525	- 28.30	60.4	47.5	- 18	Weak	14%	Improved	2.8%
DNK A27 PGP1218	31	72	3,884	287	3,327	9,380	9,500	5,714	60.1	1,576	16.6	- 359	- 3.78	57.3	79.1	- 3	Weak	51%	Improved	2.1%
DNK A27 TM1218	13	27	1,321	38	32,013	8,872	8,872	6,292	70.9	3,795	42.8	2,856	32.19	91.4	230.4	29	High	207%	Improved	2.0%
DNK A27 PMP1218	32	47	3,531	314	6,069	7,974	7,974	4,235	53.1	1,625	20.4	195	2.44	55.8	90.5	2	Weak	134%	Improved	1.8%
DNK A27 DRB1218	21	23	1,805	18	32,764	7,171	7,126	5,418	76.0	3,786	53.1	3,001	42.11	69.9	232.0	34	High	447%	Improved	1.6%
DNK A27 DRB1012	15	19	1,150	21	21,115	6,861	6,869	5,489	79.9	3,923	57.1	3,172	46.18	80.9	283.8	41	High	2314%	Improved	1.5%
DNK A27 TBB1824	18	39	2,375	588	3,482	5,528	5,671	3,219	56.8	1,193	21.0	92	1.62	52.2	83.0	1	Weak	120%	Improved	1.3%
DNK A27 PGP1012	48	43	5,333	247	2,028	4,767	4,993	2,603	52.1	191	3.8	- 468	- 9.37	55.6	60.0	- 8	Weak	50%	Improved	1.1%
DNK A27 PMP1012	33	18	2,883	203	2,790	3,192	3,270	1,709	52.3	600	18.3	- 21	- 0.64	61.3	94.4	- 0	Weak	98%	Improved	0.7%
DNK A27 TBB1218	12	23	1,601	725	1,728	2,987	3,041	1,577	51.9	339	11.1	- 433	- 14.25	54.2	69.0	- 6	Weak	-70%	Deteriorated	0.7%
DNK A27 PMP0010	117	20	4,889	361	957	2,459	2,565	1,213	47.3	134	5.2	- 343	- 13.37	54.1	60.8	- 7	Weak	67%	Improved	0.6%
DNK A27 DTS1012 °	11	8	1,049	160	1,775	1,397	1,397	715	51.1	283	20.2	5	0.33	57.6	95.3	1	Weak	101%	Improved	0.3%
DNK A27 DTS0010	11	5	660	284	380	862	886	524	59.2	192	21.7	82	9.28	61.9	97.8	8	Weak	122%	Improved	0.2%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.24 Denmark: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
DNK A27 TM40XX	19	161	2,958	78	332,253	145,026	150,832	122,312	81.1	101,130	67.0	50,449	33.45	131.3	758.1	16.8	High	33.6%
DNK A27 DTS2440 °	29	260	7,376	312	62,799	62,977	63,766	43,285	67.9	25,381	39.8	16,157	25.34	68.8	166.4	27.5	High	14.2%
DNK A27 DTS1824 °	47	228	8,813	165	58,590	46,098	46,656	30,715	65.8	15,251	32.7	9,332	20.00	67.9	134.8	23.5	High	10.4%
DNK A27 DTS1218	117	291	20,121	490	21,336	46,021	46,176	30,107	65.2	12,923	28.0	8,365	18.12	59.1	103.5	23.1	High	10.3%
DNK A27 DTS40XX	13	65	1,523	76	114,484	35,573	37,659	26,447	70.2	19,586	52.0	11,206	29.76	106.0	408.5	24.7	Reasonable	8.4%
DNK A27 PMP1824	16	141	4,248	584	9,640	26,313	26,456	18,758	70.9	10,169	38.4	6,980	26.38	60.8	132.8	32.6	High	5.9%
DNK A27 PGP0010	753	150	28,824	288	4,442	12,687	13,379	7,465	55.8	- 1,504	- 11.2	- 3,170	- 23.69	59.7	49.7	- 16.7	Weak	3.0%
DNK A27 PGP1218	29	78	4,209	303	3,416	10,054	10,166	6,437	63.3	2,002	19.7	194	1.91	56.6	82.2	2.2	Weak	2.3%
DNK A27 PMP1218	30	56	4,236	420	5,435	9,595	9,595	5,785	60.3	2,645	27.6	1,310	13.65	55.9	103.0	14.9	High	2.1%
DNK A27 DRB1218	20	23	1,805	18	32,764	7,171	7,123	5,545	77.8	3,912	54.9	3,184	44.71	69.9	237.4	38.2	Reasonable	1.6%
DNK A27 TM1218	12	21	993	32	28,515	6,888	6,888	4,778	69.4	2,839	41.2	1,968	28.57	94.5	232.8	20.9	High	1.5%
DNK A27 DRB1012	15	19	1,150	21	21,116	6,861	6,869	5,546	80.7	3,981	58.0	3,246	47.26	80.9	286.8	42.4	High	1.5%
DNK A27 TBB1824	17	37	2,273	1,088	1,803	5,250	5,382	3,256	60.5	1,333	24.8	331	6.14	51.8	87.7	3.6	Weak	1.2%
DNK A27 PGP1012	48	47	5,758	272	1,995	5,059	5,283	2,874	54.4	315	6.0	- 332	- 6.28	54.6	61.3	- 6.1	Weak	1.2%
DNK A27 PMP1012	33	20	3,113	223	2,751	3,433	3,510	1,943	55.4	750	21.4	140	3.99	61.0	99.4	3.8	Weak	0.8%
DNK A27 PMP0010	114	25	6,101	427	1,011	3,046	3,149	1,688	53.6	352	11.2	- 105	- 3.33	53.7	67.9	- 1.9	Weak	0.7%
DNK A27 TBB1218	11	23	1,595	1,533	814	2,810	2,861	1,556	54.4	391	13.7	- 327	- 11.44	51.2	68.4	- 4.9	Weak	0.6%
DNK A27 DTS1012 °	11	9	1,257	209	1,625	1,661	1,661	937	56.4	423	25.5	151	9.08	57.1	104.2	6.7	Weak	0.4%
DNK A27 DTS0010	11	7	841	333	414	1,152	1,176	767	65.3	323	27.5	218	18.54	65.0	112.3	21.0	Reasonable	0.3%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.25 Denmark: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)								Live weight of landings (thousand tonne)								Average landed price (real) (€)								% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015	in value	in weight
European sprat	18.5	27.1	41.5	36.2	27.9	21.6	36.6	72.5	111.9	191.2	185.4	152.3	95.0	86.7	169.9	302.6	0.2	0.1	0.2	0.2	0.3	0.3	0.2	0.2	16%	35%
Atlantic herring	43.2	38.4	36.3	54.4	93.0	74.1	63.6	68.2	116.2	105.0	88.9	97.5	142.5	152.5	155.0	135.6	0.4	0.4	0.4	0.6	0.7	0.5	0.4	0.5	15%	16%
Atlantic cod	57.2	41.7	49.5	51.9	50.1	39.1	41.9	49.1	23.6	23.8	26.7	26.9	28.6	20.5	22.3	26.2	2.4	1.8	1.9	1.9	1.8	1.9	1.9	1.9	11%	3%
Atlantic mackerel	38.1	22.2	48.2	59.2	36.1	36.9	41.9	39.0	27.3	23.5	41.5	36.0	36.6	34.0	42.2	46.9	1.4	0.9	1.2	1.7	1.0	1.1	1.0	0.8	9%	5%
Sandeels(=Sandlances	34.0	37.3	65.6	62.5	13.6	61.3	29.7	36.2	255.2	293.9	284.8	279.3	53.7	209.4	156.1	169.5	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	8%	20%
European plaice	33.0	22.1	23.3	28.8	28.1	27.2	25.9	34.5	17.6	16.1	18.1	20.8	21.4	21.9	20.9	24.3	1.9	1.4	1.3	1.4	1.3	1.2	1.2	1.4	8%	3%
Norway lobster	35.3	28.5	34.3	37.7	29.2	25.4	28.3	25.4	4.3	4.5	4.4	3.8	3.7	3.0	3.5	2.8	8.2	6.4	7.8	10.0	7.9	8.4	8.1	9.1	6%	0%
Northern prawn	6.7	7.7	7.3	9.3	9.5	10.4	10.0	11.8	2.3	2.2	1.3	1.5	1.5	2.1	2.5	2.7	3.0	3.6	5.8	6.1	6.4	4.9	4.1	4.5	3%	0%
Blue whiting(=Poutass	2.9	-	0.0	0.0	0.0	0.8	7.4	10.8	18.1	0.3	0.2	0.2	0.3	2.2	35.3	45.1	0.2	0.0	0.0	0.0	0.1	0.4	0.2	0.2	2%	5%
Blue mussel	6.3	5.2	4.1	5.3	6.5	6.9	7.5	8.4	39.6	38.6	27.9	34.4	39.4	37.5	41.4	45.3	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	2%	5%
																									81%	92%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.6 Estonia

Short description of the national fleet

Fleet capacity

In 2016, the Estonian Baltic Sea fishing fleet consisted of 1 550 registered vessels, with a combined gross tonnage of 5.8 thousand GT and engine power of 31.5 thousand kW. The size of the fleet continued to increase compared to previous years. However, the GT and kW decreased slightly. The reason for this contradiction is the different trends in the large-scale and small-scale coastal fleets. If the number of open sea trawlers decreased by 3 vessels, the SSCF fleet showed an increasing trend (19 boats were added). Due to fishing capacity had been released in large-scale segments, the Ministry of Agriculture have decided to use that capacity to meet the additional need of small-scale fishing boat entry into the register.

Fleet structure

The Estonian Baltic Sea fishing fleet is nationally divided into a large-scale fleet (2% of total vessels in 2016) and a small-scale coastal fleet (98% in 2016). The large-scale fleet operates outside the coastal zone. The fleet is using mainly pelagic trawls and is divided into two size groups (12-18m and 24-40m). The SSCF operates in Estonian coastal waters using mainly passive gears and is also divided into two size groups (0-10m and 10-12m).

Employment

Employment was estimated at 2 242 jobs, corresponding to 485 FTEs in 2015. The number of total employed increased, but the FTE decreased at the same time. It refers to the increase in the number of persons for whom fishing is not the only source of income. The average age of employees was around 50 years.

Effort

An estimated 85 thousand days were spent at sea in 2015. The amount of energy consumed increased 18%, which is related to the increase in the number of days at sea by the large-scale fleet. The 9% reduction in energy costs was a result of the lower fuel prices.

Production

The live weight landed by the Estonian Baltic Sea fleet in 2015 was 59.3 thousand tonnes of seafood, with a landed value of €14.5 million. Although the total weight of landings increased 8% in 2015, the total value of landings remained rather stable. The reason of this was the fall in the average fish price.

In 2015, Atlantic herring generated the highest value (€6.2 million) landed by the Estonian Baltic Sea fleet, followed by European sprat (€4.6 million) and European perch (€2.4 million). In terms of landings weight, Atlantic herring landings were 32.3 thousand tonnes, European sprat 24 thousand tonnes and European perch 1.5 thousand tonnes.

Economic results for 2015 and recent trends

National fleet performance

The Estonian national fleet was profitable in 2015, despite of lower first sales prices for key species. Losses in income were covered mainly by lower fuel prices and a higher catch weight - the herring quota increased by as much as 48% over the year.

Revenue, estimated at €14.7 million in 2015, remained stable. There were not significant changes in landings income nor in other income.

Also the total operating cost remained stable in 2015. When including capital costs, total costs amounted to €13.1 million. Main changes took place in repair & maintenance costs, increase 18.6%, and in other non-variable costs, decrease 29.3%.

Gross Value Added (GVA), gross profit and net profit were estimated at €9.4 million, €3.7 million and €1.7 million, respectively. GVA and net profit increased 0.5% and 4.6%, respectively; gross profit decreased 6.8%. These results do not show significant changes in the economic situation compared to 2014.

The (depreciated) replacement value of the Estonian fleet was estimated at €19 million and investments amounted to €2.6 million, a 67% increase compared to 2014.

Overall, the cost structure has remained relatively constant over the years, with apparent decrease in energy costs.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 24.9%. Net profit margin was estimated at 11.7%, a 4.6% increase compared to 2014.

The Rate of Return on Fixed Tangible Assets (RoFTA) decreased to 9.4%. a 12.5% in comparison to 2014.

Labour productivity (GVA/FTE) continued improved development trend since 2012 when this indicator reached its lowest level between 2008 and 2015.

Fuel consumption per landed tonne and landings in weight per unit of effort (in days at sea) has followed rather decreasing trend compared to 2008.

Socioeconomic impact

The Estonian fish processing industry has been highly dependence on export which share amounts to 70%. Historically the eastern market has been an important destination for sprat and herring. Therefore, there is no doubt that the loss of the Russian market has a socio-economic impact on the Estonian economy to some extent. While most of the sprat and herring caught by the Estonian fleet has been exported in frozen form as raw material, then the loss of the Russian market has main impact on fish freezing companies, but also on fishers who are fishing sprat and herring. For many coastal fishers, herring gives the main part of annual income.

Performance by fishing activity

Large-scale fleet

The large-scale fleet operates outside the coastal zone using mainly pelagic trawls. The fleet targets pelagic species such a sprat and herring, but also cod to a lesser extent. The live weight landed by the large-scale fleet in 2015 was 47.3 thousand tonnes of seafood, with a landed value of €9.1 million. The fleet has been profitable. In 2015, the weight of landings increased 6.6% compared to 2014. At the same time, the value of landings decreased 3.7%. The main reason of this was the fall in the first-sale prices for key species as herring and sprat. Total operating costs decreased due to the 33.9% fall in other non-variable costs and 13.4% fall in energy costs. When including capital costs, total costs amounted to €8.1 million in 2015. Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €6.3 million, €2.5 million and €1 million, respectively. GVA, gross profit and net profit decreased 3.8%, 11.5% and 8.3%, respectively. These results indicate deterioration in the economic situation compared to 2014. The (depreciated) replacement value of the large-scale fleet was estimated at €11.2 million and investments amounted to €1.7 million, increased 174% compared to 2014.

Small-scale coastal fleet

The small-scale coastal fleet operates in Estonian coastal waters using mainly passive gears. The largest catches taken in 2015 were of herring, followed by perch, smelt, flounder, pikeperch, roach and pike. The live weight landed by the SSCF in 2015 was 12 thousand tonnes of seafood, with a landed value of €5.4 million. The fleet has been profitable. Total operating costs increased due to the 24.4% increase in crew costs. When including capital costs, total costs amounted to €4.9 million in 2015. Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €3.1 million, €1.2 million and €0.7 million, respectively. GVA, gross profit and net profit increased 10.5%, 4.7% and 33.4%, respectively. These results indicate improvement in the economic situation compared to 2014. The (depreciated) replacement value of the SSCF was estimated at €7.7 million and investments amounted to €1 million, remained rather stable compared to 2014.

Performance results of selected fleet segments

The 24-40m pelagic trawlers are the most important segment in the Estonian fishing fleet in the Baltic Sea. In 2015 this fleet segment consisted of 26 active vessels accounting for a total of 3 533 GT and 8 528 kW. The number of vessels decreased by two compared to 2014. Employment in 2015 was estimated at 153 jobs, corresponding to 132 FTEs. The segment targets pelagic species such as sprat and herring. The total value of landings was €9 million in 2015. The fleet segment was profitable. GVA, gross profit and net profit in 2015 were estimated at €6.1 million, €2.4 million and €1 million, respectively.

The segment with the highest number of vessels and employment in the Estonian fleet is the 0-10m passive gears segment that operates in the coastal fishery. In 2015, this segment consisted of 1 415 vessels accounting for a total 1 632 GT and 17 518 kW. The number of vessels in this segment increased between 2014 and 2015. The employment in 2015 was estimated at 1 757 jobs, corresponding to 231 FTEs. The fleet targets mostly freshwater species, such as perch, pikeperch, but also marine species such as flounder and herring. The total value of landings was €3.6 million in 2015. The fleet segment was profitable. GVA, gross profit and net profit in 2015 were estimated at €1.7 million, €0.6 million and €0.2 million, respectively.

Drivers affecting the economic performance trends

Changes in first sale fish prices, fuel prices and allowable fishing capacity were the main driving forces behind the economic performance in 2015. The average prices for sprat and herring fell further in 2015 and this affected mainly the performance of large-scale fleet. The decline in fuel prices helped to alleviate the situation. Losses in income also were covered by a higher catch volume - the herring quota increased by as much as 48% over the year.

Markets and Trade

Key species as sprat and herring were mainly landed at Estonian ports, where the catch was sold to fish freezing or processing companies, unless the fishing company itself was engaged in the processing and marketing of fish. Compared to 2014, the proportion of fish landed at foreign parts increased, rising from 3% to 10% of the catch in 2015. Fish was landed in Latvia, Sweden, Denmark, Poland and Finland.

Most of the sprat and herring caught by the large-scale fleet have been sold on the eastern market (e.g. Russia and Ukraine) in frozen form. Cod and flounder, on the other hand, were landed and sold at foreign ports mostly Poland and Latvia. In August 2014, in response to the EU's sanctions, Russia enforced an embargo on most food products originating from the EU, including fish and fishery products. The proportion of the Russian market dropped from 41% in 2014 to less than 1% in 2015. At the same time, exports to Ukraine increased by 54%, which means that 61% of frozen fish originating from Estonia was exported to Ukraine in 2015. Larger quantities of fish were also exported to Belarus, Kazakhstan, Denmark, Latvia and Moldova. In search of new partners, Asian and African countries were considered, as well. The loss of the Russian market influenced the price of sprat and herring. If in 2013 the average first-sale prices of herring and sprat were 23 and 22 cents per kilogram, respectively, then in 2015 an average of 19 cents per kilogram was paid for each species. In 2016, the price of sprat fell further to 18 cents per kilogram.

Management instruments

The main management measures in Estonia are volume quotas (ITQs) in the open water fisheries (trawling) and gear usage quotas (ITE; individual transferable effort) in the coastal fisheries. Fishing quotas are allocated according to the historic fishing rights. The Estonian experience shows that ITQs can be considered an effective method for increasing the allocation of fishing rights to the most efficient enterprises and speeding the process of reducing excessive fleet capacity. The size of the large-scale fleet decreased 52% between 2008 and 2016 (from 64 to 31 vessels). The main reason for that change was capacity reduction to achieve balance between the size of the fishing fleet and fishing opportunities.

TACs and quotas

Herring, sprat and cod are main internationally regulated/managed fish species targeted by the Estonian Baltic Sea fishing fleet. In 2015, the total final quota increased 15% to 65 307 tonnes. The reason for that was a large increase (48%) in herring quota. At the same time, the sprat and cod final quotas declined by 11% each. The quota uptake levels for herring, sprat and cod were 92%, 95% and 10%, respectively. Predicted low profitability rate was the reason for low quota use of cod. In 2016 and 2017, the total final quota remains rather stable.

Status of Key Stocks

International acoustic surveys of pelagic fish stocks conducted in the Baltic Sea in recent years show that stocks have declined mainly in the southern part of the Baltic Sea and that the lion's share of stocks is now located in the central and north-eastern parts of the sea. Thus, the current status of the sprat stock in the economic zone of Estonia can still be regarded as relatively satisfactory. However, it should be noted that fishing prospects still depend on the overall status of the stock in the Baltic Sea, i.e. the relatively better situation in our waters does not automatically mean better fishing opportunities for our fishers.

Unlike sprat, which is treated as a single stock unit, i.e., population across the Baltic Sea, in the case of herring the state of stocks is assessed and advice for exploitation is given for four stock units in different subdivisions of the Baltic Sea. Only two stock units, Central Baltic herring and Gulf of Riga herring, are offering more interest to Estonian fishers. The current status of these herring stocks is regarded as relatively satisfactory.

There is still no commercial cod resource in Estonian waters, and directed fishing for this species is not economically feasible. However, Estonian vessels fish for cod in the Southern Baltic in small quantities.

Perch is the most important species in coastal fishery. The perch catches have been relatively stable in recent years, although according to researchers estimate the perch stock is not managed in the most rational way.

Operational costs

Crew costs, energy costs and repair & maintenance costs were three most important categories of operational costs in 2015. Main changes took place in repair & maintenance costs, increase 18.6%. Crew costs increased 5.6% and energy costs decreased 8.8%. The average fuel price in 2015 was €0.54 per litre, which is €0.15 per litre lower than in 2014. Average fuel prices have been decreasing since 2013.

Innovation and Development

Innovative and development activities are related to modernization of fishing vessels and ports, but also improvements of fishing gears. For example, in order to reduce fuel consumption old trawl nets are replaced with new ones which have lower resistivity. In order to enhance the protection of fish stocks through the implementation of technical measures, the selectivity and fishing capacity of various commercial fishing methods and types of gear are studied in collaboration with local scientists. A study has also been directed to the mitigation of negative impact of seals in the Estonian coastal fisheries using AHD's (Acoustic Harassment Device) and seal-proof netting material.

Projections for 2016 and outlook

According to the preliminary projections the improvement in economic performance will be expected in 2016. The main reason for this is a decrease in fishing effort which in turn affects total operating costs.

The loss of the Russian market is a main driver affecting the economic performance of the Estonian fisheries sector in 2016 and 2017. The difficulties in finding new markets for two key species (sprat and herring) keep the fish at low prices. Although the final total quota for sprat and herring remains stable, then in connection with a marketing problem the fishers cannot

get out the entire quota. The situation has mainly an impact to the performance of large-scale fleet. However, the export capacity should improve in 2018 after the completion of the new fishmeal and oil factory in Estonia at the end of 2017. Increased competition will allow fishers to ask for higher price for raw fish material.

MODEL FORECAST

Preliminary results for 2016 forecast a 2% increase in landed weight, matched by a 1% increase in landed value. Projections suggest operating costs decrease, most notably energy costs which are estimated to decrease by 35% due to the continued low fuel prices. Together with lower other variable costs and capital costs, fostered further economic performance improvements in 2016: GVA (+11%), gross profit (+27%) and net profit (+68%).

Results indicate that the Estonian fleet operated at a profit in 2016: with an estimated net profit margin of 20%. Positive economic developments can also be seen in performance indicators GVA to revenue (+10%), gross profit margin (+26%) and GVA per FTE, estimated at €25 000 in 2016 (+30%).

The 2016 gains are slightly offset in 2017 as increased landings (+5% compared to projected 2016 figures) are counteracted by low prices, resulting in a 1% decrease in value. With fuel costs also increasing in 2017 (+15%), the fleet remains profitable with gross and net profit margins of 29% and 20%, respectively. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Data issues

The data concerning economic variables were collected as listed and defined in Appendix VI of Commission Decision 2008/949/EC. For economic variables included in the Estonian Fisheries Information System (EFIS) (which includes logbook data and the fishing vessel register) data were collected on all members of the population. For other economic variables questionnaires were sent out. It is important to mention that all these surveys have been carried out on a voluntary basis. Due to confidentiality issues, the data for the distant water fleet (DTS VL40XX) are not reported. There were only two owners operating with 4 vessels in this segment in 2015.

Table 5.26 Estonia: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	954	955	939	928	917	1,343	1,514	1,534	*1,550*	*1,552*		1.3%	42.2%
Number of Inactive vessels_ms	(#)	10	18	10	10	9	7	1	2	*4*			100.0%	-78.5%
Vessel tonnage	(thousand GT)	7.6	7.6	7.0	6.4	6.0	6.1	6.0	5.9				-1.8%	-11.6%
Engine power	(thousand kW)	30.3	30.4	28.7	26.9	26.1	30.6	32.1	31.8				-0.9%	8.5%
Total employed	(person)	3,002	1,899	1,948	1,993	2,046	2,046	2,070	2,242	*2,260*	*2,267*		8.3%	4.6%
FTE	(#)	699	541	521	524	540	514	497	485	*413*	*407*		-2.4%	-11.5%
Days at sea	(thousand day)	88.5	93.6	80.3	66.8	63.9	86.8	94.5	84.8	*72.1*	*71.9*		-10.2%	3.4%
Fishing days	(thousand day)	135.7	147.5	125.5	104.2	100.2	143.0	162.9	151.6				-6.9%	15.5%
Number of fishing trips	(thousand)	87.0	92.7	79.7	65.8	63.1	86.4	94.2	84.5				-10.2%	4.0%
Energy consumption	(million litre)	5.4	5.0	4.3	3.9	3.7	2.7	2.8	3.3	*2.7*	*2.9*		18.0%	-17.1%
Live weight of landings	(thousand tonne)	83.5	83.5	79.6	63.4	53.3	54.6	54.8	59.3	*60.7*	*63.9*		8.3%	-12.1%
Value of landings	(million €)	18.4	16.9	14.7	15.1	14.6	15.5	14.5	14.5	*14.6*	*14.5*		-0.1%	-7.3%
Income from landings	(million €)	18.4	16.9	14.7	15.1	14.6	15.5	14.5	14.5	*14.6*	*14.5*		-0.1%	-7.3%
Other income	(million €)	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	*0.2*	*0.2*		8.8%	47.7%
Direct income subsidies	(million €)	0.01	0.01	0.01	-	-	-	-	-					-100.0%
Income from leasing fishing rights	(million €)	0.00	0.01	0.01	0.02	0.04	0.01	0.01	0.01				-18.3%	-37.0%
Wages and salaries of crew	(million €)	5.2	4.9	4.5	4.1	4.3	4.1	4.4	4.7	*4.5*	*4.7*		5.6%	3.8%
Unpaid labour value	(million €)	0.9	0.7	0.8	0.8	0.9	1.0	1.0	1.0	*1.1*	*1.0*		6.5%	15.5%
Energy costs	(million €)	3.8	2.5	2.8	3.2	3.2	2.1	1.9	1.8	*1.2*	*1.3*		-8.8%	-36.6%
Repair & maintenance costs	(million €)	1.0	1.5	1.6	1.8	1.6	2.2	1.4	1.7	*1.7*	*1.7*		18.6%	6.9%
Other variable costs	(million €)	1.7	1.7	1.6	1.2	1.2	1.3	1.3	1.4	*1.2*	*1.2*		5.5%	-2.9%
Other non-variable costs	(million €)	0.6	0.7	0.6	0.7	0.5	0.8	0.7	0.5	*0.5*	*0.5*		-29.3%	-22.4%
Annual depreciation costs	(million €)	1.5	1.8	1.9	1.6	1.3	1.8	1.9	1.9	*1.8*	*1.8*		0.5%	10.3%
Rights costs	(million €)	-	0.05	0.03	0.02	0.04	0.06	0.06	0.06				11.6%	71.0%
Opportunity cost of capital	(million €)	- 0.42	1.51	0.66	0.08	0.08	0.07	0.41	0.06	- *0.08*	- *0.40*		-86.1%	-83.4%
Tangible asset value (replacement)	(million €)	18.9	19.5	20.6	18.9	17.2	18.3	19.2	19.0	*18.6*	*18.6*		-1.0%	0.0%
Fishing rights	(million €)	68.9	67.8	64.8	48.9	39.4	40.5	41.9	45.8				9.2%	-13.9%
Investments	(million €)	1.0	1.1	1.9	2.4	1.6	2.1	1.6	2.6				67.3%	58.1%
Financial position	(%)	17.0	17.0	17.0	17.0	17.0	17.0	17.0	16.0				-5.9%	-5.9%
Gross Value Added	(million €)	11.4	10.6	8.3	8.3	8.2	9.2	9.3	9.4	*10.3*	*10.0*		0.5%	0.3%
GVA to revenue	(%)	61.6	62.4	56.0	54.5	55.5	58.9	63.2	63.5	*69.6*	*67.9*		0.5%	7.8%
Gross profit	(million €)	5.2	5.0	3.0	3.3	3.0	4.2	3.9	3.7	*4.7*	*4.3*		-6.8%	-7.1%
Gross profit margin	(%)	28.2	29.2	20.4	21.9	20.1	26.6	26.7	24.9	*31.3*	*29.3*		-6.8%	0.5%
Net profit	(million €)	4.1	1.6	0.5	1.6	1.5	2.2	1.6	1.7	*2.9*	*2.9*		4.6%	-9.0%
Net profit margin	(%)	22.3	9.6	3.1	10.7	10.5	14.3	11.2	11.7	*19.5*	*19.5*		4.6%	0.4%
GVA per FTE (labour productivity)	(thousand €)	16.3	19.6	15.9	15.8	15.1	17.9	18.7	19.3	*25.0*	*24.6*		3.0%	13.0%
Return on fixed tangible assets	(%)	19.6	16.1	5.4	9.0	9.4	12.6	10.8	9.4	*15.2*	*13.3*		-12.5%	-20.6%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

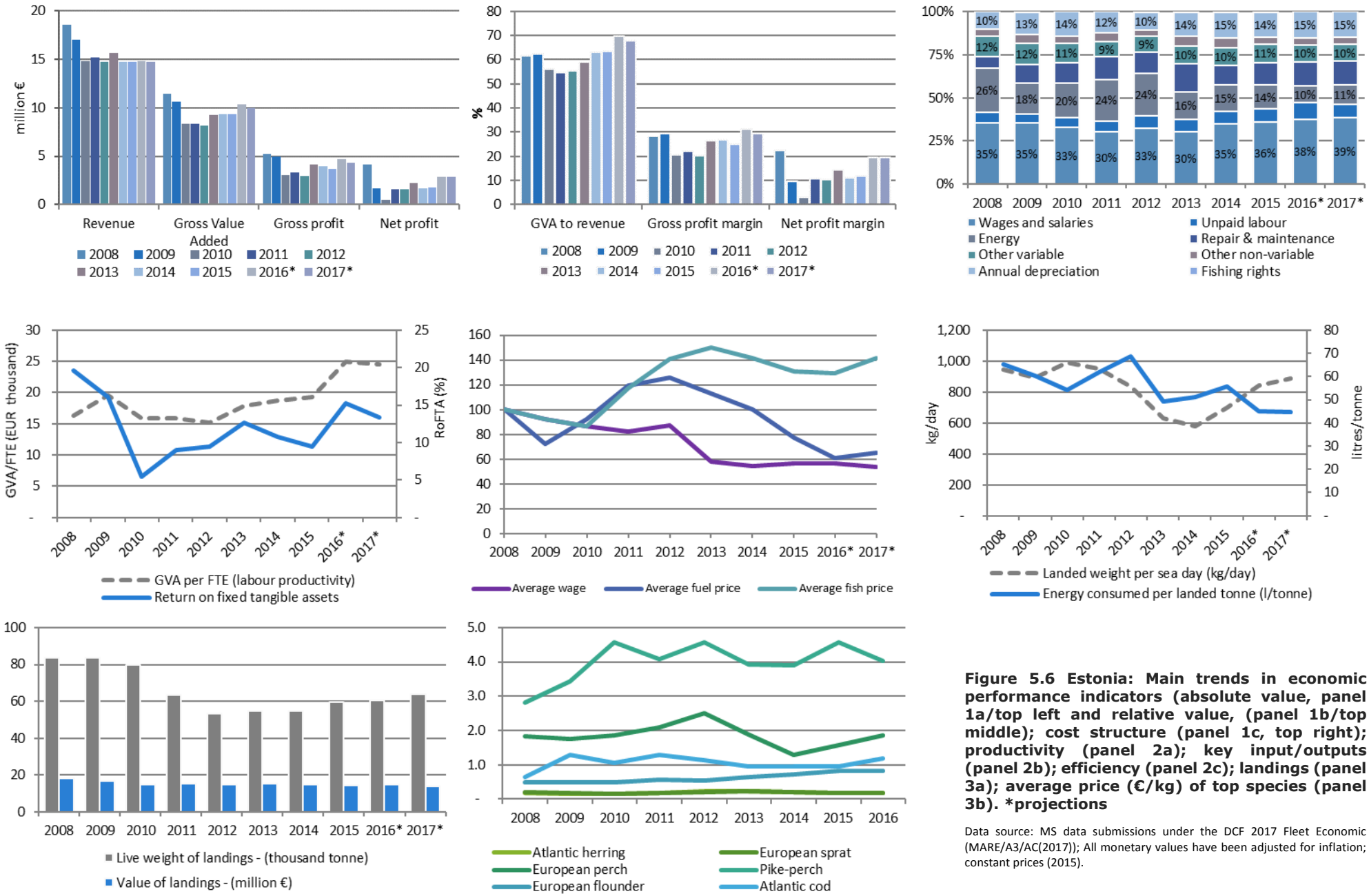


Figure 5.6 Estonia: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.27 Estonia: National fleet statistics and economic performance results by fishing activity. *projections

		SCF												
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	880	884	881	876	872	1,300	1,475	1,498	*1,517*	*1,518*		1.6%	46.3%
Vessel tonnage	(thousand GT)	1.8	1.8	1.8	1.7	1.7	2.0	2.2	2.2				0.5%	19.2%
Engine power	(thousand kW)	14.6	14.6	14.5	14.4	14.6	19.6	22.2	22.2				-0.1%	35.7%
FTE	(#)	444	301	309	320	362	339	333	351	*303*	*290*		5.4%	2.0%
Total employed	(person)	2,727	1,646	1,721	1,777	1,858	1,865	1,895	2,075	*2,099*	*2,100*		9.5%	7.7%
Days at sea	(thousand day)	81.2	87.5	75.1	62.1	59.7	83.5	91.1	81.0	*68.8*	*68.5*		-11.1%	4.9%
Fishing days	(thousand day)	128.8	141.9	120.7	100.1	96.1	139.8	159.7	148.0				-7.3%	16.8%
Number of fishing trips	(thousand)	81.2	87.5	75.1	62.1	59.7	83.5	91.1	81.0				-11.1%	4.9%
Energy consumption	(million litre)	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.7	*0.6*	*0.6*		40.6%	31.4%
Live weight of landings	(thousand tonne)	12.6	14.0	11.2	10.4	8.7	9.6	10.4	12.0	*11.6*	*11.1*		15.7%	9.4%
Value of landings	(million €)	4.1	4.1	3.9	4.2	4.8	5.6	5.1	5.4	*5.6*	*5.1*		6.7%	19.0%
Income from landings	(million €)	4.1	4.1	3.9	4.2	4.8	5.6	5.1	5.4	*5.6*	*5.1*		6.7%	19.0%
Other income	(million €)	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	*0.2*	*0.2*		4.8%	68.9%
Direct income subsidies	(million €)	0.0	0.0	0.0	-	-	-	-	-					-100.0%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	0.6	0.5	0.5	0.5	0.6	0.6	0.7	0.9	*0.8*	*0.8*		24.4%	55.7%
Unpaid labour value	(million €)	0.9	0.7	0.7	0.8	0.9	1.0	1.0	1.0	*1.1*	*1.0*		7.3%	18.3%
Energy costs	(million €)	0.7	0.5	0.7	0.7	0.7	0.6	0.6	0.6	*0.4*	*0.4*		2.2%	-8.6%
Repair & maintenance costs	(million €)	0.6	0.6	0.6	0.6	0.6	1.0	1.0	1.0	*1.0*	*1.0*		1.7%	38.0%
Other variable costs	(million €)	0.4	0.5	0.4	0.4	0.4	0.8	0.8	0.8	*0.7*	*0.7*		3.5%	51.0%
Other non-variable costs	(million €)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	*0.1*	*0.1*		-1.9%	68.5%
Annual depreciation costs	(million €)	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	*0.5*	*0.5*		2.8%	18.7%
Rights costs	(million €)	-	-	-	-	-	0.0	0.0	0.1				14.4%	293.4%
Opportunity cost of capital	(million €)	- 0.2	0.6	0.2	0.0	0.0	0.0	0.2	0.0	- *0.0*	- *0.2*		-85.0%	-82.3%
Tangible asset value (replacement)	(million €)	8.2	7.9	7.6	7.1	6.6	7.2	7.2	7.7	*7.8*	*7.8*		6.8%	3.8%
Fishing rights	(million €)	1.8	1.8	1.7	1.6	1.6	1.5	1.6	1.6				-1.5%	-3.7%
Investments	(million €)	0.3	0.2	0.3	0.3	0.3	1.0	1.0	1.0				1.0%	103.2%
Gross Value Added	(million €)	2.4	2.5	2.1	2.4	3.1	3.4	2.8	3.1	*3.6*	*3.0*		10.5%	15.1%
GVA to revenue	(%)	58.0	60.3	54.3	57.2	63.2	58.0	53.4	55.3	*62.2*	*57.8*		3.6%	-4.2%
Gross profit	(million €)	0.9	1.2	0.9	1.2	1.7	1.8	1.1	1.2	*1.7*	*1.3*		4.7%	-5.1%
Gross profit margin	(%)	20.8	29.6	23.9	27.2	34.2	31.0	21.9	21.5	*29.1*	*24.4*		-1.9%	-20.3%
Net profit	(million €)	0.7	0.2	0.3	0.8	1.3	1.3	0.5	0.7	*1.2*	*1.0*		33.4%	-4.8%
Net profit margin	(%)	16.0	5.3	7.7	17.7	25.7	22.2	9.8	12.2	*21.1*	*18.1*		25.1%	-18.1%
Return on fixed tangible assets	(%)	5.8	10.6	7.2	11.1	19.8	18.1	9.2	9.2	*15.3*	*10.0*		-0.8%	-21.6%
GVA per FTE (labour productivity)	(thousand €)	5.4	8.3	6.9	7.6	8.6	9.9	8.4	8.8	*11.9*	*10.5*		-15.3%	7.4%

		LSF												
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	64	53	48	42	36	36	38	34	*33*	34		-10.5%	-24.9%
Vessel tonnage	(thousand GT)	5.6	5.4	5.0	4.4	4.0	4.0	3.8	3.7				-3.5%	-19.9%
Engine power	(thousand kW)	15.0	13.7	12.9	11.2	10.3	10.1	9.8	9.4				-3.7%	-20.3%
FTE	(#)	255	240	212	204	178	175	164	134	*110*	117		-18.3%	-34.3%
Total employed	(person)	275	253	227	216	188	181	175	167	*161*	167		-4.6%	-22.8%
Days at sea	(thousand day)	7.3	6.1	5.2	4.7	4.2	3.3	3.4	3.9	*3.2*	3.4		14.8%	-20.7%
Fishing days	(thousand day)	6.9	5.6	4.8	4.2	4.0	3.2	3.2	3.6				13.0%	-20.6%
Number of fishing trips	(thousand)	5.8	5.1	4.6	3.6	3.4	2.9	3.1	3.6				16.9%	-12.1%
Energy consumption	(million litre)	4.8	4.5	3.7	3.3	3.1	2.2	2.3	2.6	*2.1*	2.2		12.9%	-24.9%
Live weight of landings	(thousand tonne)	70.9	69.5	68.3	53.0	44.5	44.9	44.4	47.3	*49.1*	52.7		6.6%	-16.3%
Value of landings	(million €)	14.3	12.8	10.8	10.9	9.7	9.8	9.5	9.1	*9.0*	9.4		-3.7%	-17.9%
Income from landings	(million €)	14.3	12.8	10.8	10.9	9.7	9.8	9.5	9.1	*9.0*	9.4		-3.7%	-17.9%
Other income	(million €)	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	*0.0*	0.0		73.7%	-34.2%
Direct income subsidies	(million €)	-	-	-	-	-	-	-	-					
Income from leasing fishing rights	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				-18.3%	-37.0%
Wages and salaries of crew	(million €)	4.7	4.4	4.0	3.6	3.7	3.5	3.7	3.8	*3.8*	3.9		2.1%	-3.6%
Unpaid labour value	(million €)	-	-	0.0	0.0	0.0	0.0	0.0	-	-	-		-100.0%	-100.0%
Energy costs	(million €)	3.1	2.0	2.1	2.5	2.5	1.5	1.4	1.2	*0.8*	0.9		-13.4%	-44.9%
Repair & maintenance costs	(million €)	0.4	0.9	1.0	1.2	1.0	1.2	0.5	0.7	*0.7*	0.7		54.3%	-18.7%
Other variable costs	(million €)	1.3	1.2	1.1	0.8	0.8	0.5	0.5	0.6	*0.5*	0.5		8.4%	-34.8%
Other non-variable costs	(million €)	0.6	0.7	0.5	0.6	0.5	0.7	0.6	0.4	*0.4*	0.4		-33.9%	-31.6%
Annual depreciation costs	(million €)	1.1	1.4	1.5	1.3	0.9	1.4	1.4	1.4	*1.3*	1.3		-0.3%	7.6%
Rights costs	(million €)	-	0.1	0.0	0.0	0.0	0.0	0.0	0.0				-0.1%	-53.9%
Opportunity cost of capital	(million €)	- 0.2	0.8	0.4	0.0	0.0	0.0	0.3	0.0	- *0.0*	- 0.2		-86.8%	-83.3%
Tangible asset value (replacement)	(million €)	10.6	10.9	12.6	11.4	10.3	10.9	11.9	11.2	*10.8*	10.8		-5.9%	-0.2%
Fishing rights	(million €)	67.1	66.0	63.1	47.2	37.8	39.0	40.3	44.2				9.6%	-14.3%
Investments	(million €)	0.6	0.9	1.6	2.1	1.4	1.1	0.6	1.7				173.7%	39.7%
Gross Value Added	(million €)	9.0	8.1	6.2	5.8	5.0	5.8	6.5	6.3	*6.7*	7.0		-3.8%	-5.7%
GVA to revenue	(%)	62.6	63.0	56.6	53.4	51.7	59.4	68.6	68.4	*74.3*	73.6		-0.2%	15.3%
Gross profit	(million €)	4.4	3.7	2.1	2.2	1.3	2.4	2.8	2.5	*3.0*	3.0		-11.5%	-8.1%
Gross profit margin	(%)	30.3	29.1	19.2	19.8	13.0	24.0	29.3	26.9	*32.8*	32.1		-8.2%	14.4%
Net profit	(million €)	3.5	1.5	0.2	0.9	0.3	1.0	1.1	1.0	*1.7*	1.9		-8.3%	-12.3%
Net profit margin	(%)	24.1	11.4	1.5	7.9	2.8	9.7	12.0	11.4	*18.6*	20.4		-4.8%	14.9%
Return on fixed tangible assets	(%)	30.5	21.1	4.5	8.0	3.1	9.1	11.7	9.6	*15.1*	15.7		-17.8%	-23.7%
GVA per FTE (labour productivity)	(thousand €)	35.3	33.8	29.0	28.7	28.3	33.4	39.7	46.8	*60.9*	59.4		19.0%	26.5%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.28 Estonia: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
EST A27 TM2440 °	26	132	3,525	55	46,290	8,952	8,960	6,123	68.3	2,420	27.0	1,011	11.28	28.1	46.4	9.4	Reasonable	9%	Improved	61%
EST A27 PG0010	1,415	231	79,851	157	3,151	3,622	3,778	1,702	45.0	578	15.3	216	5.72	4.9	7.4	4.5	Weak	-64%	Deteriorated	26%
EST A27 PG1012	83	120	1,100	27	8,887	1,767	1,794	1,382	77.0	617	34.4	465	25.90	6.4	11.5	18.2	High	101%	Improved	12%
EST A27 TM1218 °	8	2	336	29	998	190	199	145	72.9	47	23.4	34	17.22	49.4	72.7	24.2	Reasonable	250%	Improved	1%

Table 5.29 Estonia: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
EST A27 TM2440 °	25	108	2,894	43	48,072	8,831	8,839	6,568	74.3	2,914	33.0	1,638	18.5	33.7	60.6	14.9	Reasonable	60%
EST A27 PG0010	1,434	196	67,871	106	3,961	4,149	4,306	2,454	57.0	1,167	27.1	838	19.5	6.6	12.5	15.8	Reasonable	29%
EST A27 PG1012	83	107	978	28	7,631	1,469	1,496	1,155	77.2	519	34.7	386	25.8	6.0	10.8	14.5	High	10%
EST A27 TM1218 °	8	2	334	28	1,023	190	199	149	75.0	51	25.4	39	19.8	49.6	75.1	27.0	Reasonable	1%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.30 Estonia: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Atlantic herring	6.0	5.4	4.3	4.4	5.1	4.8	4.7	6.2	6.4	31.8	33.2	28.9	25.3	22.5	21.9	23.1	32.3	33.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	42%	54%
European sprat	9.7	8.3	7.1	6.4	5.9	6.6	6.0	4.6	4.2	48.6	47.3	47.9	35.0	28.3	29.8	28.5	24.0	23.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	31%	40%
European perch	1.3	1.4	1.6	1.7	1.4	2.3	2.2	2.4	2.6	0.7	0.8	0.9	0.8	0.6	1.2	1.7	1.5	1.4	1.8	1.8	1.9	2.1	2.5	1.9	1.3	1.6	1.9	17%	3%
Pike-perch	0.2	0.2	0.3	0.5	0.7	0.5	0.7	0.4	0.4	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	2.8	3.4	4.6	4.1	4.6	3.9	3.9	4.6	4.0	2.6%	0.1%
European flounder	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.8	1.4%	0.4%
Atlantic cod	0.6	1.1	0.8	1.5	0.8	0.2	0.2	0.2	-	1.0	0.8	0.8	1.2	0.7	0.3	0.2	0.2	-	0.6	1.3	1.1	1.3	1.1	1.0	1.0	1.0	1.2	1.2%	0.3%
European smelt	0.24	0.21	0.16	0.17	0.32	0.52	0.16	0.16	0.26	0.74	0.77	0.45	0.20	0.41	0.52	0.23	0.44	0.70	0.3	0.3	0.4	0.8	0.8	1.0	0.7	0.4	0.4	1.1%	0.7%
European whitefish	0.06	0.05	0.05	0.03	0.06	0.08	0.10	0.09	0.10	0.03	0.02	0.02	0.01	0.02	0.03	0.03	0.02	0.02	2.1	2.2	3.1	2.2	2.8	2.9	4.0	4.4	5.4	0.6%	0.0%
Sea trout	0.03	0.02	0.02	0.04	0.06	0.06	0.04	0.08	0.10	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02	2.4	1.7	1.9	3.3	3.7	4.0	2.9	4.9	4.8	0.6%	0.0%
Northern pike	0.02	0.02	0.03	0.05	0.05	0.09	0.09	0.08	0.07	0.02	0.01	0.02	0.03	0.04	0.07	0.07	0.05	0.04	1.2	1.2	1.2	1.4	1.3	1.4	1.4	1.6	1.6	0.6%	0.1%
																												98%	99%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.7 Finland

Short description of the national fleet

Fleet capacity

The Finnish fishing fleet consisted of 2 717 registered vessels of which 1 140 were inactive in 2015; the active fleet consisted of 1 577 vessels, with a combined gross tonnage of 15.8 thousand GT and a total power of 103 thousand kW. The number of active vessels decreased in 2015 by 187 vessels. At the same time the total number of registered vessels decreased by 427 vessels indicating decrease in the latent capacity.

Fleet structure

The Finnish fishing fleet is dominated by small-scale vessels: 1 513 out of 1 577 (96%) active vessels were operating in small-scale coastal fisheries. However, the 65 trawlers accounted for over two thirds of the total fleet tonnage.

Employment

Total employment in 2015 was estimated at 1 668 jobs. The majority of the jobs are created by the SSCF that is a seasonal fishery. Therefore, the employment in that sector is usually only part-time and in terms of full time equivalent the total fleet added up to 358 FTEs. The number of fishers has been dropping for a long time and the average age of fishers is high. In 2014 the average age of fishers was 57 and one out of ten was older than 70 years and the equal share were under 37 years old. One objective of EMFF Finnish Operational Programme is to make the fishing sector attractive for younger people to recruit into the sector.

Effort

The total effort in 2015 dropped 16% from the previous year to 106 thousand fishing days. The SSCF accounted for over 90% of the total effort. Finnish fleet operates exclusively in the Baltic Sea.

Production

The total weight landed by the Finnish fleet in 2015 was 148 thousand tonnes of seafood, with a landed value of €34 million. The weight of landings remained at the same level as 2014, while the value of landings decreased by nearly 17%. In 2015 the weight of pelagic species landed increased to a record high due to strong herring stocks especially in the most important fishing grounds for Finnish fleet in northern Baltic Sea. The decrease in the value of landings is mainly driven by the value of Baltic herring.

Baltic herring accounted for the highest landed value (€23.1 million), followed by European sprat (€2.1 million). Despite the highest landed weight, the value of Baltic herring decreased by 16%. The main reason for low prices for pelagics was the Russian embargo on EU food stuff as a countermeasure to EU sanctions due to the Ukraine crisis. And Russian markets have always been important for the pelagic fish.

Exceptional unfavourable weather conditions in 2015 had significant influence to the small-scale coastal fisheries: warm winter together with cold summer lead to a drop in catches. The landing weight of the SSCF dropped 21% in 2015. The total value of landings followed that trend with 21% decrease. Small-scale coastal fleet target mostly various freshwater fish species: European whitefish and pike-perch were the most important species for the segment.

Economic results for 2015 and recent trends

National fleet performance

The amount of income generated by the Finnish fleet in 2015 was €36.1 million; 8% drop from the previous year. Income consisted of €34.7 million in landings income and €1.4 million in other income. Profitability deteriorated with decreased revenues; gross value added was €14.9 million, 4% less than the year before. Gross profit decreased also with the revenues of €7.8 million and was not high enough to cover the estimated capital costs of the fleet resulting in a negative net profit (-€8.2 million).

Resource productivity and efficiency indicators

The gross profit margin remained at 21% and together with decrease in revenues the net profit margin of Finnish national fleet was negative. Both the small-scale and the large-scale fleet were making net losses in 2015; €4.1 million and €3.7 million, respectively. The SSCF continued making losses with net profit margin of -42%, the net profit margin of trawler sector remained negative at -15%. The main reason for the deteriorating profitability in the trawler sector resulted from lower prices due to the Russian embargo for EU food stuff. In the small-scale segment there are a large number of low activity vessels and accounting the value of capital of all these vessels turned the segment net profit negative.

Performance by fishing activity

Small-scale coastal fleet

The Finnish fishing fleet is dominated by small-scale vessels: 1 513 out of 1 577 (96%) active vessels were operating in small-scale coastal fisheries. However, the segment account only one fourth of the national total value of landings that is dominated by the pelagic trawler fleet. At the same time the segment employs two thirds of total number of fishers in terms of FTE. Therefore, the segment is really important from the social point of view.

In 2015 landed weight of the segment decreased by 22% and the revenues decreased to €9.6 million. The segment generated €4.5 million of gross value added. However, there are a large number of low activity vessels and accounting the value of capital of all these vessels turned the segment net profit negative.

The profitability of the most active part of the segment is significantly higher than those with low activity. In 2015 the new fishing law, commercial fishing enterprises are defined in two groups: the first category (I) consists of enterprises that are value added tax liable (annual turnover over €8 500); the rest are classified as the second category (II) fishers. The first category fishers are the priority in the fisheries management; and only these enterprises are eligible for EMFF funding.

In 2015 there were only 315 fishing unit in the coastal small-scale segment that exceeded the VAT threshold and categorised to category I. These enterprises accounted for 86% of the total value of landings of the total SSCF segment. Therefore, the average size of a fishing unit in this category is €23 000; significantly higher compared to that for the whole small-scale segment: €6 000. The increase in the average size has a significant impact on the economic performance. Profitability of the most active vessels is significantly higher compared to whole segment due to improve in gross profit margin together with the decrease in capital costs. Therefore, the net profit is significantly higher for this part of the segment: the net profit margin turns to +11%; again significantly higher than that -43% in the small-scale segment. The result proves that the active part of the small-scale coastal fisheries is the most profitable of the Finnish fishing fleet.

Performance of selected fleet segments

The Finnish fleet operates exclusively in the Baltic Sea and is based on two main fisheries: pelagic trawlers and the small-scale coastal fleet. Pelagic trawlers are divided into three segments. The SSCF is highly diversified with a range of vessel types targeting species in waters along the Finnish coastline.

Passive gears 0-10m and 10-12m – The small-scale coastal fleet is the biggest Finnish fleet segment in terms of number of boats with 1 513 vessels in 2015. The SSCF consists of diversified vessels targeting mainly freshwater fish species; European whitefish, pike-perch and perch. In 2015, the total revenue of the small-scale fishery was €9.6 million making a positive gross value added of €4.5 million. Gross profit margin was 32% but it was not high enough to cover the estimated capital costs: the SSCF made losses of €4.1 million.

The coastal fleet is highly seasonal, and there is also a high variation in the activity of the vessels; the 500 most active fishing units make up over 95% of the total landings. These most active vessels are significantly profitable compared to the large number with low activity. However, the overall economic performance of the whole SSCF has been poor for years and continued making losses in 2015.

Pelagic trawlers 24-40m – This fleet is economically the most important. It targets herring and sprat in the Baltic Sea. In 2015 these 23 vessels accounted for more than half of the total value landed by the Finnish fleet and employed 71 FTE. The average vessel revenue was €0.9 million, employing 3 FTEs. The fleet segment generated Gross Value Added of €5.8 million. In 2015 the Gross profit margin was 16% which was not high enough to cover the estimated capital costs and the fleet was making losses totalling €3.7 million with a net profit margin of -20%.

Pelagic trawlers 18-24m – This fleet segment consisted of 14 vessels in 2015 also targeting Baltic herring and sprat. The average vessel revenue was €360 thousand, second highest in the Finnish fleet and average on-board employment is 1.4 FTE. The segment generated €3.1 million of Gross Value Added but was making losses totalling €205 thousand with net profit margin of -4%.

Pelagic trawlers 12-24m – This is the smallest pelagic trawler segment in terms of individual vessel size and consists of 27 vessels. The average vessel revenue was significantly lower than that of the bigger vessels, €100 thousand. An average vessel employed less than one FTE. However, this fleet segment was making positive net profits totalling €130 thousand with net profit margin of 5%.

Drivers affecting the economic performance trends

Most important driver for fisheries is the state of stocks. Due to the strong status of the most important fish stocks for Finnish fleet – pelagic stocks - the total weight of landings in 2015 remained at highest level recorded. However, most fish prices decreased in 2015 resulting in lower value of landings and income. Especially, the downward trend in price of Baltic herring has a significant impact on the Finnish fishing fleet. Fuel costs are major cost item especially for the trawler fleet. The decrease in fuel prices had a positive impact on profitability however the fleet continued making losses.

Markets and trade (including fish prices)

Russia was the main market for Baltic herring and sprat. Therefore, Russian embargo on EU food stuff as a countermeasure to EU sanctions due to the Ukraine crisis has led to decrease in prices of these pelagic species. The prices of Baltic herring and European sprat, which are important species for the Finnish fishing fleet, decreased approximately 14 and 10 percent respectively. On the other hand, prices of European perch, pike-perch and whitefish increased slightly in 2015.

Management instruments and regulation (policy)

The offshore fleet is managed mainly through TACs that are shared between Baltic Sea countries. Apart from salmon the coastal fleet target mostly on freshwater species that do not have quotas but are managed with licences and other time and gear restrictions. From the beginning of 2017 ITQ regime was introduced in the Finnish pelagic fisheries. The allocation of the fishing rights was based on grandfathering. ITQ system will also be introduced into the salmon fishery.

Stock status, TACs and quotas

Pelagic fisheries are the most important for the Finnish fleet by terms of weight and value. Both Baltic herring and sprat stocks were at the MSY level in 2015. Baltic herring stocks are currently exceptionally strong especially in the most important fishing grounds in Bothnian Sea. During 2014 and 2015 the catches of herring have been at the highest level recorded.

The main quota species for the small-scale coastal fisheries is salmon. Salmon quotas have been decreasing during the latest years. However, the most important salmon rivers in the Baltic Sea – river Tornio and river Kalix – show that they are on the recovery path towards MSY.

Operational costs (external factors)

Fuel prices are the most important cost item especially for the larger pelagic trawlers. Fuel price was record high still in 2014 but has halved since then. This will have a positive impact on profitability. The labour costs are the second most important cost item and follows the revenue.

Socioeconomic impact

The number of fishers has been dropping for a long time and the average age has been increasing. The decline in the number of fishers and vessels has been particularly true for the small-scale coastal fishing segment. However, labour input in terms of fulltime employment has remained relatively stable and has even slightly increased in the trawler segments.

Russia was the main market for Baltic herring and sprat. Therefore, Russian embargo has forced Finnish fishers to find alternative markets for pelagic species. The prices of these pelagic species have dropped significantly as landings are now more heavily used as feed.

ITQ system was introduced in the beginning of 2017. In other Nordic countries the implementation of ITQ led to a significant decrease in number of vessels and employment. Similar development may be expected in the Finnish pelagic segment.

Projections for 2016 and outlook

MODEL FORECAST

The landings of the pelagic trawler fleets continued to increase in 2016 and also the value on landings increased. Together with decrease in fuel prices projections implicate improvement of the economic performance: Gross Value Added and Gross profit increased significantly, however not enough to cover the estimated invested capital costs and the large-scale segment was not generating resource rent. Landings of the SSCF continued to decrease in 2016 together with landing value. This led to further deteriorated profitability in the segment.

Overall economic performance for the Finnish fleet is projected to improve even with stable revenue. This is more than offset by declining operating costs, notably declining fuel costs (-16%) and capital costs. While the Finnish fleet remains in negative net profits, gross profits improve and the gross profit margin improves to 26%. However, this was not high enough to cover the estimated capital costs and the fleet is expected to have posted net losses in 2016. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Any gains in 2016 are offset in 2017 with higher fuel prices, increasing energy costs by 33%. The fleet continues to generate positive gross profits, estimated at around €7 million, yet remains in a net loss making position.

Data issues

Capacity, logbook and landings data are derived from sources which are covered by different legislation. All these data are available exhaustively. The bigger vessels are covered by log-books and smaller vessels are covered by the coastal fishing report. However, in the small-scale coastal fisheries the method for correcting non-response was changed in 2014 based the response loss survey. Furthermore, the fishing law reform sanctioned the costal fishing reports mandatory for all small-scale coastal vessels from the beginning of 2015 and therefore the estimation of non-response has been abolished. Therefore, there is a break in the time series relating to the SSCF.

Economic data collection is based on a hierarchical multi-stage survey that combines information from different data sources. The main sources were the central control register on the commercial fishery (includes landings data, the vessel register, and first hand sales of quota species), the financial database in Statistics Finland (SF) and an additional account survey. Starting in 2016, the account data for the coastal fishers is collected by the Natural Resources Institute Finland.

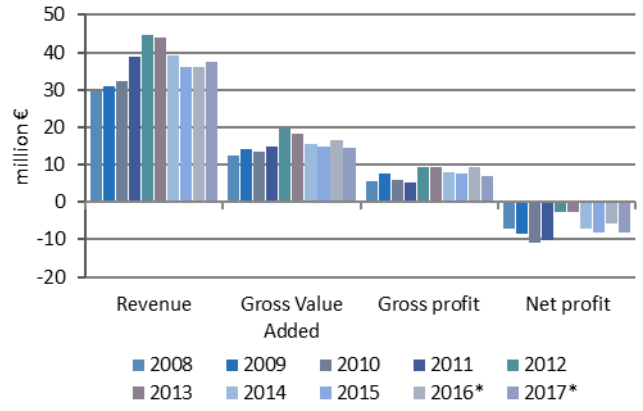
Due to the good coverage of the data collection and an efficient estimation method the achieved precision of the economic variables is satisfactory. However, there is a break in the time series of the number of active vessels in small-scale fishing in 2012 when the recording of active vessels was re-specified and then again in 2014 and 2015 due to the methodological changes described above. Finland has modified the assumptions used in the Perpetual Inventory Method (PIM) regarding

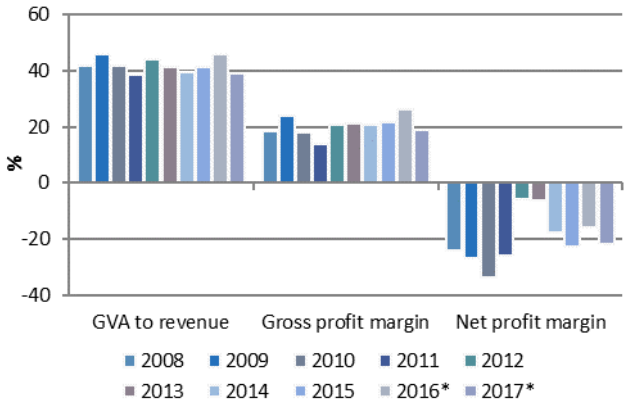
service life of each asset, depreciation rates and share of each asset in total value as well as the price per capacity used. These updates have greatly affected depreciated replacement values and the depreciation reported for the time series, affecting also the net profits of the sector.

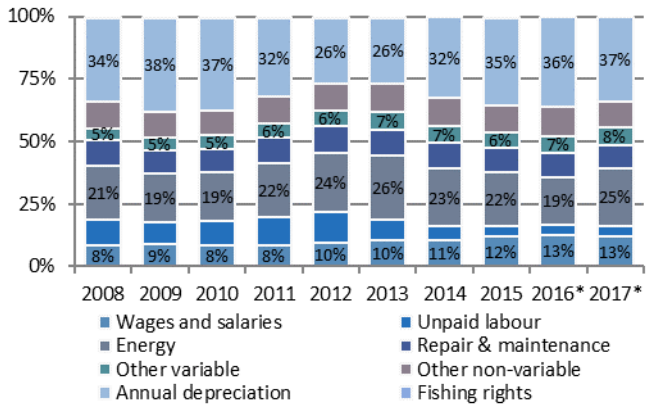
Table 5.31 Finland: National fleet statistics and economic performance results. *projections

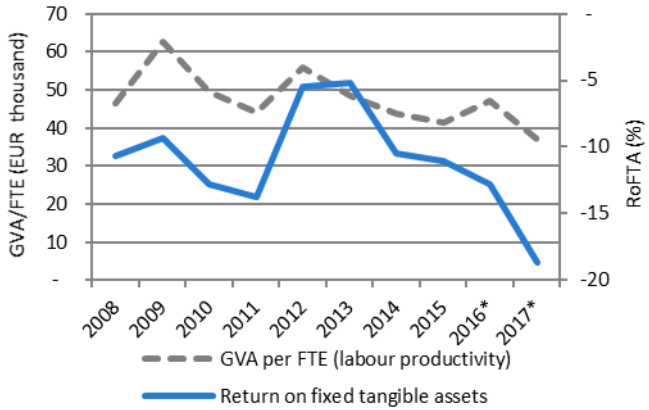
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	3,240	3,240	3,270	3,365	3,359	3,241	3,144	2,717	*1,599*	*1,790*		-14%	-17%
Number of inactive vessels_ms	(#)	1,687	1,709	1,651	1,716	1,407	1,508	1,380	1,140	*1,493*			-17%	-28%
Vessel tonnage	(thousand GT)	16.4	16.9	16.7	18.1	17.0	16.5	16.8	15.8				-6%	-7%
Engine power	(thousand kW)	173.4	174.8	175.4	181.6	178.2	172.6	173.0	155.7				-10%	-11%
Total employed	(person)	1,613	1,607	1,699	1,722	2,033	1,836	1,850	1,668	*1,689*	*1,876*		-10%	-6%
FTE	(#)	264	229	274	338	354	377	355	358	*350*	*395*		1%	14%
Days at sea	(thousand day)	129.5	143.0	149.7	148.2	137.6	137.8	126.4	106.0	*101.2*	*110.6*		-16%	-24%
Fishing days	(thousand day)	128.7	142.4	148.9	147.3	136.8	137.0	125.8	106.0				-16%	-23%
Number of fishing trips	(thousand)	127.3	141.2	147.5	145.6	134.5	134.7	123.1	102.8				-16%	-25%
Energy consumption	(million litre)	11.2	15.7	13.4	13.9	14.2	16.1	15.8	19.2	*20.2*	*24.9*		21%	34%
Live weight of landings	(thousand tonne)	111.6	117.5	122.1	119.7	132.9	138.4	148.2	148.1	*157.0*	*144.9*		0%	16%
Value of landings	(million €)	26.3	26.7	29.3	34.8	36.8	47.1	40.4	33.6	*33.6*	*35.0*		-17%	-2%
Income from landings	(million €)	27.0	27.5	29.3	35.7	39.6	41.5	37.0	34.7	*34.8*	*36.1*		-6%	2%
Other income	(million €)	2.4	3.5	3.1	3.1	5.1	2.6	2.3	1.4	*1.4*	*1.4*		-40%	-57%
Direct income subsidies	(million €)	2.7	1.7	1.5	1.4	1.3	1.1	1.0	1.4				30%	-11%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	3.0	3.3	3.5	4.1	4.7	4.9	4.9	5.2	*5.3*	*5.5*		7%	29%
Unpaid labour value	(million €)	3.8	3.5	4.3	5.5	5.9	3.9	2.5	1.9	*1.7*	*2.0*		-25%	-55%
Energy costs	(million €)	7.8	7.4	8.2	10.7	11.5	12.1	10.7	9.5	*8.0*	*10.6*		-11%	-3%
Repair & maintenance costs	(million €)	3.8	3.4	4.1	4.9	5.1	4.9	4.7	4.1	*4.1*	*4.2*		-12%	-6%
Other variable costs	(million €)	1.7	2.0	2.3	2.9	3.0	3.3	3.1	2.7	*2.7*	*3.2*		-15%	2%
Other non-variable costs	(million €)	3.8	3.9	4.2	5.2	5.3	5.5	5.2	4.9	*4.8*	*4.9*		-7%	3%
Annual depreciation costs	(million €)	12.3	14.3	15.8	15.6	12.6	12.4	14.9	15.3	*15.3*	*15.7*		3%	10%
Rights costs	(million €)	0.2	0.2	0.3	0.3	0.4	0.3	0.2	0.3				20%	-9%
Opportunity cost of capital	(million €)	0.2	1.5	1.0	- 0.2	- 0.8	- 0.2	0.2	0.6	- *0.0*	- *0.5*		272%	138%
Tangible asset value (replacement)	(million €)	63.6	72.6	77.6	74.3	61.3	57.5	64.3	68.8	*44.7*	*46.2*		7%	2%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	10.7	17.4	16.4	11.7	8.5	12.0	17.7	17.6				0%	31%
Financial position	(%)	45.0	50.0	47.0	52.0	50.0	46.0	50.0	48.0				-4%	-1%
Gross Value Added	(million €)	12.3	14.3	13.6	15.0	19.8	18.3	15.5	14.9	*16.5*	*14.6*		-4%	-4%
GVA to revenue	(%)	41.7	46.1	41.9	38.6	44.3	41.5	39.4	41.2	*45.7*	*38.9*		4%	-2%
Gross profit	(million €)	5.5	7.5	5.8	5.4	9.3	9.4	8.1	7.8	*9.5*	*7.1*		-4%	7%
Gross profit margin	(%)	18.5	24.2	17.9	13.8	20.8	21.4	20.6	21.5	*26.3*	*18.8*		5%	10%
Net profit	(million €)	- 7.0	- 8.3	- 11.0	- 10.0	- 2.6	- 2.8	- 6.9	- 8.2	- *5.7*	- *8.2*		-18%	-18%
Net profit margin	(%)	- 23.9	- 26.8	- 33.8	- 25.9	- 5.8	- 6.3	- 17.6	- 22.6	- *15.8*	- *21.8*		-28%	-13%
GVA per FTE (labour productivity)	(thousand €)	46.6	62.5	49.5	44.2	55.9	48.5	43.6	41.5	*47.3*	*36.9*		-5%	-17%
Return on fixed tangible assets	(%)	- 10.7	- 9.3	- 12.8	- 13.8	- 5.5	- 5.2	- 10.5	- 11.0	- *12.8*	- *18.7*		-5%	-14%

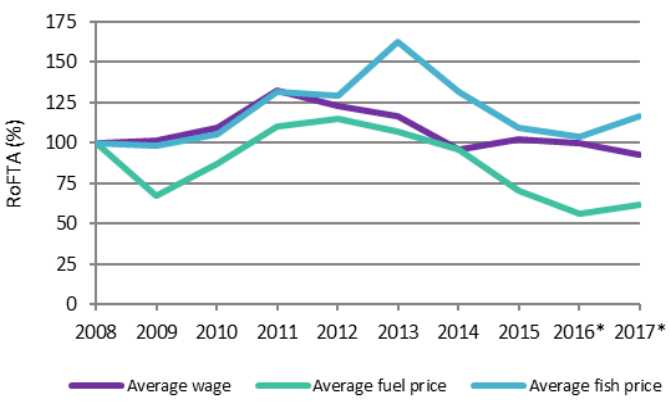
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

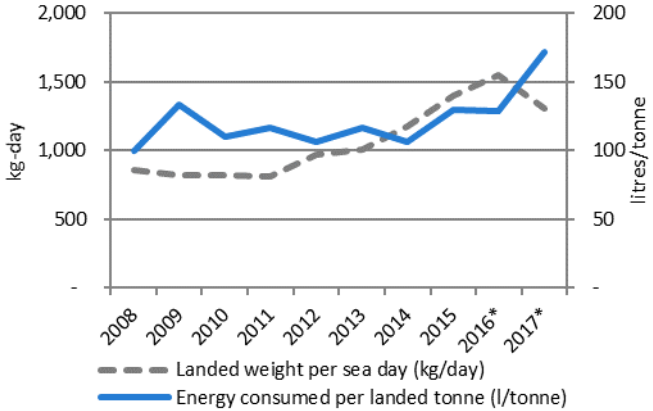


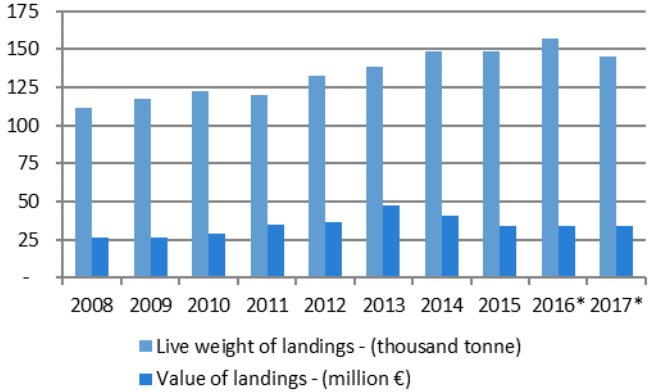












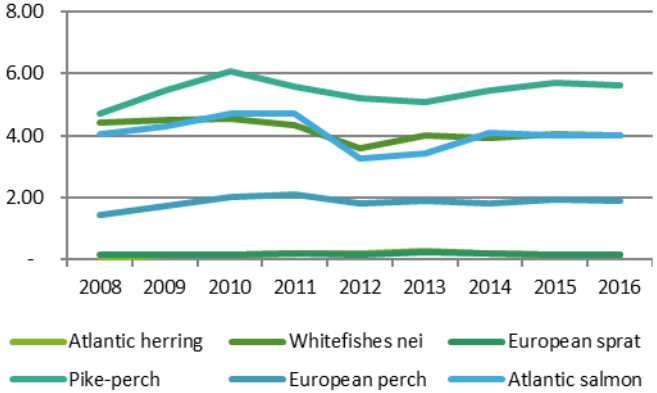


Figure 5.7 Finland: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.32 Finland: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	1486	1465	1559	1589	1890	1674	1699	1513	*1536*	*1728*		-11%	-7%
Vessel tonnage	(thousand GT)	4.1	3.8	4.1	4.2	4.0	3.9	5.5	3.6				-35%	-15%
Engine power	(thousand kW)	71.9	68.8	74.9	75.8	76.5	75.6	77.9	70.1				-10%	-6%
FTE	(#)	178	135	181	230	246	274	251	251	*240*	*260*		0%	18%
Total employed	(person)	1486	1465	1559	1589	1892	1691	1699	1513	*1536*	*1728*		-11%	-7%
Days at sea	(thousand day)	124.0	138.0	145.1	142.8	131.6	131.8	120.1	99.0	*94.0*	*101.8*		-18%	-26%
Fishing days	(thousand day)	123.9	137.8	144.8	142.5	131.3	131.5	119.8	98.9				-17%	-26%
Number of fishing trips	(thousand)	123.8	137.7	144.8	142.4	131.2	131.5	119.6	98.8				-17%	-26%
Energy consumption	(million litre)	2.2	1.5	2.1	1.8	1.8	1.5	1.7	1.5	*1.5*	*1.7*		-10%	-17%
Live weight of landings	(thousand tonne)	8.4	9.4	10.2	10.1	13.1	17.9	14.3	11.1	*9.7*	*11.0*		-22%	-7%
Value of landings	(million €)	8.4	9.2	9.9	11.4	10.8	12.5	11.5	8.9	*7.7*	*9.3*		-23%	-15%
Income from landings	(million €)	9.9	10.2	10.6	11.6	12.2	11.5	11.3	9.2	*7.9*	*9.6*		-19%	-17%
Other income	(million €)	2.2	2.9	2.3	2.2	3.0	1.7	1.8	0.4	*0.4*	*0.5*		-77%	-82%
Direct income subsidies	(million €)	2.7	1.7	1.5	1.3	1.3	1.1	1.0	1.3				29%	-12%
Income from leasing fishing rights	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Wages and salaries of crew	(million €)	0.6	0.7	0.7	0.6	0.9	0.7	0.7	0.6	*0.5*	*0.7*		-14%	-11%
Unpaid labour value	(million €)	2.6	2.7	3.5	4.0	4.5	2.5	1.6	1.1	*1.0*	*1.2*		-30%	-64%
Energy costs	(million €)	1.8	1.0	1.4	1.6	1.7	1.3	1.4	1.0	*0.8*	*1.0*		-26%	-29%
Repair & maintenance costs	(million €)	1.9	1.4	1.9	1.9	2.0	1.7	1.8	1.4	*1.4*	*1.5*		-25%	-24%
Other variable costs	(million €)	0.5	0.7	1.0	1.1	1.1	1.2	1.3	1.0	*1.0*	*1.0*		-26%	-4%
Other non-variable costs	(million €)	2.0	1.9	2.1	2.4	2.3	2.1	2.0	1.5	*1.5*	*1.7*		-25%	-29%
Annual depreciation costs	(million €)	7.4	6.9	7.9	7.1	6.7	6.6	7.5	6.8	*6.8*	*7.7*		-8%	-4%
Rights costs	(million €)	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2				20%	-2%
Opportunity cost of capital	(million €)	0.1	0.5	0.3	-0.1	-0.3	-0.1	0.1	0.2	*0.0*	*-0.2*		216%	146%
Tangible asset value (replacement)	(million €)	23.3	21.7	24.7	22.4	21.1	20.8	23.3	21.1	*21.1*	*23.8*		-9%	-6%
Fishing rights	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Investments	(million €)	7.5	6.5	8.4	5.0	5.3	5.9	8.0	7.2				-11%	8%
Gross Value Added	(million €)	5.9	8.0	6.4	6.7	8.1	6.9	6.6	4.7	*3.7*	*4.8*		-28%	-32%
GVA to revenue	(%)	48.6	61.1	49.9	48.8	53.2	52.0	50.0	49.0	*44.0*	*47.5*		-2%	-6%
Gross profit	(million €)	2.7	4.6	2.2	2.0	2.7	3.6	4.2	3.0	*2.2*	*3.0*		-30%	-7%
Gross profit margin	(%)	22.2	35.5	16.9	14.8	18.0	27.3	32.3	30.8	*25.9*	*29.4*		-4%	29%
Net profit	(million €)	-4.8	-2.7	-6.1	-5.0	-3.7	-3.0	-3.3	-4.1	*-4.7*	*-4.5*		-24%	0%
Net profit margin	(%)	-39.2	-20.7	-47.0	-36.4	-24.0	-22.4	-25.0	-42.3	*-56.0*	*-44.6*		-69%	-38%
Return on fixed tangible assets	(%)	-20.1	-10.4	-23.2	-22.6	-18.6	-14.5	-13.9	-18.4	*-22.1*	*-19.9*		-32%	-4%
GVA per FTE (labour productivity)	(thousand €)	33.1	59.2	35.6	29.1	33.0	25.1	26.1	18.7	*15.3*	*18.4*		4%	-27%

		LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	67	66	60	60	62	59	65	64	*63*	*63*		-2%	2%
Vessel tonnage	(thousand GT)	7.1	7.5	7.6	9.2	8.6	8.3	9.0	9.2				2%	13%
Engine power	(thousand kW)	27.2	27.6	27.1	31.3	30.3	28.8	32.1	32.5				1%	11%
FTE	(#)	86	94	93	108	108	103	104	107	*110*	*136*		3%	8%
Total employed	(person)	127	142	140	133	141	145	151	155	*153*	*149*		3%	11%
Days at sea	(thousand day)	5.6	5.0	4.6	5.4	6.0	6.1	6.3	7.1	*7.2*	*8.8*		13%	28%
Fishing days	(thousand day)	4.8	4.6	4.1	4.8	5.5	5.4	6.0	7.1				18%	41%
Number of fishing trips	(thousand)	3.5	3.5	2.8	3.1	3.4	3.2	3.5	4.1				16%	23%
Energy consumption	(million litre)	8.9	14.1	11.3	12.1	12.4	14.6	14.2	17.7	*18.7*	*23.2*		25%	41%
Live weight of landings	(thousand tonne)	103.1	108.1	111.9	109.6	119.8	120.5	134.0	137.0	*147.3*	*133.9*		2%	19%
Value of landings	(million €)	17.9	17.5	19.4	23.4	26.1	34.5	28.8	24.7	*26.0*	*25.7*		-14%	3%
Income from landings	(million €)	17.4	17.4	18.7	24.1	27.4	30.1	25.7	25.6	*26.9*	*26.5*		-1%	11%
Other income	(million €)	0.2	0.6	0.8	0.9	2.0	0.8	0.5	0.9	*0.9*	*0.9*		108%	14%
Direct income subsidies	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				150%	108%
Income from leasing fishing rights	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Wages and salaries of crew	(million €)	2.4	2.7	2.8	3.5	3.8	4.2	4.2	4.6	*4.7*	*4.9*		10%	37%
Unpaid labour value	(million €)	1.2	0.8	0.7	1.4	1.3	1.4	0.9	0.8	*0.8*	*0.8*		-17%	-33%
Energy costs	(million €)	6.1	6.4	6.8	9.2	9.8	10.8	9.3	8.5	*7.1*	*9.6*		-8%	2%
Repair & maintenance costs	(million €)	1.9	2.0	2.1	3.0	3.2	3.2	2.9	2.8	*2.8*	*2.6*		-4%	6%
Other variable costs	(million €)	1.2	1.3	1.3	1.7	1.9	2.1	1.8	1.7	*1.8*	*2.2*		-7%	5%
Other non-variable costs	(million €)	1.9	2.0	2.1	2.8	3.0	3.4	3.2	3.4	*3.3*	*3.1*		4%	28%
Annual depreciation costs	(million €)	4.9	7.4	7.8	8.5	6.0	5.8	7.4	8.5	*8.4*	*8.0*		15%	25%
Rights costs	(million €)	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0				21%	-30%
Opportunity cost of capital	(million €)	0.1	0.4	0.3	-0.1	-0.2	-0.1	0.1	0.2	*0.0*	*-0.2*		302%	195%
Tangible asset value (replacement)	(million €)	14.7	21.0	21.6	23.8	17.0	16.1	20.7	23.8	*23.6*	*22.4*		15%	24%
Fishing rights	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Investments	(million €)	3.2	10.9	7.9	6.7	3.1	6.0	9.6	10.4				8%	54%
Gross Value Added	(million €)	6.4	6.3	7.1	8.2	11.7	11.4	8.9	10.2	*12.9*	*9.8*		14%	18%
GVA to revenue	(%)	36.6	35.1	36.6	33.0	39.7	37.0	34.1	38.4	*46.2*	*35.7*		12%	7%
Gross profit	(million €)	2.8	2.9	3.6	3.3	6.5	5.8	3.9	4.8	*7.4*	*4.1*		25%	17%
Gross profit margin	(%)	16.1	15.9	18.6	13.3	22.2	18.8	14.7	18.2	*26.5*	*15.0*		23%	6%
Net profit	(million €)	-2.1	-5.0	-4.5	-5.1	0.8	0.1	-3.6	-3.9	*-1.0*	*-3.7*		-9%	-41%
Net profit margin	(%)	-12.1	-27.7	-23.0	-20.4	2.7	0.3	-13.8	-14.7	*-3.8*	*-13.4*		-7%	-10%
Return on fixed tangible assets	(%)	-14.1	-21.6	-19.5	-21.7	3.3	0.2	-17.2	-15.5	*-4.5*	*-17.4*		10%	-20%
GVA per FTE (labour productivity)	(thousand €)	75.0	67.1	76.7	76.4	108.3	110.8	85.9	95.1	*116.8*	*72.2*		-22%	0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.33 Finland: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
FIN A27 TM2440 °	23	71	3,730	165	94,984	17,102	18,777	5,796	30.9	3,039	16.2	- 3,836	- 20.43	38.8	81.6	- 19.5	Weak	-67%	Deteriorated	52%
FIN A27 PG0010	1,456	245	97,812	148	8,213	8,168	8,783	4,579	52.1	2,995	34.1	- 2,850	- 32.45	6.5	18.7	- 15.3	Weak	-14%	Deteriorated	24%
FIN A27 TM1824	14	20	1,753	41	31,041	5,484	5,013	3,114	62.1	993	19.8	- 235	- 4.69	106.0	155.7	- 6.0	Weak	61%	Improved	14%
FIN A27 TM1218 °	27	16	1,644	67	10,977	2,155	2,721	1,265	46.5	783	28.8	161	5.93	30.1	79.0	10.6	Weak	124%	Improved	8%
FIN A27 PG1012 °	57	6	1,196	97	2,915	733	801	117	14.6	- 42	- 5.2	- 1,208	- 150.89	26.4	19.5	- 33.9	Weak	-136%	Deteriorated	2%

Table 5.34 Finland: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
FIN A27 TM2440 °	23	76	3,997	157	107,017	18,737	20,520	8,558	41.7	5,538	27.0	- 1,170	- 5.70	39.7	112.5	- 6.2	Weak	57%
FIN A27 PG0010	1,484	231	92,350	179	6,381	6,667	7,253	3,270	45.1	1,977	27.3	- 3,821	- 52.68	5.6	14.1	- 21.3	Weak	20%
FIN A27 TM1824	13	20	1,734	42	29,950	5,252	4,800	3,118	65.0	1,087	22.6	- 25	- 0.52	102.7	157.6	- 0.8	Weak	13%
FIN A27 TM1218 °	27	14	1,476	64	10,326	1,983	2,531	1,197	47.3	754	29.8	147	5.80	30.9	83.4	8.8	Weak	7%
FIN A27 PG1012 °	52	8	1,651	118	3,310	1,001	1,094	400	36.5	183	16.7	- 853	- 77.93	26.1	48.3	- 26.9	Weak	3%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.35 Finland: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Atlantic herring	13.5	13.4	14.9	19.7	24.0	34.4	27.5	23.1	23.8	83.1	90.3	92.4	97.6	117.2	121.6	130.4	131.4	136.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	68.6%	88.7%
Whitefishes nei	2.9	3.1	2.9	3.0	2.4	2.8	2.6	2.3	1.9	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	4.4	4.5	4.6	4.3	3.6	4.0	3.9	4.1	4.0	6.9%	0.4%
European sprat	3.4	3.5	4.0	3.0	1.6	2.6	2.4	2.1	3.0	24.3	23.2	24.6	15.8	9.0	11.1	11.8	11.9	16.8	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	6.3%	8.0%
Pike-perch	1.5	1.7	2.1	2.7	1.9	1.6	2.0	1.7	1.2	0.3	0.3	0.4	0.5	0.4	0.3	0.4	0.3	0.2	4.7	5.5	6.1	5.6	5.2	5.1	5.4	5.7	5.6	5.0%	0.2%
European perch	1.2	1.1	1.5	2.0	1.8	1.6	1.9	1.4	1.2	0.8	0.6	0.7	0.9	1.0	0.8	1.1	0.7	0.7	1.4	1.7	2.0	2.1	1.8	1.9	1.8	1.9	1.9	4.1%	0.5%
Atlantic salmon	1.3	1.4	1.0	1.1	1.1	0.9	1.0	0.8	0.8	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	4.1	4.3	4.7	4.7	3.3	3.4	4.1	4.0	4.0	2.3%	0.1%
Vendace	0.2	0.2	0.3	0.4	0.5	0.6	0.6	0.5	0.5	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	1.6	2.0	2.2	2.5	2.4	2.5	2.3	2.5	2.5	1.5%	0.1%
Atlantic cod	1.5	1.2	1.3	1.4	1.8	0.5	0.4	0.5	0.2	0.8	0.9	1.0	1.1	1.7	0.5	0.4	0.4	0.1	1.9	1.3	1.2	1.3	1.1	1.2	1.2	1.2	2.1	1.5%	0.3%
Freshwater bream	0.1	0.1	0.2	0.3	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.7	0.7	0.8	1.0	0.9	0.6	0.5	0.3	0.4	0.2	0.5	0.7	0.5	0.5	0.6	0.6	1.1%	0.4%
Northern pike	0.2	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.1	1.3	1.4	1.5	1.6	1.6	1.5	1.6	1.5	0.8%	0.1%
																												98%	99%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.8 France

Short description of the national fleet

Fleet capacity

The national fleet capacity continued to slightly decline in 2015, with a total of 6 911 vessels (including 1 186 of which were inactive), having a combined gross tonnage (GT) of 172 thousand tonnes and engine power of 999.4 thousand kilowatts (kW). If the number of vessels has been decreasing since 2009 by 5%, the national engine power remained globally stable on the period. On a similar way, after a severe decrease between 2008 and 2010 (-12%), gross tonnage remained stable, then growing again in 2014 (+7%), especially due to inclusion in the European fleet register of five purse seiners based in Mayotte (overseas territory) adding 12 thousand tonnes at the national gross tonnage.

The major factors causing the fleet decrease were vessel decommissioning schemes, entry barriers and natural wastage due to age, while average size tended to grow, allowing global engine power and gross tonnage to remain at the same level. Vessels out of age are indeed replaced most of time by larger new vessels.

The proportion of inactive vessels tends to increase (11% in 2009, 17% in 2015). They are mainly made up of less than 12 meter vessels (98%) and mostly based in the French overseas territories (66%), especially in Martinique and Guadeloupe, where they represent 35% of the total number of vessels.

Fleet structure

The French fishing fleet is nationally divided into:

- a small-scale coastal fleet (73% of total active vessels, but only 9% of the whole gross tonnage) which is mainly composed of vessels less than 10 meters long with a large diversity of metiers and an important part of polyvalent vessels. These vessel types are localised in all the French regions, 40% of the SSCF based in overseas territories (outermost region fleet), 33% in Northeast Atlantic and North Sea regions and 27% in the Mediterranean;

- a large-scale fleet (27% of total active vessels) which is mainly made up of vessels using active gears, especially demersal trawlers and dredgers with lengths ranging from less than 10 meters to more than 40 meters. Even though they are active in all the French regions, the major proportion of those vessels is based in North East Atlantic and North Sea regions. As they are most of time larger than SSCF vessels, they represent the major part of the fleet regarding the gross tonnage (65%).

- a distant water fleet[15] composed of 22 tropical purse seiners over 40 meters catching tuna in South Atlantic and Indian Oceans; even if they represent only a small part of the fleet in terms of number, these vessels generate approx. 10% of the national fleet's income.

In 2016, the number of fishing enterprises amounted to 5 824, with the vast majority (87%) owning a single vessel. The percentage of individual companies slightly decreased over the years, at an average rate of -1.7% between 2008 and 2016, while the number of companies owning 2 to 5 vessels tended to increase. This is mainly due to a gradual grouping of ship-owners, to reduce their own costs by economies of scale.

Employment

Employment was estimated at 13 442 jobs in 2015 corresponding to around 6 865 FTEs, distributed as follows: 52% to the small-scale coastal fleet, 44% to the large-scale fleet, and 4% to the distant water fleet. With smaller vessels, the small-scale coastal fleet only displays an average 1.7 jobs per vessel, comparing to 3.9 for large-scale fleet and 26.3 for distant water fleet, whose vessels are larger and have to navigate further into the ocean.

The level of employment decreased between 2009 and 2015, at an average rate of -2.7% per year. After a severe drop between 2009 and 2011 (-26%), employment remained stable on the Mediterranean fleet, around 2 000 jobs. Since 2013, the loss of jobs especially concerns North East Atlantic and North Sea regions.

Effort

An estimated 454.7 thousand days were spent at sea[16], a slim decrease (-2.3%) compared to 2014, especially observed for the SSCF (-28%) while days at sea for large-scale fleet remained stable. Fishing days decreased on a similar way (-3%), with as well a larger decline on SSCF (-6.8%).

After growing in 2014, energy consumption decreased again in 2015 (-1.3%). This is mainly due to distant water fleet (purse seiners operating in South Atlantic and Indian Ocean), which a consumption declining of 8.9%, while Large-scale f-Fleet showed on the other hand a slight increase in 2015 (+0.2%). The major part of fuel is however used by Large-scale Fleet, representing 75% of the whole fleet consumption.

[15] In the AER report, the French distant water fleet takes into account a vessel using hook measuring 33m long.

[16] It does not take into account days at sea for outermost regions (vessels less than 12 meters in overseas territories) and is not comparable to the rest of the fleet of vessels less than 12 meters fishing in the Mediterranean Sea.

Fuel price continued to drop in 2015, reaching an average price of 0.51€/l after 0.65€/l in 2014. This, combined with fuel consumption decreasing, allowed fishers to reduce their energy costs, with a 23% decreases in 2015.

Production

National production has been increasing over the period by 17% in value and increased a further 4% in 2015 reaching €1.15 billion while landings in weight slightly decreased by 2% in 2015 at 518 thousand tonnes of seafood[17] after a constant increase since 2008.

In 2015, 'European hake' landings generated the highest value by the national fleet (€128.5 million), an increase of 35% compared to 2014, thanks to a high weight of landings as in 2014 and an increase in price from €2.3 to €3. The hake is followed by 'monkfish' (€98.1 million), 'common sole' (€72.2 million), 'Great Atlantic scallop' (€69.8 million) and 'yellowfin tuna' (€69.3 million) that decreased by 31% from 2014 to 2015 due to a landing weight decrease and the lowest price (€1.4) since 2010. The increase of 'European seabass' average landed price in 2015 did not counterbalance the 11% decrease of landing weight generating the lowest value of landings since 2010 (€45.5 million). Thanks to its recent recovery and a high price value (€13), the Atlantic bluefin tuna value of landing reached €38 million in 2015.

The total value landed by the French SSCF has been remaining stable since 2012 while the number of days at sea has been slightly decreasing by 7% on the same period. Seafood production by the SSCF represented 82 thousand tonnes with a value of €220 million, comprising respectively 16% and 18.6% of the national fleet[18]. In terms of species, 'sole' generated the highest landed value by the SSCF (€25 million), followed by 'bass' (€24 million), 'whelk' (€19.8 million). Landings weight for 'common sole' and 'European seabass' decreased by more than 20% compared to 2014 while the value of landings decreased by 11% and 14%, respectively. Those species and figures are representative of part of vessels fishing activity in the North Sea and the North East Atlantic but not of the fishing activities in Mediterranean region and overseas territories due to missing data in those regions. Indeed, main species in terms of landings weight in those regions in 2015 are[19]:

- Mediterranean region (total landing weight around 6.5 thousand tonnes (+/-36%) for SSCF): 'gilthead bream', 'Mediterranean mussel', 'mullets', 'European eel', 'sea urchin' and each of them represented between 400 and 1 100 tonnes. 'pilchard' used to be the first species in terms of landing weight until 2013 but is now at the 11th position due to environmental crisis in the recent years as for anchovy;

- French islands of Reunion (total landing weight around 630 tonnes (+/-40%) for SSCF[20]): 'yellowfin tuna' and 'dolphinfish'. The global production is composed of 82% of large pelagic species (longliners) and a great diversity of demersal fishes, small pelagic species and crustaceans. Those figures do not take into account recreational fishing which is very important;

- Martinique (total landing weight around 750 tonnes (+/-68%) for vessels less 10 meters): '*Lambis lambis*, 'blue marlin', 'yellowfin tuna', each of them represented between 50 and 200 tonnes;

- Guadeloupe (total landing weight around 3 000 tonnes (+/-25%) for SSCF): 'dolphinfish', 'Spiny lobsters nei', 'Big eye sqad', 'parrotfishes nei', 'Yellowtail snapper', each of them represented between 150 and 650 tonnes;

- French Guyana (total landing weight around 2 564 tonnes (+/-12%) for SSCF): 'acoupa weakfish', 'green weakfish', 'crucifix sea catfish', each of them represented between 300 and 1 200 tonnes;

The total production landed by the French large-scale fleet slightly decreased in weight (by -2%) from 2014 to 2015 while the value increased by 11% reaching €855 million in 2015. It represented respectively 66% and 75% of the total landings weight and values of the national fleet.

Economic results for 2015 and recent trends

National fleet performance

At the national level, the French fleet has been reaching in 2015 its higher economic performances since 2009, mainly thanks to a high income from landings and a significant fuel price decrease.

Revenue, estimated at €1.2 billion, slightly increased 2% due to a 2% increase in landings income as other income (€16 million) decreased 14%. Direct income subsidies amounted to €13.6 million (no income from fishing rights).

Total operational costs decreased by 20% mainly due to energy costs decrease (by -20%) and also other variable and fixed costs in a lesser extent. In the same time crew costs and repair and maintenance costs increased by 8%.

The cost structure has been following fuel price trends, with some apparent decrease in labour costs and increase in energy costs from 2010 to 2012 and the opposite effect from 2012 to 2015.

Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €651 million, €193 million and €97 million[21] respectively and all increased significantly from 2014 to 2015.

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[17] It does not take into account landings for outermost regions (vessels less than 12 meters in overseas territories) and it is not representative of the whole fleet of vessels less than 12 meters fishing in the Mediterranean Sea and in a less extent in the North Sea and the North East Atlantic.
[18] Those figures are underestimated as only part of SSCF in the North Sea and the North East Atlantic are taken into account.
[19] Weiss Jerome, Lespagnol Patrick, Demaneche Sebastien, Leonardi Sophie, Bourjea Jerome, Evano Hugues, Reynal Lionel, Guyader Olivier, Baulier Loic, Blanchard Fabian, Berthou Patrick, Daures Fabienne, Leblond Emilie, Merrien Claude, Leblond Samuel (2016). Rapport ObsDEB - Estimation 2015 des efforts de pêche et des productions dans les régions Méditerranée continentale, La Réunion, Martinique, Guadeloupe et Guyane.
[20] That does not include 20 longliners <12m.
[21] Net profit is overestimated as capital costs are not available for distant water fleet.

These results indicate an upwards trend for economic performance of the French fleet in 2015 compared to the previous years.

The (depreciated) replacement value of the French fleet remained stable in 2015 at €548 million.

Resource productivity and efficiency indicators

At the national level, despite the decrease of the number of vessels and the number of days at sea, the national landing weight has been increasing over the period 2008-2014 by 21% thanks to increase of average landed weight per vessel and landed weight per sea day until 2014. In 2015, those indicators remained stable compared to 2014, generating a slight decrease in total weight of landings.

In the same time, energy consumption per landed tonne remained also stable in 2015 compared to 2014. The stability of those indicators at the national level combined with significant fuel price decrease and fish price increase explained that the French fleet has been reaching in 2015 its higher economic performances since 2009.

Indeed, the gross profit margin in 2015 was 16.2%, indicating a decent operating efficiency of the sector.

The Rate of Return on Fixed Tangible Assets (RoFTA) increased 63% in comparison to 2014 reaching 18%.

Since 2009, the average wage per FTE increased by 22%, reaching €69.6 thousand in 2015; while labour productivity (GVA/FTE) increased by 41%, amounting €95 thousand in 2015.

Performance by fishing activity

Small-scale coastal fleet

In this section we focus on SSCF as defined by the European Commission[22]. It concerns 2 512 active vessels fishing in North East Atlantic and North Sea regions (1 404 vessels – 56%) or in the Mediterranean region (1 108 – 44%).

The French SSCF economic performances increased in 2015 compared to 2014, mainly thanks to fuel price decrease. However, those performances are relatively comparable to the year 2013[23].

Revenue remained stable compared to 2015, estimated at €220 million, 85% of which were generated by the fishing activity in the North East Atlantic and North Sea regions. In 2015, the average income from landings is €133 000 for a vessel active in the North East Atlantic and North Sea regions while it was €31 000 for a vessel active in the Mediterranean region. The SSCF benefited from the fuel price decrease in 2015 but in a lesser extent than for large-scale fleet as energy cost only represent 7.7% of the income from landings.

Gross value added and gross profit were estimated at €143.6 million and €43.6 million in 2015, and increased by 5% and 17%, respectively, compared to 2014. However, gross profit reached the same value as in 2013. Gross value added to revenue reached 65% in 2015 in the North East Atlantic, the North Sea and the Mediterranean regions.

Distant water fleet

The French industrial fleet of Purse Seiners consisted of 21 vessels in 2015, including the 5 vessels registered on the island of Mayotte. The overwhelming majority of this fleet is made of freezer tuna seiners operating in the Indian Ocean or Atlantic Ocean. The average age of those 21 vessels in this fleet segment was 17.5 years in 2015 and average length was 77.8 meters. The average full time employment is around 26 employees by vessel in 2015 (fishers come both from France and foreign countries (mostly African).

In a general way, year 2015 was marked by difficulties facing tuna activity. The unfavorable market, with the sharp fall in prices of raw tuna, compared to 2014, had a significantly negative impact on the turnover and profitability of the firms.

In 2015, total volumes of landings of tropical tuna amounted almost 93 000 tonnes for the 21 vessels of the fleet segment (a decrease of approximately 7% compared to 2014). Volumes of fish caught are made by seiners operating in the Indian Ocean or Atlantic Ocean. Tuna species caught are yellowfin tuna (YFT – 50.9% of the total volumes of landings), skipjack tuna (SKJ – 42.5%), big eye tuna (BET – 5.5%) and albacore (ALB – 0.3%).

Total values of landings for the whole 21 vessels reached €112.4 million in 2015. According to economic data collected, the three main cost items in 2015 are crew wage, repair and maintenance and energy. They represent respectively 34.5%, 23.1% and 22.9% of the total income in 2015. Increased operating costs (despite less dependence on fuel) combined with the decline in turnover over the period causes a significant decrease of the operating cash flow of this fleet, which becomes negatives in 2015 (-4.7%).

Performance results of selected fleet segments

The French fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the North East Atlantic, but also in the Mediterranean and in more distant fisheries. Indeed, the national active fleet consisted

[22] Vessels measuring less than 12 meters long and using passive gears (DFN, FPO, HOK, PGO, PGP, and PMP).
[23] On the time series 2009 – 2014, we notice a clear decrease of income from landings and economic performances of the small-scale fleet between the periods 2009-2011 and 2012-2014. It can be explained by the implementation in 2012 of a different methodology to sample and estimate economic indicators taking into account the non-answering vessels (that usually are vessels less than 10 meters with a limited fishing activity).

of 99 (DCF) fleet segments in 2015 (DCF gear*length class). Of the 99 fleet segments, 34 with too few vessels to publish data were clustered. There were 1 186 inactive vessels in 2015.

Table contains a breakdown of key performance indicators for the active fleet segments in 2015. A short description of 5 important segments in terms of total landings value or employment is provided below. Some of these segments include one, two or three clustered small segments and economic indicators refer to these combined segments. Generally, these smaller segments only have a marginal impact on the indicators. Other segments are important to the economy of the national sector: the "tropical" purse seiners are discussed in the chapter dealing with long distant fisheries, some segments contain too few vessels, such as pelagic trawlers and demersal trawlers or seiners over 40 meters, others are very heterogeneous such as trawlers and seiners from 24 to 40 m.

Drift and fixed nets 10-12m – 176 vessels make up this segment which operates predominantly in the NE Atlantic (excluding overseas). The fleet targets a variety of species but in particular common sole, monkfish and European sea bass (respectively 41.9%, 7.7% and 6.3% of the total value of landings of this fleet segment). Common sole also represents almost 18.5% of the volume landed by this fleet segment in 2015, and its price per kilogram increased by 13% in 2015 compared to 2014 for this fleet segment. Total income was €50.3 million (landings income and other income) contributing 4.2% to the total income generated from landings in the national fishing fleet. Total operating costs represented almost 80% of income generated by this fleet segment in 2015. This fleet segment produced an increased gross profit of around €10.2 million in 2015 (20.3% of the income) through the reduction of certain costs such as fuel or non-variable costs during the period.

Drift and fixed nets 12-18m – 83 vessels make up this segment (73 in the NE Atlantic and 10 in the Mediterranean excluding overseas). The top two species in terms of value landed in 2015 were common sole and monkfishes in the NE Atlantic (respectively 36.9% and 14.8% of the total value of landings), and common sole and European hake in the Mediterranean Sea (respectively 19.4% and 15.4%). In 2015, total landings value was €44.3 million and around 270 FTEs were employed in this fleet segment, contributing to 3.7% and 4.1% of the total income from landings generated and FTEs in the national fishing fleet, respectively. The NE Atlantic fleet generated a gross profit of around €8.2 million in 2015, which improved significantly between 2014 and 2015. It reaches 19.4% of the income for this Atlantic fleet segment in 2015.

For these two DFN segments, common sole represents a large part of the total value of landings. Despite the improvement in the economic situation of these ships observed in 2015, the high dependence on common sole requires professionals to manage the resource with caution. The fishers therefore adopted a management plan for this species, imposing significant constraints (temporary cessation of activity, increase in mesh size, etc.). However, if the objective is to better manage the species (and expect levels of fishing quotas in line with these measures) and to ensure economic profitability for the companies, the methods of application are not always obvious to adapt for professional fishers.

Demersal trawlers / seiners 12-18m – 156 vessels make up this segment and they are predominantly based in the NE Atlantic (economic analysis exclude 4 vessels operated in Corsica). These vessels target a variety of species. The top three species in terms of value landed in 2015 were Norway lobster, monkfishes and common sole (respectively 33.9%, 11% and 7.4% of the total value of landings of this fleet segment). Total income was almost €83.9 million and 428 FTEs were supported by this segment in 2015, accounting for 7% and 6% of the national fleet income and national fleet FTEs respectively. This fleet segment generated a gross profit of around €13 million in 2015, with a significant increase compared to 2014. Total operating costs amounted to 86.6% of the fleet's income in 2015.

Demersal trawlers / seiners 18-24m – 165 vessels made up this segment in 2015. The vast majority (76%) of these vessels operate in the Atlantic, North Sea and Channel, 16% of the vessels operate in the Mediterranean Sea and 9% in French Guyana (only landings data are available for this region). Depending on the supra region, vessels have different fishing activities in terms of target species or number of days at sea. The vessels operating in the Atlantic, North Sea and the Channel target a variety of species, such as Monkfishes (22.3% of the total values of landings of this fleet segment), squids and common cuttlefish (respectively 8.9% and 5.9%). In the Mediterranean Sea, vessels target hake (20.7% of the total values of landings of this fleet segment), common octopus and squids (respectively 9.5% and 9.4%). In 2015, total income value was €159.9 million and around 694 FTEs were employed, contributing to 13.4% and 10.1% of the total income from landings generated and FTEs in the national fishing fleet, respectively. This fleet segment produced a gross profit of around €20.4 million in the Atlantic area and €0.9 million in the Mediterranean in 2015. Total operating costs represented 86.2% and 92.8% of the income generated by this fleet segment in 2015, in the Atlantic area and Mediterranean Sea, respectively. There is good profitability for the 2015 in Atlantic Area with an improved economic development trend in comparison with 2014.

Those two segments of the French fleet are generally considered as the highest performing segments in terms of landing values (also for the two others DTS fleet segment VL2440 and VL40XX, not analysed here). But the economic situation is very different according to the supra-region observed. In the Atlantic area, values of landings were generally correct in 2015, and proper season was observed for species such as monkfish, Norway lobster or common cuttlefish. On the other side, lack of sardine or anchovy negatively impacted some specialized ports on the Atlantic coast. Furthermore, the introduction of the Landing Obligation in EU fisheries and the negative economic impact that this legislation may entail is difficult to evaluate today. The economic situation in the Mediterranean Sea remains also fragile in 2015 due to the lack of abundance of pelagic species (anchovy, pilchard).

Dredgers 12-18m – 90 vessels, plus 8 dredgers between 18 and 24 m and 1 vessel between 24 and 40m, made up this segment in 2015, which operates exclusively in the North Atlantic. The fleet mainly targets great Atlantic scallop (72.4% of the total value of landings of this fleet segment in 2015) but also a variety of species as common sole or common cuttlefish.

Total income was around €52.5 million in 2015 for all the vessel of the cluster, and around 254 FTEs were employed in this fleet segment, accounting for 4.4% and 3.7% of national fleet and national FTEs respectively. The fleet generated a gross profit of around €9 million, which improved significantly between 2014 and 2015. It reaches 17.3% of the total income during the period. Volumes of landings decreased slightly over the period, but thanks to the increase in the average selling price (€3.45 calculated for the first half of 2015), companies have been able to improve their economic performance. In France the shell season generally begins around the month of October and ends in May of the following year. The fishing zones are open as the season advances. European fishers are all regulated in terms of size, and in France, quotas are then set may be regulated by quotas distributed between vessels, or by suitable fishing times.

Drivers affecting the economic performance trends

Markets and Trade (including fish price)

In France, 35 auctions allowed the sale of fish in 2015. The new conditions offered for sale, with new mechanisms (connected market places, remote sales) are rather positive in France for the fish prices. The top three species in terms of value landed in 2015, and sold in auctions, were monkfish, sole and European hake. Average prices observed increased in 2015, particularly for white fish (hake, cod or seabass). However, depending on the target species, destination markets, vessel operating modes or historical patterns, all vessels do not use this sales method to sell their production. Direct sale is still particularly developed for species such as Great Atlantic scallop or some species of crustaceans.

Regarding foreign trade, the France shows a deficit balance that exceeded €3.3 billion in 2015. France export species like tuna (in Asia), smoked salmon, frozen shrimp, fresh species like cuttlefish, seabass or sole in Italy, Spain, United Kingdom, Belgium, etc. On the other hand, the top three species in terms of value imported in 2015 were salmon (Norway), frozen shrimp and tuna, from multiple countries.

Management instruments and regulations (policy)

The French fleet is managed through several management tools, as TACs and quotas related to the area and fishing stock, fishing license or multiannual management plans under national regulations. Each plan or fishing license (assigned to the pair "vessel*owner") target a particular species or a type of gear in a specific area. They specify the field of application and all the corresponding technical requirements as:

- Gear type and dimension (meshing);
- Vessel size;
- Depth;
- Exemptions (for instance if catches are below a threshold by year of meshing above a threshold);
- Fishing prohibition area or season (for instance spawning area for Eastern English Channel sole, spawning season for netters targeting sole in Bay of Biscay or season for swordfish in the Mediterranean Sea);
- Maximum catches by year (for instance 20 tonnes for anchovy in Bay of Biscay for trawler and seiners) or minimum catches by year to keep the licence (for instance, 200 kg for bluefin tuna).

As an example, in 2015, stocks of cod, common sole, monkfishes, European hake, anchovy, bluefin tuna, Norway lobster and plaice required a specific fishing licence as well as large pelagic, demersal species in North East Atlantic. Some specific fishing licences are also required for recreational fishing activities as bluefin tuna or swordfish in Mediterranean Sea (seasonal fishing prohibition). Some restrictions are implemented to protect vulnerable habitats as corals from pelagic gears. In the Mediterranean Sea, specific management plans have been implemented for trawlers (including "ganguis", dredgers and seiners.

Regional plans also exist, set up by professionals in their area to limit some fleets fishing effort, as the measures governing netters in "North Atlantic Ocean - Western Channel", "Eastern Channel – North Sea" or "south Sea - Atlantic".

The fishing effort adjustment measures, with the exception of aid for permanent cessation of activity, tend to stabilize the maximum effort of the French fishing fleet. The fishing effort does not increase, but causes a mutation of vessel activities. Fleets groupings are observed in order to pool the available fishing effort and fishing quotas allocated to France.

Concerning discard ban, there is still uncertainty on the impacts of this regulation in the medium term even though *de minimis* exemptions were set. Fishers fear that the discard ban will have a large impact on their profitability in terms of lower revenue due to low value species, higher operational costs (labour, storage, and ice), capacity problems on board and choke species in mixed fisheries, that is by-catch species for which available quota is insufficient to cover catches.

Stock status, TACs and quotas

Status of some Key Stocks

We focus on the top eight species that reached 50% of French value of landings in 2015 and matched with 29 stocks, 16 main stocks for France:

European hake (3 stocks, 1 main stock for France): **good news for North East Atlantic stocks**
The **main stock (IIIa,IV,VI,VII,VIIIabd)** was still exploited below Fmsy in 2015 with increasing biomass while stocks in South bay of Biscay-Portuguese waters (VIIIc,IX) and Mediterranean sea (37.GSA7) were still exploited above Fmsy. An increase biomass and a decreasing fishing mortality are expected for both North East Atlantic stocks for 2016 while the contrary is expected for the Mediterranean stock.

Monkfishes (4 stocks, 2 main stocks for France): **good news for North East Atlantic stocks**

Common monkfish (VIIb-k,VIIIabd) was exploited below Fmsy in 2015 with stable biomass expected for 2016. Even though the evaluation was not as accurate for **blackbellied angler (VIIb-k,VIIIabd)** and monkfishes (IIIa,IV,VI), they seem also to be exploited below Fmsy in 2015 with a lower and higher biomass expected in 2016. No evaluation is available for the Mediterranean stock.

Common sole (8 stocks, 4 main stocks for France): **mixed stocks status in North East Atlantic with still room for improvement**.
The **Eastern English Channel stock (VIId)** has been exploited above Fmsy between 2013 and 2015 with increasing fishing mortality and decreasing biomass. The same trends are expected for 2016. The biomass for the **Bay of Biscay stock (VIIIabd)** was equal to the reference biomass in 2015 while fishing mortality was still above Fmsy. A decreasing biomass is expected for 2016. The **North Sea stock (IV)** was exploited below Fmsy for the first time between 2013 and 2015 with good trends expected for 2016. The **Western English Channel stock (VIIe)** was still in a good status in 2015 with fishing mortality below Fmsy and biomass above reference biomass and stable status for 2016.

Great Atlantic scallop (4 stocks, 2 main stocks for France): **mixed stocks status in the English Channel with still room for improvement**.
The **Eastern English Channel stock (VIId)** was still exploited above Fmsy in 2015 with higher fishing mortality and lower biomass expected for 2016. The **Western English Channel stock (VIIe)** was exploited below Fmsy with higher biomass trend expected for 2016.

Yellowfin tuna (2 stocks, 2 main stocks for France):
The **stock in Indian Ocean (51+57)** was still exploited above Fmsy in 2015 but in a lesser extent than in 2014. The **South East Atlantic stock (47)** was exploited below Fmsy in 2014 with a biomass below the reference biomass.

European seabass (2 stocks, 2 main stocks for France): **mixed stocks status in North East Atlantic with still room for improvement**.
The **North Sea / Irish Sea / English Channel / Celtic Sea stock (IVbc,VIIa,d-h)** was still exploited above Fmsy in 2015 with a decreasing trend for biomass also expected for 2016. The **Bay of Biscay stock (VIIIab)** was exploited above Fmsy in 2014. Increase in biomass is expected for 2016. No evaluation is available for the **Mediterranean stock**.

Norway lobster (4 stocks, 2 main stocks for France): **good news for North East Atlantic stocks**
The **Bay of Biscay (VIIIabde)** and the **Celtic Sea (VIIgh.FU20-21)** stocks were still exploited below Fmsy in 2015 with stable biomass expected for 2016.

Bluefin tuna (1 stock): **good news with the recovery of the stock**
The evaluation for 2013 revealed that **the stock (27+37)** was exploited below Fmsy with a biomass above the reference biomass.

The **stocks of pilchard and anchovy in Mediterranean Sea (37.GSA7)** had a biomass below the reference biomass in 2014 and 2015. However, an increase was expected for 2016 for pilchard.

TACs and quotas

Total available quota (TAC) for the French fleet in 2015 was 355 thousand tonnes (an increase of 13% - 40 000 tonnes compared to 2014). In 2016 there was also an increase of French TAC in a lesser extent (4% - 14 000 tonnes).

Looking at the main species for France in terms of value of landings, the quota trends between 2014 and 2015 showed:

- **An increase** for **European hake** (11% - 5 300 tonnes), **bluefin tuna** (18% - 490 tonnes) and **monkfishes** (5% - 1 400 tonnes). In 2016, the quotas for those species further increased reaching +20% for European hake;
- **Stability** for **Norway lobster**, **common sole** (VIIIab, VIIe, IVc). In 2015, 99% of the quota for sole in Bay of Biscay was consumed. In 2016, the quota decreased by 10% for the sole in the Bay of Biscay (VIIIab) while it increased by 12% for sole in Western English Channel (VIIe) and North Sea (IVc);
- **A decrease** for **yellowfin tuna** (-35% - 2 500 tonnes) and **Eastern English Channel sole** (-28% - 730 tonnes). In 2016, the quota for yellowfin tuna remained stable compared to 2015 while the quota for Eastern English Channel sole slightly decreased by 6%.

Looking at pelagic species, 2015 was a good year in terms of quotas compared to 2014 for Atlantic mackerel, blue whiting and herring as quotas increased by 3 200 tonnes, 8 000 tonnes and 6 400 tonnes all areas combined respectively. In 2016, if quotas for herring further increased by 4 700 tonnes, quotas decreased for Atlantic mackerel (- 7 000 tonnes) and blue whiting (-500 tonnes).

Among the 136 stocks under TAC exploited by the French fleet in 2015, 11 stocks (8 species) presented a quota uptake higher than 90% with an adapted quota higher than 1 000 tonnes:

- Sole (Bay of Biscay);
- Cod (I, IIb);
- Saithe (IIa (EC waters), IV and VI; EU and international waters of Vb; international waters of XII and XIV);
- Rays (EC waters of VIII and IX and EU waters of VIa-b and VIIa-c, e-k);
- Haddock (VIIb,c,d,e,f,g,h,j,k,VIII,IX,X; EC waters of CECAF 34.1.1);
- Herring (IVc, VIId and EC and Norwegian waters of IV North of 53°30'N.);
- Whiting (ICES sub-area VIII - Bay of Biscay);
- Blue whiting (ICES I, II, III, IV, V, VII, VIIIabde, XII and XIV (EC and international waters)).

Operational costs (external factors)

As in previous years, the major cost items were labour and energy in 2015, estimated at 45.7% and 16.1% of the total operating costs, respectively. Even though the first half of 2015 was marked by an increase in the price of fuel, which could exceed 55 cents, the second half of the year saw the price decrease, sometimes fewer than 35 centimes at the end of the

year 2015. Thanks to this evolution, total operational costs decreased by 2% mainly to due to energy costs decrease during the period.

In the same time crew costs and repair and maintenance costs increased by 8%. For the first cost, the increase is partly explained by the fall in the price of fuel, which positively impacts the salaries of fishers by the system of remuneration to the share of fishing.

For the second cost, higher maintenance and repair costs negatively impact profitability. Indeed, during an overall economic situation that is improving, fishing companies tend to anticipate spending on repairs. These expenses are frequent, particularly in the case of an aging fishing fleet.

Socioeconomic impact

The size of the French fleet and consequently the total employment continue to decrease worryingly in 2015. The fishing fleet is composed mainly by older vessels, which may have a negative impact on the economic profitability of fishing enterprises.

Nevertheless, for several years, and thanks to favorable economic factors, the overall economic situation of French fishing sector has improved. Indeed, since 2013, fuel prices have been decreasing and efforts have been made to reduce average fuel consumption leading to proportionally lower energy costs. Fish prices for some key species have also increased leading to better wages for the crew members. The remaining fleet appears to be returning to levels of profitability not achieved for many years.

Despite those favorable economic conditions, fishers are worried about the uncertainties surrounding their sector of activity, which can have a serious impact on their economic viability in the short term. Among them:

- Quotas and fishing rights. Fishers are particularly concerned about quotas for common sole, European seabass or even whiting. Many of them would like to have a multiannual quota management for such strategic species, which would allow a better visibility for the sector.
- The landing obligation and the socioeconomic impact that it will likely entail, also worries fishers, who expect increased problems from her extension. Technical and behavior adaptations may lead to a reduction in profitability (which reduces the incentive to focus on selectivity), but it is difficult to measure precisely today.
- The difficult renewal of vessels and generations of fishers. Investment in new vessels becomes a key element for the fisheries sector to ensure the economic sustainability of the fleet. The number of new vessels built has increased in recent years thanks to better economic prospects. However, it is still difficult for many companies to recruit fishers. In some ports, the use of foreign labour (for example, African fishers) is the only way to reach the required number of workers on board.
- Access and conditions for the sharing of fishing areas. The number of users of the sea is increasing, and requires professional fishers to adapt themselves to those new constraints (renewable marine energies like offshore wind farm, protected or prohibited fishing areas, access negotiations with other countries, etc.). Fishers will have to be able to adapt their fishing strategy, with the obvious socio-economic consequences.

Therefore, the sector has many challenges to overcome in the coming years, and fishers will have to adapt to ensure their sustainability in this uncertain economic environment.

Projections for 2016 and outlook

Firstly, if the year 2016 is marked by a global increase of French TAC by 4% (14 000 tonnes), the reduction of quotas for key species such as common sole in the Bay of Biscay and Atlantic mackerel is a source of concern for fishers. Regarding auctions sales, the year 2016 shows stability compared to 2015. However, regional disparities are important, and economic performance differs significantly between fleet segments and supra regions. 2016 will generally be more difficult for the vessels located on the North Sea Channel coast than in Brittany. In the Bay of Biscay, the Norway lobster season will be particularly good, offering regular volumes to buyers throughout the year.

In the Mediterranean, 2016 will finally be marked by an improvement of the economic situation, thanks to the return of species like anchovy. The common prawn also will make its appearance at the end of 2016, reaching volumes and high sales prices at the end of the year.

Therefore, it is to be expected that 2016 will be one of the most profitable year since 2010, in an overall economic context of stabilisation of fish prices, low fuel prices, and improvement of several biomasses of some strategic species from an economic point of view.

MODEL FORECAST

Based on the model forecast landing weight will slightly decrease in 2016 by 3% while an increase by 7% is expected in 2017; while landings values are expected to increase 2% and 3%, respectively. Variable and non-variable costs are expected to remain stable with lower energy costs (-17% between 2015 and 2016).

On the contrary in 2017, the increasing of energy costs by 19% will impact the GVA and net profit which will only increase by 2% and 3%, respectively.

Projections suggest operating costs decrease, most notably energy costs which are estimated to decrease by 17% due to the continued low fuel prices. Together with a reduction in capital costs, the situation fostered further economic performance improvements in 2016: GVA (+5%), gross profit (+18%) and net profit (+40%).

Results indicate that the French fleet operated at a profit in 2016: with an estimated net profit of €136 million and a margin of 11%. Positive economic developments can also be seen in performance indicators GVA to revenue (+5%), gross profit margin (+17%) and GVA per FTE, estimated at €101 thousand in 2016 (+7%).

The 2016 gains are expected to continue into 2017 as increased landings (+7% compared to projected 2016 figures) are matched by a 3% increase in value. With fuel costs increasing in 2017 (+16%), the fleet remains profitable with gross and net profit margins of 18% and 11%, respectively. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Data issues

Improvements achieved

It should be highlighted that a lot of improvements have been carried out the last two years especially:

- Standardisation of clusters on the period 2011 – 2015;
- Completeness of Capacity region table for recent years (2010 – 2015);
- Implementation of PIM method for years 2010 to 2015;
- Employment data have been updated on the time series thanks to a new data source (economic and activity surveys). Data are more exhaustive even in outermost regions;
- Efforts data for years 2008 and 2009 have been completed.

The same clusters (same name and composition) have been established for the years 2011 to 2015, except one which had to be amended between 2014 and 2015: in the Mediterranean fleet, the former cluster AREA37 PS VL1218 used to merge three fleet segments (PS1218, PS1824, PMP1218), but number of vessels within PS1218 dropped over the years to reach 0 in 2015. Therefore, for 2015, PS1824 and PMP1218 were merged with PS0612 in a new cluster named AREA37 PS VL0612.

In addition, a new source provided by the associate partner in data collection allowed better assessments for 2015 on employment dataset.

Issues still remaining

However, there are still some issues in particular for previous years:

- Coverage by sub-gear type for years 2010 to 2012 in effort datasets;
- Standardisation of clusters for years 2008 to 2010;
- Implementation of PIM method for years 2008 to 2010;
- Completeness of Capacity region table for years 2008 and 2009.

Moreover, it should be highlighted that, apart from the Capacity table, data on efforts and landings are not complete for outermost region fleets. Only employment data have been brought for 2015 thanks to the new data source mentioned above, with as well some economics variables which were already collected, but on a partial coverage. This concerns around 1 700 active fishing vessels less than 12 meters based in the French islands of Reunion, Martinique, Guadeloupe and French Guyana.

Also, the coverage of effort and landings data is still an issue for vessels less than 12 meters active in the Mediterranean Sea. Thus, effort and landings estimations in DCF database are underrated for this region. But the associate partner in data collection has another data source (based on landings observations) that should make possible the update of those data with a better quality at least for some indicators. The aim is to cover all vessels in Mediterranean and as well in overseas territories.

Two different sources of information have been used to calculate fishing incomes. In the tables, landings value comes mostly from logbooks, sales notes and satellite monitoring system whereas landings income comes from accounts and responses to a sampled survey. The totals are similar but there may be significant differences for some minor fleet segments.

Investments are only reported with a very low response rate in the data collection, especially for year 2015: figures should therefore be used with caution.

Survey for economic data

A method of probability sampling has been applied to the 2015 data, on a similar way as previous years since it was set up in 2012: vessels have been selected by systematic random sampling, the fleet having been classified inside each segment by size and maritime quarter, to ensure a good representativeness of the overall diversity of the French fleet.

When vessels didn't answer, a statistical method was used to know the criteria (explanatory variables) that could explain the response rate, then vessels were merged into clusters according to that predicted response probability. Those clusters are then used to weight again responding vessels, by increasing their weight. Concerning the partial non-responses, imputations have been made.

Within the improvements done on sampled survey, Corsican vessels will be surveyed for the first time in 2017: some of them have been randomly selected using the same sampling process. This will enable also to improve quality on data collected for the year 2016.

Outermost fleet

Distant water fleet gathers 21 purse seiners over 40m length, all operating in the Indian Ocean and in the South Atlantic Ocean, but 14 amongst them are registered in a French metropolitan port. Data for purse seiners are provided only for 16 vessels, while the 5 other missing are based in Mayotte. Another source enables to get all landings for those 5 missing vessels, then values are computed with species' prices (mainly tuna) reported on other fleet segments.

Only economic data for these purse seiners and those of French hooks 12-18m and 18-24m in the Indian Ocean are available for 2011 to 2015 in other fishing regions (41 vessels in total while more than 1 700 active fishing vessels less than 12

meters are based in the French islands of Reunion, Martinique, Guadeloupe and French Guyana). Data are not exhaustive either for the Small-scale Coastal Fleet in Mediterranean Sea (including Corsican ships).

It should be highlighted that a single 33 m longliner operating in other fishing regions should belong to distant water fleet according to European definitions, but is however clustered with other hooks 18-24 m and belongs actually to long scale fleet.

Capital value

The capital value and depreciation parameters have been calculated with the recommended (PIM) method for years 2011 to 2015. Next year, indicators for years 2008 to 2010 may be calculated with the same method. It was necessary to estimate the purchase prices per meter of vessels for some aggregated fleet segments to use the PIM method. These estimates have been done using the collected purchase price of some vessels and insurance values of other ones. For some segments, these data have not been published: it has been considered they were not relevant. The implementation of this method needs to be improved so data should be used with caution.

Other improvements to set up for upcoming years

Direct subsidies and other income are not available for all segments and are underrated. In the future, it may be possible to use the exhaustive list of projects co-financed by the EFF and EMFF to update direct subsidies data.

The existing small-scale coastal fleet definition could be extended in the French case to include all vessels less than 12 meters even if they use active gears as trawls, dredges or various active gears because they concern small vessels fishing in coastal areas with trips during less than 24 hours (606 French vessels are concerned in North Atlantic and 35 vessels in Mediterranean Sea in 2014).

In addition, tax bills reported at national level by fishing companies might be used to improve the quality of assessment for economic variables (e.g. incomes, crew wages).

We have data on total personnel costs for a sample of vessels. Currently, we consider that they represent wages and salaries of crew for all vessels and we do not disseminate data on the value of unpaid labour. It would be possible to estimate the value of unpaid labour considering that it represents the total personnel costs for vessels with only one job on board. For the other vessels, we would consider that, with the crew share system, the value of imputed labour is zero and there are only wages and salaries of crew.

Table 5.36 France: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	7,919	7,290	7,234	7,211	7,144	7,125	7,069	6,911	*5,722*	*5,662*		-2%	-5%
Number of Inactive vessels_ms	(#)	1,314	815	953	1,027	1,132	1,217	1,311	1,186	*1,189*			-10%	7%
Vessel tonnage	(thousand GT)	197.2	185.3	174.2	171.0	168.3	164.2	175.6	171.9				-2%	-3%
Engine power	(thousand kW)	1,076.0	1,007.7	994.9	1,001.5	999.3	999.9	1,016.6	999.4				-2%	-1%
Total employed	(person)	16,103	15,807	15,166	14,631	14,140	13,691	13,547	13,442	*13,437*	*13,302*		-1%	-9%
FTE	(#)	8,629	7,644	7,819	7,464	7,196	6,900	7,026	6,865	*6,866*	*7,052*		-2%	-9%
Days at sea	(thousand day)	583.3	434.1			494.8	470.6	465.3	454.7	*454.7*	*460.5*		-2%	-7%
Fishing days	(thousand day)	486.1	404.1			452.0	437.3	431.8	418.3				-3%	-5%
Number of fishing trips	(thousand)	335.5	329.8	374.8	391.7	383.4	378.2	368.0	357.1				-3%	-2%
Energy consumption	(million litre)	294.6	383.5	357.3	341.6	306.2	302.3	322.7	316.7	*316.7*	*329.2*		-2%	-4%
Live weight of landings	(thousand tonne)	433.9	431.4	447.4	463.7	505.7	514.1	526.9	518.3	*502.4*	*539.0*		-2%	9%
Value of landings	(million €)	978.8	948.0	982.8	1,092.2	1,088.8	1,112.3	1,101.1	1,147.7	*1,175.0*	*1,204.9*		4%	10%
Income from landings	(million €)	1,018.7	1,090.0	1,075.3	1,179.7	1,083.2	1,127.6	1,147.4	1,178.7	*1,196.8*	*1,222.6*		3%	7%
Other income	(million €)	17.0	19.7	28.8	17.2	15.5	22.5	18.7	16.1	*16.1*	*15.7*		-14%	-19%
Direct income subsidies	(million €)	29.7	11.5	6.3	8.7	14.1	13.3	12.1	13.6				13%	-1%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	402.0	436.1	413.9	426.1	384.2	399.1	429.5	457.7	*468.0*	*477.0*		7%	11%
Unpaid labour value	(million €)	-	-	-	-	-	-	-	-	-	-			
Energy costs	(million €)	194.4	167.3	193.4	223.1	225.4	214.1	209.1	161.7	*134.4*	*155.9*		-23%	-21%
Repair & maintenance costs	(million €)	69.5	92.6	90.9	92.5	86.7	91.3	102.0	110.1	*110.0*	*107.9*		8%	23%
Other variable costs	(million €)	60.9	143.5	136.9	133.1	117.8	136.3	145.2	139.6	*139.4*	*144.2*		-4%	12%
Other non-variable costs	(million €)	187.4	167.6	160.0	145.0	127.2	130.7	135.7	132.7	*132.6*	*130.7*		-2%	-12%
Annual depreciation costs	(million €)	71.0	65.2		90.3	96.0	95.0	88.8	91.7	*91.7*	*90.3*		3%	9%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-	-			
Opportunity cost of capital	(million €)	-	-	-	5.4	1.9	7.0	5.8	4.2	*0.9*	- *3.1*		-28%	45%
Tangible asset value (replacement)	(million €)				539.4	585.0	584.3	546.9	547.7	*547.5*	*539.1*		0%	-3%
Fishing rights	(million €)													
Investments	(million €)			113.1	76.2	62.2		64.4	28.1				-56%	-64%
Financial position	(%)													
Gross Value Added	(million €)	523.5	538.7	523.0	603.2	541.7	577.7	574.1	650.7	*696.4*	*699.5*		13%	17%
GVA to revenue	(%)	50.6	48.5	47.4	50.4	49.3	50.2	49.2	54.5	*57.4*	*56.5*		11%	10%
Gross profit	(million €)	121.5	102.6	109.0	177.1	157.5	178.6	144.7	193.0	*228.4*	*222.5*		33%	36%
Gross profit margin	(%)	11.7	9.2	9.9	14.8	14.3	15.5	12.4	16.2	*18.8*	*18.0*		30%	29%
Net profit	(million €)				81.4	59.6	76.7	50.1	97.1	*135.9*	*135.3*		94%	45%
Net profit margin	(%)				6.8	5.4	6.7	4.3	8.1	*11.2*	*10.9*		89%	40%
GVA per FTE (labour productivity)	(thousand €)	60.7	70.5	66.9	80.8	75.3	83.7	81.7	94.8	*101.4*	*99.2*		16%	28%
Return on fixed tangible assets	(%)				16.1	10.5	14.3	10.2	18.5	*25.0*	*24.5*		81%	45%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

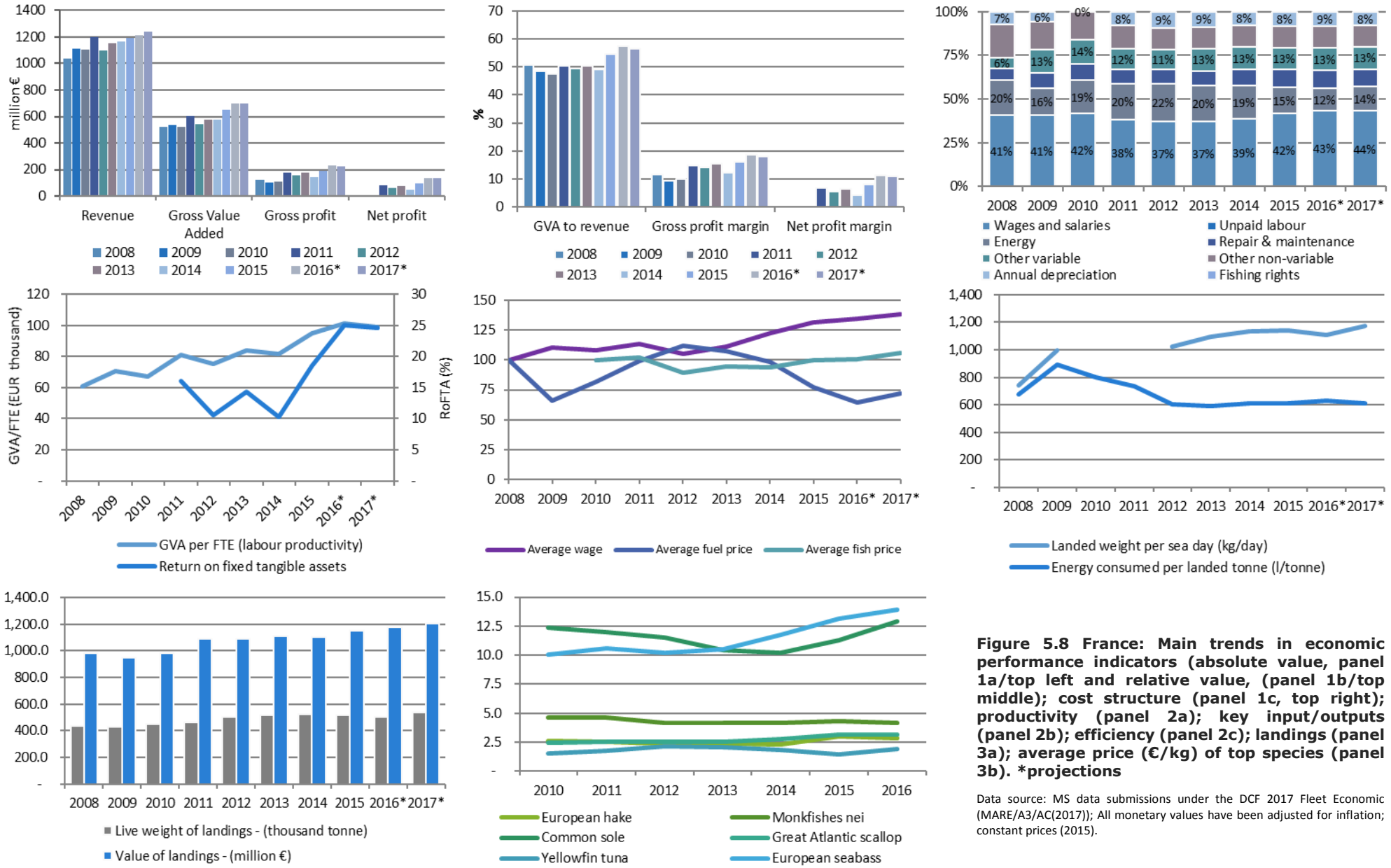

Figure 5.8 France: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.37 France: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	4589	4629	4371	4480	4382	4332	4198	4178	4175	4141		0%	-6%
Vessel tonnage	(thousand GT)	16	16	15	16	16	16	16	16				0%	-2%
Engine power	(thousand kW)	406	418	410	433	429	428	420	414				-1%	-1%
FTE	(#)	2518	2045	2230	2424	2360	2235	2165	2152	2150	2148		-1%	-6%
Total employed	(person)	7997	7881	7553	7755	7538	7250	6983	7003	6998	6959		0%	-7%
Days at sea	(thousand day)	242.2	170.8			226.9	225.8	221.1	208.0	208.8	208.7		-6%	-4%
Fishing days	(thousand day)	205.3	168.6			223.3	224.0	219.3	205.6				-6%	-1%
Number of fishing trips	(thousand)	175.9	172.0	209.8	227.4	224.7	225.0	220.3	203.3				-8%	-2%
Energy consumption	(million litre)	29.1	33.3	30.8	31.5	25.8	24.0	26.8	25.4	25.5	25.5		-5%	-12%
Live weight of landings	(thousand tonne)			50.8	65.3	73.5	83.5	77.7	81.8	77.1	80.9		5%	17%
Value of landings	(million €)			166.0	201.3	187.7	186.2	184.4	183.5	184.2	180.6		0%	-1%
Income from landings	(million €)	251.9	251.1	239.9	263.7	214.8	217.9	220.2	220.4	224.5	220.0		0%	-7%
Other income	(million €)	3.7	8.4	14.4	6.9	1.6	3.4	2.3	2.8	2.8	2.8		19%	-52%
Direct income subsidies	(million €)	5.9	0.6	0.2	2.1	0.8	1.0	1.5	2.1				35%	19%
Income from leasing fishing rights	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Wages and salaries of crew	(million €)	126.3	121.1	113.2	118.5	96.1	96.6	99.8	99.9	100.2	98.4		0%	-9%
Unpaid labour value	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Energy costs	(million €)	20.5	15.9	17.5	21.9	19.4	17.6	18.1	13.8	11.5	12.8		-24%	-26%
Repair & maintenance costs	(million €)	13.2	13.6	13.1	12.8	10.9	11.6	12.3	11.5	11.5	11.4		-6%	-8%
Other variable costs	(million €)	11.2	20.6	23.2	25.9	22.4	25.6	24.0	26.5	26.5	26.5		10%	21%
Other non-variable costs	(million €)	45.9	36.7	34.8	34.6	27.6	27.3	31.0	27.7	27.7	27.3		-11%	-18%
Annual depreciation costs	(million €)	14.3	13.7		21.9	20.2	19.0	17.6	18.0	18.0	17.8		2%	1%
Rights costs	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Opportunity cost of capital	(million €)				1.4	0.4	1.4	1.2	0.8	0.2	-0.6		-28%	-23%
Tangible asset value (replacement)	(million €)				136.2	126.0	117.9	109.9	109.7	109.7	108.2		0%	-10%
Fishing rights	(million €)													
Investments	(million €)			56.6	31.8	20.3		17.0	18.9				11%	-40%
Gross Value Added	(million €)	164.8	172.7	165.7	175.4	136.1	139.2	137.0	143.6	150.0	144.9		5%	-8%
GVA to revenue	(%)	64.5	66.6	65.1	64.8	62.9	62.9	61.6	64.3	66.0	65.0		4%	0%
Gross profit	(million €)	38.4	51.6	52.5	56.9	40.0	42.5	37.2	43.6	49.8	46.5		17%	-4%
Gross profit margin	(%)	15.0	19.9	20.6	21.0	18.5	19.2	16.7	19.6	21.9	20.9		17%	4%
Net profit	(million €)				33.6	19.4	22.2	18.4	24.8	31.6	29.3		35%	6%
Net profit margin	(%)				12.4	8.9	10.0	8.3	11.1	13.9	13.1		34%	12%
Return on fixed tangible assets	(%)				25.7	15.7	20.0	17.8	23.3	29.0	26.5		31%	18%
GVA per FTE (labour productivity)	(thousand €)	81.6	118.3	94.2	94.9	73.6	77.4	77.7	88.8	92.7	89.9		0%	-14%

		LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	2011	1826	1889	1687	1612	1559	1538	1526	1526	1500		-1%	-12%
Vessel tonnage	(thousand GT)	169	127	119	114	109	108	106	107				1%	-12%
Engine power	(thousand kW)	548	454	440	411	399	394	386	388				0%	-10%
FTE	(#)	6045	5059	5166	4601	4423	4252	4283	4159	4163	4351		-3%	-14%
Total employed	(person)	7978	7382	7174	6433	6189	6028	5986	5885	5885	5790		-2%	-13%
Days at sea	(thousand day)	340.8	257.8			267.8	244.8	243.8	242.6	241.6	247.5		0%	-10%
Fishing days	(thousand day)	280.4	235.3			228.7	213.3	212.3	211.0				-1%	-10%
Number of fishing trips	(thousand)	159.3	157.7	165.0	164.3	158.7	148.5	150.5	147.9				-2%	-6%
Energy consumption	(million litre)	265.5	297.3	278.2	262.8	234.3	236.5	237.5	238.0	238.0	250.5		0%	-8%
Live weight of landings	(thousand tonne)			311.2	316.4	353.4	351.2	349.3	343.8	345.5	378.3		-2%	2%
Value of landings	(million €)			715.1	772.5	740.7	787.9	772.8	855.8	877.5	907.4		11%	13%
Income from landings	(million €)	766.8	748.4	740.3	789.4	715.9	769.5	789.4	846.0	872.2	899.2		7%	11%
Other income	(million €)	13.3	11.4	14.4	10.4	13.9	19.1	16.4	13.3	13.3	12.9		-19%	-6%
Direct income subsidies	(million €)	23.8	10.9	6.1	6.7	13.3	12.3	10.5	11.5				9%	-4%
Income from leasing fishing rights	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Wages and salaries of crew	(million €)	275.7	285.4	271.0	270.4	246.6	262.0	286.0	319.0	327.3	336.7		12%	18%
Unpaid labour value	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Energy costs	(million €)	173.9	128.7	152.1	171.6	173.9	166.6	156.3	122.2	100.2	116.5		-22%	-24%
Repair & maintenance costs	(million €)	56.3	59.9	62.0	60.4	52.6	58.2	63.8	72.6	72.6	71.1		14%	23%
Other variable costs	(million €)	49.7	94.5	94.1	105.0	90.5	105.4	115.0	107.2	107.1	112.0		-7%	15%
Other non-variable costs	(million €)	141.5	112.2	108.6	93.2	79.4	85.3	84.5	83.7	83.7	82.5		-1%	-17%
Annual depreciation costs	(million €)	56.7	51.5		68.4	75.8	76.0	71.2	73.7	73.6	72.5		3%	11%
Rights costs	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Opportunity cost of capital	(million €)				4.0	1.5	5.6	4.6	3.3	0.7	-2.5		-28%	-15%
Tangible asset value (replacement)	(million €)				403.2	459.0	466.4	437.0	437.9	437.8	430.9		0%	-1%
Fishing rights	(million €)													
Investments	(million €)			56.5	44.4	41.9		47.4	9.2				-81%	-81%
Gross Value Added	(million €)	358.8	364.6	343.8	369.6	333.4	373.1	386.2	473.6	521.9	529.9		23%	31%
GVA to revenue	(%)	46.0	48.0	45.6	46.2	45.7	47.3	47.9	55.1	58.9	58.1		15%	18%
Gross profit	(million €)	83.1	79.1	75.6	99.1	86.9	111.1	100.2	154.6	194.6	193.2		54%	70%
Gross profit margin	(%)	10.6	10.4	10.0	12.4	11.9	14.1	12.4	18.0	22.0	21.2		45%	54%
Net profit	(million €)				20.7	0.4	20.4	12.7	58.0	95.1	93.6		357%	329%
Net profit margin	(%)				3.4	0.1	2.8	1.7	7.5	11.9	11.6		330%	272%
Return on fixed tangible assets	(%)				6.1	0.4	5.6	4.0	14.0	21.9	21.1		253%	249%
GVA per FTE (labour productivity)	(thousand €)	72.6	74.7	69.7	81.6	76.3	88.3	91.2	115.2	126.9	123.1		3%	18%

		DWF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	5	20	21	17	18	17	22	21	21	21		-5%	23%
Vessel tonnage	(thousand GT)	3	34	31	28	33	32	45	43				-5%	46%
Engine power	(thousand kW)	5	58	53	49	55	54	74	70				-5%	41%
FTE	(#)	66	540	423	439	413	413	578	553	553	553		-4%	35%
Total employed	(person)	127	543	439	443	413	413	578	553	553	553		-4%	31%
Days at sea	(thousand day)	0.4	5.6			0.1		0.4	4.0	4.3	4.3		1018%	152%
Fishing days	(thousand day)	0.4	0.1			0.0		0.2	1.7				923%	916%
Number of fishing trips	(thousand)	0.4	0.1	0.0	0.0	0.0	4.8	4.9	5.9				19%	303%
Energy consumption	(million litre)		52.9	48.2	47.3	46.0	41.8	58.4	53.2	53.2	53.2		-9%	8%
Live weight of landings	(thousand tonne)			85.4	82.0	78.5	79.3	100.0	92.8	79.8	79.8		-7%	9%
Value of landings	(million €)			101.6	118.4	150.6	138.1	143.9	108.4	113.3	117.0		-25%	-17%
Income from landings	(million €)		90.4	95.2	126.6	152.5	140.2	137.8	112.3	100.1	103.4		-19%	-9%
Other income	(million €)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Direct income subsidies	(million €)		0.0	0.0	0.0	0.0	0.0	0.0	0.0					
Income from leasing fishing rights	(million €)			0.0	0.0	0.0	0.0	0.0	0.0					
Wages and salaries of crew	(million €)		29.6	29.7	37.1	41.5	40.4	43.6	38.8	40.6	41.9		-11%	5%
Unpaid labour value	(million €)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Energy costs	(million €)		22.7	23.9	29.6	32.2	29.9	34.7	25.7	22.6	26.7		-26%	-11%
Repair & maintenance costs	(million €)		19.2	15.7	19.3	23.2	21.4	25.9	25.9	25.8	25.4		0%	25%
Other variable costs	(million €)		28.4	19.6	2.3	4.8	5.3	6.2	5.9	5.8	5.7		-5%	-47%
Other non-variable costs	(million €)		18.7	16.6	17.3	20.2	18.1	20.2	21.3	21.2	20.9		6%	15%
Annual depreciation costs	(million €)													
Rights costs	(million €)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Opportunity cost of capital	(million €)													
Tangible asset value (replacement)	(million €)													
Fishing rights	(million €)													
Investments	(million €)													
Gross Value Added	(million €)		1.4	20.3	58.2	72.2	65.4	50.9	33.5	24.6	24.7		-34%	-25%
GVA to revenue	(%)		1.6	21.3	46.0	47.3	46.7	36.9	29.8	24.6	23.9		-19%	-10%
Gross profit	(million €)		-28.1	-9.0	21.1	30.7	25.0	7.2	-5.3	-16.0	-17.2		-173%	-167%
Gross profit margin	(%)		-31.1	-9.5	16.7	20.1	17.8	5.3	-4.7	-16.0	-16.7		-189%	-246%
Net profit	(million €)													
Net profit margin	(%)													
Return on fixed tangible assets	(%)													
GVA per FTE (labour productivity)	(thousand €)		3.0	48.8	132.9	174.8	158.4	88.0	60.6	44.5	44.6		-44%	-15%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.38 France: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
FRA A27 DTS1824 °	134	625	34,471	1,105	52,406	146,038	147,873	70,317	47.6	20,393	13.8	6,809	4.60	79.8	112.4	9	Weak	237%	Improved	12.3%
FRA OFR PS40XX	21	553	4,025	573	92,801	108,441	112,318	33,509	29.8	- 5,263	- 4.7			70.1	60.6		Weak	78%	Improved	9.4%
FRA A27 DTS2440 °	62	396	16,522	1,043	39,542	106,982	99,701	42,130	42.3	12,336	12.4	- 1,952	- 1.96	75.3	106.4	- 2	Weak	1749%	Improved	8.3%
FRA A27 DTS1218	152	428	33,724	1,317	20,107	88,920	83,942	45,749	54.5	12,987	15.5	5,117	6.10	76.6	106.9	13	Weak	83%	Improved	7.0%
FRA A27 DTS40XX	10	185	2,524	536	30,322	58,846	52,686	27,198	51.6	11,252	21.4			86.2	147.0		Reasonable	117%	Improved	4.4%
FRA A27 DRB1218 °	99	254	15,540	835	14,964	39,576	52,472	28,920	55.1	9,067	17.3	3,968	7.56	78.1	113.8	16	High	191%	Improved	4.4%
FRA A27 DFN1012	176	340	26,376	576	9,933	46,307	50,272	32,379	64.4	10,219	20.3	6,105	12.14	65.1	95.2	27	Weak	815%	Improved	4.2%
FRA A27 DTS1012 °	185	259	29,000	943	11,401	41,370	43,712	24,258	55.5	7,220	16.5	2,613	5.98	65.8	93.6	11	Weak	20%	Improved	3.6%
FRA A27 DFN1218 °	76	260	14,943	550	7,963	41,031	42,068	26,370	62.7	8,177	19.4	4,921	11.70	69.9	101.3	28	High	146%	Improved	3.5%
FRA A27 DFN2440	17	210	4,576	330	15,909	49,694	41,798	30,418	72.8	10,442	25.0	8,694	20.80	95.4	145.2	92	Weak	-85%	Deteriorated	3.5%
FRA A27 HOK2440 °	19	202	4,631	420	10,080	31,471	39,733	29,243	73.6	12,638	31.8	10,700	26.93	82.2	144.8	105	Reasonable	137%	Improved	3.3%
FRA A27 DFN1824	30	181	7,261	419	7,792	33,633	36,950	25,867	70.0	7,854	21.3	5,535	14.98	99.8	143.3	47	Weak	-73%	Deteriorated	3.1%
FRA A27 TM40XX	3	113	612	104	53,627	27,013	28,559	16,188	56.7	8,303	29.1			69.8	143.3		Weak	17%	Improved	2.4%
FRA A27 FPO0010	274	191	27,136	436	7,077	20,029	28,193	17,964	63.7	5,856	20.8	3,889	13.79	63.4	94.1	34	Weak			2.4%
FRA A27 TM1824 °	30	142	6,847	536	16,694	31,635	28,060	13,974	49.8	3,653	13.0	957	3.41	72.8	98.5	7	Weak	-20%	Deteriorated	2.3%
FRA A27 DFN0010	320	169	28,193	719	3,784	18,634	27,048	17,014	62.9	4,766	17.6	2,640	9.76	72.5	100.7	22	Weak	-315%	Deteriorated	2.3%
FRA A27 DRB1012	90	104	9,593	675	7,187	17,658	23,642	15,349	64.9	5,983	25.3	3,641	15.40	90.3	147.9	29	Reasonable	-2%	Stable	2.0%
FRA A27 HOK0010	241	120	22,070	1,035	2,633	20,213	20,137	12,736	63.2	3,930	19.5	2,167	10.76	73.6	106.4	22	High	650%	Improved	1.7%
FRA A37 DTS2440 °	32	110	6,266	2,428	4,806	16,397	19,264	7,160	37.2	1,849	9.6	- 2,071	- 10.75	48.4	65.2	- 8	Reasonable			1.6%
FRA A27 FPO1012	66	146	11,666	209	8,128	16,578	17,051	11,211	65.8	3,855	22.6	2,187	12.83	50.4	76.9	22	Weak			1.4%
FRA A37 DFN0612	539	182	22,933	1,616	1,275	10,369	16,043	9,971	62.2	2,001	12.5	414	2.58	43.9	54.9	5	High	49%	Improved	1.3%
FRA A37 PS2440 °	17	3	4	319	2,298	31,580	16,016	13,471	84.1	7,174	44.8	4,882	30.48	2,202.0	4,710.3	34	Weak	-185%	Deteriorated	1.3%
FRA A27 PS1218 °	29	106	4,245	103	16,566	17,611	15,890	9,586	60.3	1,769	11.1	258	1.63	73.5	90.1	4				1.3%
FRA A27 PMP1012 °	41	64	6,217	103	16,482	7,775	13,308	8,153	61.3	2,895	21.8	1,780	13.38	82.7	128.2	28				1.1%
FRA A27 HOK1012	55	76	8,213	740	2,354	12,234	13,269	8,586	64.7	3,136	23.6	1,979	14.91	71.5	112.7	31				1.1%
FRA A37 DTS1824 °	31	68	5,120	3,039	2,318	10,212	12,110	4,532	37.4	873	7.2	- 201	- 1.66	53.5	66.2	- 3				1.0%
FRA A27 TM1218	12	47	2,952	533	5,392	9,487	10,473	6,001	57.3	1,729	16.5	1,036	9.89	90.1	126.6	28				0.9%
FRA A27 MGO0010 °	152	48	10,762	2,012	445	3,368	9,191	6,184	67.3	2,077	22.6	574	6.24	84.9	127.8	7				0.8%
FRA A27 MGP1218 °	27	66	4,427	948	2,833	8,752	9,039	4,652	51.5	1,465	16.2	106	1.18	48.4	70.7	2				0.8%
FRA A27 DTS0010	80	53	8,819	1,526	1,313	6,485	8,618	5,132	59.6	1,808	21.0	904	10.49	63.3	97.6	19				0.7%
FRA A27 MGP1012 °	29	46	4,419	324	5,543	7,708	8,154	5,003	61.4	1,511	18.5	668	8.20	76.3	109.4	16				0.7%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015). Not all fleet segments are shown

Table 5.39 France: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
FRA A27 DTS1824 °	134	616	33,972	1,128	50,601	147,258	149,096	77,010	51.7	26,670	17.9	13,560	9.1	81.7	124.9	17.3	Weak	12.2%
FRA OFR PS40XX	21	553	4,323	667	79,832	113,277	100,147	24,607	24.6	- 15,977	- 16.0			73.4	44.5			8.2%
FRA A27 DTS2440 °	62	384	16,032	1,043	38,385	106,745	99,481	46,160	46.4	16,433	16.5	2,662	2.7	77.4	120.2	3.2	Weak	8.2%
FRA A27 DTS1218	152	422	33,267	1,370	19,067	88,119	83,204	47,544	57.1	15,077	18.1	7,457	9.0	76.9	112.6	18.0	Weak	6.8%
FRA A27 DTS40XX	10	218	2,972	593	32,266	71,181	63,729	37,459	58.8	18,170	28.5			88.5	171.9			5.2%
FRA A27 DRB1218 °	99	254	15,508	708	17,611	42,109	55,768	33,294	59.7	12,171	21.8	7,231	13.0	83.3	131.3	27.5	Reasonable	4.6%
FRA A27 HOK2440 °	19	220	5,057	394	11,727	39,334	49,659	38,943	78.4	18,188	36.6	16,313	32.8	94.1	176.6	158.4	High	4.1%
FRA A27 DFN1012	176	342	26,481	578	9,947	45,481	49,390	31,947	64.7	10,182	20.6	6,208	12.6	63.7	93.5	26.8	Reasonable	4.1%
FRA A27 DTS1012 °	185	257	28,728	929	11,465	44,379	46,851	28,406	60.6	10,127	21.6	5,677	12.1	71.2	110.7	22.0	Reasonable	3.8%
FRA A27 DFN1218 °	76	257	14,736	534	8,083	41,790	42,835	27,617	64.5	9,088	21.2	5,941	13.9	72.2	107.5	32.7	Reasonable	3.5%
FRA A27 DFN2440	17	212	4,625	339	15,698	43,041	36,202	25,205	69.6	7,903	21.8	6,212	17.2	81.7	119.0	65.6	Reasonable	3.0%
FRA A27 DFN1824	30	171	6,895	429	7,224	30,416	33,473	22,959	68.6	6,669	19.9	4,423	13.2	95.0	133.9	36.9	Reasonable	2.7%
FRA A27 DFN0010	320	177	29,573	690	4,138	20,121	29,184	19,191	65.8	5,967	20.4	3,915	13.4	74.6	108.3	31.6	Reasonable	2.4%
FRA A27 TM1824 °	30	147	7,116	579	16,074	31,557	27,993	14,396	51.4	4,100	14.6	1,495	5.3	69.9	97.7	10.1	Weak	2.3%
FRA A27 FPO0010	274	187	26,529	454	6,654	19,237	27,094	17,258	63.7	5,629	20.8	3,732	13.8	62.3	92.4	31.9	Reasonable	2.2%
FRA A27 TM40XX	3	94	507	94	48,898	23,183	24,509	13,770	56.2	7,003	28.6			72.3	147.1			2.0%
FRA A27 DRB1012	90	105	9,691	720	6,801	17,335	23,211	15,272	65.8	6,078	26.2	3,815	16.4	87.7	145.7	29.4	Reasonable	1.9%
FRA A37 DTS2440 °	32	110	6,311	2,127	5,486	18,611	22,625	12,230	54.1	6,194	27.4	2,431	10.7	55.0	111.5	10.3	Reasonable	1.9%
FRA A27 HOK0010	241	122	22,499	974	2,850	20,318	20,239	13,001	64.2	4,150	20.5	2,449	12.1	72.6	106.6	23.9	Reasonable	1.7%
FRA A27 PS1218 °	29	114	4,555	80	23,007	21,628	19,515	13,100	67.1	3,499	17.9	2,043	10.5	84.1	114.8	22.7	Reasonable	1.6%
FRA A27 FPO1012	66	139	11,143	196	8,253	18,698	19,221	13,677	71.2	5,381	28.0	3,773	19.6	59.6	98.2	37.2	Reasonable	1.6%
FRA A37 PS2440 °	17	3	4	319	2,298	32,742	16,453	13,906	84.5	7,377	44.8	5,181	31.5	2,283.0	4,862.3	35.0	High	1.4%
FRA A37 DFN0612	539	182	22,933	1,676	1,230	9,126	15,968	10,136	63.5	3,144	19.7	1,615	10.1	38.5	55.8	18.3	Reasonable	1.3%
FRA A27 PMP1012 °	41	64	6,282	96	17,969	9,121	15,603	10,570	67.7	4,403	28.2	3,328	21.3	96.0	164.5	50.2	High	1.3%
FRA A27 HOK1012	55	77	8,335	685	2,581	12,685	13,753	9,175	66.7	3,524	25.6	2,406	17.5	73.1	118.6	37.1	Reasonable	1.1%
FRA A37 DTS1824 °	31	68	4,699	3,075	2,291	10,221	12,426	6,434	51.8	2,786	22.4	1,747	14.1	53.3	94.0	33.5	Reasonable	1.0%
FRA A27 TM1218	12	46	2,894	614	4,589	10,157	11,185	7,037	62.9	2,463	22.0	1,793	16.0	98.4	151.4	46.5	Reasonable	0.9%
FRA A27 DTS0010	80	50	8,470	1,146	1,679	7,588	10,075	6,827	67.8	2,937	29.2	2,064	20.5	77.1	135.3	41.3	High	0.8%
FRA A27 MGP1218 °	27	70	4,709	967	2,954	9,446	9,733	5,416	55.6	1,976	20.3	660	6.8	49.1	77.4	9.5	Weak	0.8%
FRA A27 MGO0010 °	152	49	10,833	2,213	407	3,230	8,817	5,887	66.8	1,948	22.1	496	5.6	80.9	120.9	5.9	Weak	0.7%
FRA A27 MGP1012 °	29	42	4,067	316	5,231	8,246	8,714	5,859	67.2	2,124	24.4	1,307	15.0	88.7	139.2	30.0	Reasonable	0.7%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values. Not all fleet segments are shown

Table 5.40 France: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)							Live weight of landings (thousand tonne)							Average landed price (real) (€)							% over total (2015)	
	2010	2011	2012	2013	2014	2015	2016	2010	2011	2012	2013	2014	2015	2016	2010	2011	2012	2013	2014	2015	2016	in value	in weight
European hake	52.8	59.2	66.8	75.4	95.2	128.5	127.9	20.6	23.6	27.8	32.1	41.4	42.4	45.0	2.6	2.5	2.4	2.4	2.3	3.0	2.8	11%	8%
Monkfishes nei	74.1	86.0	92.5	97.1	94.5	98.1	100.9	16.0	18.6	22.1	23.3	22.8	22.9	24.3	4.6	4.6	4.2	4.2	4.2	4.3	4.2	9%	4%
Common sole	90.7	97.9	91.2	86.6	78.6	72.2	68.4	7.3	8.2	7.9	8.3	7.7	6.4	5.3	12.4	12.0	11.5	10.4	10.2	11.3	12.9	6%	1%
Great Atlantic scallop	58.8	70.5	66.6	71.7	61.2	69.8	80.1	23.9	27.9	26.6	28.3	22.2	22.3	25.2	2.5	2.5	2.5	2.5	2.8	3.1	3.2	6%	4%
Yellowfin tuna	64.5	68.7	94.5	85.9	100.8	69.3	76.6	42.7	39.1	44.1	41.8	55.3	48.0	40.6	1.5	1.8	2.1	2.1	1.8	1.4	1.9	6%	9%
European seabass	54.4	56.4	54.4	57.1	51.3	45.5	38.6	5.4	5.3	5.3	5.4	4.4	3.5	2.8	10.0	10.6	10.2	10.5	11.7	13.2	13.9	4%	1%
Norway lobster	40.5	44.4	32.4	32.4	35.3	42.6	48.5	4.5	4.5	3.1	3.1	3.3	4.0	4.7	9.1	9.8	10.6	10.4	10.8	10.6	10.4	4%	1%
Atlantic bluefin tuna	19.0	16.5	11.4	24.2	5.1	37.9	4.0	2.0	1.9	0.9	2.3	0.5	2.8	0.5	9.8	8.9	12.5	10.6	10.1	13.4	8.9	3%	1%
Skipjack tuna	30.0	42.6	47.8	40.8	35.8	36.5	34.6	35.7	37.3	29.3	29.6	37.4	40.4	36.4	0.8	1.1	1.6	1.4	1.0	0.9	1.0	3%	8%
Inshore squids nei	20.6	33.4	31.9	27.0	27.0	33.6	32.9	3.8	5.4	5.9	4.1	5.1	5.1	4.8	5.4	6.2	5.4	6.6	5.3	6.5	6.9	3%	1%
																						55%	38%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).

5.9 Germany

Short description of the national fleet

Fleet capacity

The national fleet capacity continued to decline, with a total of 1 430 vessels, 371 of which were inactive, in 2016, having a combined gross tonnage (GT) of 60.7 thousand tonnes and engine power of 132.9 thousand kilowatts (kW). In 2016, the total number of vessels decreased by 48 compared to 2015. Almost all inactive vessels belong to the smallest length class (< 10m). In that length class about 32% of the registered vessels have reported no activity in 2016. The percentage of inactive vessels decreases with increasing length – in the 24-40m length class only one vessel was inactive and another one retired.

Vessels which target blue mussels are not included in the analysis because they are defined as operating in the aquaculture sector and are therefore covered in the aquaculture report.

The German pelagic trawler fleet is excluded from the analysis except for capacity and weight and value of landings data as practically the entire segment is owned by one parent company. For confidentiality reasons the data cannot be published.

Fleet structure

In 2016, the German large-scale fishing fleet (length >12m) consisted of 279 vessels (20%), whereas 1 151 vessels (80%) were accounted for the small-scale coastal fleet (<12m).

Employment

Employment was estimated at 1 532 jobs in 2015, corresponding to 1 202 FTEs.

Effort

About 104 thousand days were spent at sea in 2016, a slight decrease of 2% from 2015 (106 thousand days). The energy consumed in 2015 amounted to an estimated 40.2 million litres and was thus slightly higher (5%) than in 2014. Due to considerably lower fuel prices the energy costs decreased from about €23.2 million in 2014 to €18.1 million in 2015.

German small-scale coastal vessels operate almost exclusively in the Baltic Sea, whereas cutters (<500 GT) above 12m fish in the North Sea and in the Baltic Sea. German high seas trawlers operate mainly in the North Atlantic and Eastern Arctic area, but to some extent also in African and Southern Pacific waters.

Total Production

Total production shows a slightly increasing trend from 2012 to 2015 with a live weight of landings increasing from 199 thousand tonnes to 238 thousand tonnes. In 2016, the weight of landings decreased to 228 thousand tonnes, which is still more than in the years between 2010 and 2014. The main species are herring, cod, common shrimp, saithe and Greenland halibut. In terms of weight herring is by far the dominant species, whereas the highest revenue is generated through brown shrimp.

Economic results for 2015 and recent trends

National fleet performance

Overall the German non-pelagic fleet generated a net profit since 2010 (with the exception of 2011 when brown shrimp prices had dropped below a critical level). Its economic performance has slightly improved compared to 2014. Due to the available information on catches in 2016 and the still relatively low fuel prices the overall performance in 2016 is expected to be positive as well.

The total revenue of the non-pelagic fleet, including direct income subsidies, was estimated at €154.28 million for 2016. The increase of about €7.8 million was generated only by the large-scale fleet, while revenues of the SSCF dropped by €0.8 million or 10%.

The value of landings, which includes pelagic catches, steadily increased over the last years, especially from 2014 to 2015 (+ €10.5 million) and from 2015 to 2016 (+ €18.1 million).

Direct income subsidies accounted for less than €1.0 million in 2015.

Total operating costs of the non-pelagic fleet increased slightly: energy costs decreased while almost all other cost items increased slightly. When including capital costs, total costs amounted to €140 million.

For the non-pelagic fleet, GVA, gross profit and net profit in 2015 were estimated at €82.0 million, €32.1 million and €7.1 million, respectively. GVA increased by 16%, gross profit and net profit increased by 35% and 10%, respectively, compared with the previous year.

The (depreciated) replacement value of the German fleet was estimated at €120 million, a 44% increase on 2014; while investments amounted to €50 million. However, this figure is mainly due to one newly constructed high seas trawler entering the German fleet in 2015.

Overall, the cost structure has remained relatively constant over the recent years; most cost items have increased compared to the low figures of 2014. Though fuel consumption increased in 2015, fuel costs decreased mainly due to considerably lower fuel prices. Due to the aforementioned entry of a new trawler all related figures, like opportunity cost of capital and depreciation have increased considerably.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 21.8%. Net profit margin was estimated at 4.8%, about the same rate as in 2014.

The Rate of Return on Fixed Tangible Assets (RoFTA) remained positive at 6.3%, which is about the average of previous years.

Labour productivity (GVA/FTE) for 2015 was estimated at €68 300/FTE, an increase of 21% compared with 2014.

Fuel consumption per landed tonne has followed an overall decreasing trend since 2008, but increased from 489 litres per tonne in 2014 to 582 litres per tonne landed in 2015. Fuel efficiency decreased mainly for demersal trawlers <40m and to some extent for beam trawlers.

The weight of landings per unit of effort (in days at sea) has followed an increasing trend since 2008 and was estimated at about 2.2 tonnes/DAS for both 2015 and 2016.

Except for the last figure all the aforementioned indicators exclude the pelagic fleet for confidentiality reasons.

Performance results of selected fleet segments

The German cutter fleet (below 500 GT) is dominated by beam trawlers and, to a lesser extent, demersal trawlers.

Beam trawlers

German beam trawlers operate in the North Sea. Vessels up to 27m target almost exclusively brown shrimp. There are a few large beam trawlers targeting mainly flatfish. Thus the beam trawler segment 24-40m contains both types of vessels.

The owners of the shrimp beam trawlers are usually also the skippers. They operate in coastal waters: smaller vessels with shallow draught can fish in the tide-ways and the Wadden area between the islands and the coast. These vessels depend on the tide and return to the port daily. These vessels usually do not fish in winter as the target species migrates to deeper areas. Larger vessels operate in greater depths and can also fish year-round. They stay at sea for several days.

Shrimp prices and fuel costs are the crucial elements for the economic performance of shrimp beam trawlers. 2015 was regarded satisfactory: the weight of landings decreased while prices for brown shrimp remained stable. Thus the total value of landings decreased considerably. However, thanks to significantly lower fuel prices the profit remained at a similar level as in 2014. The net profit of beam trawlers up to 24m was about €5.9 million in 2015.

Flatfish beam trawlers flying the German flag are owned and operated mainly by Dutch fishers. They target mainly sole, plaice, and turbot. All of them are equipped with pulse gear. The catch is landed exclusively in the Netherlands. Both weight and value of landings increased. Moreover, fuel costs decreased by about 10%. Thus the segment experienced an increase in profit in 2015. The net profit of beam trawlers larger than 24m was about €1.9 million in 2015. These vessels have the highest energy consumption per landed tonne (1.363 l/t).

Demersal trawlers

The German demersal trawler fleet can be divided into high seas trawlers >45m, large cutters between 23 and 45m and smaller cutters below 23m. The high seas trawlers target mainly Greenland halibut, cod and redfish in Eastern Arctic and Greenland waters, the large cutters target saithe, cod, hake and haddock, the ones around 24m (eurocutters) also fish *Nephrops*. These vessels fish almost exclusively in the North Sea and Skagerrak. Some eurocutters shift temporarily to shrimp beam trawling or pelagic trawling for herring. The vessels 20m and below almost exclusively fish in the Baltic Sea, targeting mainly cod, flatfish and – seasonally switching to pelagic gear – herring and sprat.

This indicates that the DCF length thresholds divide the demersal fleet into segments with heterogeneous fishing patterns. Thus the performance indicators in most cases represent a mixture of different fisheries. The negative net profit of demersal trawlers >40m (-€340 thousand) only partly reflects the economic performance as most of these vessels belong to vertically integrated firms. This applies also to most of the larger (23-45 m) demersal cutters (net profit of the 24-40m segment = €3.1 million). The vessel profits are estimated upon internal prices. That means that the profit is made at an advanced stage of the value chain. One new high seas demersal trawler entered the fleet in 2015 and two more are commissioned in 2017. This is a clear indication of profitable fisheries.

For the segments with medium sized demersal trawlers (18-24m) positive net profits were determined (€691 thousand), but as described before, this is a mixture of North Sea and Baltic Sea vessels. For the vessels below 18m negative net profits were calculated (-€317 thousand). In both cases the poor status of Western Baltic cod has a negative impact on the profitability.

Vessels using fixed nets and other passive gear

Larger fixed netters and potters (between 26 and 31 m) operated almost exclusively in Western waters, targeting anglerfish or red crab. For the related segment net losses of €421 thousand were determined. Smaller vessels using passive gear almost exclusively operate in the coastal areas of the Baltic Sea. Main target species are cod, herring, and to some extent freshwater species in the brackish Bodden areas. The segment of fixed netters 12-18m achieved net losses of €-612 thousand, net losses of €-622 thousand were calculated for the 10-12m length class. The passive gear segment with vessels below 10m achieved net losses of €-5 thousand. All these vessels fishing in the Baltic Sea suffered from the decreasing TAC of Western Baltic cod.

Performance by fishing activity

Large-scale fleet

In 2015, 287 active vessels were assigned to the large-scale fleet. These vessels mainly operate in the North Sea and the Baltic Sea, while the large trawlers fish also in the North Atlantic, Eastern Arctic and in distant areas. The cutters (<500 GT) targeting mainly brown shrimp, cod and saithe while the high seas trawlers fish herring, cod, Greenland halibut and other small pelagic species like mackerel.

The value of landings of the large-scale fleet increased from 2014 to 2015 and again in 2016. The weight of landings increased substantially from 2014 to 2015, but returned to the 2014 level in 2016. Cost variables increased on average from 2014 to 2015. The increase in depreciation costs is mainly due to the introduction of one newly built high seas trawler into the German fleet. Due to the increase in income from landings, both gross and net profit increased as well.

The number or people employed in the large-scale fleet decreased slightly. The gross value added by full time equivalent increased considerably.

It has to be born in mind that for confidentiality reasons these observations refer only to the non-pelagic fleet. Only the weight and value of landings includes the pelagic segment.

Small-scale coastal fleet

In 2015, 787 active vessels were assigned to the small-scale fleet according to the European definition (vessels under 12m using passive gears). These vessels almost exclusively operate in the Baltic Sea, targeting mainly herring and cod and also freshwater species which are not managed under a TAC regime.

Weight and value of landings of the SSCF increased slightly from 2014 to 2015 and also to 2016. The estimated total effort in terms of days at sea decreased slightly between 2014 and 2016, costs showed no clear trend. Fuel costs decreased considerably. In 2015 the small-scale fishery ended up with a gross profit of €1.0 million and a net loss of €600 thousand.

The number of people employed decreased by about 50 (~7%) from 2014 to 2016.

Drivers affecting the economic performance trends

As the German fleet is dominated by trawlers, the fuel price has always a major impact on the overall economic performance. As fuel prices decreased significantly (about 25%) from 2014 to 2015, overall energy costs had a major effect on the overall performance of the fleet.

Prices for brown shrimp always have a major influence on the performance of the national fleet, as it is the most important species in terms of value. Prices remained at the same level between 2014 and 2015, and the slight decrease in landings resulted in a 12% decrease in the total value. In 2016 landings dropped by more than 50%, but prices were more than doubled, and thus the total value increased by about 30% compared to 2015.

For all other species with major importance stable or increasing prices could be observed.

The MSC certification gains importance for sales of fish. Certificates for cod, saithe, haddock and herring fisheries in the North Sea and in Norwegian waters could be extended or re-approved. North Sea and Atlanto-Scandian herring as well as blue whiting fisheries have been certified, too. Due to the dispute between the EU, Norway, Iceland and Faroer MSC certification of mackerel was suspended and re-issued only in 2016.

MSC certification appears to have positive effects on prices during the initial phase. In the long run, however, the certificate seems to become a prerequisite for getting the fish on the market. Fish without certificate appears to achieve lower prices in the case that the same species is available also with certificate.

Markets and Trade

Brown shrimp as most important species is mainly landed in Germany, to some extent also in the Netherlands. The wholesale market is dominated by two companies which have a huge influence on the price. However, as fishers formed a producer organisation to gain market power the detrimental results of 2011 did not repeat.

As the plaice stock and quota reached an all-time high, high supplies affected sales prices. Prices for plaice stabilised at a low level but did not again reach the intervention threshold, like in 2013. The sole fishery is being dominated by vessels using the pulse technology which is more efficient with respect to both catch rates and fuel consumption than the traditional gear. The North Sea saithe fishery suffered from decreased quota while prices remained stable.

Due to the lack of a management plan Baltic herring did not qualify for the MSC certificate, which hampered sales.

Pelagic fisheries in Mauritanian and Moroccan waters were performed only temporarily and were ceased due to economic inefficiency. In 2014, no German vessel was involved in South Pacific fishery.

Management instruments

The predominant management measure was TAC. The limitation of quota changes to 15% was regarded positive for keeping prices stable. Effort restrictions due to management plans were regarded counter-productive in the case of the North Sea cod management plan. kWdays-limitations for fisheries targeting cod and therefore using larger meshes were a limiting factor. In order to fully exploit the cod quota, cod fishery had to be continued as flatfish fishery with smaller meshes. According to the industry, this increased discards considerably.

The introduction of the landing obligation could be implemented with little extra effort in the pelagic as well as in the saithe fisheries as these fisheries traditionally have had low bycatch rates. In the case of cod and flatfish fisheries serious problems have been reported. In the Baltic Sea high amounts of undersized cod were observed. According to the industry no technical measures are available to solve that problem. In the case of flatfish fisheries high rates of undersized plaice are observed in sole fisheries. Again no technical solution could be found thus far.

TACs and quotas, status of key stocks

Most stocks targeted by the German high seas fleet, e.g. Arctic and Greenland cod, Atlanto-Scandian herring, arctic haddock and saithe, are managed at MSY level. Overall, the high seas industry regarded fisheries both in 2015 and 2016 as good.

Brown shrimp, the most important species of the German fleet, is not a TAC species. Catches depend mainly on abundance, effort and prices. While 2015 catches were on an average level, 2016 were cut by more than half, which was overcompensated by very high prices. This was apparently due to a significant increase in natural mortality caused by high abundance of whiting as predator.

Most relevant North Sea stocks (herring, saithe, plaice, haddock, sole and *Nephrops)* are managed at MSY level. The saithe quota decreased slightly, while plaice was further increased. After a benchmarking of the North Sea saithe stock substantial quota uplifts are expected for the future. The plaice stock remained at a historically high level. The fishing mortality of North Sea cod is still above MSY, and the recovery did not occur as quick as expected. However, meanwhile the spawning stock biomass is at MSY level. It is expected that the North Sea cod fishery will be managed at MSY level in the very near future.

In the Baltic Sea herring and sprat were managed at MSY level. Baltic herring fisheries were successful. The quota was almost fully exploited. Plaice becomes more and more important in Baltic fisheries. However, due to quota limitations high amounts of discards of plaice occurred. There are promising attempts to adjust gear selectivity for roundfish or, in case of flounder (no TAC), for flatfish.

Both Eastern and Western Baltic cod quota further decreased. The quota on Eastern Baltic cod stock was only partly exploited (about 30%) due to the poor condition of the fish (malnutrition) and low CPUE. The most extreme cut occurred in 2017 for the Western stock, facing a cut of more than 50%. This stock has provided substantial amounts to the income of coastal fisheries and the continuing decline of quota over the last years caused a tense economic situation. Alternative fishing options, e.g. on herring or freshwater species, are limited and do not allow for a full compensation of losses in the cod fishery.

Projections for 2016 and outlook

Projections and preliminary data for 2016 show that a small decrease in vessel number (-1%) and effort (-2%) was combined with a decrease in landed weight (-4%), but an increase in landed value (+9%). Another considerable drop in fuel costs (-20%) led to an improvement in many economic indicators including gross and net profits (€40 million or 25% increase and €14 million or 102% increase, respectively). The projected economic development is confirmed by the fishing industry.

There are a number of performance drivers in 2016 that can be explored in more detail. One high seas demersal trawler that had left the German fleet was replaced by a newly constructed trawler in 2015. Two more demersal trawlers are intended to be replaced by new vessels in 2017 or 2018. Modernisation of on-board equipment was continued as in preceding years.

Audits on MSC certified fisheries (cod, saithe, haddock and herring in the North Sea and Norwegian waters incl. Svalbard) were successful, thus all certificates were extended. Due to the dispute on Atlantic mackerel quota the re-certification of the related fishery could be re-issued only in 2016. Thus the most important pelagic fisheries are certified. The certification procedure for Greenland halibut was initiated.

High seas trawlers achieved positive results in the cod fishery in Norwegian waters, Svalbard and the Barents Sea. Full exploitation of the quota required fishing until December, 31. Saithe fishery of high seas trawlers in Norwegian waters took place from February to April and again turned out to be mediocre. Greenland halibut fisheries in Eastern and Western Greenland waters were more efficient compared to previous years. The Greenland cod quota could be fully exploited. The 2016 season of pelagic redfish fishery in the Irminger Sea, performed by the new high seas trawler was regarded the shortest and most efficient one in history. Two vessels performed demersal redfish fisheries in Eastern Greenland waters. Fisheries agreements with Greenland and Norway remain a backbone of the performance of the German high seas demersal fleet.

High seas pelagic fisheries on herring, mackerel and blue whiting were successful. The fishery on horse mackerel did not fulfil the expectations. One vessel temporarily performed pelagic fisheries in Mauritanian and Moroccan waters. In 2016, one German trawler performed fisheries in the Southern Pacific, together with a Polish trawler under an EU-wide quota pooling. This fishery was only partly satisfactory.

In 2015, the landing obligation became effective for pelagic fisheries. As this fishery has always had low discard or bycatch rates the landing obligation caused no major problem. Non-marketable catch was landed for use as animal feed.

In 2016, the European Pelagic Freezer-trawler Association (PFA) signed a Memorandum of Understanding (MoU) with Greenpeace. Shared objective is to achieve sustainable pelagic fisheries and a balance between fisheries and the marine environment. It is aimed at cooperation rather than confrontation as in previous times.

Cutter fisheries further benefitted from increased quota and stock recovery. The plaice stock further increased, so did the quota. With increased marketing effort the additional catch could be sold at reasonable price levels. However, as in previous years the German plaice quota was only partly exploited. The cut in saithe quota could not entirely be compensated by slightly higher prices. However, saithe quota increased substantially for 2017 (+55%) and the industry expects this development to continue. The North Sea cod recovery is expected to lead to achieve sustainability target in the very near future. Quote were raised by 17% for 2017.

In 2016, the brown shrimp fishery in the North Sea performed substantially more successful than in 2014 and 2015. Even though landings decreased by more than half, revenues increased considerably due to extremely high prices. The decrease in abundance of brown shrimp was mainly due to high natural mortality, caused by massive occurrence of young whiting.

The Baltic cod fishery was similar to 2015. The quota of the Western stock further declined in 2016. For 2017 the quota was cut by more than 50% which will probably cause essential problems for small-scale and small cutter fisheries as cod has been the backbone for these enterprises and there is hardly any alternative fishery. Payments for temporary and permanent cessation have been announced by the German authorities. A strong recruitment of the 2016 age class gives hope for an improved situation in the future. The quota for the Eastern Baltic stock was not a limiting factor for the participating fishers as the quota exploitation rate remained low at about 1/3. Due to the limited range of operation of the SSCF the Eastern cod stock is not an alternative source of income for the SSCF. The Eastern cod stock was classified as data poor stock which led to a withdrawal of the MSC certificate in 2015 which impedes the marketing of the catch.

The plaice quota in the Baltic Sea further increased and was fully exploited. Herring fisheries in the Baltic were satisfactory. However, the missing MSC certification of the coastal herring fishery impeded marketing.

The cutter fisheries expect increased problems from an extension of the landing obligation. This applies in particular to cod and flatfish fisheries where a high amount of undersized fish is caught which would occupy a considerable part of the storage capacity of the vessels. Apparently the quota top-up could not compensate for that drawback.

Overall, the cutter fleet is expecting increasing problems from an increasing number of overaged vessels. There has been almost no newly built cutter introduced to the German fleet, in contrast to the high seas fleet where a substantial share of the fleet is undergoing a replacement. The investment into a new vessel appears to be unfeasible for the usually family-owned businesses. Further concerns of the cutter industry refer to the lack of successors and potential area closures.

A crucial problem is seen in the context of Brexit, depending on the outcome of the negotiations between the UK and the EU. The pelagic high seas fleet substantially depends on catch opportunities in British waters, mainly for herring, mackerel, blue whiting and horse mackerel. Moreover, a processing plant in Eastern Germany grossly depends on the herring catches of that fleet and it is unclear if the raw material will be available after Brexit. The demersal fleet is also affected (saithe, plaice), but to a lesser extent.

MODEL FORECAST

Landed weight decreased by 4% in 2016, with an 8% increase in landed value. Projections suggest that operating costs remained unchanged as lower energy costs were compensated by higher labour costs. Due to the increase revenue economic performance further improved in 2016: GVA (+13%), gross profit (+23%) and net profit (+96%).

Projection results, suggesting that the German fleet operated at a profit also in 2016, are in line with recent statements from the industry. The estimate for net profit margin is 9%. Positive economic developments can also be seen in performance indicators GVA to revenue (60%), GVA per FTE (€77 thousand) and gross and net profit margins. However, the net indicators are somewhat biased by negative estimated opportunity costs.

The 2016 gains projected are slightly offset in 2017 as the increase in landings (+15%) is somewhat counteracted by lower prices, resulting in no significant changes in landings value. With fuel prices increasing (+26%) in 2017 the overall German fleet is forecasted to still remain profitable with gross and net profit margins of 23% and 8%, respectively.

Data issues

Capacity, logbook and landings data are derived from sources which are covered by different legislations. All these data are available exhaustively. That means that all capacity, landings and effort data are represented at 100%.

The only exception is the group of vessels <8m without logbook obligation. These vessels are sampled for effort data. The remaining variables (cost, employment, fuel consumption) are estimated based on results from an accountants' network and from surveys with questionnaires.

All data on the high seas fleet were collected exhaustively (100%).

The data basis for fleet segment level estimations has become broad over the years. All fleet segments with major contribution to the total catches of the German fleet have been sampled with satisfactory response rates. As segments are not necessarily homogeneous, the results can be quite variable which is reflected in higher coefficients of variation. Some leaps in time series might be due to an improvement in data coverage, with the latest data being most reliable as the raising procedure is based on more comprehensive information. The improvement of the estimation procedure is an on-going process.

The German fishing fleet contains a small number of pelagic vessels which are owned mainly by one company and therefore, for confidentiality reasons, it is impossible to publish this data by segment. Clustering the pelagic vessels with other vessels

is not feasible as the pelagic vessels have unique characteristics that would completely bias "pure" segments when clustered. Therefore, the only pelagic fleet data in this report is capacity and weight and value of landings data, which is public, so please consider this when interpreting national totals; the German pelagic fleet accounts for a substantial part of the national fleets' costs and earnings.

All data have been collected, also for the pelagic fleet. As in previous years, confidentiality of most of the data on pelagic vessels affects regional analyses. The pelagic fleet mainly operates in the North Sea and North Atlantic (herring, mackerel, blue whiting). Data on pelagic fisheries in the Baltic are hardly affected, as they are performed on a seasonal basis, and vessels are assigned to the DTS segment, which reflects their major activity during the year.

Vessels which targeted blue mussels were excluded from the analysis because they are defined as operating in the aquaculture sector. Not all of the participating vessels can be identified by the first gear entry in the fleet register as some vessels are using beam trawls. Instead, the relative catch of blue mussel was used, thus allowing an unambiguous identification of aquaculture vessels.

Note that data issues influence calculation of many indicators. Only partial data for the pelagic trawl segments were provided. Ideally, at the national level, these confidential data should be included; if this is not possible then these fleets should be excluded from the national totals in order to obtain reliable results.

Table 5.41 Germany: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	1,861	1,817	1,757	1,664	1,564	1,537	1,516	1,478	1,059	1,046		-3%	-12%
Number of Inactive vessels_ms	(#)	512	506	497	437	410	399	397	404	371			2%	-10%
Vessel tonnage	(thousand GT)	66.6	67.9	65.9	64.6	62.1	62.2	58.2	56.5				-3%	-12%
Engine power	(thousand kW)	154.7	158.3	155.8	151.4	142.2	142.1	135.4	130.1				-4%	-12%
Total employed	(person)	2,068	1,529	1,744	1,639	1,752	1,647	1,605	1,532	1,538	1,498		-5%	-11%
FTE	(#)	1,615	1,238	1,365	1,258	1,372	1,281	1,253	1,202	1,200	1,219		-4%	-10%
Days at sea	(thousand day)	139.8	129.0	115.9	109.8	119.4	108.0	111.1	106.1	104.1	101.5		-5%	-11%
Fishing days	(thousand day)	142.7	132.9	118.5	112.5	123.4	111.8	114.4	110.7				-3%	-9%
Number of fishing trips	(thousand)	48.3	44.1	39.6	34.7	37.3	34.8	33.9	33.3				-2%	-14%
Energy consumption	(million litre)	48.3	46.1	47.1	41.6	46.6	37.2	38.1	40.2	41.1	46.4		5%	-8%
Live weight of landings	(thousand tonne)	258.0	228.5	220.6	207.8	198.5	219.0	226.9	238.5	228.2	262.6		5%	7%
Value of landings	(million €)	231.5	190.9	209.5	199.1	209.4	209.3	205.3	215.8	233.9	234.1		5%	4%
Income from landings	(million €)	163.0	133.0	145.5	130.6	152.0	143.5	131.4	140.6	148.4	153.4		7%	-1%
Other income	(million €)	2.9	3.4	4.9	2.9	2.6	3.6	3.2	6.6	6.6	6.5		106%	96%
Direct income subsidies	(million €)	0.9	1.2	1.3	1.5	1.3	1.1	1.8	0.9				-47%	-27%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	33.4	38.4	38.6	36.4	39.6	36.3	37.5	40.5	42.9	46.4		8%	9%
Unpaid labour value	(million €)	12.2	10.1	10.2	8.7	10.9	10.6	9.7	9.5	10.4	9.7		-2%	-8%
Energy costs	(million €)	28.6	21.1	24.6	27.3	32.0	24.7	23.2	18.1	14.4	18.1		-22%	-30%
Repair & maintenance costs	(million €)	20.4	20.3	20.1	19.4	18.2	15.7	15.1	17.4	17.6	17.4		15%	-6%
Other variable costs	(million €)	26.5	13.5	10.7	11.4	11.6	9.6	10.7	12.9	13.1	14.8		20%	-4%
Other non-variable costs	(million €)	24.1	16.4	15.3	17.2	17.1	15.8	14.6	16.6	16.9	16.7		14%	-3%
Annual depreciation costs	(million €)	27.4	25.4	24.5	22.0	19.6	21.0	17.0	24.6	26.0	25.8		44%	9%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	1.4	3.6	1.6	0.1	- 0.5	- 0.0	0.3	0.4	- 0.4	- 1.9		48%	-52%
Tangible asset value (replacement)	(million €)	120.6	119.9	106.7	102.5	91.1	99.8	83.2	120.0	122.3	121.3		44%	16%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	20.0	26.9	23.3	27.6	21.6	28.2	24.3	50.0				106%	103%
Financial position	(%)	68.0	68.0	91.0	113.0	102.0	74.0	69.0	54.0				-22%	-35%
Gross Value Added	(million €)	66.2	65.1	79.5	58.3	75.7	81.3	71.0	82.1	92.9	92.9		16%	16%
GVA to revenue	(%)	39.9	47.7	52.9	43.6	49.0	55.2	52.8	55.8	59.9	58.1		6%	15%
Gross profit	(million €)	20.6	16.6	30.7	13.2	25.3	34.4	23.7	32.1	39.6	36.7		35%	37%
Gross profit margin	(%)	12.4	12.2	20.5	9.9	16.3	23.4	17.6	21.8	25.5	23.0		24%	36%
Net profit	(million €)	- 8.2	- 12.4	4.6	- 8.9	6.2	13.3	6.4	7.1	13.9	12.9		11%	5050%
Net profit margin	(%)	- 4.9	- 9.1	3.1	- 6.7	4.0	9.1	4.8	4.8	9.0	8.1		1%	23724%
GVA per FTE (labour productivity)	(thousand €)	41.0	52.6	58.3	46.3	55.2	63.4	56.7	68.3	77.4	76.2		21%	28%
Return on fixed tangible assets	(%)	- 5.7	- 7.4	5.8	- 8.6	6.2	13.3	8.1	6.3	11.1	9.0		-22%	272%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

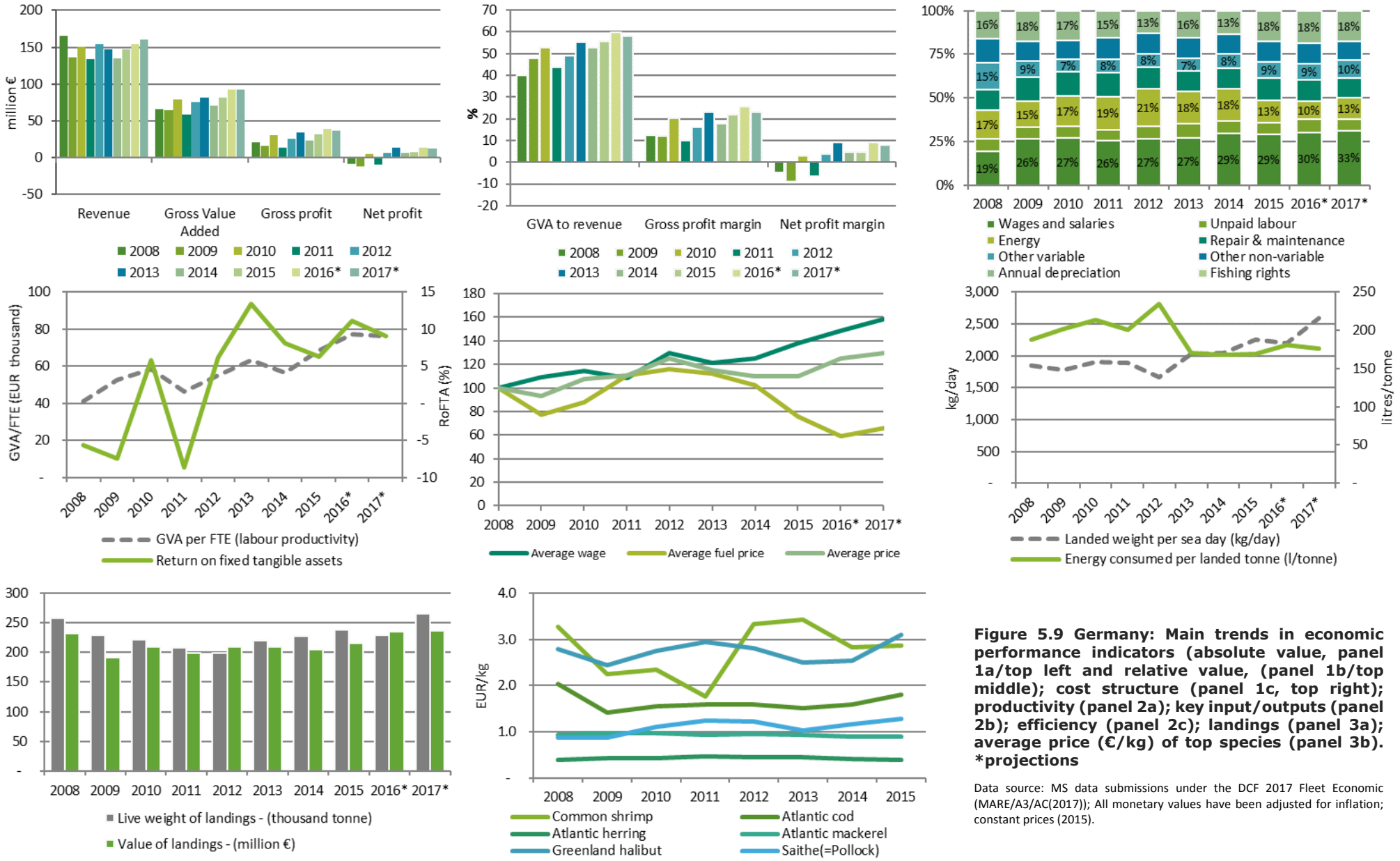

Figure 5.9 Germany: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.42 Germany: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14	LSF									Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**				2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**			
Total number of vessels	(#)	961	939	903	883	852	832	817	787	*776*	*763*		-4%	-11%	375	372	357	334	301	310	302	287	*283*	*283.25*		-5%	-15%
Vessel tonnage	(thousand GT)	2.6	2.6	2.5	2.4	2.3	2.2	2.2	2.2				-2%	-10%	32.7	60.9	60.1	31.6	56.8	54.2	54.4	52.6				-3%	5%
Engine power	(thousand kW)	23.8	23.9	23.4	22.6	22.7	22.2	22.4	22.1				-1%	-4%	95.7	119.5	117.9	89.2	105.5	103.0	103.8	98.8				-5%	-6%
FTE	(#)	790	464	654	664	668	597	608	570	*560*	*514*		-6%	-10%	825	774	711	594	704	684	645	632	*640*	*706*		-2%	-10%
Total employed	(person)	1031	559	847	869	876	777	798	747	*737*	*724*		-6%	-9%	1037	970	897	770	876	870	807	785	*801*	*775*		-3%	-12%
Days at sea	(thousand day)	88.82	79.53	71.08	73.68	76.01	66.93	70.06	66.61	*65.31*	*59.87*		-5%	-11%	50.99	49.47	44.78	36.11	43.36	41.05	41.02	39.44	*38.81*	*41.64*		-4%	-10%
Fishing days	(thousand day)	93.55	84.43	74.57	77.91	81.06	71.21	74.16	71.47				-4%	-10%	49.20	48.52	43.96	34.56	42.33	40.58	40.21	39.28				-2%	-8%
Number of fishing trips	(thousand)	22.92	19.04	16.64	16.60	16.62	15.16	14.47	14.94				3%	-14%	25.38	25.02	22.99	18.08	20.71	19.64	19.46	18.40				-5%	-15%
Energy consumption	(million litre)	1.66	1.48	1.11	1.24	1.35	1.07	0.86	0.88	*0.85*	*0.77*		2%	-30%	46.64	44.62	46.00	40.36	45.23	36.11	37.26	39.31	*40.28*	*45.59*		5%	-7%
Live weight of landings	(thousand tonne)	12.18	9.60	7.87	6.51	7.97	8.12	7.16	7.70	*7.87*	*8.15*		8%	-9%	98.06	218.86	212.76	71.57	190.51	210.86	219.71	230.79	*220.37*	*254.47*		5%	32%
Value of landings	(million €)	11.81	8.42	8.30	7.80	9.01	8.79	8.13	8.27	*8.39*	*7.61*		2%	-7%	155.63	182.46	201.19	123.58	200.44	200.53	197.21	207.54	*225.54*	*226.46*		5%	15%
Income from landings	(million €)	11.61	8.28	8.23	7.27	9.05	8.63	7.90	7.93	*7.18*	*7.29*		0%	-9%	151.35	124.67	137.25	123.35	142.95	134.87	123.49	132.66	*141.20*	*146.12*		7%	-1%
Other income	(million €)	0.51	0.76	0.90	0.69	0.85	0.50	0.67	0.63	*0.61*	*0.59*		-6%	-10%	2.37	2.68	3.96	2.23	1.78	3.11	2.53	5.97	*5.97*	*5.89*		136%	124%
Direct income subsidies	(million €)	0.14	0.18	0.32	0.39	0.27	0.45	0.70	0.38				-45%	9%	0.74	0.98	1.00	1.06	1.06	0.67	1.10	0.56				-49%	-40%
Income from leasing fishing rights	(million €)	0	0	0	0	0	0	0	0						0	0	0	0	0	0	0	0					
Wages and salaries of crew	(million €)	1.48	2.44	1.41	1.90	1.58	1.82	1.25	1.38	*1.24*	*1.27*		11%	-19%	31.94	35.91	37.20	34.46	38.04	34.45	36.28	39.14	*41.63*	*45.18*		8%	10%
Unpaid labour value	(million €)	1.75	1.14	1.01	0.90	1.38	1.36	1.08	1.16	*1.03*	*1.06*		7%	-6%	10.48	8.99	9.17	7.77	9.49	9.27	8.65	8.37	*9.39*	*8.68*		-3%	-8%
Energy costs	(million €)	1.28	0.88	0.88	0.91	1.15	0.96	0.77	0.55	*0.42*	*0.42*		-28%	-44%	27.34	20.22	23.75	26.36	30.82	23.73	22.39	17.55	*13.99*	*17.68*		-22%	-30%
Repair & maintenance costs	(million €)	2.03	2.12	1.27	1.71	1.25	1.25	1.27	1.17	*1.13*	*1.10*		-8%	-25%	18.39	18.21	18.79	17.67	16.99	14.46	14.10	16.22	*16.47*	*16.26*		15%	-4%
Other variable costs	(million €)	1.50	1.53	1.42	1.14	1.57	2.25	0.87	1.27	*1.21*	*1.10*		46%	-14%	24.97	11.99	9.33	10.26	10.01	7.37	9.87	11.67	*11.92*	*13.69*		18%	-3%
Other non-variable costs	(million €)	2.37	2.04	1.68	2.20	2.41	1.83	1.88	2.00	*1.94*	*1.89*		7%	-3%	21.71	14.33	13.67	15.01	14.67	14.00	12.69	14.62	*15.00*	*14.82*		15%	-4%
Annual depreciation costs	(million €)	1.78	1.77	1.95	1.73	1.56	1.46	1.43	1.63	*1.57*	*1.53*		14%	-2%	25.63	23.65	22.58	20.30	18.08	19.58	15.61	22.92	*24.45*	*24.26*		47%	10%
Rights costs	(million €)	0	0	0	0	0	0	0	0						0	0	0	0	0	0	0	0					
Opportunity cost of capital	(million €)	0.10	0.25	0.12	0.01	-0.04	0.00	0.02	0.03	*-0.02*	*-0.10*		8%	-61%	1.21	2.96	1.41	0.10	-0.46	-0.03	0.26	0.40	*-0.36*	*-1.83*		53%	-49%
Tangible asset value (replacement)	(million €)	8.53	8.32	8.09	7.75	7.09	6.74	6.56	6.88	*6.64*	*6.47*		5%	-9%	105.37	98.39	92.64	88.61	78.18	83.35	72.18	107.70	*115.66*	*114.81*		49%	22%
Fishing rights	(million €)	0	0	0	0	0	0	0	0						0	0	0	0	0	0	0	0					
Investments	(million €)	2.92	4.42	3.58	2.73	2.36	2.48	2.79	1.93				-31%	-36%	17.08	22.51	19.76	22.01	19.22	25.73	21.51	48.05				123%	128%
Gross Value Added	(million €)	4.93	2.47	3.88	2.00	3.51	2.85	3.78	3.57	*3.08*	*3.38*		-6%	7%	61.30	62.61	75.67	56.28	72.23	78.41	66.98	78.57	*89.79*	*89.55*		17%	16%
GVA to revenue	(%)	40.69	27.33	42.51	25.13	35.45	31.21	44.12	41.75	*39.63*	*42.89*		-5%	19%	39.88	49.16	53.59	44.81	49.91	56.83	53.15	56.68	*61.01*	*58.91*		7%	14%
Gross profit	(million €)	1.70	-1.11	1.46	-0.79	0.55	-0.33	1.45	1.03	*0.81*	*1.05*		-29%	147%	18.88	17.70	29.29	14.04	24.71	34.69	22.04	31.06	*38.78*	*35.69*		41%	35%
Gross profit margin	(%)	14.06	-12.28	15.95	-9.98	5.52	-3.66	16.90	12.03	*10.38*	*13.34*		-29%	218%	12.28	13.90	20.74	11.18	17.07	25.14	17.49	22.41	*26.35*	*23.48*		28%	33%
Net profit	(million €)	-0.17	-3.13	-0.62	-2.54	-0.97	-1.79	0.00	-0.63	*-0.74*	*-0.38*		-15079%	52%	-7.96	-8.90	5.31	-6.36	7.09	15.13	6.18	7.74	*14.69*	*13.26*		25%	417%
Net profit margin	(%)	-1.40	-34.62	-6.76	-31.88	-9.78	-19.66	-0.05	-7.33	*-9.57*	*-4.79*		-15105%	51%	-5.18	-6.99	3.76	-5.06	4.90	10.96	4.90	5.59	*9.98*	*8.72*		14%	436%
Return on fixed tangible assets	(%)	-0.84	-34.61	-6.10	-32.63	-14.24	-26.67	0.30	-8.74	*-11.52*	*-7.43*		-3044%	47%	-6.40	-6.04	7.25	-7.06	8.48	18.12	8.92	7.56	*12.39*	*9.96*		-15%	128%
GVA per FTE (labour productivity)	(thousand €)	6.25	5.32	5.93	3.01	5.25	4.77	6.22	6.27	*5.51*	*6.58*		30%	22%	74.30	80.89	106.43	94.74	102.60	114.63	103.84	124.32	*140.19*	*126.92*		-9%	9%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.43 Germany: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	% of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
DEU A27 TM40XX °	12				169,224	76,983	76,983													34.3%
DEU A27 DTS40XX	6	147	1,457	573	21,045	42,158	43,783	25,985	59.3	11,543	26.4	- 340	- 0.78	98.2	176.8	- 0.2	Weak	92%	Improved	19.5%
DEU A27 TBB1218	110	137	15,137	670	7,648	21,390	23,436	14,169	60.5	5,620	24.0	3,165	13.50	62.4	103.4	35.0	Reasonable	-8%	Deteriorated	10.5%
DEU A27 DTS2440	10	47	2,173	629	9,977	18,264	20,030	11,284	56.3	4,980	24.9	3,077	15.36	134.1	240.1	31.1	Reasonable	1565%	Improved	8.9%
DEU A27 TBB1824	62	112	9,713	854	6,967	18,260	19,939	10,852	54.4	3,564	17.9	1,007	5.05	65.1	96.9	10.1	Weak	-15%	Deteriorated	8.9%
DEU A27 TBB2440 °	9	41	1,711	1,363	3,423	11,435	11,464	6,343	55.3	3,224	28.1	1,940	16.92	76.1	154.7	35.1	Reasonable	151%	Improved	5.1%
DEU A27 DTS1824	15	43	2,875	454	5,893	8,939	9,197	4,842	52.6	2,153	23.4	691	7.51	62.5	112.6	12.3	Weak	-7%	Deteriorated	4.1%
DEU A27 PG0010	723	527	60,311	131	4,846	5,928	6,100	2,591	42.5	1,110	18.2	- 5	- 0.08	2.8	4.9	0.3	Weak	99%	Improved	2.7%
DEU A27 DFN2440 °	6	63	1,350	1,248	1,258	5,121	5,371	2,486	46.3	289	5.4	- 421	- 7.84	34.9	39.5	- 12.6	Weak	75%	Improved	2.4%
DEU A27 DTS1218	28	21	2,643	148	3,797	2,813	2,863	1,502	52.4	392	13.7	- 317	- 11.08	52.9	71.5	- 10.7	Weak	-36%	Deteriorated	1.3%
DEU A27 PG1012	64	43	6,301	87	2,857	2,345	2,457	982	40.0	- 81	- 3.3	- 622	- 25.31	24.7	22.8	- 28.4	Weak	-6%	Deteriorated	1.1%
DEU A27 DTS1012 °	11	6	736	104	907	657	998	295	29.6	- 168	- 16.8	- 283	- 28.33	77.2	49.2	- 57.7	Weak	-57%	Deteriorated	0.4%
DEU A27 DFN1218	6	7	561	292	459	904	881	670	76.0	- 429	- 48.7	- 612	- 69.50	156.9	95.7	- 96.9	Weak	-382%	Deteriorated	0.4%
DEU A27 TBB1012 °	12	8	1,087	1,008	190	610	669	145	21.7	- 105	- 15.7	- 164	- 24.50	31.3	18.1	- 67.5	Weak	-2451%	Deteriorated	0.3%

Table 5.44 Germany: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	% of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
DEU A27 TM40XX °	14	-	-		167,785	75,947	75,947											32.9%
DEU A27 DTS40XX	7	162	1,608	589	22,602	46,629	47,979	29,038	60.5	13,239	27.6	- 154	- 0.32	97.4	179.0	- 0.5	Weak	20.8%
DEU A27 TBB1824	63	121	10,536	1,568	4,114	27,060	26,167	17,396	66.5	7,715	29.5	5,189	19.83	79.7	143.2	48.9	High	11.3%
DEU A27 TBB1218	111	135	14,922	1,305	3,868	26,545	26,025	17,306	66.5	7,753	29.8	5,338	20.51	70.7	128.1	57.6	Reasonable	11.3%
DEU A27 DTS2440	9	43	1,971	722	7,890	17,137	18,528	11,146	60.2	5,301	28.6	3,650	19.70	137.1	261.5	40.2	Reasonable	8.0%
DEU A27 TBB2440 °	9	44	1,853	1,467	3,446	13,049	12,858	7,902	61.5	4,404	34.2	3,157	24.56	78.8	178.0	56.2	High	5.6%
DEU A27 DTS1824	13	38	2,533	480	4,916	9,142	9,285	5,725	61.7	3,000	32.3	1,768	19.04	71.9	151.1	34.8	Reasonable	4.0%
DEU A27 PG0010	718	521	59,596	130	4,836	6,052	5,681	2,291	40.3	919	16.2	- 157	- 2.76	2.6	4.4	- 3.7	Weak	2.5%
DEU A27 DTS1218	26	17	2,167	154	2,983	2,248	2,306	1,149	49.9	268	11.6	- 372	- 16.15	51.2	66.7	- 14.2	Weak	1.0%
DEU A27 PG1012	58	39	5,710	75	3,036	2,338	2,102	794	37.7	- 111	- 5.3	- 588	- 27.97	23.2	20.4	- 30.3	Weak	0.9%
DEU A27 DFN2440 °	6	62	1,337	1,280	1,214	5,573	1,650	- 1,066	- 64.6	- 2,125	- 128.8	- 2,813	- 170.50	17.0	- 17.1	- 87.0	Weak	0.7%
DEU A27 DFN1218	5	7	567	190	711	1,206	1,189	1,008	84.8	- 481	- 40.4	- 630	- 52.99	210.7	142.6	- 120.4	Weak	0.5%
DEU A27 DTS1012 °	10	5	564	92	782	541	748	142	18.9	- 180	- 24.1	- 282	- 37.69	70.0	30.8	- 64.0	Weak	0.3%
DEU A27 TBB1012 °	10	6	749	2,132	62	458	436	44	10.0	- 118	- 27.1	- 166	- 37.96	29.4	7.9	- 82.6	Weak	0.2%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.45 Germany: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Common shrimp	58.6	39.0	43.3	29.9	54.7	55.5	45.0	40.0	53.4	17.9	17.3	18.4	17.0	16.4	16.2	15.9	13.9	7.7	3.3	2.3	2.4	1.8	3.3	3.4	2.8	2.9	6.9	18.5%	5.8%
Atlantic cod	35.4	26.5	30.1	26.3	30.2	22.0	24.4	28.0	26.1	17.4	18.6	19.5	16.4	18.9	14.5	15.2	15.6	14.0	2.0	1.4	1.6	1.6	1.6	1.5	1.6	1.8	1.9	13.0%	6.5%
Atlantic herring	18.2	15.9	12.8	17.1	22.8	31.4	22.2	27.0	27.3	46.7	37.5	29.6	37.0	51.2	71.8	53.4	67.1	67.2	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	12.5%	28.1%
Atlantic mackerel	16.2	21.9	18.2	22.7	18.0	19.4	25.6	25.4	21.0	17.5	22.4	18.9	24.1	19.0	20.9	28.5	28.3	23.4	0.9	1.0	1.0	0.9	1.0	0.9	0.9	0.9	0.9	11.8%	11.8%
Greenland halibut	17.8	16.0	19.6	22.6	18.2	14.8	14.3	17.8	21.2	6.4	6.5	7.1	7.7	6.4	5.9	5.6	5.7	6.3	2.8	2.5	2.8	3.0	2.8	2.5	2.5	3.1	3.4	8.2%	2.4%
Saithe(=Pollock)	14.3	13.9	14.3	14.5	11.6	11.3	10.4	10.9	10.2	16.6	15.7	13.0	11.6	9.4	10.9	8.9	8.4	7.3	0.9	0.9	1.1	1.2	1.2	1.0	1.2	1.3	1.4	5.0%	3.5%
Blue whiting(=Poutassou)	8.3	1.6	3.5	0.1	2.4	3.8	8.2	8.3	7.3	25.3	5.0	9.1	0.3	6.2	11.4	24.5	24.1	20.0	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.4	0.4	3.9%	10.1%
European plaice	6.4	4.5	5.3	5.7	5.7	6.2	5.5	8.2	7.8	3.4	3.3	4.1	4.3	4.3	5.3	4.6	5.8	5.1	1.9	1.4	1.3	1.3	1.3	1.2	1.2	1.4	1.5	3.8%	2.4%
Common sole	5.6	6.2	6.8	4.3	4.4	4.6	6.0	7.9	9.1	0.6	0.6	0.6	0.4	0.5	0.6	0.6	0.8	0.9	10.2	10.7	12.1	11.9	9.8	8.0	9.3	10.2	10.4	3.6%	0.3%
European pilchard(=Sardine)	0.0		0.2		4.2	0.1	1.3	6.3	6.8	0.0		0.5		10.5	0.2	4.0	17.9	19.2	0.3		0.4		0.4	0.3	0.3	0.4	0.4	2.9%	7.5%
																												83.3%	78.6%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.10 Greece

Short description of the national fleet

Fleet capacity

In 2016, the Greek fishing fleet consisted of 15 226 registered vessels with a combined gross tonnage of 72 thousand GT and a total power of 431 thousand kW. The average vessel age is 30 years. The overall capacity of the Greek fleet has a falling trend between 2008 and 2016. The size of the Greek fishing fleet decreased, with the number of vessels falling by 5% while total tonnage and power also decreased by 6% and 5%, respectively. The main factor causing the fleet to decrease was the implementation of the fisheries policy to reduce the number and capacity of vessels, according to the Multiyear Orientation Programs for the Greek fishing fleet. Also, it is important to mention that the sector faces ageing of the population without any attractive motive for successors to stay in business.

Fleet structure

The majority of the active vessels (13 567) are small-scale vessels (less than 12 meters) with a combined gross tonnage of 26.5 thousand GT and a total power of 252 thousand kW. On the other hand, there are 847 large-scale vessels (larger than 12 meters) with a combined gross tonnage of 44 thousand GT and a total power 159 thousand kW.

Employment

Employment was estimated at 25 407 jobs that correspond to 23 431 FTEs with a very low average wage per FTE and total employed (€6.8 and €6.2 thousand, respectively) in 2015.

Effort

In 2015 the Greek fleet spent 2 603[24] thousand days at sea corresponding to an annual average of 180 days at sea for each vessel (AGRERI, 2017). The amount of energy consumed was estimated at 107 million litres and thus was slightly lower than in 2014. The average amount of energy consumption was 7 424litres per vessel. Due to lower fuel prices and the reduction of the fishing fleet, the energy costs decreased from about€105.5 million in 2013 to €84.4 million in 2015.The fishing effort is concentrated mainly in Aegean (GSA 22) 73%, Ionian (GSA 20) 23.5% and Crete (GSA 23) 3.5%. Greek small-scale vessels spend 2 443 thousand days at sea while large-scale vessels 160 thousand days.

Production

The Greek fishing fleet targets a variety of species. The main Greek species regarding the weight are European pilchard (sardine), European hake, red mullet, surmullet, common cuttlefish, common sole, gilthead sea bream, and jack and horse mackerels. In 2015, production referred to a three-month period from October to December, so it is underestimated. The core Greek species regarding value are European hake, red mullet, European pilchard (sardine) and surmullet.

Economic results for 2015 and recent trends

National fleet performance

The basic source of income of Greek fishing vessels is the income from landings, while some segments also receive direct subsidies, stemming from duties refunds. No other source of income exists (e.g. income from fishing rights, recreational fisheries). The income generated from landings was enough to cover all expenses except for the imputed value of unpaid labour and, hence the activity produced a positive income for fishers in 2015 (AGRERI, 2017). As the majority of the Greek fishing vessels are mainly based on family labour, this figure provides a clearer picture of the financial position of the owner and therefore it is crucial for the estimation of household economic sustainability. It is also important to emphasize that this figure is estimated as the opportunity cost of labour, using the average daily wage per fisher. However, in many cases, due to the lack of labour demand in local economies, which is even more intense due to the on-going financial recession, the opportunity cost of labour is, in fact, lower or even zero.

The total expenses of the Greek fleet are €388 million. The main expenses of the fishing vessels are energy costs, personnel costs (wage and salaries and imputed value of unpaid labour) as well as other variable costs. Energy costs account for 22% of total expenses and exceed a total of €84 million. As far as personnel costs are concerned, they account for 41% of total costs. Specifically, wages and salaries are equal to €77 million, and they derive mainly from the large-scale vessels. On the other hand, imputed labour costs are estimated to €82 million and derive mainly from small-scale vessels.

Other variable costs, including lubricants and marketing costs, are also important. These costs are estimated at €78 million. The non-variable costs are significantly lower (€6 million), representing only 2% of total expenses, while repairs and maintenance costs reach €36 million. Finally, the annual depreciation costs account for 6% of total costs (€24 million).

As far as the value of physical capital (depreciated replacement value) is concerned, it is equal to €99.8 million. Moreover, the financial position (debt to asset ratio) of the national fleet is estimated at zero level while total investments in physical capital in 2015 are €28 million.

[24]It has to be mentioned that in 2015, the National Program was lately initiated and therefore, the transversal variables were only collected for a three-month period. The estimation refers to the Greek Socio-Economic Survey for the Greek Fishing Fleet (AGRERI, 2017).

Performance by fishing activity

Small-scale coastal fleet

In Greece, the majority of vessels (94%) are small-scale vessels. Specifically, there are 13 567 small-scale vessels with a combined gross tonnage of 26.5 thousand GT and a total power of 252 thousand kW in 2015. The number of small-scale vessels decreased from 15 834 in 2008 to 13 567 in 2015, following the general trend of the Greek fleet. This segment spent 94% of the national amount of days at sea. The SSCF employs a total of 18 490 FTEs, thus contributing to 79% of the total national employment of the sector.

The SSCF mainly exploits the extensive Greek coastline, using polyvalent passive gears (mainly nets, longlines, pots, and traps). The vessels in this segment are primarily family-owned, and they are characterized by low invested capital. Moreover, their landings are sold at higher prices compared to the large-scale fleet, and they are mainly directed to the market through very short supply-chains. Despite the fact that the vessels of this segment are small, they are vital for the local economies regarding job opportunities and have strong ties to them. They usually offer income and employment to poor and isolated areas with very few alternative economic activities. Therefore, this segment highly contributes to the maintenance of the social and economic sustainability of the coastal communities.

The small-scale vessels consume 47.8 million litres fuel, and the corresponding energy costs are high. It is crucial to mention that the small-scale fishers due to the limited liquidity that faced, they do not have the flexibility to buy their fuel in advance; instead, they buy a limited amount to cover only very short-term needs. This is the main factor that increases the energy cost because they do not gain the reduced price of fuel.

Large-scale fleet

The large-scale fleet contains 847 vessels with a combined gross tonnage of 44.2 thousand GT and a total power of 159 thousand kW. As larger vessels have higher levels of engine power, they can conduct more fishing operations in deeper fishing grounds. These vessels mainly use active gears (bottom trawlers and purse seiners) and are characterized by high operating costs. The large-scale vessels consume 59.1 million litres of fuel. The large-scale fleet segment in contrast to the small-scale benefits from the reduced price of fuel.

Performance results of selected fleet segments

The Greek fleet is highly diversified with a broad range of vessel types targeting different species. The national fleet consisted of 14 (DCF) fleet segments and 15 624 vessels in 2015.

Netters 6-12m: This is the largest fleet segment of the Greek fishing fleet, containing 5 629 vessels. The total value of landings is €110 million (AGRERI, 2017) and the total FTEs employed in this fleet segment is 9 396 (representing the 29% and 40% of the Greek fishing fleet respectively). Imputed value of unpaid labour is the main cost item (31% of total expenses) and represents the family contribution to the labour. Although the net profit is negative, the profit plus the imputed value of labour provides a notable income to the family.

It is also important to mention that this segment produces the highest added value among fleet segments, which is equal to €58 million (AGRERI, 2017), a fact that reveals its substantial importance. Taking into consideration that the majority of these vessels are active in poor and isolated areas, with very few alternative economic activities, the importance of this sector to the local economies is even more apparent.

Netters 0-6m: It is the second most important fish segment in Greece regarding the number of vessels employed 3 479 small vessels. These vessels target multi-species *(*e.g. European hake and common octopus*).* The total value of landings is €36 million (AGRERI, 2017), representing 10% of the total national value of landings. Moreover, this fleet segment employs 3 259 FTEs, which corresponds to one FTE per vessel. Taking into consideration that the majority of these vessels are family owned, they normally utilize only family labour. The share of the segment in both the national total value of landings and the national FTEs indicates its high importance (10% and 14%, respectively).

Unlike large-scale fisheries, the main cost element is the imputed value of unpaid labour (43%), followed by energy costs (19% of total expenses). Finally, it is worth noticing that although this segment includes very small vessels, it highly contributes to the national economy (added value of about €23 million) and provides livelihood and income for fishers with limited alternative employment.

Netters 12-18m: There are only 174 vessels in this fleet segment, representing 435 FTEs. Wages and salaries represent the most important cost element of this fleet segment, accounting for 26% of the total costs. Energy cost and other variable cost are also important, since they account for 19% and 18% of total costs respectively. It is worth noticing that the value of net profit plus the imputed value of labour is negative in this segment (AGRERI, 2017).

Longliners: The fleet is made up mostly of small vessels less than 12m, around to 4 000 vessels. This segment has substantial contribution either to landings or employment. In total, it contributes with 5 597 FTEs representing 24% of the Greek fishing fleet. This figure highlights the major importance to the local rural economies. Imputed cost of labour is the main type of cost, representing the family contribution to the labour. This has a significant effect due to limiting alternatives for jobs in some specific coastal areas.

Longliners 0-6m: This fleet segment includes 1 675 small vessels (4th largest fishing segment). The total value of landings is €17 million, representing 4.5% of the national total value of landings. Moreover, this fleet segment employs 1 396 FTEs, which corresponds to 6% of the total FTEs of the Greek fishing sector. Taking under consideration that the majority of these vessels are family owned, as well as the FTE per vessel is one, we can say that this segment utilizes mainly family labour. Unlike large-scale fisheries, the main cost element is the imputed value of unpaid labour (39%), which is more than €7 million.

Longliners 6-12m: This is the 3rd largest fleet segment of the Greek fishing fleet, containing 2 386 vessels. The total value of landings is €50 million (AGRERI, 2017) and the total FTEs employed in this fleet segment is 3 806 (representing the 13% and 16% of the Greek fishing fleet respectively). These figures highlight the importance of this segment to the local, rural economies. Imputed value of unpaid labour is the main type of cost (24% of total expenses), and as in the previous segment, represents the family contribution to the labour. Energy costs are also important, contributing by 21% of total costs. It is important to mention that this segment an added value of €22 million, a fact that reveals its high importance to the rural economies.

Longliners 12-18m: The total number of active vessels that fall in this group is 126, while the average age of vessels 23 years. The total value of landings is €13 million while employment corresponds to 395 FTEs. This fleet segment represents 3% of the national value of landings and 1.7% of the national FTEs. Variable costs account for 33% of total costs of this fleet segment. Salaries and wages of the crew, as well as energy costs, are also important since they represent 22% and 20% of total costs, respectively. This fleet segment yields positive net profits, as well as very sound profitability indicators (AGRERI, 2017).

Bottom trawlers 18-24m: This fleet segment includes 117 active vessels with a total value of landings of €23 million and a total employment that corresponds to 641 FTEs. The share of this segment in the value of landings and total employment (FTEs) is 6% and around 3%, respectively. Bottom trawlers have multi-species characteristics, captures numerous fish species, such as European hake (*merluccius merluccius*), deep-water rose shrimp (*parapenaeus longirostris)*, red mullet (*mullus barbatus)*, blackbellied angler (*lophius budegassa)*, surmullet (*mullus surmuletus)*, Caramote prawn *(Melicertus kerathurus),* broadtail shortfin squid *(Illex coindetii),* bogue *(Boops boops),* picarel *(Spicara smaris),* common octopus *(octopus vulgaris)* and many others. This segment spends on average 132 days at sea per year. Management regulations include seasonal (June 1-Sepetember 30) and spatial closures, as well as a minimum landing size. Energy cost is the main cost element (29% of total costs), followed by other variable costs as well as wages and salaries (25% and 23% share in total costs, respectively). Finally, it should be noted that this feet segment represents 5% of the total value of physical capital and 2% of total investments in 2015.

Bottom trawlers 24-40m (DTS 24-40): There are 165 vessels in this fleet segment with a total tonnage of 21 thousand and total power of 51 thousand KW. The average age of these vessels is low (22 years), which is an indication of increased welfare. They spend on average 175 days at sea per year with a total value of landings of €49 million. The total FTEs are 1033, representing the 4% of the national FTEs with an increase of 5% from 2014. As in the case of smaller bottom trawlers, the main cost is energy cost that represents 34% of the total costs of the vessels. Other significant expenses are wages and salaries (19%) as well as other variable costs (25%). As far as the value of physical capital is concerned, it represents 19% of the total national value of physical capital while it represents 6% of total national investment for 2015. Finally, it should be noted that, according to AGRERI (2017), this segment appears to have improved economic performance mainly due to reduced energy costs. The landings contribution of this segment to the national economy is also significant and the average wage per FTE is also very high.

Purse seiners: This segment includes 252 vessels operating predominately in areas Aegean (GSA 22) and Ionian GSA 20. Aegean has the 85% of the fishing effort and Ionian 15%. Purse seiners fishery is the main fishing method for small pelagic species, multispecies mainly European anchovy *(Engraulis encrasicolus)*, European pilchard or sardine *(Sardina pilchardus),* chub mackerel *(Scomber japonicus),* round sardinella *(Sardinella aurita),* bogue *(Boops boops)* and many others. The purse seiners conduct daily trips, and each vessel is responsible for fish searching, catching and transporting its own catches to port. Fishing operations are carried out exclusively during night hours with each vessel carrying around 8–10 persons. Each per seiner spends, on average, 153 days at sea per year. Management regulations currently in force for the purse seine fishery include mesh size regulations (14 mm), technical measures such as time closure (December– February), area closure and fishing prohibitions within specific distances from the coast (100 m).

Purse seiners 18-24m: This segment includes 134 vessels with a value of landings equal to €34 million (9% of the total national value of landings). Each vessel spends on average 142 days at sea per year. The segment employs a total of 1 366 FTEs, and thus it contributes to the 6% of the national total. Wages and salaries, as well as other variable costs, are the largest cost elements in this segment, together representing the 68% of the total cost. The economic performance improved this year according to the AGRERI estimates, which allows for a positive and significant income to the fishers (taking the imputed value of unpaid labour under consideration).

Purse seiners 24-40m: The total number of vessels in this segment is 31. Unlike the previous segments it is characterized by a low average age of the vessels (16 years). Each boat spends on average 210 days at sea per year. The total value of landings is equal to €16 million (4% of the national total). This segment employs 399 FTEs, which corresponds to 1.7% of the total national FTEs. The main costs of the vessels in this segment are the other variable costs (44% of total costs) and the wages and salaries of the crew (30% of total costs). Energy costs are also important contributing to the 14% of the total costs.

Pots and Traps: This fleet is a small one. It includes totally 411 vessels, with the majority of them (325 vessels) with 6-12m. It offers 662 FTEs representing 2.8% of the total FTEs of the Greek fishing sector. Pots and Traps have multi-species characteristics, captures mainly common octopus *(octopus vulgaris),* common cuttlefish *(Sepia officinalis),* Norway lobster *(Nephrops norvegicus),* black seabream *(Spondyliosoma cantharus),* picarel *(Spicara flexuosa)* and many others. The main characteristics of this segment are the high average vessel age; the main cost element is the imputed value of unpaid labour, which mainly represents the family contribution to the labour. General, the segment faces low economic results but yields a positive income for fishers (profit plus the imputed value of labour).

Drivers affecting the economic performance trends

The main drivers affecting the economic performance of the Greek fishing sector involve the general economic environment and the ongoing Greek financial crisis, as well as specific sector characteristics. The cash flow shortage, the limited access to credit, the increasing social-security contributions and taxation together with the high value of inputs creates unfavourable conditions for fishers and their activities. Low prices of the main target species are also linked to the low spending power of Greek households because of the ongoing financial crises.

Furthermore, one of the main problems fishers report concerns the damages of the fishing gears, caused by protected species like dolphins, seals, sea turtles, and seabirds. These damages increase the repair and maintenance costs of the vessels and negatively affect their overall economic performance, keeping in mind that fishers do not receive any compensation.

Additionally, the reduction of the fishing stocks in the Mediterranean Sea affects the economic performance of the Greek fishing sector. Pressure on stocks is increased due to the competition of the Greek fishing vessels with vessels from other countries that do not have to follow EU legislation and restrictions, like Turkey. There is also a variety of vessels operating in the same fishing areas, and this can lead to conflict. This conflict between the small-scale and large-scale fleets was highlighted by some as a major factor impacting on financial performance. In particular, there were obviously different attitudes toward regulation; some sectors felt they were being hampered by increasingly tight management restrictions, while others expressed a desire for more regulation of their fishing grounds.

Another problem that negatively affects the economic performance of professional fishers in Greece is the competition with an increasing number of recreational fishers, who usually fish in coastal areas and sometimes illegally sell their catch at low prices.

Markets and Trade (including fish price)

As far as the market structure is concerned, fishers reported that on average, 50% of their catch is channelled to wholesalers and fish auctions while 45% involves direct sales to consumers. Direct sales refer mainly to small-scale vessels. However, if only large-scale vessels are examined (bottom trawlers and purse seiners), fishers report that about 80% of the catch is channelled to wholesalers and fish auctions. It is also important to emphasize that according to EUMOFA database, for all main Greek species (apart from cuttlefish), landing prices have fallen from 2010.

Management instruments

Fisheries in Greece, as in all the Mediterranean countries, are recognized for the variety of commercially important species caught and the range of fishing methods employed. Stocks are managed and conserved by regulations and governmental legislation (e.g. 1967/2006), defining closed areas and seasons (for trawlers, purse-seiners, boat seiners and traps fishery), minimum landing sizes for the most commercial species and restriction on gears characteristics (mesh size, deployed net length, deployed hook amount). Management plans are realized for bottom trawl, night purse seine, boat seine and eel fishery.

The recreational fishery is also ruled by certain restrictions and prohibitions in fishing of defined stock (blue fin tuna and eel and several species of sharks and rays).

Fishing in international waters has been restricted in the area East of the 25th Meridian during summer in order to decline the fishing effort and conserve the stocks.

Furthermore, monitoring of the fishing activity is managed through an Integrated Information System.

It should also be mentioned that there is a Greek Operational Programme for 2014-2020 ("Fisheries and Maritime 2014-2020) that aims to promote a sustainable management of the fisheries sector. Amongst others, the program supports the modernization of the sector through on-board investments and improvements of infrastructures.

Status of Key Stocks

One of the main problems of the fisheries sector in Greece is the reduction of population stocks in the Mediterranean Sea, caused mainly by overfishing and illegal fishing. Many of the most significant and commercial species are overfished at a young age and small size, which prevents efficient reproduction. It should be emphasized that though special attention is required in the management of these species, there are no quotas for them in the Mediterranean region except tuna.

Regarding the status of the main target species of trawlers, the stock of deep-sea pink shrimp (*Parapenaeus longirostris*) is fully exploited in GSA 22, the stock of hake (*Merluccius merluccius*) is fully exploited in GSAs 20 and 22 while the stock of the red mullet (*Mullus barbatus*) is in good condition in GSAs 20 and 22. On small pelagic species, which reflect the performance of the purse seine fishery, the stock of anchovy (*Engraulis encrasicolus*) is slightly above the appropriate operating point, while the sardine (*Sardina pilchardus*) has high exploitation index.

Operational costs (external factors)

As already discussed above, the main cost of the Greek fishing vessels is the energy cost. According to the data collected energy cost decreased during 2015, as a result mainly of the decreased fuel price. Fuel price has decreased even in the case of small-scale vessels.

On the other hand, the wages and salaries of the crew, which is also an important cost element have increased compared to 2014. Keeping in mind that the current reform of the social-security contribution also affects fishers, linking their contributions to their income, it is estimated that this increase will continue in the future. The reform gradually increases social-security contributions until the year 2022. This is one of the main concerns that fishers express together with the increase of taxation.

Another external factor that affects the costs of the fishing activity are damages caused to fishing gear, especially nets, from mammals like dolphins, but also sea turtles, crabs, and sea birds. These damages are frequent and reported by the majority of fishers, although currently no compensation is received.

Innovation and Development

The Greek fleet consists mainly of small-scale, family-owned vessels that use traditional fishing gears. Furthermore, investments are limited due to the economic crisis, while the average age of the vessels is increasing. This environment leaves limited room for new and innovative techniques not only for small-scale fisheries but also for large vessels since the

latter also faces high running costs. However, as mentioned above the Greek Operational Programme for 2014-2020 aims at the modernization of the fisheries sector and its sustainability particularly through supporting the use of more selective fishing gear as well as other on-board investments and equipment, the modernization of infrastructures and the improvement of fisheries monitoring and control.

Furthermore, for successful management instruments and policies to be implemented that will promote the sustainability and the development of the fisheries sector, the Greek Fisheries Institute, the Hellenic Centre for Marine Research and the Greek Agricultural Economics Research Institute are providing the necessary scientific knowledge.

Another development in the Greek fisheries sector involves the MSC fisheries standard, which for the first time will be implemented in the Mediterranean Sea. WWF Hellas, the Greek Fisheries Institute, a retail company and some fishers using purse seiners are working together, according to the MSC standard to support the sustainability of the fishing sector and the promotion of certified, high-quality products to consumers.

Finally, during 2017 there have been attempts to create special schools for the education of professional fishers. This attempts aim to increase productivity of the sector while at the same time promote the protection of species and marine environment. Furthermore, education opportunities are likely to attract young fishers and therefore to contribute to the renewal of the human capital of the sector.

Socioeconomic impact

The extensive Greek long coastline (13 780 km), representing around 16% of Europe's coastline (EEA, 2006; Loizou, 2014), and the numerous islands located in Aegean and Ionian Sea, offers a great natural environment for the development of a powerful fishing sector in Greece. This unique environment also gives privilege to small-scale fisheries, which is a factor considerably differentiating Greece from other European countries (Tzanatos, 2006). Small-scale fishing vessels use polyvalent passive fishing gears (mainly nets, longlines, pots, and traps) and rely mainly on the work of the vessel owners (Pinello et al., 2016).

Additionally, the large continental coastline and the number of inhabited islands make fisheries (especially small-scale fisheries) more important at a local level (Tzanatos et al., 2005). Therefore, despite the fact that its contribution to the gross domestic product (GDP) is limited (less than 3.1%), the Greek fisheries sector represents a primary sector of significant socio-economic importance, particularly in coastal, traditionally fisheries-dependent areas (Malindretos et al., 2016). Especially, small-scale fisheries are vital for the local economies as they offer income and employment to poor and isolated areas with very few alternative economic activities. Therefore, this segment highly contributes to the maintenance of the social cohesion and to the socio-economic sustainability of the coastal communities.

An important problem with great socioeconomic impact is the overexploitation of the fishing stocks that has been shown to occur for the entire Mediterranean (Vasilakopoulos et al., 2014; Tsikliras et al., 2015), but also for the Greek Seas (Tsikliras et al., 2013). Overexploitation contributes to a great reduction of the fishing stocks at numbers far below their Maximum Sustainable Yields (COM (2016) 396). This situation directly threatens the economic and social sustainability of the coastal areas and islands.

Data issues

There have been significant data issues in producing this chapter. The implementation of the National Programme has faced some difficulties during the last years which resulted in interrupted time series on the economic data. The lack of data and time series has created many shortfalls in the presentation of the fleet economic performance. The figures for costs come from a survey based on probability sampling, and the response rate was satisfying for 2015 while the transversal variables were collected only for three months for all fishing segments because the National Program was lately initiated.

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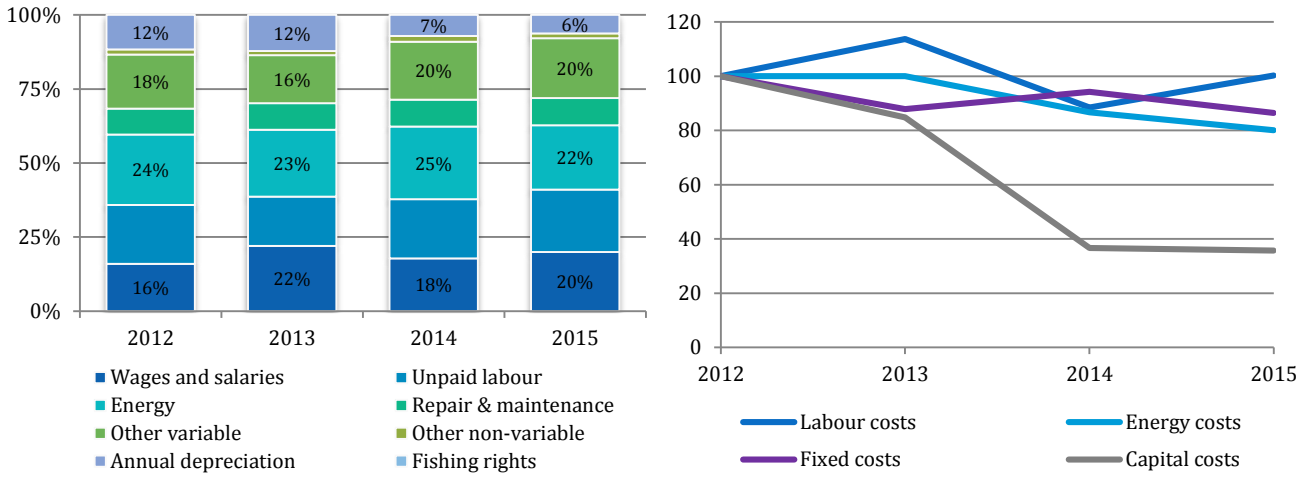


Figure 5.10 Greece: Cost structure (panel 1a) and key inputs (panel 1b)

Table 5.46 Greece: National fleet statistics

		2008	2009	2010	2011	2012	2013	2014	2015	2016	Trend 2011-2016	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	17.248	17.168	17.047	16.542	16.063	15.954	14.755	15.624	15.226		6%	-5%
Number of Inactive vessels_ms	(#)					1.531	1.202	1.155	1.210			5%	-7%
Vessel tonnage	(thousand GT)	83,4	83,1	83,0	79,9	76,2	75,6	72,8	74,7	71,8		3%	-6%
Engine power	(thousand kW)	497,2	494,7	493,9	473,8	455,6	454,6	431,2	446,2	431,3		3%	-5%
Total employed	(person)					27.559	24.486	23.232	25.407	24.759		9%	1%
FTE	(#)					23.945	22.546	20.780	23.431			13%	4%
Wages and salaries of crew	(million €)					70,94	102,81	66,54	77,35			16%	-3%
Unpaid labour value	(million €)					88,08	78,07	74,24	82,05			11%	2%
Energy costs	(million €)					105,45	105,51	91,43	84,43			-8%	-16%
Repair & maintenance costs	(million €)					38,82	42,10	33,93	35,64			5%	-7%
Other variable costs	(million €)					81,14	75,68	73,22	78,25			7%	2%
Other non-variable costs	(million €)					7,49	6,58	7,06	6,48	6,32		-8%	-8%
Annual depreciation costs	(million €)					51,74	57,22	26,55	24,21	23,59		-9%	-46%
Rights costs	(million €)					-	-	-	-				
Opportunity cost of capital	(million €)	-	-	-	-	46,54	26,15	9,52	10,87	8,13		14%	-7%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.47 Greece: National fleet statistics by fishing activity

		SCF									Trend 2008-2016	Δ2015 to 2014	Δ2015to avg. 08-14
Variable	unit	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**			
Total number of vessels	(#)	15.834	15.761	15.635	15.268	13.439	13.671	12.762	13.567	14.153		6%	-5%
Vessel tonnage	(thousand GT)	30,9	30,8	30,8	29,9	26,0	26,5	24,8	26,5	27,9		7%	-5%
Engine power	(thousand kW)	291	289	288	281	248	252	238	252	264		6%	-4%
FTE	(#)					19.396	17.440	15.782	18.490			17%	4%
Total employed	(person)					21.780	19.263	18.222	20.420	21.370		12%	3%

		LSF									Trend 2008-2016	Δ2015 to 2014	Δ2015to avg. 08-14
Variable	unit	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**			
Total number of vessels	(#)	1.414	1.407	1.412	1.274	1.093	1.081	838	847	*1.073*		1%	-30%
Vessel tonnage	(thousand GT)	52,5	52,3	52,3	50,1	46,5	46,0	44,1	44,2	*44,0*		0%	-10%
Engine power	(thousand kW)	207	205	206	193	176	176	158	159	*167*		0%	-16%
FTE	(#)					4.548	5.106	4.998	4.942			-1%	1%
Total employed	(person)					5.778	5.223	5.010	4.987	*4.830*		0%	-7%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).

5.11 Ireland

Short description of the national fleet

Fleet capacity

The capacity of the national fleet remains relatively stable albeit with small temporal fluctuations. In 2016, there were 2 038 registered vessels (excluding those registered in the *aquaculture* segment), with a total capacity of 59.8 thousand Gross Tonnes (GT) and 182.3 thousand kilowatts (kW). The estimated total number of inactive vessels in 2015 was 603. While inactivity for vessels over 10 metres LOA is known from logbook data, inactivity in the less than 10 metres LOA fleet has been estimated using data from equivalent (gear, target species *etc*.) fleets in the 10-12 metre segment and information from sales notes.

Fleet structure

National segmentation of the Irish fishing fleet does not match DCF segmentation in every case. For example, the polyvalent segment (see below) includes a variety of vessel lengths and fishing techniques. Nationally the fishing fleet is divided into five segments:

1. Refrigerated Seawater (RSW) Pelagic Segment: This segment is engaged predominantly in fishing for pelagic species (herring, mackerel, horse mackerel, blue whiting, and boarfish).
2. Beam Trawler Segment: This contains vessels, dedicated to beam trawling, a simple trawling method used predominantly in Irish inshore waters except in the southeast, where it is used to catch flatfish such as sole and plaice.
3. Polyvalent Segment: This segment contains the vast majority of the fleet. These vessels are multi-purpose and include small inshore vessels (netters and potters), along with medium and large offshore vessels targeting whitefish, pelagic fish and bivalve molluscs.
4. Specific Segment: This segment contains vessels which are permitted to fish for bivalve molluscs and aquaculture species.

Aquaculture Segment: These vessels must be exclusively used in the management, development, and servicing of aquaculture areas. They may collect spat from wild mussel stocks as part of a service to aquaculture installations. The aquaculture segment is excluded from analysis in this report.

Employment

Fleet employment in 2015 was estimated at 3 451 jobs. This corresponds to 2 522 FTEs and an average of 3.36 and 1.05 FTE per vessel for the large and small-scale coastal fleets, respectively (excluding inactive vessels).

Indicative figures from the national annual employment survey suggest that 23% of active fishers were aged 50 years and over in 2016, an increase from 20% in 2015. The majority, 22%, of the remaining 77% are in the 36-40 years cohort. Younger fishers make up a small percentage of the total with 9% aged less than 25 years. Attracting young people to the industry remains a challenge.

Effort

The Irish fishing fleet operates primarily in the North Atlantic, Celtic and Irish Seas. In 2015, the national fleet spent 72.62 thousand days at sea of which 62.02 thousand (85%) were fishing days. While this represents a 34% and 43% increase from 2014, this is partially explained by the inclusion of effort estimates for vessels less than 10 metres for the first time.

Note: Prior to 2015 *effort* was estimated using only data for the over 10 metre segment. The lack of logbook data for vessels under 10 metre has meant that the reporting of transversal, landings, activity and true economic performance of this segment (which makes up a large proportion of the Irish fleet) is based solely on this limited results from the sentinel vessel survey and sales notes data.

Energy consumption increased by 22% over the same period.

Production

Production decreased 13% in 2015 with landings down from 276.39 thousand tonnes (valued at €293 million) in 2014 to 240.94 thousand tonnes (valued at €237 million) in 2015. Provisional figures for 2016 indicate that total landings will be 227.39 thousand tonnes with an associated value of €286 million, however these figures do not include landings from vessels under 10 metres.

Production trends are highly influenced by quota changes for pelagic species, particularly mackerel. Indeed, many of the historical fluctuations in the value and weight of landings have been driven by mackerel, landings of which rose by 83% between 2013 and 2014. The 2014 mackerel quota, 104 thousand tonnes, included an increase of 46.56 thousand tonnes worth an estimated €59 million. The 2015 mackerel quota, 89 thousand tonnes, resulted in landings of 88.7 thousand tonnes worth an estimated €49 million. In 2016, the quota was further reduced to 75 thousand tonnes worth an estimated €47 million.

Nephrops remained the top landed species by value in 2015 worth €49.7 million with associated landings of 8.3 thousand tonnes.

Economic results for 2015 and recent trends

National fleet performance

In 2015, the Irish fleet recorded a gross profit of €33.8 but a net loss of €14 million, changing the positive trend recorded between 2012 and 2014. It should be noted that this figure is strongly influenced by data from larger pelagic vessels (TM VL2440), in particular the value assigned to depreciation. When raised to the fleet level, large within-year depreciation charges against even one or a small number of large pelagic vessels can introduce bias in the subsequent point estimate of overall fleet net profit. This is particularly the case when an owner charges a large amount of depreciation in a single year.

Fleet revenue, estimated to be €248.47 million in 2015, was 22% lower than the corresponding figure in 2014 (€318.55 million). Fleet revenue from vessels over 10 metres only, estimated to be €219.5 million in 2015, was 21% lower than the corresponding figure in 2014 (€279.1 million). This is explained by reduced quotas for some key stocks, particularly mackerel, which resulted in lower landings and a decrease in their overall value. For example, Ireland's quota for Atlantic mackerel in 2015 was estimated to be worth €54 million less than the corresponding figure in 2014.

Estimating the total value of landings for the under 10 metre segment remains problematic, due in part to the absence of log-book data. Using sales notes data along with data from economic surveys, we estimate the total value of landings for this segment to be €17 - €24 million

Overall the cost structure of the fleet has remained relatively stable, with lower energy but increased labour costs a feature of recent years. *Operating costs* totalled €214 million in 2015, an 8% decrease on 2014. Energy, repairs, and other non-variable costs likewise decreased by 15%, 12% and 14% respectively. However, when capital costs are included, the *total cost* of operating the national fleet rose to €263 million and resulted in a Net Profit (or loss in this case) of €-14.8 million. The principle difference between the fleet's Gross Profit (€33.8 million) and Net Profit (-€14 million) is the larger than expected (+63%) depreciation accrued in 2015. It should be noted that the 2015 depreciation figure is heavily influenced by the TM VL2440 segment, which alone saw depreciation estimates increase by €13 million.

Gross Value Added (GVA), gross profit, and net profit in 2015 were estimated at €114.4 million, €33.8 million and €-14.8 million, respectively. GVA decreased 32%, gross profit 61% and net profit 130% from 2014. This is a marked difference from 2014 when Gross Value Added (GVA), gross profit and net profit were estimated at €168.1 million, €86.5 million and €49.4 million.

Tangible asset value was estimated at €466 million and investments amounted to €16 million, a 10% decrease on 2014.

Resource productivity and efficiency indicators

The fleet average *Gross Profit* margin in 2015 was 13.6%, indicating a low operating efficiency for the sector. The *Net profit* margin was estimated at -6%, a decrease from 2014. The *Rate of Return on Fixed Tangible Assets* (RoFTA) in 2015 was -2%, down from 12% in 2014.

In 2014, fuel consumption was estimated to be 250 litres per tonne landed; the corresponding figure for 2015 was higher. While fuel consumption has remained relatively stable since 2011 (for example it fell 2% between 2013 and 2014) fuel consumption *per tonne landed* had followed an overall decreasing trend from 2008 when fuel prices reached an historic high. This may, in part, be indirectly due to low fuel prices and their influence on fishers' behaviour: for example, when fuel prices are low fishers are more likely to incur increased time steaming to and from fishing grounds and/or time spent searching for fish or fishing. The method used to estimate fuel consumption may have also affected the 2015 estimates. Prior to 2015 fuel consumption [litres] was derived from the reported total cost of fuel [€] divided by the average fuel price [€/litre]. In 2015 a revised method was used that combined the derived estimate with observed consumption reports from the Annual Economic Survey.

Average fleet landings (*tonnes*) per unit of effort (Days at Sea) have fluctuated since 2008. In 2015 the fleet LPUE averaged 3.3 tonnes/day; in 2016 the corresponding figure increased to 3.8 tonnes/day (+17%). This average fleet figure may mask performance in specific segments. For example, the very large pelagic vessels (TM VL40+) had an LPUE of 78.9 tonnes/day in 2016, while the demersal 24-40m segment recorded a value of 2 tonnes/day. The small-scale coastal fleet averaged 0.6 tonnes/day but this is probably an underestimate as both landings and effort data are incomplete for vessels less than 10 metres (due to the absence of an official log-book).

Performance by fishing activity

Small-scale coastal fleet

There were 901 active vessels registered in the small-scale coastal fleet in 2015 (vessels under 12 metres using passive gears). The number of vessels in the small-scale coastal fleet increased 5%, on average, between 2008 and 2014.

There are a number of vessels using active gears below 12 meters that are not included in the definition of small-scale coastal fleet. This results in discrepancies between the data presented in this report and how the fleet would be examined at a national level which examines all vessel under 12m irrespective of gear being active or passive.

Data for the under 10m segments is poor which impacts on the estimates of economic indicators for the SSCF. As survey returns for economic data for the small-scale increase there are better estimates of economic variables. Wages, unpaid labour, and other non-variable costs increased from 2014 to 2015 by 30%, 350%, and 55%, respectively.

Performance results of selected fleet segments

Ireland's national fishing fleet is highly diversified with a broad range of vessel types targeting different species or species groups often in mixed fisheries. The fleet operates from as far north as Norway and Iceland, south to the coast of Africa, but carries out the bulk of its operations in ICES areas VI and VII.

In 2015, the national fleet consisted of 22 (DCF) fleet segments, 9 of which are clustered (comprising more than one DCF segments). Of the twelve segments (both clustered and un-clustered) that have sufficient data to calculate profitability three recorded *high* profitability, two *reasonable* profitability and seven *weak* profitability.

The fleet is dominated by the (nationally defined) polyvalent segment, a diverse group that includes small inshore vessels (netters and potters), along with medium and large offshore vessels targeting *Nephrops, mixed* whitefish, some pelagic species (including mackerel, herring and tuna) as well as a range of vessels, from small to large-scale, targeting bivalve molluscs and crustaceans.

The Refrigerated Seawater (RSW) pelagic segment targets exclusively pelagic species (mackerel, horse mackerel, herring, blue whiting and boarfish).

Pelagic Trawl over 40m

Pelagic Trawlers over 40 metres (TM VL40XX) are part of the, nationally defined, Refrigerated Sea Water (RSW) segment. Currently there are 21 vessels classified as TM VL40XX and these are generally considered to be amongst the best performing components of the national fleet. These vessels land large quantities of pelagic fish (Atlantic mackerel, horse mackerel, herring, blue whiting, albacore tuna and boarfish) and operate mainly in ICEA areas VIa and VIIb,c,j,k. Mackerel, Horse mackerel, and blue whiting constitute 64%, 15% and 15% respectively of total value of landings.

The majority of the fleet operates out of Killybegs, county Donegal and Castletownbere, county Cork; both areas strongly dependent on the fishing sector. For example, total turnover for Killybegs and its hinterland in 2009 was estimated at €250 million with the fishing sector accounting for 82% of the total. In the past declines in the local economy have reflected declines in the fisheries sector.

- In 2015 landings (all species) by pelagic trawlers over 40m amounted to 131 thousand tonnes (live weight), valued at €61 million or 26% of total fleet income nationally. In 2014 the corresponding figures were 173 thousand tonnes (+32%) and €117 million (+92%).
- In 2014 Ireland's quota of mackerel reached an historic high of 105 thousand tonnes. In subsequent years this figure fell to 89 thousand tonnes (2015), 75.8 thousand tonnes (2016) and 86.4 thousand tonnes (2017).
- Onboard employment comprised 232 fulltime equivalents (FTE) or 9% of total fleet employment nationally.
- Gross Value Added by the segment in 2015 was €19 million generating a Gross Profit (loss in this case) of -€7 million and a reported Net Profit (loss in this case) of - €28 million.
- The 2015 Net Profit was 30% less than the average recorded between 2008 and 2014.

Ireland's pelagic fleet operates seasonally reflecting both the annual distribution patterns of the target species as well as quota limitations. The fleet is particularly dependent on mackerel with Ireland's quota averaging 54 thousand tonnes between 2008 and 2013. In 2014 this increased to 105 thousand tonnes (+93%) resulting in some €59 million added to the value of landings and contributing to a positive net profit in 2014. In 2015, the mackerel quota fell back to 89 thousand tonnes (-15%) a reduction that, together with lower average prices, saw almost €54 million lost from fishing income and a downward impact on overall profitability.

Pelagic fisheries were the only Irish fisheries subject to the landing obligation in 2015. Fish meal, bait for the potting fleet and pet food are the main uses of catches below minimum conservation reference size, although there is anecdotal evidence that some unwanted catches have gone to landfill. The average price paid for small pelagics destined for fishmeal varied between €145 and €240 per tonne with the higher prices paid for small herring and mackerel. After transport costs are deducted, the price back to the vessel varied between €80 and €180 per tonne. With pet food, lower margins mean that producers will collect and transport undersize fish but do not make any direct payment to the vessel. Price per box for shellfish bait is approximately €10-€12 per 20kg carton for round whiting and up to €16/carton for pelagics (mackerel, scad, and herring).

Demersal Trawl 12m-18m

In Ireland demersal trawlers are found in two, nationally defined, segments: the polyvalent and the specific segments. Currently there are 39 polyvalent and 2 specific segment vessels classified as Demersal Trawlers 12-18m. They target a wide variety of species including Norway lobster, anglerfish and whiting.

In 2015, the total value of landings by demersal trawlers (12-18 meters) was €8.8 million and around 96 FTEs were employed, contributing 4% and 41% of the total FTE and total income from landings generated by the Irish fishing fleet, respectively. The value of landings predominantly comes from *Nephrops* and anglerfish which constitute 40% and 12% of total value landings respectively. This fleet segment recorded a gross profit of around €44 million and a net profit of €3 million in 2015. This indicates high profitability for 2015 with an improved economic development trend.

Demersal Trawl 18m-24m

Currently there are 67 polyvalent and 1 specific segment vessels classified as Demersal Trawlers 18-24 meters. They also target a wide variety of species including Norway lobster, anglerfish and whiting.

In 2015, the total value of landings by demersal trawlers, 18-24 meters, was €50.5 million and some 387 FTEs were employed, contributing 15% and 21% of the total FTE and total income from landings generated by the Irish fishing fleet, respectively. The value of landings predominantly comes from *Nephrops*, anglerfish and whiting which constitute 49%, 10% and 7% of total landings value respectively. This fleet segment recorded a gross profit of around €3.5 million and net profit of €-1.2 million in 2015. This indicates weak profitability for 2015 with an improved economic development trend evident also in the GVA and Gross profit.

Demersal Trawl 24m-40m

Currently there are 37 polyvalent vessels classified as Demersal Trawlers 18-24 meters. They likewise target a wide variety of species including Norway lobster, anglerfish, mackerel and whiting.

In 2015, the total value of landings was almost €42 million and around 217 FTEs were employed, contributing 9% and 18% of the total income from landings and FTEs generated by the Irish fishing fleet, respectively. The value of landings predominantly comes from *Nephrops*, anglerfish and whiting which constitute 48%, 10% and 8% of total landings value respectively. This fleet segment generated a gross profit of around €11 million and net profit of €8.4 million in 2014. This indicates reasonable profitability for 2015 with an improving economic trend.

Drivers affecting the economic performance trends

Lower fuel costs, higher average fish prices for some species, and the impact of capacity/effort reduction were the main driving forces behind an overall improvement in the economic performance of the Irish fleet.

Markets and Trade (including fish price)

During 2015 average prices remained relatively unchanged for many species. There were some notable exceptions and *Nephrops* (21% of total value of landings) rose from €5.2/kg in 2015 to €6/kg. While landings declined slightly the total value of the landed catch increased due to the price increase. This increasing price trend continued into 2016 with average prices estimated at €6.6/tonne.

The average prices of Atlantic mackerel (21% of total value of landings) decreased from €1/kg to €0.6/kg between 2014 and 2015. This price decrease couple with lower catches resulted in a large reduction in the overall value of landings.

Seafood sales to the EU (€388 million) accounted for 69% of Ireland's total seafood exports in 2015. The corresponding figure for 2016 was €429 million and increase of 11%.

Trade to all the main EU markets increased: France, €142 million (+10%), Great Britain €78 million (+12%), Spain €79 million (+13%), Italy €46 million (+50%), and Germany €23 million (+2%).

Exports to third were valued at €176 million in 2015, falling to €130 m in 2016 (-26%). Nigeria, Cameroon and Egypt remain the leading African markets with combined pelagic exports valued at €46 million. The value of the Asian market grew by 13% to €46 million in 2016 with the Chinese market (including Hong Kong) accounting for €30 million.

Management instruments and regulation (policy)

Fleet management tools include the sea-fishing boats licensing regime, gear, effort and vessel specific restrictions, as well as three separate decommissioning schemes completed between 2005 and 2008. Fishery management policy is developed through a transparent system that includes a quota management regime agreed with the Producer Organisations and other key stakeholders. Monthly allocation arrangements are designed to be responsive to criteria such as stock availability, remaining quota, market demand and other marketing initiatives.

The strengths of the fleet management system include a strict entry/exit regime that ensures the fleet remains within its prescribed reference levels. It also delivers a practical segmentation of the fleet along traditional fishing line and ensures that monthly vessel catch limits are respected.

The Landing Obligation

Ireland maintains an active research capacity in the area of fishing gear technology and a variety of studies examining ways to avoid unwanted catches have been undertaken (all funded through the European Maritime and Fisheries Fund or the earlier European Fisheries Fund). These include gear modifications as well as factors designed to induce spatial and temporal changes to fish behaviour. In addition, Ireland has also undertaken studies to estimate the likely impact of the landing obligation on selected, vulnerable, high value, components of its fleet (Calderwood *et al.,* 2016). In this latter study two commercial vessels fished normally for one half of the trial and employed discard reduction techniques for the remainder. The vessels included a 23 meter, quad-rig, trawler targeting *Nephrops* and a 23 meter, single-rig, trawler targeting mixed demersal whitefish species. In both cases cod and haddock were the main choke species, but depending on the target species operators were free to choose from a number of already tested mitigation tools or to adjust their fishing behaviour and tactics. In this particular trial, the *Nephrops* vessel choose to adopt additional technical measures and remained profitability throughout. Conversely, the mixed demersal trawler (which opted for a modified fishing tactics) saw significantly reduced catches of the main target species and greatly reduced profitability. Even the application of quota uplift and the *de minimis* provisions were found to be of little use in addressing the challenges faced by the mixed demersal vessel, particularly when quota was restricted in the first instance. The absence of available gear modifications to separate haddock from whiting, and a major imbalance between available quotas and catches of these species is likely to pose a major challenge in the mixed demersal.

In 2016, An Bord Iascaigh Mhara (BIM) concluded a programme of work aimed at reducing catches of *Nephrops* less than the minimum conservation reference size (MCRS). With an estimated value of €49 million at first point of sale in 2015, *Nephrops* is Ireland's most commercially important demersal species: the landing obligation was partially applied to *Nephrops* fisheries from 2016.

Studies of increased codend mesh size, customised sorting grids, and square mesh codends demonstrated that increasing the minimum mesh size from 70 mm to 80 mm was the more effective measure to reduce catches of small *Nephrops* (<MCRS). Customised rigid sorting grids also proved effective, with the added advantage that they also reduce fish catches when needed. Following on from this work, Ireland introduced a national regulation (S.I. No. 510 of October 2016), applicable from January 2017, prohibiting the use of 70 mm codends in favour of 80 mm when deployed from vessels 12 metres of more in length (LOA) using more than one demersal trawl (including twin-rigs and quad-rigs). Given that more than 90% of the national catch of *Nephrops* comes are from vessels greater than or equal to 12 metres (LOA) using more

than one trawl, this new regulation will greatly improve the sustainability of Irish demersal trawl fisheries (Cogrove *et al*., 2016)

With an estimated value of €8 million in 2015, whiting is also a species of major commercial importance to sections of the Irish fleet. The landing obligation was partially applied to this fishery in the Celtic Sea from 2016. Further studies by BIM demonstrated the effectiveness of T90 mesh at reducing catches of undersize whiting in a mixed demersal trawl fishery. The use of a T90/80 mm codend in lieu of the standard diamond mesh 80 mm codend resulted in a 67% reduction in the number of whiting below market size taken (Browne, *et al.,* 2016)

A dual codend with separator panel (DCSP) was also successfully tested in the *Nephrops* fishery. This device first separates the fish and *Nephrops* components of the catch into two separate codends allowing different selectivity measures to be applied to each. When deployed with an 80 mm diamond mesh bottom codend and a T90/90 mm mesh top codend, catches of undersize whiting and haddock were reduced by 72% and 49%, respectively, without any significant loss of *Nephrops*, monkfish, cod or flatfish.

Given the high separation rate for key fish species (98% monk, 94% whiting, 90% cod, 90% hake, 83% haddock, and 82% flatfish) this net can also be used as a fish exclusion device when fish quotas are very low. This is readily done by simply removing the top cod-end. In addition, the high degree of separation (whitefish form *Nephrops*) resulted in greatly reduced catch sorting times and improved fish quality; a further incentive to employ this gear.

The dual codend with net separator panel has major potential to address a range of challenges posed by the landing obligation but some legislative changes are needed to maximise benefits and use of this measure. Under EC Regulation 850/98 vessels targeting *Nephrops* are generally limited to using nets of the same mesh size range. Depending on the species composition, these mesh size ranges are 70 mm to 79 mm, and 80 mm to 90 mm. Provision to use larger mesh sizes in the top codend would facilitate greater reductions in fish catches when needed.

Stock status, TACs and quotas

Status of some key Stocks

Ireland's total share of TAC's in 2015 amounted to 227 693 tonnes, including 86% of the Celtic Sea herring TAC; 69% of boarfish; 37% of *Nephrops* in VII; 25% of horse mackerel and 21% of mackerel. In other stocks it has a much lower share of the TAC; 8% of area VII anglerfish; 15% of Celtic Sea cod and 6% of northern hake.

Innovation and Development

Within the framework of the reformed CFP, the North West Atlantic Member States undertook to work together, in consultation with the relevant Advisory Councils and with the Commission, to manage North-Western waters fisheries. In particular, the Member States have endeavoured to develop joint recommendations in line with Article 18 of the Regulation 1380/2013. The Member States established a high-level group composed of Fisheries Directors as well as a Technical group of relevant fisheries officials.

Ireland also established a National Discards Implementation Group in 2013 under an independent Chair involving the Department of Agriculture, Food & the Marine, State agencies (Marine Institute, BIM, SFPA) and Industry representatives. The purpose of the Working Group was to identify issues at an early stage and develop practical solutions and arrangements for the effective implementation of the landing obligations.

Ireland continues to carry out gear studies and trials of new measures that enable fishers avoid juvenile or unwanted catches (see above). In addition, the following actions, some at the initiative of the industry and some by the State, have also taken place to ensure compliance with the landing obligation;

- Insertion of 'move-on' provisions following unintentional bluefin catches in the Albacore Tuna fishery;
- Insertion of a non-allocation of quota clause for Phase 2 of Celtic Sea Herring if overshooting in phase 1 under LO;
- Funding of simulation trials and gear selectivity trials;
- Provision of EMFF funding to POs to enhance infrastructure to deal with catches under MCRS;
- Celtic Sea Herring Management Advisory Committee proposal of 10% weekly tolerance to deal with risk of discards within a weekly quota framework;
- Decision not to invoke the potential *de minimis* allowance available within the Albacore tuna fishery.

Socioeconomic Impact

The Irish fishing industry is primarily based in rural, often deprived, coastal areas. As such, income derived from fishing, aquaculture, and the wider seafood sector is extremely important to these local economies. For example, previous studies have shown that in the case of Killybegs, 82% of all turnover in the area is directly attributable to fisheries while in Castletownbere the fish catching and processing sectors account for over half (54%) of the town's economic activity. With the inclusion of aquaculture and ancillary sectors this rises to 86%. In every case the induced spend by employees of these sectors make a substantial contribution to the local service and retail sectors.

The lack of reliable data for the small-scale coastal fisheries remains problematic, particularly for vessels less than 10 metres. While this report attempts to estimate the true value of the sector to local economies, there is an ongoing concern that the true value remains, at best, underestimated. Landed value (from sales notes data) whilst included in the analysis are subject to underreporting, while estimates from survey returns are potentially subject to bias given the large number of small boats in the sector and the number of completed/returned survey forms.

Brexit

The impact of Brexit on the Irish seafood sector is potentially significant given the close historical trading relationship that exists between the two countries. The UK remains an important trading partner for both Irish exports and imports of seafood

products and the introduction of tariffs on this trade could lead to significant impacts on traders, processors and fishing fleets in Ireland and consequently on the local economies dependent on the seafood sector.

Projections for 2016 and outlook

It is important to note that the preliminary figure for the *total landing value* for 2016 does not include an estimate of the less than 10 metre fleet. Effort data for the under 10 metre fleets were also not reported for 2016 while for the years 2013-2015 only partial effort data is available (for some under 10 metre segments). As such, the results provided for 2016 should be used with caution; the uncertainties are large and many.

The results in the annual fleet report (Pursuant to Article 22 of Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy) suggest that for the Irish fleet are positive with only two segments failing the RoFTA indicator, the dredger fleet 24-40m and the pelagic fleet 24-40m. All trawling segments pass the indicator with the important length classes of 18-24m and 24-40m improving their long-term profitability in 2015.

MODEL FORECAST

Data for 2016 show a very different picture to 2015, with landed value increasing by 28%. Landed weight shows a slight increase (+1%). Projected gross profits increase by 128% and the fleet once again records a net profit.

The increase in landing value along with projected decreases in expenditure, predicts that the 2016 net profit will be €30 million. As the model is using data for 2015 which have underestimated the net profit of the Irish fleet the model projections have replicated this error and they should be used with caution.

The 2016 gains are offset in 2017; the 9% increase in landed weight is counteracted by low prices, resulting in a 21% decrease in value. With fuel costs increasing in 2017 (+14%) the fleet still remains profitable with gross margin of 12%. However, with the significant loss in revenue, the fleet returns to a net loss making position. However, the net indicators may somewhat be biased by negative estimated opportunity costs.

Data issues

Values and figures may differ somewhat from those in previous annual economic reports as more survey returns since last year's AER have changed total national estimates.

The effort data in the tables and graphs is not complete. The figures for days at sea and fishing days reported are those for vessels over 10m and some segments, in 2015, less than 10m for which effort was possible to calculate based on sales notes data and small-scale fishery surveys. The exclusion of the majority of the less than 10m fleet was due to the fact that this segment is not mandated to carry and complete logbooks for fishing operations. Specifically, for 2015, effort was calculated for DRB and FPO. A number of assumptions had to be made mainly that a sale event for a vessel represents a day of fishing. Estimates of effort data for 2016 from the under 10m segments were not available at the time of the data upload.

Total landing income includes estimates, where possible, of income for vessels under 10m in length where data is available. This introduces data for vessels under 10m and as such results in a higher estimate of income value compared to landings values that are not yet reported. As sample data are raised to population level variability in the data can, in some cases, inflate or reduce the overall landings income estimate for the under 10m fleet.

In previous reports the total number of vessels reported for all segments below 10m excluded any indication of activity. This resulted in a misinterpretation of the size of the fleet. This impacted and skewed any calculations that used total vessels. Conscious of this issue an estimate of activity in the less than 10m segments has been included in this year's report. While activity for this segment is not empirically known it was estimated using proxies for activity which matched equivalent gear segments in the 10-12m vessel length categories and activity data from sales note data.

The MS sampling rates have improved through increased effort in data collection. However, survey target rates vary between fleet segments with a high achievement of sampling targets in a number of segments and an under- achievement of targets in other segments. In 2015 reduced sample rate for the TM VL40XX segment may have introduced sample bias and affected the final raised data sets.

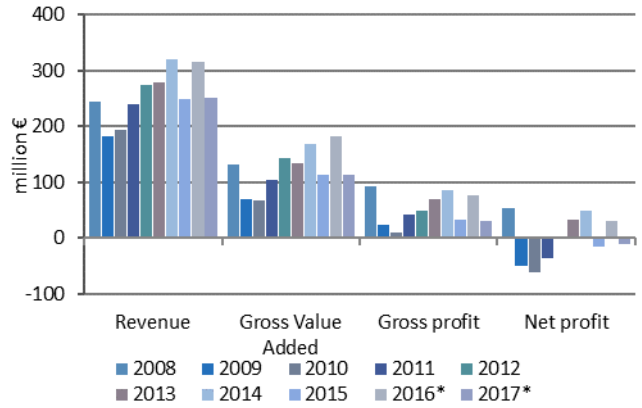
The operational division of the fleet into 'small-scale' and 'large-scale' fisheries is not a satisfactory aggregation for the Irish Fleet. The exclusion of active gears from the small-scale fishery definition means that many segments for which there is data, for <10m vessels, are eschewed from this segment. In 2015 there were over vessels using active gears under 12 meters. Therefore, the definition of SSCF defined in this report excludes a large part of the Irish fleet in vessel numbers as they are below 12m in length and use active gears and thereby excludes important economic data for the small-scale fishery.

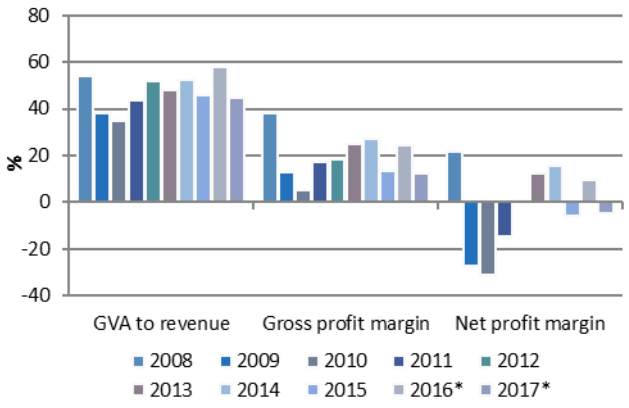
The methodology use for this report is to submit landings income from the landings declarations. This differs from the Annual Fleet Report which uses declared revenue of those vessels that provided DCF economic survey data. Hence, there is no raising up of the data in the later report as it only examines sample data. This results in differences in economic indicator between both methodologies. These differences can be caused by biases in the data. For instance, those vessels that have returned DCF cost surveys may have landed below the average for their segment and so their revenue may be below the average segment level and may skew the results of the indicators, or vice versa. In 2015 the raised data for some of the segments, especially for depreciation costs seem to be inflated in comparison with the temporal trend and may have contributed to downward trend in net profit.

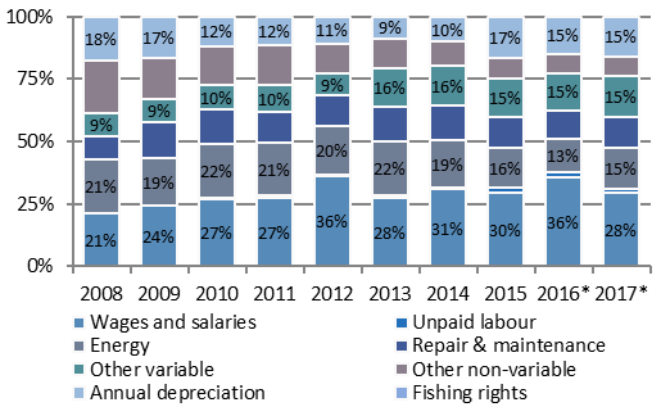
Table 5.48 Ireland: National fleet statistics and economic performance results. *projections

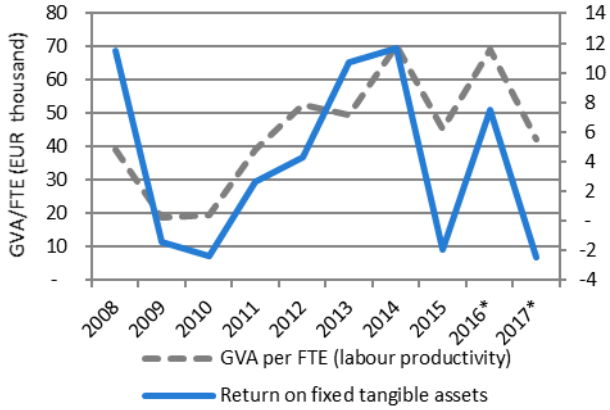
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	1,939	1,977	2,038	2,074	2,106	2,140	2,095	2,048	*1,435*	*1,352*		-2%	0%
Number of Inactive vessels_ms	(#)	509	720	894	859	797	841	752	681	*603*			-9%	-11%
Vessel tonnage	(thousand GT)	73.8	66.9	66.0	67.2	60.3	60.3	59.5	58.9				-1%	-9%
Engine power	(thousand kW)	205.2	186.0	184.1	189.2	184.2	183.9	181.6	179.2				-1%	-5%
Total employed	(person)	4,485	4,889	4,423	3,243	3,121	3,087	3,154	3,451	*3,612*	*3,429*		9%	-9%
FTE	(#)	3,404	3,692	3,479	2,688	2,709	2,717	2,395	2,522	*2,642*	*2,684*		5%	-16%
Days at sea	(thousand day)	48.8	48.5	52.9	48.8	53.6	53.6	54.4	72.6	*77.7*	*78.2*		34%	41%
Fishing days	(thousand day)	40.0	40.0	44.0	40.6	43.3	42.8	43.5	62.0				43%	48%
Number of fishing trips	(thousand)	17.9	18.9	20.4	19.2	21.2	20.2	20.1	39.2				95%	99%
Energy consumption	(million litre)	70.2	86.4	82.6	62.0	66.0	68.8	67.7	82.3	*86.9*	*91.0*		22%	14%
Live weight of landings	(thousand tonne)	195.5	250.5	274.3	199.4	262.2	244.2	276.4	240.9	*243.4*	*264.5*		-13%	-1%
Value of landings	(million €)	223.9	167.7	172.2	209.5	243.2	258.9	293.1	237.4	*304.2*	*241.4*		-19%	6%
Income from landings	(million €)	229.4	177.3	190.5	235.3	269.1	276.5	311.9	244.2	*311.0*	*248.1*		-22%	1%
Other income	(million €)	16.2	4.8	3.4	4.5	6.2	3.4	8.7	4.3	*4.5*	*4.4*		-50%	-36%
Direct income subsidies	(million €)	22.1	17.4	1.0	0.6	0.3	0.5	0.9	0.7				-24%	-88%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	39.7	46.0	56.4	61.4	91.5	63.7	80.3	76.5	*100.8*	*78.1*		-5%	22%
Unpaid labour value	(million €)	-	0.2	0.8	1.9	1.0	1.7	1.4	4.1	*4.7*	*4.1*		198%	313%
Energy costs	(million €)	39.3	36.4	45.0	47.4	49.9	50.3	49.4	42.0	*37.9*	*43.4*		-15%	-7%
Repair & maintenance costs	(million €)	17.4	27.1	28.7	27.8	30.4	31.4	36.0	31.9	*32.3*	*31.8*		-12%	12%
Other variable costs	(million €)	17.0	17.8	20.2	23.4	23.0	36.4	42.2	38.9	*41.5*	*43.2*		-8%	51%
Other non-variable costs	(million €)	39.0	31.1	32.4	36.0	29.3	27.1	24.9	21.3	*21.3*	*21.0*		-14%	-32%
Annual depreciation costs	(million €)	33.0	31.7	25.2	25.8	28.0	20.6	26.4	42.9	*42.5*	*42.0*		63%	58%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	7.3	41.3	45.9	51.1	21.5	14.9	10.7	5.6	*4.3*	*0.3*		-47%	-80%
Tangible asset value (replacement)	(million €)	523.2	585.8	615.3	616.0	513.7	456.7	517.3	466.0	*460.0*	*449.3*		-10%	-15%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	26.0	8.4	38.3	10.4	66.0	18.0	17.6	15.8				-10%	-40%
Financial position	(%)	0.5	0.7	0.5	46.0	70.3	-	61.6	89.0				44%	247%
Gross Value Added	(million €)	132.9	69.7	67.7	105.1	142.7	134.8	168.1	114.4	*182.5*	*113.3*		-32%	-2%
GVA to revenue	(%)	54.1	38.3	34.9	43.9	51.9	48.1	52.4	46.0	*57.8*	*44.8*		-12%	0%
Gross profit	(million €)	93.2	23.5	10.5	41.9	50.2	69.4	86.5	33.8	*77.0*	*31.0*		-61%	-37%
Gross profit margin	(%)	38.0	12.9	5.4	17.5	18.3	24.8	27.0	13.6	*24.4*	*12.3*		-50%	-34%
Net profit	(million €)	52.9	-49.4	-60.6	-35.1	0.7	33.9	49.4	-14.8	*30.2*	*-11.3*		-130%	-1164%
Net profit margin	(%)	21.6	-27.2	-31.3	-14.6	0.3	12.1	15.4	-6.0	*9.6*	*-4.5*		-139%	-76%
GVA per FTE (labour productivity)	(thousand €)	39.1	18.9	19.5	39.1	52.7	49.6	70.2	45.3	*69.1*	*42.2*		-35%	10%
Return on fixed tangible assets	(%)	11.5	-1.4	-2.4	2.6	4.3	10.7	11.6	-2.0	*7.5*	*-2.4*		-117%	-137%

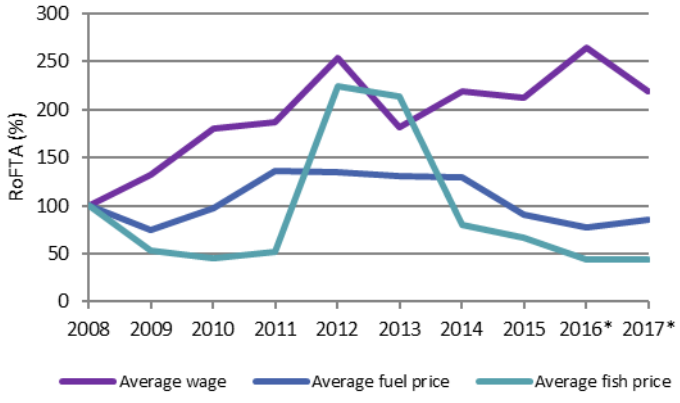
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

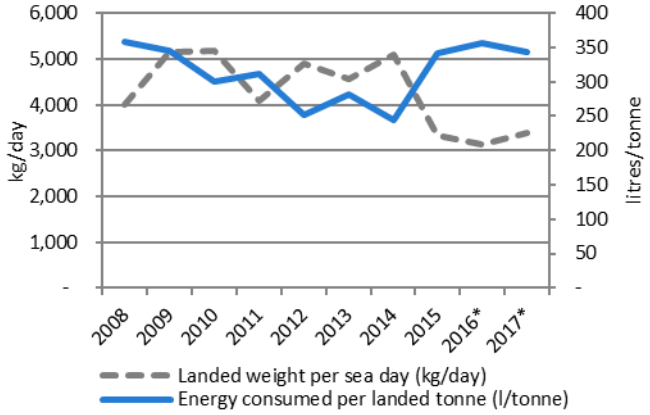


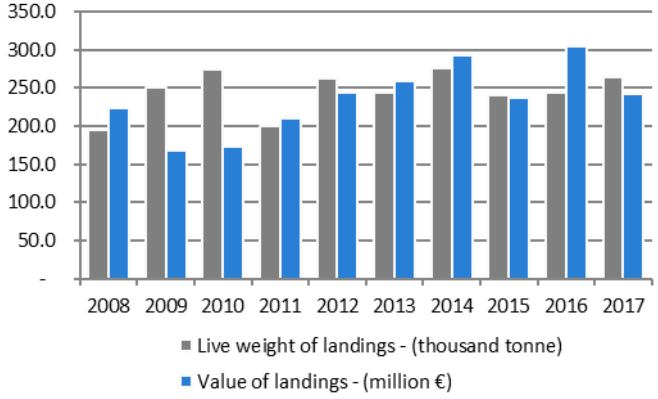












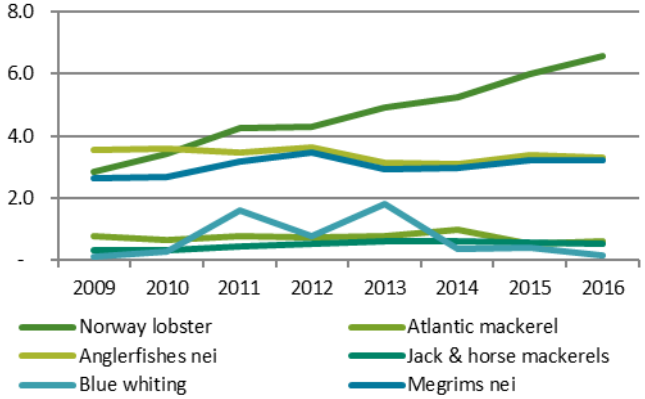


Figure 5.11 Ireland: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.49 Ireland: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	1,030	806	750	786	879	862	898	901	*891*	*887*		0%	5%
Vessel tonnage	(thousand GT)	3.8	3.2	2.4	2.5	2.7	2.6	2.7	2.7				1%	-3%
Engine power	(thousand kW)	31	25	23	23	25	24	25	25				1%	0%
FTE	(#)	1,667	1,958	1,859	1,067	1,077	1,142	763	953	*953*	*955*		25%	-30%
Total employed	(person)	2,425	2,705	2,460	1,372	1,278	1,282	1,140	1,360	*1,305*	*1,340*		19%	-25%
Days at sea	(thousand day)	6.9	8.0	8.6	7.6	8.4	7.5	7.3	25.2	*25.8*	*25.9*		247%	226%
Fishing days	(thousand day)	6.3	7.5	8.2	7.2	7.9	6.9	6.7	24.6				269%	240%
Number of fishing trips	(thousand)	5.5	6.9	7.4	6.6	7.3	6.3	5.9	24.0				303%	264%
Energy consumption	(million litre)	2.6	4.7	3.5	6.2	3.6	4.3	4.4	5.2	*4.5*	*4.5*		17%	24%
Live weight of landings	(thousand tonne)	3.1	4.1	4.8	4.6	5.1	10.6	10.5	15.2	*16.3*	*15.3*		45%	148%
Value of landings	(million €)	7.2	6.3	7.0	6.9	5.8	13.4	16.4	19.7	*22.4*	*19.6*		20%	119%
Income from landings	(million €)	12.7	15.4	23.6	29.4	25.6	30.9	27.7	24.9	*27.7*	*24.9*		-10%	6%
Other income	(million €)	0.2	0.0	0.1	0.1	0.6	0.8	1.6	0.5	*0.5*	*0.5*		-68%	4%
Direct income subsidies	(million €)	0.1	1.1	0.1	0.1	0.1	0.1	0.2	0.3				23%	15%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	0.9	-	0.5	3.4	9.4	3.0	5.6	7.3	*8.7*	*7.3*		30%	126%
Unpaid labour value	(million €)	-	0.0	0.1	0.9	0.1	0.2	0.5	2.2	*2.3*	*2.2*		350%	694%
Energy costs	(million €)	1.4	2.0	1.9	4.7	2.7	3.2	3.2	2.6	*2.3*	*2.5*		-18%	-3%
Repair & maintenance costs	(million €)	0.5	1.2	1.0	2.0	1.6	2.0	2.0	1.9	*1.9*	*1.9*		-3%	32%
Other variable costs	(million €)	0.6	1.4	1.1	3.0	2.8	3.4	3.5	3.7	*3.9*	*3.9*		7%	65%
Other non-variable costs	(million €)	1.2	1.3	1.8	8.2	2.7	2.4	1.5	2.3	*2.2*	*2.2*		55%	-17%
Annual depreciation costs	(million €)	0.3	-	-	0.2	0.3	0.2	0.3	0.1	*0.2*	*0.2*		-44%	-14%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	0.1	-	3.3	2.5	0.3	0.2	0.1	0.0	*0.0*	*0.0*		-35%	-95%
Tangible asset value (replacement)	(million €)	4.7	-	43.8	30.0	6.6	5.1	3.3	3.7	*3.8*	*3.8*		11%	-72%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	1.0	2.1	2.3	3.2	3.2	2.6	2.0	1.5				-25%	-36%
Gross Value Added	(million €)	9.1	8.9	17.8	11.6	16.4	20.8	19.0	14.9	*17.9*	*14.9*		-22%	1%
GVA to revenue	(%)	70.9	60.0	75.4	39.4	62.4	65.4	65.1	58.4	*63.3*	*58.5*		-10%	-7%
Gross profit	(million €)	4.1	5.5	17.1	13.4	4.2	16.5	12.9	5.3	*6.8*	*5.4*		-59%	-50%
Gross profit margin	(%)	56.1	61.2	72.8	46.6	18.1	54.3	44.1	20.9	*24.1*	*21.1*		-53%	-59%
Net profit	(million €)	3.8			2.3	- 3.2	13.1	10.4	- 0.6	*0.3*	- *0.9*		-106%	-112%
Net profit margin	(%)	51.4			33.2	- 53.7	52.1	43.3	- 9.7	*3.8*	- *13.6*		-122%	-138%
Return on fixed tangible assets	(%)	80.9			35.6	- 44.6	326.7	315.9	- 21.3	*12.5*	- *28.9*		-107%	-115%
GVA per FTE (labour productivity)	(thousand €)	6.2	5.2	9.7	10.9	15.2	18.2	25.2	15.6	*18.7*	*15.6*		39%	131%

	LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
	2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	400	450	393	429	430	438	445	466	*544*	*465*		5%	9%
Vessel tonnage	63.1	56.0	55.4	50.3	50.4	51.0	51.1	51.4				0%	-5%
Engine power	141	123	121	120	124	125	126	128				1%	2%
FTE	1,738	1,734	1,621	1,622	1,632	1,575	1,632	1,569	*1,689*	*1,729*		-4%	-5%
Total employed	2,060	2,184	1,962	1,872	1,844	1,805	2,014	2,091	*2,308*	*2,088*		4%	7%
Days at sea	41.8	40.6	44.2	41.2	45.2	45.9	46.9	47.4	*51.9*	*52.4*		1%	8%
Fishing days	33.7	32.5	35.8	33.5	35.4	35.8	36.7	37.4				2%	8%
Number of fishing trips	12.4	12.0	13.0	12.6	13.9	13.9	14.1	15.2				8%	16%
Energy consumption	67.6	81.7	79.1	55.8	62.4	64.4	63.3	77.2	*82.4*	*86.5*		22%	14%
Live weight of landings	192.4	246.3	269.5	194.8	257.1	233.6	265.9	225.7	*227.1*	*249.2*		-15%	-5%
Value of landings	216.7	161.3	165.2	202.5	237.4	245.5	276.8	217.7	*281.8*	*221.8*		-21%	1%
Income from landings	208.0	155.5	167.0	205.8	243.5	245.6	284.3	219.2	*283.3*	*223.3*		-23%	2%
Other income	16.0	4.8	3.3	4.3	5.5	2.6	7.0	3.8	*4.0*	*3.9*		-46%	-39%
Direct income subsidies	22.0	16.2	1.0	0.6	0.2	0.5	0.7	0.4				-38%	-93%
Income from leasing fishing rights	-	-	-	-	-	-	-	-					
Wages and salaries of crew	38.8	46.0	55.9	58.0	82.1	60.7	74.6	69.1	*92.1*	*70.8*		-7%	16%
Unpaid labour value	-	0.1	0.7	1.0	0.9	1.5	0.9	1.9	*2.3*	*1.9*		114%	167%
Energy costs	37.9	34.4	43.1	42.7	47.2	47.1	46.1	39.3	*35.6*	*40.9*		-15%	-8%
Repair & maintenance costs	16.9	25.9	27.6	25.8	28.8	29.4	34.1	29.9	*30.3*	*29.8*		-12%	11%
Other variable costs	16.4	16.3	19.1	20.4	20.1	33.0	38.7	35.1	*37.6*	*39.3*		-9%	50%
Other non-variable costs	37.8	29.8	30.6	27.8	26.5	24.7	23.4	19.1	*19.1*	*18.8*		-18%	-33%
Annual depreciation costs	32.7	31.7	25.2	25.6	27.7	20.4	26.1	42.8	*42.3*	*41.9*		64%	58%
Rights costs	-	-	-	-	-	-	-	-					
Opportunity cost of capital	6.3	36.4	38.1	39.3	20.2	13.1	9.8	5.6	*4.3*	*0.3*		-43%	-76%
Tangible asset value (replacement)	454.1	515.8	510.7	473.4	482.2	401.5	477.5	462.4	*456.2*	*445.5*		-3%	-2%
Fishing rights	-	-	-	-	-	-	-	-					
Investments	25.0	6.3	35.9	7.2	62.8	15.5	15.6	14.4				-8%	-40%
Gross Value Added	115.7	54.9	49.8	90.4	117.8	107.7	148.2	89.4	*155.8*	*88.9*		-40%	-9%
GVA to revenue	51.9	35.1	29.3	43.7	49.0	44.5	51.0	42.0	*56.0*	*40.8*		-18%	-3%
Gross profit	76.7	10.7	- 7.0	31.4	34.9	45.7	72.5	18.4	*61.5*	*16.3*		-75%	-51%
Gross profit margin	34.6	6.9	- 4.1	15.2	14.5	18.9	25.0	8.6	*22.1*	*7.5*		-65%	-45%
Net profit	38.5	- 56.9	- 70.2	- 35.6	- 16.7	11.6	30.0	- 31.1	*13.7*	- *26.9*		-204%	-119%
Net profit margin	17.3	- 36.4	- 42.0	- 17.5	- 7.1	4.8	11.0	- 14.8	*5.0*	- *12.5*		-234%	-49%
Return on fixed tangible assets	10.0	- 4.0	- 6.4	0.7	0.7	6.2	8.3	- 5.5	*4.0*	- *6.0*		-166%	-350%
GVA per FTE (labour productivity)	76.7	36.1	31.7	57.1	76.7	70.2	91.8	61.4	*98.7*	*54.7*		31%	58%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.50 Ireland: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
IRL A27 TM40XX	21	231	1,499	191	131,324	61,153	62,713	19,529	31.1	- 7,267	- 11.6	- 28,446	- 45.36	116.0	84.5	- 8	Weak	-30%	Deteriorated	25.1%
IRL A27 DTS1824	67	387	14,179	1,064	21,008	50,597	51,220	20,495	40.0	3,518	6.9	- 1,245	- 2.43	43.9	52.9	- 2	Weak	61%	Improved	20.5%
IRL A27 DTS2440	37	217	9,281	935	17,311	42,907	44,207	20,022	45.3	11,033	25.0	8,412	19.03	41.5	92.4	18	Reasonable	1754%	Improved	17.7%
IRL A27 TM2440	12	88	1,474	135	30,320	17,764	17,865	8,632	48.3	2,038	11.4	- 16,281	- 91.13	75.0	98.2	- 28	Weak	-223%	Deteriorated	7.2%
IRL A27 FPO0010	575	555	17,545	293	7,848	8,201	13,144	8,046	61.2	3,786	28.8			7.7	14.5					5.3%
IRL A27 DTS1218	41	96	5,409	364	4,801	8,820	8,820	5,752	65.2	3,905	44.3	3,641	41.29	19.3	60.2	40	High	389%	Improved	3.5%
IRL A27 TBB2440 °	15	96	3,258		2,840	8,300	8,200							0.7						3.3%
IRL A27 DRB2440 °	7	41	1,518	1,597	1,990	7,580	7,580	3,236	42.7	686	9.1	212	2.79	62.7	79.5	4	Weak	-94%	Deteriorated	3.0%
IRL A27 FPO1012	82	139	6,476	433	4,131	6,184	6,275	3,077	49.0	- 429	- 6.8	- 608	- 9.69	25.2	22.1	- 21	Weak	-204%	Deteriorated	2.5%
IRL A27 FPO1218 °	19	58	2,164	242	3,147	5,558	5,567	4,283	76.9	2,761	49.6	2,712	48.71	26.3	74.1	573	High	91%	Improved	2.2%
IRL A27 DTS0010	63	69		977	962	1,261	4,389	2,319	52.8	954	21.7	883	20.12	19.7	33.5	300	High			1.8%
IRL A27 DFN1824 °	12	43	1,726	869	1,560	3,469	3,492	541	15.5	- 507	- 14.5	- 1,050	- 30.07	24.2	12.5	- 22	Weak	-169%	Deteriorated	1.4%
IRL A27 DRB1012 °	34	82	3,706	807	1,032	3,017	3,017	1,846	61.2	- 86	- 2.9	- 123	- 4.08	23.6	22.6	- 44	Weak	99%	Improved	1.2%
IRL A27 DRB0010	109	130	1,468	257	1,596	3,192	2,939	2,111	71.8	1,152	39.2			7.4	16.2					1.2%
IRL A27 DFN0010	168	115		222	2,514	3,865	2,795	1,682	60.2	973	34.8			6.1	14.6					1.1%
IRL A27 HOK0010	55	87		1,139	271	493	2,266	1,441	63.6	750	33.1			8.0	16.6					0.9%
IRL A27 TM1218 °	5	13	350		4,525	1,936	1,936							1.1						0.8%
IRL A27 TM0010 °	4	5	155		2,894	1,129	1,129							2.7						0.5%
IRL A27 DTS1012	20	14	1,220	586	424	1,063	1,063	591	55.6	217	20.4	174	16.33	26.5	41.9	13	Reasonable	-31%	Deteriorated	0.4%
IRL A27 DFN1012	15	32	1,001	543	382	816	838	516	61.6	197	23.5			10.0	16.2					0.3%
IRL A27 PMP1218 °	2	3	86	801	25	79	79	56	70.4	11	13.4			18.0	22.2					0.0%
IRL A27 HOK1012 °	4	23	108	48	38	60	60							0.9						0.0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.51 Ireland: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
IRL A27 TM40XX	20	245	1,587	212	125,299	82,273	83,759	42,607	50.9	6,556	7.8	- 12,858	- 15.35	147.4	174.2	- 4	Weak	-30%	Deteriorated	26.6%
IRL A27 DTS1824	69	432	15,806	1,038	23,997	67,361	68,002	36,803	54.1	14,201	20.9	9,399	13.82	52.4	85.3	26	Reasonable	61%	Improved	21.6%
IRL A27 DTS2440	42	238	10,210	852	20,899	53,820	55,296	29,961	54.2	18,686	33.8	15,861	28.68	47.3	125.7	29	High	1754%	Improved	17.5%
IRL A27 TM2440	12	85	1,418	124	31,648	31,857	31,957	23,315	73.0	11,490	36.0	- 6,676	- 20.89	139.8	275.6	- 11	Weak	-223%	Deteriorated	10.1%
IRL A27 FPO0010	588	556	17,555	293	7,839	8,206	13,160	8,200	62.3	3,937	29.9			7.7	14.8					4.2%
IRL A27 DTS1218	41	97	5,483	368	4,814	10,464	10,464	7,521	71.9	5,329	50.9	5,091	48.65	22.6	77.7	55	High	389%	Improved	3.3%
IRL A27 FPO1012	90	156	7,274	394	5,107	8,851	8,951	5,550	62.0	532	5.9	344	3.85	32.1	35.5	13	Weak			2.8%
IRL A27 TBB2440 °	15	100	3,378	-	3,197	8,545	8,442							0.7				-94%	Deteriorated	2.7%
IRL A27 FPO1218 °	23	76	2,828	199	5,016	7,347	7,358	5,819	79.1	3,806	51.7	3,748	50.94	26.6	77.0	653	High	-204%	Deteriorated	2.3%
IRL A27 DRB2440 °	7	42	1,579	1,649	2,005	4,532	4,532	360	7.9	- 1,164	- 25.7	- 1,615	- 35.63	36.0	8.5	- 17	Weak	91%	Improved	1.4%
IRL A27 DTS0010	55	69	-		959	1,260	4,381	2,556	58.3	1,193	27.2	1,132	25.83	19.7	37.0	440	High			1.4%
IRL A27 DRB1012 °	48	100	4,519	759	1,339	4,297	4,297	2,856	66.4	104	2.4	53	1.23	27.6	28.7	15	Weak	-169%	Deteriorated	1.4%
IRL A27 DFN1824 °	12	45	1,790	879	1,601	3,600	3,623	726	20.0	- 362	- 10.0	- 881	- 24.31	24.2	16.2	- 19	Weak	99%	Improved	1.1%
IRL A27 DRB0010	171	130	1,467	258	1,594	3,191	3,007	2,016	67.0	1,057	35.2			7.4	15.5					1.0%
IRL A27 DFN0010	174	115	-		2,497	3,870	2,799	1,715	61.3	1,005	35.9			6.2	14.9					0.9%
IRL A27 HOK0010	25	87	-		266	497	2,276	1,645	72.3	948	41.7			8.0	19.0					0.7%
IRL A27 DTS1012	20	15	1,291	217	1,214	1,508	1,508	1,045	69.3	515	34.1	476	31.54	35.6	70.1	33	High			0.5%
IRL A27 DFN1012	12	30	934	356	543	986	1,004	737	73.4	351	35.0			13.0	24.8					0.3%
IRL A27 TM1218 °	4	6	177	-	447	400	400							0.4				-31%	Deteriorated	0.1%
IRL A27 PMP1218 °	2	5	180	191	224	223	223	186	83.2	59	26.2			24.3	35.5					0.1%
IRL A27 HOK1012 °	2	10	47	52	15	20	20							0.7						0.0%
IRL A27 TM0010 °	4	4	154	-	2,884	1,122								-						0.0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.52 Ireland: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Norway lobster	31.8	20.1	26.3	33.4	43.6	41.3	46.4	49.8	61.7	9.2	7.1	7.7	7.8	10.1	8.4	8.9	8.3	9.4	3.5	2.8	3.4	4.3	4.3	4.9	5.2	6.0	6.6	21%	3%
Atlantic mackerel	40.1	48.3	37.4	48.7	45.4	44.5	103.5	49.1	47.2	44.7	61.0	58.0	63.2	63.1	56.7	103.4	88.9	76.5	0.9	0.8	0.7	0.8	0.7	0.8	1.0	0.6	0.6	21%	37%
Anglerfishes nei	31.2	12.0	15.2	13.8	13.6	11.1	12.1	12.8	14.6	2.8	3.4	4.3	4.0	3.7	3.5	3.9	3.8	4.4	11.2	3.6	3.6	3.5	3.6	3.1	3.1	3.4	3.3	5%	2%
Jack & horse mackerel	10.9	12.0	11.4	16.2	21.8	21.3	20.0	12.2	14.2	34.7	39.2	36.7	35.0	41.6	35.4	32.7	21.7	27.5	0.3	0.3	0.3	0.5	0.5	0.6	0.6	0.6	0.5	5%	9%
Blue whiting	3.2	1.2	2.5	1.9	5.8	24.2	8.3	9.8	5.0	22.9	9.3	8.3	1.2	7.6	13.2	21.5	24.8	27.7	0.1	0.1	0.3	1.6	0.8	1.8	0.4	0.4	0.2	4%	10%
Megrims nei	6.1	5.7	7.3	8.0	11.9	10.0	8.6	9.7	10.6	1.8	2.2	2.7	2.5	3.4	3.4	2.9	3.0	3.3	3.5	2.6	2.7	3.2	3.5	2.9	3.0	3.2	3.2	4%	1%
Edible crab	6.6	5.7	7.0	6.8	6.2	9.2	10.5	9.4	9.8	5.7	4.9	6.3	4.8	4.7	9.7	7.8	10.2	6.3	1.2	1.2	1.1	1.4	1.3	1.0	1.4	0.9	1.6	4%	4%
Great Atlantic scallop	11.1	11.0	10.4	22.3	1.4	7.9	4.6	8.4	4.8	1.0	2.6	1.9	2.1	2.5	2.9	3.7	2.1	2.1	11.0	4.3	5.6	10.5	0.6	2.8	1.2	4.0	2.2	4%	1%
Whiting	3.4	3.6	5.4	5.9	8.7	11.2	8.0	8.1	9.7	2.6	3.0	4.5	5.0	6.0	7.0	7.0	6.6	7.8	1.3	1.2	1.2	1.2	1.5	1.6	1.1	1.2	1.2	3%	3%
Atlantic herring	28.2	6.5	9.2	8.4	11.4	27.7	21.3	7.2	55.0	27.9	26.2	26.5	24.5	28.3	22.9	23.8	19.2	18.5	1.0	0.3	0.4	0.3	0.4	1.2	0.9	0.4	3.0	3%	8%
																												74%	78%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.12 Italy

Short description of the national fleet

Fleet capacity

In 2016, the national fleet capacity continued to decline, with a total of 12 311 vessels, having a combined gross tonnage (GT) of 158 thousand tonnes and engine power of 994 thousand kilowatts (kW). In 2015, the proportion of inactive vessels remained stable around 9% of the overall fleet.

Fleet structure

Small-scale Coastal Fleet consisting of vessels of less than 12 metres' length overall using passive gears were 7 409 vessels accounting for 60% of the total number of vessels and for 9% of total vessel tonnage in 2016. Large-scale Fleet, with 3 816 vessels, accounts for 31% of total number of vessels and for 83% of total vessel tonnage.

Employment

Employment continues to decline in line with the reduction in fishing capacity. In 2015, it was estimated at 25 787 jobs, with a decrease of a 4.3% on 2014 corresponding to 21 459 FTEs or an average of 1.3 and 3 FTE per vessel for small-scale and large-scale fisheries, respectively.

Effort

Effort remains relatively stable in 2015 with an estimated 1 438 thousand sea days (+0.4% on 2014). Energy consumption increased by 24% over the same period as result of an increased activity level, led by the drop in fuel prices.

Production

Production increased by 9% to 192 thousand tonnes of seafood, with a landed value of €894 million, a 10% increase on 2014. The majority of this increase can be accounted for by an increase in landings weight and value of the Large-scale Fleet which rose by 9% and 11%, respectively.

European hake, European anchovy, deep-water rose shrimp, giant red shrimp, common cuttlefish, swordfish, red mullet and striped venus are the main species contributing to 50% of the total value of landings in 2015. Between 2014 and 2015 the value of landings of the main species on average increased by 4-8%. Landings weight highlighted an average variation of 6%. European anchovy recorded the largest improvements in landed weight with an increase of 20% on 201. In particular, for the anchovies, it was also registered an increase of exports, mainly to the Spanish market.

Production is concentrated in the administrative regions of Sicily (GSA 16 and GSA 10), Veneto (GSA 17), Marche (GSA 17) and Apulia (GSA 18). Sicily and Apulia account for 40% of total landings value due to the prevalence of high quality demersal species such as hake, shrimp, mullet.

Economic results for 2015 and recent trends

National fleet performance

Following a long period of stagnation, the Italian fishing fleet's economic performance has shown improvement in 2015. The net profit amounted to €106.36 million, an increase of more than 90% on 2014 and signalling the best performance since 2010. Revenue, estimated at €899 million, increased by 9%. The total amount of Gross Value Added (€552 million) and gross profit (€274 million) increased by 20% and by 22%, respectively. GVA as proportion of revenue was estimated at 61.4%, the highest level since 2009.

The increase of the economic performance was mainly led by decrease in energy costs. Total operating costs slightly increased in 2015 (4%), mainly as a consequence of the reduction of 10% in energy costs which affected both small-scale and large-scale fisheries. The sector benefited from the reduction in the fuel costs which began in late 2014 and continued throughout 2015. The price of fuel has fallen from €0.75 per litre in 2013 to €0.53 per litre in 2015 and it led to a proportional reduction in the cost of fuel which represents one of the two biggest items of expenditure of the Italian fishing fleet with labour costs.

Over the same period, labour costs increased by 22% mainly as a consequence of the combination of improvements in revenues and decrease in energy costs. In Italy, in fact, labour costs are directly related to revenues and variable costs as the tradition-based income sharing system between the ship-owner and the crew is the most prevalent.

Overall, the cost structure has remained relatively constant over the years, with some decreases in energy costs and other variable costs.

Tangible asset value was estimated at €685 million and investments amounted to €20 million, a 7.7% decrease on 2014. By the contrast with the general declining trend in investments, investments of SSCF highlighted an increase of 10% on 2014. Conversely, investments of LSF have sharply reduced between 2008 and 2015, reaching €11 million in 2015, an 18.7% less than 2014 and an 80% less than 2008.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 30%, reaching the same level of 2010. Net profit margin was estimated at 12%, an 82% increase on 2014 and the highest value in the last five years. The Rate of Return on Fixed Tangible Assets (RoFTA) demonstrates a similar trend with an increase of 65% on 2014.

Labour productivity (GVA/FTE) improved in comparison to previous years with an increase of 16% on 2014.

Landings in weight per unit of effort (Days at Sea) keeps the positive trend started in 2013 showing an increase of 7% in 2015. The drop in fuel prices has in fact led to a resumption of activity making it profitable to fish in areas more distant from the coast or utilizing more energy-consuming fishing system, such as the beam trawl.

Performance by fishing activity

Small-scale coastal fleet

The Italian fleet is dominated by small-scale coastal fleet (vessels under 12m using passive gears). In 2015, there were an estimated 7 430 active vessels belonging to the SSCF, a decrease of 2.4% on 2014. Between 2008 and 2015 this fleet registered an average reduction of 4% per year in the number of vessels. Over the same period the number of employees of SSCF, which accounts for 49% of total employment, fell by 9% thus showing the lack of generational turnover in this sector.

In 2015, productions is estimated around 28 thousand tonnes, with a landed value of €213 million representing 24% of the total landing value. Landings value increased by 5% compared to 2014. However, production remains quite below the levels of the period 2008-2014: -15% in terms of weight and -21% in terms of value of landings.

In 2015, SSCF accounted for 66% of total activity expressed in sea days of the Italian fishing fleet with an increase of 2.5% compared to 2014. Between 2008 and 2015 activity of SSCF registered an average reduction of 9% per year. In 2015, operational costs slightly increased compared to 2014 (1.8%) as a consequence of the increase in labour costs offset by a corresponding reduction in fuel costs.

In 2015, revenue increased 4%, GVA estimated at €158 million (+8.5%), gross profit was €69.7 million (+6.5%) and net profit was €33.7 million (+18%). In line with 2014, there is a slow recovery in profitability indicators: the gross profit margin was 32.3% (+2%), net profit margin was estimated at 15.6%, a 14% increase on 2014 and the RoFTA increase of 12% on 2014. Labour productivity (GVA/FTE) also improved (+ 3.2%).

Landings in weight per unit of effort (Days at Sea) decreased by 5% between 2014 and 2015. Between 2014 and 2015 vessel productivity (landing value per vessel) remained constant although it decreased by 12% between 2008 and 2015.

Large-scale fleet

Large-scale fleet includes demersal trawlers, beam trawlers, pelagic trawlers, dredgers, purse seiners, hook, and polyvalent vessels. It mainly concerns 1 159 demersal trawlers 12-18m (30%), 610 demersal trawlers 18-24m (10%), dredgers 12-18m (10%) and polyvalent passive gears 12-18m (10%). In 2015, LSF decreased by 1.2% compared to 2014. Between 2008 and 2015 this fleet registered an average reduction of 7.3% per year in the number of vessels and a reduction of 9% in terms of total employed.

In 2015, productions is estimated around 161 thousand tonnes, with a landed value of €677 million representing 68% of the total landing value. Both landings weight and value increased by around 10% compared to 2014, the best performance over the past three years.

In 2015, LSF accounted for 34% of total activity expressed in sea days of the Italian fishing fleet with a decrease of 3.6% compared to 2014. Between 2008 and 2015 activity of LSF reduced on average by 9% per year. Conversely, energy consumption accounting of 88% of total energy consumption of the Italian fleet, increased by 23% in 2015. Operational costs increased by 3% compared to 2014. Wages and salary of crew, which account for 31% of LSF operating cost, totalled €187.6 million, a 22.7% increase on 2014. Energy costs (accounting for another 30% of total operating cost) decreased by around 11% as a result of the significant fuel price falls happened in 2015.

The Italian large-scale fleet remained in a net profit making position in 2015, generating the highest net profit (€73.4 million) and rebounding to the 2011 level. Labour productivity (GVA/FTE) almost stable at EUR 40 000, with an increase of 23% on 2014 but quite below the period 2008-2011.

Performance of selected fleet segments

Fleet Segment Level Economic performance

The Italian fleet is highly diversified with a broad range of vessel types targeting different species. The national fleet in 2015 consisted of 24 (DCF) fleet segments. Ten of the active fleet segments have high profitability, and nine with weak profitability classifications. Five segments suffered gross losses in 2015.

Both in terms of number of vessels and production value, the fleet is dominated by the polyvalent passive segments, large demersal trawlers and dredgers.

Passive gears polyvalent 6-12m: 5 205 vessels made up this segment in 2015 which is spread along the Italian coasts and mainly in Sicily, Sardinia and Campania and using a variety of gears such as Set gillnets, Trammel nets, pots and traps, set longlines. Total employment of this fleet segment was estimated around 9 435 units, contributing to 37% of total number of employees in the Italian fishing fleet. Between 2014 and 2015, employment further decreased by 3%. The segment presented a gross profit of around €53.9 million and net profit of €22.3 million in 2015. In line with the positive performance of 2014, this indicates a stable economic trend. In 2015, this segment benefited from an increase both in activity (+3%) and landings value (+6%). Between 2014 and 2015, operational costs remained almost stable with the only exception of fuel costs that decreased by 10% as direct consequence of the drop in fuel prices. The fleet targets a variety of species but in particular common cuttlefish, European hake and common octopus, which as a whole account for 25% and 20% of total landings value and weight, respectively. Main target species also highlight increasing trends in prices.

Passive gears polyvalent 00-06m: with 2 213 vessels this fleet segment is the second in terms of number of vessels. The majority of these vessels operate with set gillnets, trammel nets, pots and traps, set longlines. The fleet is distributed along all the Italian regions. The fleet targets a number of stocks but in particular common cuttlefish, common octopus, gilthead seabream, European hake, surmullet, common Sole which, overall, account for 40% and 33% of total landing value and weight, respectively. In 2015, the total value of landings was almost €43.6 million and around 2 167 FTEs were employed in this fleet segment, contributing to 5% and 10% of the total income from landings and total FTE generated by the Italian fishing fleet, respectively. This fleet segment presented a gross profit of around €15.4 million and net profit of €11 million in 2015. This indicates high profitability for 2015 with an improved economic development trend evident also in the GVA and Gross profit.

Demersal trawl / seine 12-18m: 1 159 vessels make up this segment which is distributed along the Italian GSA and predominantly in Apulia (31%) and Sicily (16%) regions. The fleet targets a variety of species but in particular demersal species, such as European hake, giant red shrimp, deep-water rose shrimp, red mullet, spottail mantis squillid, common cuttlefish, Norway lobster which, overall, account for more than 50% of landings value and weight of the segment. In 2015, the total value of landings was almost €175.9 million and around 3 246 FTEs were employed in this fleet segment, contributing to 20% and 15% of total income from landings and the total FTE of the Italian fishing fleet, respectively. In line with the general trend of the sector, operational cost remained almost constant between 2014 and 2015 showing an increase of 20% in wages and salaries costs and a decrease of 10% in fuel costs. This fleet segment presented one of the best performance of the Italian fishing fleet in 2015 with a gross profit of around €55.4 million and positive net profit of €37.3 million. This indicates high profitability for 2015 with an improved economic development trend.

Demersal trawl / seine 18-24m: In 2014, this fleet segment consisted of 610 vessels accounting for a 5% and 10% of the total number of vessels and total employment, respectively. Between 2014 and 2015 both the number of vessels and employees further decreased by around 5%. The fleet operates predominantly in GSA 09, 16 and 17 and targets both demersal and pelagic species. The most important species are European hake, deep-water rose shrimp, red mullet, Norway lobster, common cuttlefish, musky octopus, and European squid. The total value of landings increased by 7% from 2014 to 2015 benefiting from higher prices of some target species as European hake and Deep-water rose shrimp. Over the same period operational costs slightly increased by 3% as a consequence of the opposing effects of the increase in wages and salaries costs (+20%) and a decrease in fuel costs (-7%). In 2015, this fleet segment presented a gross profit of €40.9 million and positive net profit of €4.1 million. This indicates an improved economic development trend although the profitability remained weak in 2015.

Demersal trawl / seine 24-40m: 218 vessels make up this segment which operates predominantly in GSA 16 (Southern Sicily) and mainly targets Giant red shrimp, Deep-water rose shrimp and European hake accounting as whole for 57% and 65% of the total weight and the total income from landings generated by this fishing fleet in 2015, respectively. In 2015, revenue was over €95.3 million, the highest level since 2011. Revenue in particular benefited from increased fish prices of target species: between 2014 and 2015 average prices of European hake rose by around 5% and average prices of Giant red shrimp rose by 20%. The increase in prices of Giant red shrimp benefited from many advertising campaigns, which made the consumers more aware on its value. However, over the same period weight of landings decreased by 5%, operating costs increased by 6% mostly due to the increased wages and salaries costs (+63%) and to the reduction in fuel costs (-21%). Although the improvements in the economic trend, profitability remained weak with a negative net profit of €627 thousand. This can be explained in large part by the drop in weight of landings of European hake and Deep-water rose shrimp which decreased respectively by 22% and 11% between 2010 and 2015.

Dredges 12-18m: 706 vessels make up this segment which is concentrated in GSA 17 predominantly in Marche (221 dredgers), Veneto (161 dredgers) and Abruzzo (103 dredgers). Clams is the target species accounting to 86% and 73% of total landings weight and value of the segment. The fishery is regulated by a self-management approach based on Territorial User-Rights in Fisheries (TURFs) through Molluscs Management Consortia, which are distributed at compartment level. Although this fleet accounts for a 5% of both total FTEs and total gross value added, over the last eight years it highlights a weak profitability and deterioration of 64% in net profit margin. This crisis is mainly due to the reduction in total landings which decreased by 40% between 2008 and 2015. In some areas of the southern part of Adriatic Sea, the dredgers didn't work over the whole year. Over the same period, average prices of clams remained almost constant and, conversely, average days at sea decreased by 22%, average landed weight reduced by 22% and average landed value by 32%. However, the introduction of a new minimum conservation reference size (reduced from 25 mm to 22 mm) through the adoption of the Discard Plan for mollusc bivalve Venus species in the Italian waters (entered into force on 1 January 2017) is expected to positively affect the profitability of Italian dredges.

Drivers affecting the economic performance trends

The recovery of the production levels is associated with a greater fishing activity and an improvement in average productivity. Technical and fishery management provisions, especially those managed through national management plans, together with containment policies of fishing capacity are providing the first results in terms of recovery of fish stocks and, in fact, the first encouraging signals come from biological indicators related to the exploitation of some fish species.

Markets and Trade

Average first sale prices of the most important target species (European hake, giant red shrimp, red mullet, common sole) did not significantly increase, despite a reduction in landings. Also prices of European anchovy, swordfish, spottail mantis squillid remained relatively comparable to 2014. Striped venus further decreased by 6% compared to 2014.

However, consumption of fish and fish products per capita slightly increased in 2015 as compared to 2014 (ISTAT, 2016). Italy confirms the negative trade balance in fishery products, both in terms of volume and value. In 2015, total import and exports values of seafood products increased by around 9% compared to 2014. Sea bass, sea beams, shrimp, squid, mussels and salmon are the main fresh and frozen products imported.

Management instruments and regulation

In 2015, the Commission Delegated Regulation (EU) No 1392/2014 of 20 October 2014 establishing a discard plan for certain small pelagic fisheries in the Mediterranean Sea entered into force and it shall be applied from 1 January 2015 until 31 December 2017. The Regulation established a de minimis exemption from the landing obligation in terms of percentage of the total annual catches of species subject to the landing obligation in small pelagic fisheries (as provided for in Article 15(1) of Regulation (EU) No 1380/2013. Discard plans for certain demersal fisheries in the Mediterranean Sea and for clams in Italian waters entered into force on 1 January 2017 (Commission Delegated Regulation (EU) 2017/86 of 20 October 2016 establishing a discard plan for certain demersal fisheries in the Mediterranean Sea).

For stocks that are shared with third countries, GFCM implemented the multiannual management plan for the demersal fisheries exploiting hake and deep-water rose shrimp in the Strait of Sicily (GSAs 12-16). The plan was adopted during the 40th Annual Session of the GFCM in June 2016 (STECF, 2016). The plan shall ensure that exploitation levels of European hake and deep-water rose shrimp are at the maximum sustainable yield (MSY) by 2020 at the latest. Three fisheries restricted areas (FRAs) have been established to protect nursery areas of the two species.

Another management initiative that will affect the economic performance of the Italian longliners is the recovery plan for Mediterranean swordfish that has been endorsed during the ICCAT annual meeting in 21 November 2016. This plan introduces several management measure, like the establishment of a Total Allowable Catch (TAC) from 2017.

The entry into force of the Legislative decree 154/2016 governing the new system of penalties has prompted major protests http://context.reverso.net/traduzione/inglese-italiano/major+protests amongst fishers because the new rules have tightened up fines, although it decriminalized infringements concerning catch, landing, transport, processing and marketing of undersized (juvenile) fish. The disproportion of fines was in particular questioned because in some cases the gap between fine and the commercial value of confiscated catches are higher than 100%.

TACs and quotas

Total initial available quota of bluefin tuna for the Italian fleet in 2015 was 2 302.80 tonnes, corresponding to around 14% of total UE quota. The Italian quota is distributed among longliners (13.6%), purse seine (74.1%), trap (8.4%) and recreational fishing (0.5%) in line with previous years. In 2016 and 2017, Italian bluefin tuna quota will increase by 20%, reaching 2 752.57 tonnes and 3 304.50 tonnes, respectively.

Stock status

Most of assessed species in Mediterranean are subject to over-exploitation. There are few examples of fisheries where stocks are being exploited at rates consistent with MSY, where fleets are showing positive trends, particularly in landings (e.g. deep sea rose shrimp (*Parapenaeus longirostris)* in North Tyrrhenian-Ligurian Sea and red mullet (*Mullus barbatus)* in South Tyrrhenian Sea). The overall level of overfishing however remains broadly between 2 and 3 times FMSY. Only around 9% of stocks are fished sustainably (Fcurrent<FMSY), and 9% of stocks are exploited at levels close to FMSY. Moreover, despite recent improvements, the number of stocks with unknown status remains large in Mediterranean (STECF, 2015).

Operational costs (external factors) including fuel prices

Fuel use intensity has not been improving in recent years. In 2015, energy consumption per days at sea and energy consumption per number of vessels both increased by 6% compared to the average values 2008- 2014.

Innovation and Development

Total investments continue to decline in 2015, showing a decrease of 8% on 2014 and a drop of 54% over the 2008-to-2014 period. The energy efficiency of the Italian fishing fleet has not improved in recent years, mainly due to the lack of investment in fishing gears with a lower environmental impact and greater energy efficiency.

Projections for 2016 and outlook

On February 2017, The International Commission for the Conservation of Atlantic Tunas (ICCAT) established the allocation of fishing quotas of 10 500 tonnes for Mediterranean Swordfish. The recovery plan covers all the Mediterranean Sea and involves all operators, including sport and recreational, and non-EU countries such as Tunisia, Morocco, Algeria, Libya and Turkey. The quota assigned to the EU amounted to 7 400 tonnes for 2017, a 70% of the overall Mediterranean swordfish

Total Allowable Catch (TAC). It was also established a gradual reduction of TAC within fifteen years in order to achieve BMSY by 2031. In line with the ICCAT recommendations, the Italian Administration established the national list of vessels authorised to fish for swordfish and regulated the use of fishing gears. With 4.3 thousand tonnes in 2015, Italy is the first producer of Mediterranean swordfish in EU. Between 2008 and 2015, the value of landings decreased by 33% from around €59.2 million to €39.4 million. Over the same period, weight of landings reduced by 4%.

In 2016, the EC Regulations establishing a discard plan for certain demersal fisheries in the Mediterranean Sea (No 2017/86 of 20 October 2016) entered into force. The landing obligation shall apply to hake, common sole, deep-water rose shrimp and red mullet and it shall apply from 1 January 2017 to 31 December 2019. However, landing obligation of undersized species is a matter of considerable concern to the operators particularly in demersal and pelagic trawl sectors because of the lack of suitable infrastructure for storing of discard. The introduction of such rules, that implies to manage higher volumes of product on board and at land, is expected to produce an increase in variable and non-variable costs and in particular in labour costs.

The fall in fuel prices have contributed to the comparatively positive performance of the sector in 2015. In 2016, the fuel cost continued to decrease of 25% from €0.53 per litre to €0.43 per litre. This trend will further improve the profitability of the Italian fishing fleet. The trend of fuel prices in the first three months of 2017 (http://dgsaie.mise.gov.it/dgerm) remained constant at €0.53 per litre. Forecasts suggest that income from fish sales remained stable in 2016 and in line with recent trends.

MODEL FORECAST

Preliminary results for 2016 forecast a 3% decrease in landed weight, with a 1% increase in landed value. Projections suggest operating costs decrease, most notably energy costs which are estimated to decrease by 36% due to the continued low fuel prices. Additionally, with a 3% reduction in capital costs, fostered further economic performance improvements in 2016: GVA (+15%), gross profit (+29%) and net profit (+78%).

Results indicate that the Italian fleet operated at a profit in 2016: with an estimated net profit of €189 million and a margin of 21%. Positive economic developments can also be seen in performance indicators GVA to revenue (+14%), gross profit margin (+28%) and GVA per FTE, estimated at €30 thousand in 2016 (+16%).

The 2016 gains are slightly offset in 2017: stable landings with a 1% decrease in landed value compared to projected 2016 figures, are counteracted by a 20% increase in fuel costs. The fleet remains profitable with gross and net profit margins of 36% and 19%, respectively. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Data issues

All fleet segments with major contribution to the total catches of the Italian fleet have been sampled with satisfactory response rates.

Except for capacity and weight of landings no data for the OFR Purse seiners segment 40 m or larger could be published due to confidentiality issues.

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Table 5.53 Italy: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	13,518	13,359	13,348	13,285	12,942	12,746	12,689	12,426	*11,234*	*11,212*		-2.1%	-5.3%
Number of Inactive vessels_ms	(#)	1,163	1,109	1,153	1,126	1,150	1,214	1,134	1,092	*1,077*			-3.7%	-5.0%
Vessel tonnage	(thousand GT)	198	193	192	179	171	165	164	164				-0.2%	-9.2%
Engine power	(thousand kW)	1,147	1,123	1,121	1,088	1,047	1,024	1,024	1,014				-1.0%	-6.3%
Total employed	(person)	29,604	29,222	29,222	28,964	28,292	26,758	26,932	25,787	*25,485*	*25,455*		-4.3%	-9.3%
FTE	(#)	21,456	21,414	21,169	20,740	20,693	19,749	20,694	21,459	*21,176*	*21,154*		3.7%	2.9%
Days at sea	(thousand day)	1,591	1,783	1,669	1,749	1,556	1,494	1,433	1,438	*1,426*	*1,423*		0.4%	-10.7%
Fishing days	(thousand day)	1,530	1,752	1,646	1,715	1,538	1,581	1,530	1,527				-0.2%	-5.4%
Number of fishing trips	(thousand)	1,544	1,784	1,634	1,728	1,552	1,536	1,420	1,435				1.0%	-10.3%
Energy consumption	(million litre)	433.0	437.6	402.7	409.6	335.9	319.6	304.4	378.3	*369.9*	*369.9*		24.3%	0.2%
Live weight of landings	(thousand tonne)	227.0	242.4	224.8	212.4	196.8	172.6	176.8	192.2	*186.1*	*186.1*		8.7%	-7.4%
Value of landings	(million €)	1,223	1,319	1,204	1,155	944.6	834.1	813.3	894.0	*902.2*	*896.5*		9.9%	-16.5%
Income from landings	(million €)	1,223	1,319	1,204	1,155	944.6	834.1	813.3	894.0	*902.1*	*896.3*		9.9%	-16.5%
Other income	(million €)	12.4	10.3	9.1	8.7	8.9	7.6	8.8	5.1	*4.9*	*4.8*		-42.2%	-45.9%
Direct income subsidies	(million €)	33.2	13.9	23.9	11.7	7.8	12.6	17.1	-					
Income from leasing fishing rights	(million €)						0.5	1.2						
Wages and salaries of crew	(million €)	242.8	329.3	286.2	255.9	191.8	196.3	184.7	224.9	*227.2*	*225.8*		21.7%	-6.7%
Unpaid labour value	(million €)	51.2	66.7	56.6	37.6	40.1	42.3	50.2	53.3	*54.8*	*54.3*		6.1%	8.2%
Energy costs	(million €)	334.9	223.9	257.5	318.0	274.1	240.4	221.7	200.0	*128.0*	*153.4*		-9.8%	-25.1%
Repair & maintenance costs	(million €)	52.1	51.6	50.0	46.8	42.8	37.2	38.0	40.1	*39.6*	*38.5*		5.5%	-11.9%
Other variable costs	(million €)	146.4	157.4	146.1	137.4	111.3	97.5	69.3	71.4	*70.0*	*68.2*		2.9%	-42.3%
Other non-variable costs	(million €)	48.5	49.0	45.3	42.6	38.6	30.8	34.1	35.4	*35.0*	*34.1*		3.7%	-14.2%
Annual depreciation costs	(million €)	199.8	206.7	202.8	198.4	170.2	148.3	151.7	156.7	*153.5*	*149.6*		3.3%	-14.1%
Rights costs	(million €)	0.8	0.6	0.4	0.4	0.1			0.1	*0.1*	*0.1*			-75.2%
Opportunity cost of capital	(million €)	10.9	33.8	23.7	22.2	16.7	21.2	18.7	11.0	*10.0*	*5.1*		-41.4%	-47.8%
Tangible asset value (replacement)	(million €)	958.5	972.3	986.7	905.5	786.9	711.4	698.3	685.6	*629.0*	*612.9*		-1.8%	-20.3%
Fishing rights	(million €)													
Investments	(million €)	76.4	77.0	53.1	36.9	29.5	15.0	22.0	20.3				-7.7%	-54.1%
Financial position	(%)	78.0	64.0	62.0	77.0	83.0	68.4	68.3	66.2				-3.0%	-7.4%
Gross Value Added	(million €)	653.6	847.9	714.2	619.2	486.7	435.8	458.9	552.2	*634.5*	*607.0*		20.3%	-8.3%
GVA to revenue	(%)	52.9	63.8	58.9	53.2	51.1	51.8	55.8	61.4	*70.0*	*67.4*		10.0%	11.0%
Gross profit	(million €)	359.6	452.0	371.4	325.7	254.9	197.2	223.9	274.1	*352.6*	*326.9*		22.4%	-12.2%
Gross profit margin	(%)	29.1	34.0	30.6	28.0	26.7	23.4	27.2	30.5	*38.9*	*36.3*		11.9%	7.2%
Net profit	(million €)	148.9	211.4	144.9	105.1	68.1	27.6	53.5	106.4	*189.0*	*172.2*		98.7%	-2.0%
Net profit margin	(%)	12.1	15.9	11.9	9.0	7.1	3.3	6.5	11.8	*20.8*	*19.1*		81.7%	25.7%
GVA per FTE (labour productivity)	(thousand €)	30.5	39.6	33.7	29.9	23.5	22.1	22.2	25.7	*30.0*	*28.7*		16.0%	-10.6%
Return on fixed tangible assets	(%)	16.7	25.2	17.1	14.1	10.8	6.9	10.3	17.1	*31.6*	*28.9*		65.4%	18.6%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

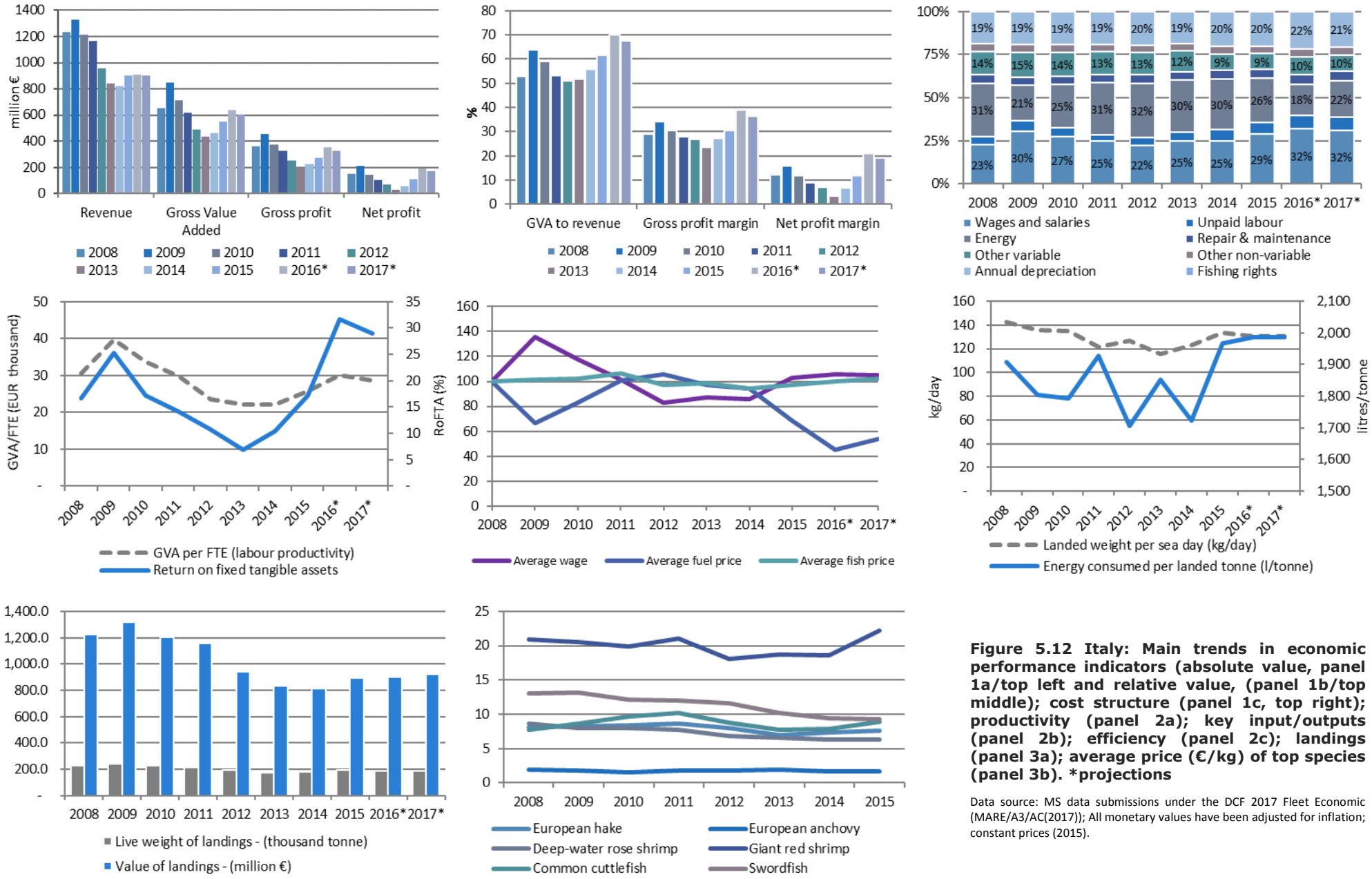


Figure 5.12 Italy: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.54 Italy: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	7,885	7,846	7,837	7,866	7,689	7,638	7,611	7,430	7,409	7,387		-2.4%	-4.3%
Vessel tonnage	(thousand GT)	15	15	15	15	15	15	15	14				-5.8%	-6.6%
Engine power	(thousand kW)	220	220	223	228	221	220	220	210				-4.2%	-5.1%
FTE	(#)	9,384	9,757	9,865	10,036	9,779	9,706	9,379	9,858	9,845	9,824		5.1%	1.6%
Total employed	(person)	13,722	13,698	14,094	14,050	13,856	13,275	13,114	12,559	12,536	12,506		-4.2%	-8.2%
Days at sea	(thousand day)	989	1,152	1,070	1,178	1,033	986	931	954	951	949		2.5%	-9.0%
Fishing days	(thousand day)	967	1,152	1,070	1,167	1,033	1,078	1,029	1,033				0.4%	-3.6%
Number of fishing trips	(thousand)	1,006	1,217	1,098	1,212	1,074	1,060	950	981				3.2%	-9.8%
Energy consumption	(million litre)	56.8	64.1	59.3	74.6	56.4	71.9	32.6	37.2	37.2	37.1		14.1%	-37.4%
Live weight of landings	(thousand tonne)	32.8	38.6	33.7	36.7	31.1	27.2	28.2	27.5	27.4	27.4		-2.6%	-15.8%
Value of landings	(million €)	285.9	333.4	298.6	311.9	246.0	196.1	203.3	213.3	219.1	217.4		4.9%	-20.4%
Income from landings	(million €)	285.9	333.4	298.6	311.9	246.0	196.1	203.3	213.3	219.0	217.2		4.9%	-20.4%
Other income	(million €)	4.3	5.1	4.8	5.1	4.2	3.7	4.0	2.3	2.3	2.2		-42.1%	-48.1%
Direct income subsidies	(million €)	0.5	0.4	0.4	0.1	0.5	0.1	0.1	-				-100.0%	-100.0%
Income from leasing fishing rights	(million €)													
Wages and salaries of crew	(million €)	32.8	45.4	39.2	51.6	27.3	25.7	31.9	36.4	37.5	37.3		14.3%	0.5%
Unpaid labour value	(million €)	50.2	64.0	54.7	36.4	38.3	40.7	48.7	52.3	53.7	53.3		7.3%	9.8%
Energy costs	(million €)	43.9	32.8	37.7	58.0	46.1	54.0	25.5	22.8	15.9	19.0		-10.7%	-46.4%
Repair & maintenance costs	(million €)	15.7	15.6	15.3	14.7	13.3	9.6	9.9	9.3	9.3	9.1		-5.5%	-30.6%
Other variable costs	(million €)	30.2	35.4	31.9	33.2	26.8	25.0	13.7	13.9	13.9	13.6		1.8%	-50.3%
Other non-variable costs	(million €)	12.3	12.2	12.0	11.5	10.1	9.9	12.2	11.2	11.2	10.9		-7.9%	-1.8%
Annual depreciation costs	(million €)	35.1	36.3	41.5	41.5	37.8	34.1	33.5	33.9	33.9	33.0		1.2%	-8.7%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-	-			
Opportunity cost of capital	(million €)	1.5	4.9	3.9	4.0	3.2	4.0	3.5	2.1	2.1	1.1		-40.2%	-41.2%
Tangible asset value (replacement)	(million €)	135.8	141.3	162.9	163.3	149.6	135.3	131.6	131.7	131.2	127.7		0.1%	-9.6%
Fishing rights	(million €)													
Investments	(million €)	9.8	10.2	2.1	10.6	8.7	8.1	8.4	9.2				10.3%	11.5%
Gross Value Added	(million €)	188.2	242.6	206.5	199.7	153.9	101.4	146.0	158.4	170.9	166.9		8.5%	-10.5%
GVA to revenue	(%)	64.8	71.7	68.1	63.0	61.5	50.7	70.4	73.4	77.2	76.1		4.3%	14.2%
Gross profit	(million €)	105.2	133.2	112.7	111.8	88.1	34.9	65.4	69.7	79.6	76.4		6.5%	-25.1%
Gross profit margin	(%)	36.2	39.4	37.1	35.3	35.3	17.5	31.6	32.3	36.0	34.8		2.3%	-2.6%
Net profit	(million €)	68.5	92.0	67.3	66.2	47.2	- 3.2	28.5	33.7	43.6	42.3		18.4%	-35.6%
Net profit margin	(%)	23.6	27.2	22.2	20.9	18.9	- 1.6	13.7	15.6	19.7	19.3		13.8%	-12.4%
Return on fixed tangible assets	(%)	51.6	68.6	43.7	43.0	33.8	0.6	24.3	27.2	34.8	33.9		11.8%	-28.4%
GVA per FTE (labour productivity)	(thousand €)	20.1	24.9	20.9	19.9	15.7	10.4	15.6	16.1	17.4	17.0		49.1%	-16.6%

		LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	4,452	4,386	4,351	4,286	4,099	3,894	3,944	3,895	3,816	3,816		-1.2%	-7.3%
Vessel tonnage	(thousand GT)	164	161	155	149	142	135	136	136				0.0%	-9.0%
Engine power	(thousand kW)	848	832	808	791	753	723	732	732				0.0%	-6.6%
FTE	(#)	11,923	11,559	11,242	10,638	10,890	10,043	11,315	11,581	11,311	11,311		2.4%	4.5%
Total employed	(person)	15,627	15,269	14,888	14,675	14,361	13,483	13,819	13,208	12,929	12,929		-4.4%	-9.5%
Days at sea	(thousand day)	600	630	598	571	523	508	502	484	474	474		-3.6%	-13.8%
Fishing days	(thousand day)	563	600	576	548	505	503	502	494				-1.5%	-8.9%
Number of fishing trips	(thousand)	539	567	536	516	477	476	470	454				-3.4%	-11.2%
Energy consumption	(million litre)	369.7	369.0	343.4	332.3	278.2	247.8	271.9	334.0	325.6	325.6		22.8%	5.7%
Live weight of landings	(thousand tonne)	183.7	195.5	189.3	173.6	164.7	145.4	148.6	161.3	155.2	155.2		8.5%	-6.0%
Value of landings	(million €)	911.3	960.7	892.3	832.2	694.1	637.9	610.0	676.6	678.9	674.9		10.9%	-14.5%
Income from landings	(million €)	911.3	960.7	892.3	832.2	694.1	637.9	610.0	676.6	678.9	674.9		10.9%	-14.5%
Other income	(million €)	8.1	5.2	4.3	3.6	4.7	3.9	4.8	2.8	2.6	2.6		-42.3%	-43.9%
Direct income subsidies	(million €)	32.7	13.5	23.5	11.6	7.3	12.5	17.0	-				-100.0%	-100.0%
Income from leasing fishing rights	(million €)						0.5	1.2					-100.0%	-100.0%
Wages and salaries of crew	(million €)	208.2	282.5	246.1	203.4	164.1	170.6	152.8	187.6	188.8	187.7		22.7%	-8.0%
Unpaid labour value	(million €)	0.9	2.7	2.0	1.3	1.7	1.6	1.6	1.0	1.0	1.0		-33.8%	-38.3%
Energy costs	(million €)	285.8	188.7	218.3	258.1	227.2	186.4	196.2	175.2	110.5	132.4		-10.7%	-21.4%
Repair & maintenance costs	(million €)	35.9	35.7	34.4	31.9	29.4	27.6	28.1	30.5	29.9	29.2		8.3%	-4.4%
Other variable costs	(million €)	114.7	120.9	113.4	103.4	84.2	72.5	55.7	57.0	55.6	54.2		2.4%	-40.0%
Other non-variable costs	(million €)	35.6	36.3	32.9	30.8	28.3	20.9	21.9	24.0	23.6	23.0		9.5%	-18.7%
Annual depreciation costs	(million €)	160.0	165.3	156.0	152.5	130.0	114.2	118.2	122.5	119.2	116.2		3.6%	-14.0%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-	-			
Opportunity cost of capital	(million €)	8.2	25.5	16.3	16.3	12.1	14.9	13.4	8.2	7.7	3.9		-38.9%	-46.4%
Tangible asset value (replacement)	(million €)	717.4	733.3	679.6	666.0	572.6	500.1	499.1	510.6	481.9	469.7		2.3%	-18.2%
Fishing rights	(million €)													
Investments	(million €)	62.8	63.7	51.0	25.1	20.0	7.0	13.6	11.1				-18.7%	-68.1%
Gross Value Added	(million €)	447.2	584.2	497.6	411.7	329.7	334.4	312.9	392.6	461.9	438.7		25.5%	-5.8%
GVA to revenue	(%)	48.6	60.5	55.5	49.3	47.2	52.1	50.9	57.8	67.8	64.8		13.6%	11.1%
Gross profit	(million €)	238.1	299.1	249.5	207.0	163.9	162.2	158.5	204.0	272.1	250.0		28.7%	-3.4%
Gross profit margin	(%)	25.9	31.0	27.8	24.8	23.4	25.3	25.8	30.0	39.9	36.9		16.5%	14.3%
Net profit	(million €)	69.9	108.3	77.2	38.2	21.7	33.1	26.9	73.4	145.2	129.9		172.9%	36.9%
Net profit margin	(%)	7.6	11.2	8.6	4.6	3.1	5.2	4.4	10.8	21.3	19.2		147.0%	69.4%
Return on fixed tangible assets	(%)	10.9	18.2	13.8	8.2	5.9	9.6	8.1	16.0	31.7	28.5		98.0%	49.8%
GVA per FTE (labour productivity)	(thousand €)	37.5	50.5	44.3	38.7	30.3	33.3	27.7	33.9	40.8	38.8		-17.0%	-29.3%

		DWF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2015	2016*	2017*					
Total number of vessels	(#)	18	18	7	7	5	9	9	9					80.0%
Vessel tonnage	(thousand GT)	10	10	4	4	3	6							127.7%
Engine power	(thousand kW)	22	22	7	7	5	13							147.4%
FTE	(#)	148	97	63	66	25	20	20	20					-20.6%
Total employed	(person)	255	255	240	240	75	20	20	20					-73.3%
Days at sea	(thousand day)	2.3	1.4	0.8	0.9	0.4	0.5	0.5	0.5					16.6%
Fishing days	(thousand day)													
Number of fishing trips	(thousand)													
Energy consumption	(million litre)	6.5	4.6	2.5	2.6	1.2	7.1	7.1	7.1					490.6%
Live weight of landings	(thousand tonne)	10.4	8.4	1.8	2.0	0.9	3.5	3.5	3.5					266.6%
Value of landings	(million €)	25.9	25.3	13.1	11.2	4.5	4.1	4.2	4.2					-9.2%
Income from landings	(million €)	25.9	25.3	13.1	11.2	4.5	4.1	4.2	4.2					-9.2%
Other income	(million €)	-	-	-	-	-	-	-	-					
Direct income subsidies	(million €)	-	-	-	-	-	-							
Income from leasing fishing rights	(million €)													
Wages and salaries of crew	(million €)	1.8	1.4	0.9	0.9	0.3	0.8	0.9	0.9					149.4%
Unpaid labour value	(million €)	-	-	-	-	-	-	-	-					
Energy costs	(million €)	5.2	2.3	1.6	2.0	0.8	2.0	1.6	2.0					148.5%
Repair & maintenance costs	(million €)	0.5	0.4	0.3	0.3	0.1	0.3	0.3	0.3					202.4%
Other variable costs	(million €)	1.5	1.0	0.8	0.8	0.3	0.4	0.4	0.4					48.0%
Other non-variable costs	(million €)	0.6	0.5	0.3	0.4	0.1	0.2	0.2	0.1					17.6%
Annual depreciation costs	(million €)	4.7	5.2	5.3	4.3	2.3	0.4	0.4	0.4					-82.5%
Rights costs	(million €)	0.8	0.6	0.4	0.4	0.1	0.1	0.1	0.1					-14.8%
Opportunity cost of capital	(million €)	0.7	2.1	0.6	0.5	0.2	0.1	0.3	0.1					-72.8%
Tangible asset value (replacement)	(million €)	63.3	59.6	25.7	20.9	11.2	4.0	15.9	15.5					-64.0%
Fishing rights	(million €)													
Investments	(million €)	3.8	3.0	0.1	1.3	0.8	-							-100.0%
Gross Value Added	(million €)	8.9	16.1	10.1	7.8	3.2	1.2	1.7	1.4					-62.0%
GVA to revenue	(%)	53.4	79.2	77.2	69.3	70.6	29.6	40.5	32.9					-58.2%
Gross profit	(million €)	7.1	14.7	9.2	6.9	2.9	0.4	0.8	0.5					-86.9%
Gross profit margin	(%)	42.6	72.5	70.3	61.1	63.2	9.1	20.0	12.4					-85.6%
Net profit	(million €)	1.9	8.0	3.3	2.0	0.3	- 0.1	0.2	0.0					-126.9%
Net profit margin	(%)	11.7	39.6	25.2	18.0	7.4	- 2.2	4.5	0.0					-129.6%
Return on fixed tangible assets	(%)	5.8	22.2	15.2	12.1	5.1	- 0.6	2.8	0.8					-112.6%
GVA per FTE (labour productivity)	(thousand €)	59.8	165.2	161.2	118.7	128.5	61.5	86.5	70.0					-52.2%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.55 Italy: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
ITA A37 DTS1218	1,159	3,246	173,544	3,602	25,201	175,805	175,879	99,472	56.6	55,398	31.5	37,288	21.20	13.6	30.6	53.7	High	45%	Improved	19.6%
ITA A37 PGP0612	5,205	7,649	687,930	1,456	21,989	168,662	170,457	123,201	72.3	53,862	31.6	22,304	13.08	9.1	16.1	20.8	Reasonable	-3%	Stable	19.0%
ITA A37 DTS1824	610	2,410	96,175	4,515	24,593	162,443	162,610	78,436	48.2	40,942	25.2	4,112	2.53	15.6	32.5	4.5	Weak	37%	Improved	18.1%
ITA A37 DTS2440	218	1,083	30,704	6,678	8,612	93,612	95,312	53,424	56.1	25,422	26.7	- 627	- 0.66	25.9	49.3	1.0	Weak	94%	Improved	10.6%
ITA A37 PGP0006	2,213	2,167	264,421	936	5,294	43,567	44,068	34,334	77.9	15,376	34.9	11,023	25.01	8.7	15.8	75.2	High	-12%	Deteriorated	4.9%
ITA A37 DRB1218 °	706	542	46,566	577	16,135	40,487	40,542	28,823	71.1	13,688	33.8	2,637	6.50	28.0	53.2	8.0	Weak	-64%	Deteriorated	4.5%
ITA A37 PGP1218 °	403	1,045	50,668	1,588	5,664	35,874	36,442	25,061	68.8	12,178	33.4	5,127	14.07	12.3	24.0	21.3	Reasonable	7%	Improved	4.1%
ITA A37 TM1824	50	294	7,585	298	22,152	19,810	19,810	11,300	57.0	5,302	26.8	2,546	12.85	20.4	38.4	24.3	Reasonable	282%	Improved	2.2%
ITA A37 TM1218 °	37	104	4,726	551	10,199	18,822	18,822	13,454	71.5	6,736	35.8	6,226	33.08	64.5	129.2	313.4	High	93%	Improved	2.1%
ITA A37 HOK1218 °	120	465	15,111	1,932	2,557	16,710	16,710	9,756	58.4	5,616	33.6	3,465	20.73	8.9	21.0	45.5	High	40%	Improved	1.9%
ITA A37 TM2440	54	276	6,668	406	17,191	15,986	15,986	9,982	62.4	5,293	33.1	1,268	7.93	17.0	36.2	9.4	Weak	1403%	Improved	1.8%
ITA A37 PS40XX	12	109	332	692	2,121	15,922	15,922	13,733	86.3	7,820	49.1	3,980	25.00	54.2	125.9	23.8	High	159%	Improved	1.8%
ITA A37 TBB1824	20	190	5,326	4,226	2,297	15,167	15,167	6,483	42.7	2,930	19.3	644	4.24	18.7	34.1	9.3	Weak	164%	Improved	1.7%
ITA A37 PS2440	50	483	4,444	432	9,470	13,705	13,713	9,424	68.7	5,134	37.4	- 847	- 6.17	8.9	19.5	- 2.0	Weak	-91%	Deteriorated	1.5%
ITA A37 PS1218 °	112	494	13,299	635	4,994	13,466	13,665	9,341	68.4	5,109	37.4	3,191	23.35	8.6	18.9	43.5	High			1.5%
ITA A37 PS1824	42	275	4,512	500	5,324	13,153	13,153	9,291	70.6	4,990	37.9	2,457	18.68	15.6	33.8	28.2	Reasonable	21%	Improved	1.5%
ITA A37 DTS0612	202	187	12,388	2,512	1,345	8,253	8,253	4,747	57.5	2,696	32.7	1,674	20.28	11.0	25.4	46.6	High	73%	Improved	0.9%
ITA A37 HOK1824 °	43	182	5,684	1,659	1,449	7,848	7,848	4,954	63.1	2,527	32.2	- 196	- 2.50	13.4	27.3	- 0.4	Weak	-679%	Deteriorated	0.9%
ITA A37 TBB2440	16	84	1,650	3,532	1,111	4,207	4,207	1,351	32.1	450	10.7	- 945	- 22.46	10.7	16.1	- 16.3	Weak	-1008%	Deteriorated	0.5%
ITA OFR DTS40XX IWE°	8	20	328	6,003	569	4,100	4,100	1,212	29.6	374	9.1	- 90	- 2.20	42.5	61.5	- 0.6	Weak			0.5%
ITA A37 PMP1218 °	30	87	3,422	1,904	519	3,588	3,588	2,373	66.1	1,318	36.7	1,012	28.21	12.1	27.3	86.8	High	91%	Improved	0.4%
ITA A37 TBB1218	12	26	1,132	1,124	366	1,739	1,739	1,220	70.1	452	26.0	365	20.98	29.9	47.5	124.9	High	138%	Improved	0.2%
ITA A37 PMP0612	12	42	1,449	1,165	171	1,110	1,122	840	74.9	449	40.0	370	33.00	9.3	20.0	97.8	High	245%	Improved	0.1%
ITA OFR PS40XX IWE	1	-	142	1,289	2,892	-														0.0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.56 Italy: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
ITA A37 DTS1218	1,145	3,208	171,489	3,602	24,902	178,599	178,998	120,453	67.3	75,452	42.2	57,534	32.14	14.0	37.5	81.9	High	19.7%
ITA A37 PGP0612	5,215	7,664	689,279	1,456	22,033	173,736	175,189	133,613	76.3	62,122	35.5	30,496	17.41	9.3	17.4	27.9	Reasonable	19.3%
ITA A37 DTS1824	592	2,338	93,316	4,515	23,862	162,036	162,148	101,960	62.9	64,428	39.7	28,706	17.70	16.1	43.6	22.5	Reasonable	17.9%
ITA A37 DTS2440	200	998	28,290	6,678	7,935	88,671	90,105	57,363	63.7	30,734	34.1	6,899	7.66	26.7	57.5	9.8	Weak	9.9%
ITA A37 PGP0006	2,181	2,135	260,584	936	5,217	44,139	44,835	36,287	80.9	16,930	37.8	12,635	28.18	9.1	17.0	86.3	High	4.9%
ITA A37 DRB1218 °	704	540	46,434	577	16,089	41,505	41,677	31,980	76.7	16,375	39.3	5,316	12.76	28.9	59.2	13.9	Reasonable	4.6%
ITA A37 PGP1218 °	396	1,028	49,837	1,588	5,571	36,275	36,701	27,508	75.0	14,484	39.5	7,539	20.54	12.7	26.8	30.7	High	4.0%
ITA A37 TM1824	46	270	6,979	298	20,380	18,736	18,736	12,143	64.8	6,439	34.4	3,898	20.80	21.1	44.9	38.4	High	2.1%
ITA A37 TBB1824	24	229	6,396	4,226	2,758	18,726	18,710	12,515	66.9	8,106	43.3	5,364	28.67	19.3	54.7	57.1	High	2.1%
ITA A37 TM1218 °	35	98	4,470	551	9,647	18,303	18,382	15,499	84.3	8,976	48.8	8,498	46.23	66.2	157.4	532.1	High	2.0%
ITA A37 PS40XX	13	118	360	692	2,298	17,731	17,677	15,906	90.0	9,276	52.5	5,140	29.08	56.1	134.6	30.5	High	1.9%
ITA A37 HOK1218 °	117	454	14,733	1,932	2,493	16,747	16,663	10,888	65.3	6,744	40.5	4,628	27.78	9.1	24.0	54.8	High	1.8%
ITA A37 TM2440	47	240	5,804	406	14,962	14,304	14,297	9,049	63.3	4,824	33.7	1,345	9.41	17.6	37.7	12.3	Weak	1.6%
ITA A37 PS1824	43	282	4,625	500	5,458	13,861	13,928	10,055	72.2	5,490	39.4	2,918	20.95	16.2	35.7	38.6	High	1.5%
ITA A37 PS1218 °	108	480	12,926	635	4,854	13,455	13,622	9,758	71.6	5,522	40.5	3,657	26.85	8.8	20.3	51.1	High	1.5%
ITA A37 PS2440	49	465	4,281	432	9,123	13,573	13,533	9,928	73.4	5,677	41.9	- 105	- 0.77	9.1	21.4	1.2	Weak	1.5%
ITA A37 DTS0612	198	182	12,093	2,512	1,313	8,282	8,315	5,348	64.3	3,274	39.4	2,274	27.35	11.4	29.3	62.5	High	0.9%
ITA A37 HOK1824 °	41	173	5,419	1,659	1,381	7,692	7,664	5,429	70.8	3,048	39.8	443	5.78	13.7	31.3	6.1	Weak	0.8%
ITA A37 TBB2440	20	105	2,064	3,532	1,389	5,410	5,406	2,633	48.7	1,471	27.2	- 240	- 4.45	11.1	25.1	- 3.9	Weak	0.6%
ITA OFR DTS40XX IWE°	8	20	328	6,003	569	4,215	4,215	1,706	40.5	841	20.0	188	4.47	43.9	86.5	2.8	Weak	0.5%
ITA A37 PMP1218 °	27	78	3,080	1,904	467	3,320	3,320	2,369	71.3	1,387	41.8	1,109	33.41	12.5	30.3	95.7	High	0.4%
ITA A37 TBB1218	11	24	1,040	1,124	336	1,643	1,645	1,130	68.7	400	24.3	317	19.31	30.9	47.9	77.0	Reasonable	0.2%
ITA A37 PMP0612	13	46	1,570	1,165	185	1,236	1,245	999	80.3	561	45.0	475	38.15	9.6	22.0	105.8	High	0.1%
ITA OFR PS40XX IWE	1	-	142	1,289	2,892	-												0.0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.57 Italy: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)								Live weight of landings (thousand tonne)								Average landed price (real) (€)								% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015	in value	in weight
European hake	102.4	99.4	97.3	90.4	75.6	67.4	63.8	68.9	12.6	12.0	11.5	10.5	9.4	9.8	8.7	9.0	8.2	8.3	8.4	8.6	8.0	6.9	7.3	7.7	8%	5%
European anchovy	85.4	96.4	82.0	82.3	76.8	55.5	52.5	63.2	45.0	54.4	54.1	46.2	42.8	29.7	31.8	37.5	1.9	1.8	1.5	1.8	1.8	1.9	1.7	1.7	7%	20%
Deep-water rose shrin	70.9	76.7	81.7	77.1	56.6	54.5	48.6	57.7	8.2	9.6	10.3	10.0	8.3	8.3	7.7	9.1	8.6	8.0	8.0	7.7	6.8	6.6	6.3	6.4	6%	5%
Giant red shrimp	37.2	48.1	50.0	49.5	43.0	52.1	41.6	53.9	1.8	2.3	2.5	2.4	2.4	2.8	2.2	2.4	20.9	20.6	19.9	21.1	18.1	18.7	18.6	22.2	6%	1%
Common cuttlefish	74.5	82.6	67.9	58.5	44.6	44.0	45.7	53.4	9.7	9.5	7.0	5.7	5.1	5.7	5.8	6.0	7.7	8.7	9.7	10.2	8.8	7.7	7.9	8.9	6%	3%
Swordfish	59.2	67.3	72.8	64.0	46.5	29.3	31.9	39.4	4.5	5.1	6.0	5.4	4.0	2.9	3.4	4.3	13.1	13.1	12.1	12.0	11.6	10.2	9.4	9.2	4%	2%
Red mullet	38.9	33.6	31.2	28.3	31.1	24.1	28.3	31.8	7.1	6.1	4.9	4.8	5.9	5.1	6.3	6.3	5.5	5.5	6.3	5.9	5.3	4.7	4.5	5.1	4%	3%
Striped venus	62.1	56.9	57.0	55.3	43.0	33.6	32.2	31.5	24.9	17.3	19.8	19.7	20.0	14.6	14.1	14.7	2.5	3.3	2.9	2.8	2.2	2.3	2.3	2.2	4%	8%
Spottail mantis squilli	43.6	43.6	37.6	37.7	29.9	28.4	27.3	30.4	6.0	6.5	6.2	5.4	4.8	5.0	4.7	5.3	7.3	6.8	6.1	6.9	6.3	5.7	5.8	5.8	3%	3%
Common sole	29.6	38.1	34.7	35.3	32.2	20.1	23.2	28.6	1.8	2.2	2.0	1.8	2.1	1.5	2.3	2.4	16.4	17.3	17.1	19.6	15.5	13.4	10.1	12.1	3%	1%
																									51%	50%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.13 Latvia

Short description of the national fleet

Fleet capacity

In 2015, the Latvian Baltic Sea fishing fleet consisted of 309 registered vessels including 59 inactive vessels, with a combined gross tonnage of 7.3 thousand tonnes, a total engine power of 20.6 thousand kilowatts and an average age of 27 years. The size of the Latvian fleet followed a decreasing trend between 2014 and 2015. The gross tonnage declined by 25% whiles the total engine power of the fleet declined by 22% during the analysed period from 2008 to 2015. The reason for the changes is connected to vessel scrapping which according to the multi-annual management plan aims to achieve a better balance between fishing capacity and the available resources. The fishing vessels were "reassigned for activities outside fishing (by scrapping or selling)".

Fleet structure

Latvian fleet separated into several segments by the length, gears and different operational areas: The Baltic Sea fleet (segment trawlers VL2440 metres), fleet operated predominantly in the Gulf of Riga (segment trawlers VL1218 metres), the SSCF operated in the coastal zone (segment with polyvalent fishing gears VL0010 metres) and a distant water fleet (segment trawlers VL40XX metres) operated in the Atlantic NAFO (area 27), NEAFC (Barents Sea) and CECAF (area 34) areas.

Significant differences in the number of vessels and in other related variables were observed between 2010 and 2011. During that period, the fleet size decreased by 364 vessels or 53%. The major factor causing the fleet to decrease is that one part of small coastal zone vessels less than 10 metres was excluded from the economic analysis. The excluded vessels have a licence and obligation to fill coastal logbooks but only fish for self-consumption and are not involved in commercial fishing activity.

Employment

The fishers at the Baltic Sea vessels usually are local Latvian inhabitants. For the distant water vessels fishing companies may also be invited 3rd countries residents.

The Baltic Sea fleet employment was estimated around 620 jobs; corresponding 345 FTEs in 2015. The total employment increased by 2% and FTE decreased by 5%, respectively between 2014 and 2015 while the average wage per FTE increased during the same period by 29%. Compared to other member states, Latvia has a low wage for fishers. Nevertheless, the average salary in fishery sector was by 13% higher than the average salary in Latvia in the private sector in 2015.

Effort

The Latvian Baltic Sea fishing fleet spent a total of around 18.3 thousand days at sea in 2015, 16.3 thousand of which were fishing days. The total number of days at sea and fishing days has slight decrease by 5% between 2014 and 2015. The total quantity of fuel consumed increased by 8% in 2015 and was 5.7 million litters. The segment trawlers VL1218 operating in the Baltic Sea used 93% of their capacity in 2015.The live weight of landing also has a slight increase by 5% in 2015. The decrease in fishing days and increase of energy consumed as well as live weight landing indicates an increase of fishing intensity.

Production

The total weight landed by the Baltic Sea fleet in 2015 was 62.1 thousand tonnes of fish with a landed value of €19.8 million. The total weight of landings has increase by 5% between 2014 and 2015 while landed value increase only by 1% during the same period.

In terms of landings composition in 2015 European sprat was the most common species landed in terms of weight 30.5 thousand tonnes, followed by Atlantic herring 25.3 thousand tonnes and cod around 2.6 thousand tonnes. In 2015, European sprat achieved the highest landed value €9.2 million for the national fleet, followed by herring €6.3 million and then cod €2.4 million. The sprat, herring and cod, accounted for 46%, 32% and 12%, respectively, of the total landings value in 2015 and contributed to 49%, 41% and 4%, to total landed weight. Total landing value and weight declined by 11% and 9% respectively between 2008 and 2015. The major factor causing the decrease in weight and significant increase in prices was the reduction of Latvian quota for sprat by 50% in the Baltic Sea between 2008 and 2012.

The high increase in weight by 78% is observed for the species Round goby in the coastal area between 2014 and 2015 but the share of that species is only 13% from the weight of landing in the coastal zone in 2015 and it landing is included in the "Other species" landing.

Economic results for 2015 and recent trends

National fleet performance

The economic performance for the Latvian fleet in 2015 improved compared to 2014. The amount of revenue generated by the Latvian national fleet in 2015 was €20.7 million including €19.8 million in income from fish sales and €0.9 million in non-fishing income. The revenue improved by 2% (€20.7 million) between 2014 and 2015 and the Baltic Sea fleet remained in a net profit making position in 2015.

The depreciated replacement value has low values between 2011 and 2015 and was €10.9 million. The major factors are a long service life of vessels (around 27 years) and obsolete equipment.

Towards the end of 2008 and during 2009 the Latvian fishery sector was negatively affected by the global economic crisis which led to significant decrease of profit level. The economic efficiency of the fleet started to improve in 2011. However, the net profit declined by 72% between 2011 and 2013 due to the Russian product trade ban. Despite of the economic crisis and Russian ban which heavy affected to the profitability of the fishery enterprises the fishery sector in overall remained on the profit-making positions.

In terms of profitability the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Latvian national fleet in 2015 were €11.4, €7.5 and €5.8 million, respectively. It should be mentioned that high values of net profit in 2008 should be considered with caution due to the negative values for opportunity costs (-5.19) because a negative real interest rate was applied in the estimation.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 36% indicating a high operating efficiency of the sector. Net profit margin was estimated at 28% in 2015. The labour productivity (GVA/FTE) has increase by 66% between 2014 and 2015 but the number of FTE decrease by 5%.

The RoFTA values for the coastal fleet vessels in the segment VL0010 were too high during the period from 2011 to 2015. The high values of RoFTA in the segment can be explained with a low fleet capital asset value due to low residual values of capital and a long service life of vessels and vessel equipment. The average vessel age for the segment VL0010 was around 30 years and the share of the capital asset value in the total fleet was 0.6% in 2015. The positive RoFTA values indicate that the segment is profitable in the long-term and normal investments returns are being generated. Nevertheless the results (too high RoFTA values and the low capital asset values) also indicate that fleet modernization is necessary. The RoFTA for the trawlers segments shows positive and high values in 2015 (VL1218 – 53% and VL2440 – 45%). The positive RoFTA values indicate that extraordinary profit is being generated and positive return of investments ensures the segment profitability. The main factor is that the segment targeting two species herring and sprat which provide the necessary turnover for the segment. However, it should be mentioned that investments decreased significantly by 50% between 2008 and 2015. Also for 2015 investments have low values (€0.2 million). If the situation has not been improved in the near future, it would influence into the fleet profitability.

The landings in weight per unit of effort (in days at sea) increased significantly by 35% since 2008 and by 10% between 2014 and 2015. The average fuel price per vessel decrease by 7% from 2014 to 2015 whiles the average energy consumed per landed value increase by 7% and per landed tonne by 3%. The landed weight and value per vessel have sharp increase between 2008 and 2015 by 53% and 42% respectively. The average revenue and average wage per FTE have followed an increasing trend during the same period by 40% and 32%, respectively. The main factor caused the sharp increase in Baltic Sea fleet profitability was the vessels decommissioning from 2008 to 2017 and increase of fishing intensity per vessel.

Performance by fishing activity

Small-scale coastal fleet

The number of the small-scale vessels was relatively stable between 2014 and 2015. The vessels are included in the segment VL0010 metres using polyvalent or passive gears and operating in the coastal zone. The SSCF oriented in the local market. The fishing trip usually is less than 24 hours and the weather conditions as cold winters may heavy influent into segment turnover. The segment is targeting salmon, cod, flounder and other species in the coastal zone which are included in "Other species" due to negligible value and volume of landing per species. The coastal species achieved the highest average price per kilo €2.44. Despite of the high prices for coastal species their amount has negligible values (7% in 2015) in the total landings composition and does not influence the total value of Latvian landings. Concerning small- scale fleet fisheries between 2014 and 2015 the decreasing trends is observed. The landings weight for the SSCF decreased by 43% while the value of landings decreased by 17% and was around €1.5 million. The SSCF is important for employment in coastal regions and was estimated at 233 jobs, corresponding to 131 FTEs. Total employment and FTEs for the SSCF decreased 23% and 39%, respectively, between 2014 and 2015. While net profit decreased between 2014 and 2015 by 37%, revenue decreased during the same period by 13%. Gross Value Added (GVA) and gross profit decreased by 20% and 37%, respectively, between 2014 and 2015.

Large-scale fleet

The opposite trend was observed for the large-scale fleet operating in the Baltic Sea and the Gulf of Riga. The large-scale fleet represented with the 60 vessels included in two segments VL2440 and VL1218 metres. The segments contribute 93% to total revenue and 83% to net profit in 2015. Employment for the large-scale fleet was estimated at 387 jobs in 2015, corresponding to 214 FTEs. The large-scale fleet total employment and FTEs increased by 26% and 45%, respectively, over

the observed period. The revenue increased between 2014 and 2015 by 3% while net profit had a high increased during the same period from €0.8 million to €4.9 million. Despite of the rapid profit growth is imperative to take into account the fact that this growth is not only caused by the increase in economic efficiency but also by the restructuring of the costs between segments of the fleet in proportion relatively to the value of landings. The main reason for the costs restructuring is the data collected from the companies which own vessels included in the different segments. The restructuring caused by the reason that in some such cases value and volume of landings precisely corresponds to the segment but expenditures are attributed to the biggest segment.

Distant water fleet

There are 11 active distant water vessels made up the segment VL40XX metres in 2015 which belonged to the four companies. The 9 vessels with the average length 60 metres were based predominantly in NAFO and NEAFC (area 27). The vessels target species was Beaked Redfish and crabs. There were 2 vessels with the length around 100 metres operated in CECAF (area 34) targeted horse mackerel, Atlantic mackerel, sardinella and sardine. The main ports for the distant water vessels landings in 2015 were Dakchla, Nouadhibou, Vardø, Basford, Kjøllefjord and Reykjavik.

Performance results of selected fleet segments

The Baltic Sea fleet consisted of 3 active fleet segments in 2015. A short description for the segments is provided below.

Pelagic trawl 24-40m – 49 vessels made up this segment in 2015 and vessels are operated predominantly in the Baltic Sea. These vessels target species such as sprat, herring and cod. The total value of landings was €15.7 million and around 183 FTEs were employed in this fleet segment in 2015 contributing 79% and 53% of the total income from landings generated and FTEs in the national fleet. This fleet segment was highly profitable with a reported gross profit of around €5.7 million and a net profit of around €4.1 million in 2015.

Pelagic trawl 12-18 – 11 vessels make up this segment in 2015 and the vessels are operating predominantly in the Gulf of Riga. These vessels target a sprat and herring. The total value of landings was €2.6 million and only 31 FTEs were supported in 2015. The gross and net profit of €0.86 million and €0.76 million, respectively, were generated in 2015.

Polyvalent or passive gears 00-10 – 190 vessels make up this segment in 2015 and the vessels are operating predominantly in the Baltic Sea and Gulf of Riga coastal zone. These vessels target a variety of cod, salmon, flounder, eelpout, herring and other coastal species. The total value of landings was €1.4 million and 131 FTEs were supported in 2015. The gross and net of €0.99 million and €0.97 million, respectively, were generated in 2015.

Drivers affecting the economic performance trends

Operational costs, including fuel prices

The operational costs for the Latvian fleet in 2015 were €14.9 million and amounting to 72% of revenue. In overall the operational cost structure decreased by 17% in 2015. The average operational costs per vessel in 2015 decreased by 10% compared to 2014. The sharpest decline was observed for other variable costs (-24%). The largest costs items in 2015 were wages and salary of crew, energy costs and other non-variable costs contributed 24%, 19% and 18.5%, respectively, to operational costs.

The average fuel price in 2015 was €0.50 per litre, which is €0.14 per litre lower than in 2014. The average energy costs per vessel has decline by 7% between 2014 and 2015 whilst the average fuel consumed per vessel increased by 20%. Average fuel prices have been decreased since 2013 by 29%.

Markets and Trade

The average price per species has increase by 18% between 2008 and 2015. The price obtained for sprat increased significantly by 30% between 2008 and 2015 but for cod decline by 37% at the same period. The low price for cod can be described with very low concentrations and poor catches as well as a decrease of cod price at the international market what makes it fishery not economically effective. Decline in cod price and poor catches was the main reason for the decommissioning of the segment netters VL2440.

The fishery sector in Latvia depends on economic situation at external markets as well as of the turnover for the fish processing enterprises. The most important buyers of the fresh fish are fish processing enterprises in Latvia and in neighbour's countries. The main produced product types are fresh or chilled fish and prepared or canned fish. The exported total volume of production has decreased by 10% or €11 million in total value between 2014 and 2015. The exported volume of production to EU countries increased by 6% or around €7 million during the same period. The highest decline in turnover is observed with 3rd countries where fish production export declined by 31% in value or €18.2 million. The main reason was negative impact from the Russian product trade ban. The volume of production exported to Russian Federation decreased by 66% in value or €17.9 million between 2014 and 2015. However, Russian Federation ranked a second place after Lithuania in terms of exported fish production volume and fourth place (after Estonia, Lithuania and Denmark) in terms of exported fish production value in 2015.

It is expected that the Brexit of the UK from the European Union will not have a direct, disruptive effect on the of the fishery in Latvia because the export of a fish production to the UK annually is around 2% from the total Latvian export as well as Latvian fishing fleet does not have any fishery in UK waters.

Management instruments

The scrapping of four vessels were implemented during 2015 according to the "Action plan for 2015-2017 to reach balance between the Latvian fishing fleet's capacity and the fish resources for fleet segment VL24-40 m Netters targeting Eastern Baltic Cod". The other four vessels which potentially may operate as netters for the economic analysis in AER 2017 were included in the segments trawlers VL2440 metres.

The distant water fleet had significant changes between 2013 and 2015. The three vessels were sold and excluded from the Fleet Register between 2013 and 2015 in the same time eight vessels with the average length around 60 metres were included in the Fleet register. The main reason for the changes was an unlimited fishery in NEAFC area and high stock for crabs in the Barents Sea. The 11 vessels were active from the 12 vessels registered in the Fleet Register for the fleet segment VL40XX in 2015. One vessel with the length around 100 metres entered into the Fleet Register in 2016.

Latvia has one multilateral agreement for data sampling in CECAF area. Starting with 2012 the sampling of pelagic fishery is performed on the basis of multi-lateral agreement between Germany, Latvia, Lithuania, the Netherlands and Poland by local observers.

The pilot study is planned for the social data collection in fishery. The results are expected before the end of 2018. The pilot study is going to be conducted in order to evaluate feasibility of the social data collection for the variables: employment by gender, employment by age, employment by education level, nationality, employment by employment status. The pilot study results can provide data on employment variability. The collected social data could be used for the estimation of the number of employees' and overall analysis in fishery sector. Furthermore, the received social data could be included into subsequent forecast for the development of Latvian fishing fleet.

TACs and quotas

The Latvian fishing fleet economic effectiveness is fully dependent on the quota received for the target species. The sprat fishing quota increased by 29% (8 117 tonnes) between 2016 and 2017 and is 36 107 tonnes. The quota for the Baltic herring in the Gulf of Riga and in the central region of the Baltic Sea as compared to 2016 decreased by 7% (1 689 tonnes). The Baltic herring fishing quota in the Gulf of Riga and in the central region of the Baltic Sea are 5 299 and 16 724 tonnes respectively in 2017. The fishing quota for salmon in the Baltic Sea remained the same and is 12 644 by number of individual fish. The cod fishing quotas in the western part of the Baltic Sea are reduced by 56%, whereas the reduction in the eastern part is 25%. Cod quotas in the western and eastern part are 202 tonnes and 2 636 tonnes respectively. Latvia fulfils the sprat and Baltic herring fishing quotas assigned thereto almost completely. The salmon fishing quota is used on a very small-scale. However, the remaining salmon share is used in the international quota exchange for sprat.

Improvements and Development

For the elaboration of the national Fisheries Policy the Integrated Control and Information System (ICIS) was developed and improved during 2015 and 2016. The ICIS is used for general management of fishing licences, control and enforcement of the fishing activities. The database contains information from the vessel electronic logbooks as well as includes information from the coastal logbooks for the SSCF. Development of the ICIS provide better collaboration between Latvian fishing fleet management institutions and improve the staff work with the data base as well as simplify the process of the data validation and allow make cross checks automatically.

Socioeconomic impacts

The changes which could affect the social situation in Latvia are connected to vessels decommissioning between 2008 and 2017. The unbalance between the fishing fleet capacity and the fish resources allocated to Latvia has been revealed in 2015 the fleet segment netters VL2440 metres. To reach the necessary balance between fleets capacity and the fish resources the exit (scrapping) of segment netters VL2440 metres were implemented. Vessel scrapping between 2008 and 2015 as well as other structural changes in fleet segments had a positive impact on incomes and minimised total costs resulting in an increase in profitability and overall improvement in the economic effectiveness of several fishing firms. However, the changes in the fleet may affect the employment situation in Latvian coastal regions and especially in the SSCF. The coastal fishery as a type of fishing activity in Latvia has a long historical tradition. The SSCF targets cod, salmon, flounder, eelpout, herring and other coastal species. That type of fishing activity is important for the employees in the coastal region. The vessels decommissioning scheme is finalised in 2017 and further reduction of the fleet is not planned.

Projections for 2016 and outlook

MODEL FORECAST

Preliminary results for 2016 forecast a 3% decrease in landed weight, matched by a 1% decrease in landed value. Projections suggest operating costs decrease, most notably energy costs which are estimated to decrease by 30% due to reduced fishing effort and the continued low fuel prices. In addition, the reduction in capital costs, fostered further economic performance improvements in 2016: GVA (+9%), gross profit (+13%) and net profit (+18%).

Results indicate that the Latvian fleet operated at a profit in 2016: with an estimated net profit of €6.9 million and a margin of 34%. Positive economic developments can also be seen in performance indicators GVA to revenue (+10%), gross profit margin (+14%) and GVA per FTE, estimated at €41.4 thousand in 2016 (+26%).

The 2016 gains are slightly offset in 2017 as increased landings (+7% compared to projected 2016 figures) are counteracted by low prices, resulting in an 8% decrease in value. With fuel costs also increasing in 2017 (+11%), the fleet remains profitable with gross and net profit margins of 39% and 32%, respectively. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Projection suggests that Latvian fleet will keep the profit making position in 2016 and 2017. However, the reliable economic data for 2016 will be received by questionnaires in 2017 and results provided in the current tables for 2016 should be used with caution.

Data issues

All transversal data for 2008 to 2016 were obtained from the 'Integrated Control and Information System' for Latvian fisheries. The information system contains logbook data and technical parameters of fishing vessels from the Vessel Register. The data are reported on a monthly basis and cover all members of the Latvian fishing vessel population. All economic variables for 2008 to 2015 were received from Central Statistical Bureau of Latvia (CSB) state statistical questionnaire form "1-Fisheries" and other statistical sources of economic information based on the annual balance sheet. Primary economic information from the state statistical questionnaire "1-Fisheries" was received annually from owners of fishing firms. Economic data covers all the members of population. Despite that economic data collection is based on questionnaire forms, participation of the respondents is obligatory according to the Latvian legislation. The achieved sample rate was 100%.

The calculations were applied for FTEs, financial position and income from landings for 2008-2015 based on data received from questionnaires and vessel logbooks.

The estimated values for the costs have been used for 2015. Restructuring of the costs between segments of the fleet was implemented for 2015 in proportion relative to the value of landings. The main reason for the costs restructuring is the data collected from the companies which own vessels included in the different segments. Because in some such cases value and volume of landings precisely correspond to the segment but expenditures are attributed to the biggest segment.

The observed difference between 2010 and 2011 for the depreciated replacement value is caused by the necessary changes regarding data collection methodology implemented for the more reliable data collection in 2010. The first data collected by the new approach were received for 2011. The data for 2008 and 2010 were imputed, based on formulas for vessel scrapping. More reliable data for the depreciated replacement value were obtained by questionnaire for 2011- 2015.

The data for the distant water fleet (segment VL40XX) operating in the Atlantic area 27 (NEAFC, NAFO) and area 34 (CECAF) were collected but have not been submitted due to different specificity of fishery and other reasons provided below:

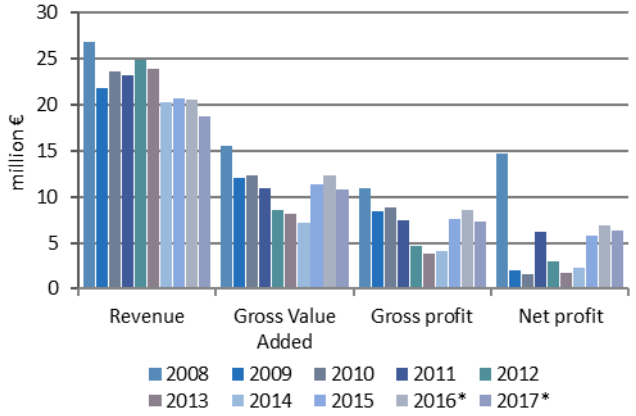
- According to the requested format the data should be separated by supra regions and fishing technique. There are three segments operated in Atlantic in 2015: VL40XX FPO AREA 27 (8 vessels); VL40XX TM AREA 27 (1 vessel) and VL40XX TM AREA 34 (2 vessels). The economic data cannot be provided for individual vessel or for the vessels belonging to few companies (four companies in 2015) to ensure data confidentiality.
- The data in some cases are aggregated for all regions where country operates (the Baltic Sea and Atlantic in case of Latvia) and presented in the figures, tables and in some text paragraphs for the Annual Economic Report. In case of Latvia some variables for the Atlantic region cannot be compared with the same variables for the Baltic Sea and used for the economic analysis. The main reasons are:
    - the variable 'trips' for the Atlantic not comparable with the Baltic Sea trips. The distant water vessels have long trips during the year (80 trips in 2015). The Baltic Sea vessels have short trips during the year in the most cases 1-2 days (14800 trips in 2015). In cases when average values may be calculated the results could represent incorrect data about the activity of fishing fleet;
    - the variable 'Weight of landing' for Atlantic could not be comparable with the same variable for the Baltic Sea. The weight of landing for the Baltic Sea includes all landings reported in the vessel logbooks but for the Atlantic for the same variable catches from vessel logbooks should be used. Because according to the AER structure all fishing areas are aggregated in the totals for the country. In case when 'Weight of landing' will be submitted for the Atlantic region and later on aggregated with 'Weight of landing' for the Baltic Sea it could cause the problem for the economic analysis at AER. The Baltic Sea landings and catches have similar consistent values but for Atlantic difference between landings and catches was 33% in 2015. The main reason is that distant water vessels could keep the current catch on board and make landings for these catches later on. The other reason is that fishing companies made a production on board and only one share of the landing could be sold. Also, current catches could be combined with the landing received from the other vessel and later on landed not in the port but to another vessel. The Baltic Sea landings and Atlantic catches data aggregation could provide misleading picture and uncertain results.

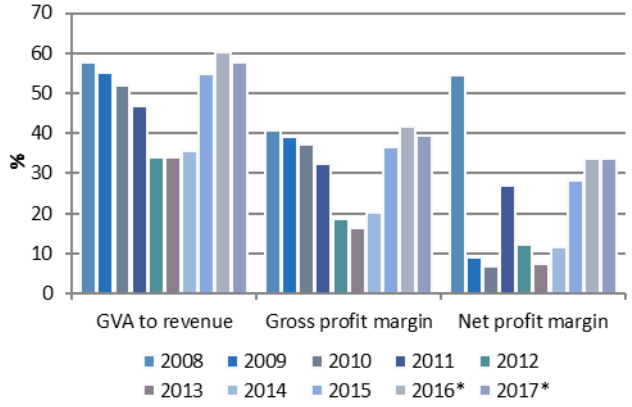
- the vessels VL40XX operated in the 3rd countries waters can make their landings in EU and non-EU ports. The 'Income' and 'Costs' data are collected only for the EU countries but 'weight' and 'value of landings' for EU and also 3rd countries. Due to that reason the Atlantic region 'Income' could be lower than value of landings for the same region. If different values for the variables 'Value of landing' and 'Income' were submitted, it would make problems for the economic analysis in AER especially for the Gross Value Add and profit calculations.

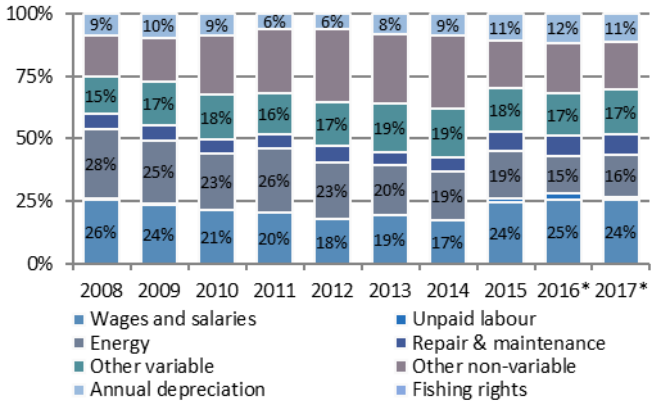
Table 5.58 Latvia: National fleet statistics and economic performance results. *projections

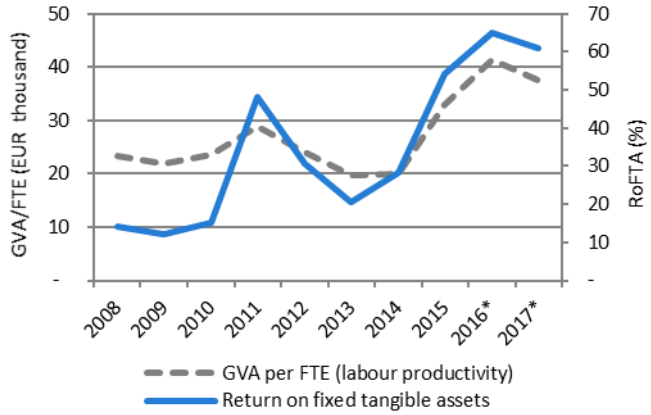
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	858	814	771	407	356	351	365	309	*265*	*243*		-15%	-45%
Number of Inactive vessels_ms	(#)				88	77	84	87	59	*73*			-32%	-30%
Vessel tonnage	(thousand GT)	12.9	12.4	9.8	10.1	8.4	7.8	7.0	7.3				5%	-25%
Engine power	(thousand kW)	34.2	32.7	26.7	26.7	22.8	21.3	19.8	20.6				4%	-22%
Total employed	(person)	1,621	1,666	1,619	712	643	678	607	620	*633*	*582*		2%	-42%
FTE	(#)	664	548	521	378	353	414	362	345	*298*	*289*		-5%	-25%
Days at sea	(thousand day)	44.2	48.0	43.6	19.6	19.5	19.4	19.2	18.3	*15.4*	*14.7*		-5%	-40%
Fishing days	(thousand day)	35.9	38.2	35.6	17.4	17.3	17.2	17.1	16.3				-5%	-36%
Number of fishing trips	(thousand)	33.0	35.2	31.4	14.0	13.7	13.9	15.5	15.3				-2%	-32%
Energy consumption	(million litre)	8.3	6.6	6.5	6.5	6.6	5.3	5.3	5.7	*5.2*	*5.1*		8%	-11%
Live weight of landings	(thousand tonne)	86.5	78.5	74.0	63.1	57.5	60.9	59.2	62.1	*60.0*	*64.1*		5%	-9%
Value of landings	(million €)	25.4	18.9	22.8	22.3	23.6	22.3	19.5	19.8	*19.6*	*18.0*		1%	-11%
Income from landings	(million €)	25.4	18.9	22.8	22.3	23.6	22.3	19.5	19.8	*19.6*	*18.0*		1%	-11%
Other income	(million €)	1.5	2.9	0.9	0.9	1.4	1.6	0.8	0.9	*0.9*	*0.8*		15%	-36%
Direct income subsidies	(million €)	1.7	3.6	0.0	1.7	0.9	0.4	-	-					-100%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	4.5	3.5	3.5	3.4	3.9	4.2	3.1	3.6	*3.5*	*3.3*		18%	-3%
Unpaid labour value	(million €)	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	*0.4*	*0.2*		371%	413%
Energy costs	(million €)	4.8	3.7	3.7	4.3	4.9	4.4	3.4	2.9	*2.0*	*2.2*		-16%	-32%
Repair & maintenance costs	(million €)	1.0	0.9	0.9	1.0	1.4	1.1	1.0	1.1	*1.1*	*1.0*		6%	5%
Other variable costs	(million €)	2.6	2.5	2.9	2.7	3.8	4.3	3.4	2.6	*2.4*	*2.3*		-24%	-17%
Other non-variable costs	(million €)	2.9	2.6	3.8	4.3	6.4	6.0	5.2	2.8	*2.7*	*2.4*		-47%	-38%
Annual depreciation costs	(million €)	1.5	1.4	1.5	1.0	1.4	1.8	1.6	1.6	*1.6*	*1.4*		4%	12%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	- 5.2	5.1	5.7	0.2	0.2	0.3	0.2	0.1	*0.0*	- *0.1*		-50%	-91%
Tangible asset value (replacement)	(million €)	67.6	58.2	49.0	13.4	10.7	10.0	9.0	10.9	*10.7*	*9.7*		21%	-65%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	0.3	0.3	0.4	0.4	0.5	0.7	0.8	0.2				-70%	-50%
Financial position	(%)	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.1				-52%	35%
Gross Value Added	(million €)	15.6	12.0	12.3	10.9	8.5	8.2	7.2	11.4	*12.3*	*10.8*		58%	7%
GVA to revenue	(%)	57.8	55.2	52.0	46.9	34.1	34.1	35.5	54.9	*60.2*	*57.4*		55%	22%
Gross profit	(million €)	11.0	8.5	8.8	7.5	4.6	3.9	4.1	7.5	*8.5*	*7.4*		84%	9%
Gross profit margin	(%)	40.8	39.0	37.2	32.2	18.6	16.3	20.2	36.4	*41.6*	*39.0*		81%	25%
Net profit	(million €)	14.7	2.0	1.6	6.2	3.0	1.7	2.4	5.8	*6.9*	*6.0*		146%	29%
Net profit margin	(%)	54.6	9.1	6.9	26.9	12.1	7.3	11.7	28.2	*33.6*	*31.9*		142%	54%
GVA per FTE (labour productivity)	(thousand €)	23.4	21.9	23.6	28.8	24.1	19.7	19.9	32.9	*41.4*	*37.4*		66%	43%
Return on fixed tangible assets	(%)	14.0	12.2	15.0	48.2	30.5	20.7	28.2	54.3	*65.0*	*60.9*		93%	125%

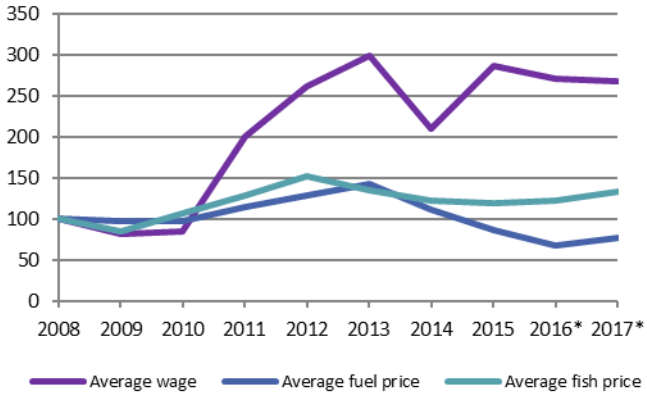
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

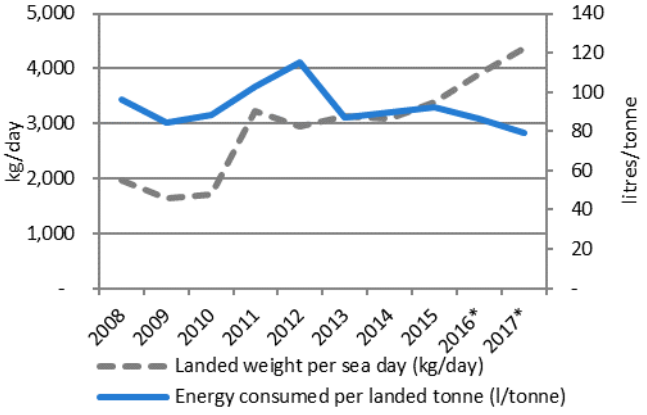


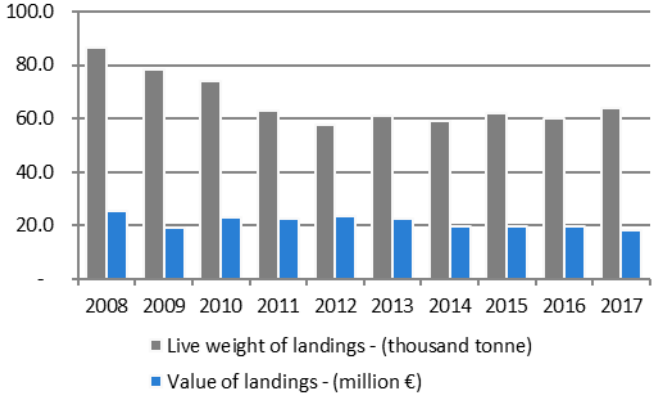












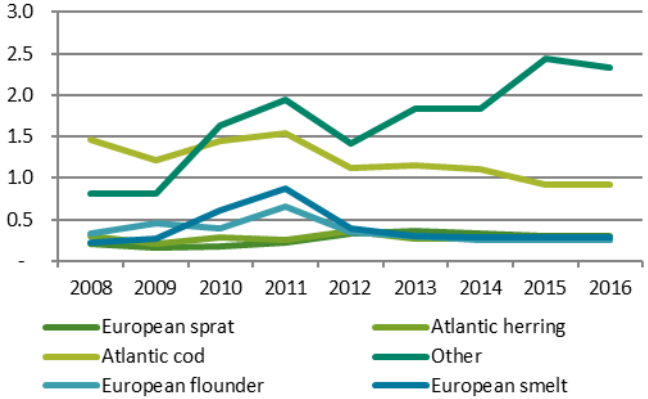


Figure 5.13 Latvia: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.59 Latvia: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14	LSF									Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**				2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**			
Total number of vessels	(#)	736	708	687	245	207	202	221	190	*206*	*188*		-14%	-56%	122	106	84	74	72	65	57	60	*59*	*54.9*		5%	-28%
Vessel tonnage	(thousand GT)	1.2	1.1	1.0	0.5	0.4	0.3	0.4	0.4				-13%	-48%	12	11	9	8	8	7	6	7				6%	-22%
Engine power	(thousand kW)	7.2	6.5	5.9	2.8	2.2	2.2	2.6	2.5				-7%	-42%	27	26	21	19	20	19	17	18				6%	-17%
FTE	(#)	373	329	329	202	154	228	214	131	*104*	*98*		-39%	-50%	291	219	192	176	199	186	148	214	*194*	*191*		45%	6%
Total employed	(person)	992	1110	1175	321	258	325	301	233	*253*	*231*		-23%	-64%	629	556	444	391	385	353	306	387	*380*	*351.3*		26%	-12%
Days at sea	(thousand day)	30.4	37.3	34.2	10.8	10.9	11.3	12.8	10.6	*8.4*	*7.9*		-17%	-50%	13.84	10.72	9.41	8.80	8.59	8.02	6.43	7.65	*6.94*	*6.76*		19%	-19%
Fishing days	(thousand day)	23.7	28.6	27.0	9.4	9.4	9.7	10.9	9.0				-17%	-47%	12.22	9.58	8.54	8.07	7.96	7.54	6.28	7.26				16%	-16%
Number of fishing trips	(thousand)	22.9	27.0	24.3	7.5	7.4	7.6	10.0	9.1				-9%	-41%	10.11	8.24	7.14	6.54	6.27	6.25	5.55	6.22				12%	-13%
Energy consumption	(million litre)	0.11	0.05	0.04	0.04	0.03	0.02	0.03	0.06	*0.05*	*0.05*		89%	34%	8.22	6.58	6.49	6.46	6.58	5.26	5.27	5.65	*5.13*	*5.02*		7%	-12%
Live weight of landings	(thousand tonne)	2.84	2.70	2.56	3.33	2.85	3.56	4.48	2.56	*3.79*	*2.21*		-43%	-20%	83.63	75.76	71.46	59.79	54.62	57.29	54.68	59.53	*56.19*	*61.88*		9%	-9%
Value of landings	(million €)	0.86	0.84	1.33	1.26	1.45	1.33	1.74	1.45	*2.39*	*1.29*		-17%	15%	24.53	18.05	21.43	21.07	22.13	20.94	17.76	18.33	*17.23*	*16.75*		3%	-12%
Income from landings	(million €)	0.86	0.84	1.33	1.26	1.45	1.33	1.74	1.45	*2.39*	*1.29*		-17%	15%	24.53	18.05	21.43	21.07	22.13	20.94	17.76	18.33	*17.23*	*16.75*		3%	-12%
Other income	(million €)	0.04	0.02	0.04	0.05	0.01	0.01	0.00	0.07	*0.07*	*0.07*			215%	1.47	2.86	0.86	0.82	1.38	1.63	0.79	0.84	*0.83*	*0.75*		6%	-40%
Direct income subsidies	(million €)	0.00	0.17	0.00	0.11	0.03	0.00	0.00	0.00					-100%	1.75	3.47	0.04	1.55	0.86	0.35	0	0					-100%
Income from leasing fishing rights	(million €)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0	0	0	0	0	0	0	0					
Wages and salaries of crew	(million €)	0.11	0.10	0.07	0.07	0.07	0.04	0.06	0.13	*0.22*	*0.12*		120%	78%	4.38	3.36	3.39	3.32	3.78	4.19	2.99	3.47	*3.23*	*3.14*		16%	-4%
Unpaid labour value	(million €)	0.08	0.07	0.05	0.02	0.02	0.01	0.05	0.22	*0.36*	*0.19*		371%	413%	0	0	0	0	0	0	0	0	*0*	*0*			
Energy costs	(million €)	0.06	0.03	0.02	0.03	0.02	0.02	0.02	0.03	*0.02*	*0.02*		47%	8%	4.75	3.69	3.68	4.27	4.92	4.35	3.38	2.83	*2.00*	*2.22*		-16%	-32%
Repair & maintenance costs	(million €)	0.06	0.02	0.00	0.02	0.01	0.00	0.01	0.01	*0.01*	*0.01*		-20%	-53%	0.98	0.89	0.90	0.94	1.38	1.14	1.03	1.10	*1.08*	*1.00*		6%	6%
Other variable costs	(million €)	0.04	0.04	0.14	0.05	0.04	0.03	0.03	0.06	*0.05*	*0.04*		98%	8%	2.53	2.48	2.76	2.66	3.72	4.22	3.39	2.55	*2.31*	*2.30*		-25%	-18%
Other non-variable costs	(million €)	0.05	0.03	0.01	0.01	0.09	0.00	0.01	0.07	*0.08*	*0.08*		813%	168%	2.87	2.59	3.83	4.34	6.27	5.99	5.22	2.68	*2.63*	*2.37*		-49%	-40%
Annual depreciation costs	(million €)	0.03	0.03	0.01	0.04	0.03	0.02	0.02	0.02	*0.03*	*0.03*		31%	-3%	1.47	1.38	1.44	0.98	1.35	1.81	1.55	1.60	*1.57*	*1.42*		4%	12%
Rights costs	(million €)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0	0	0	0	0	0	0	0					
Opportunity cost of capital	(million €)	-0.96	1.16	1.41	0.00	0.00	0.00	0.00	0.00	*0.00*	*0.00*		-60%	-100%	-4.23	3.94	4.31	0.16	0.23	0.33	0.16	0.08	*0.05*	*-0.09*		-50%	-89%
Tangible asset value (replacement)	(million €)	12.50	13.26	12.11	0.13	0.19	0.04	0.07	0.06	*0.07*	*0.07*		-2%	-99%	55.05	44.95	36.92	9.85	10.42	9.97	8.89	10.79	*10.60*	*9.65*		21%	-57%
Fishing rights	(million €)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						0	0	0	0	0	0	0	0					
Investments	(million €)	0.01	0.00	0.01	0.02	0.01	0.01	0.02	0.03				82%	154%	0.3	0.3	0.3	0.4	0.5	0.7	0.8	0.2				-73%	-55%
Gross Value Added	(million €)	0.69	0.75	1.19	1.20	1.30	1.29	1.67	1.34	*2.31*	*1.21*		-20%	16%	14.9	11.3	11.1	9.7	7.2	6.9	5.5	10.0	*10.0*	*9.6*		81%	5%
GVA to revenue	(%)	76.7	87.1	87.1	92.0	89.2	96.0	96.1	88.8	*93.8*	*88.9*		-8%	0%	57.2	53.9	49.9	44.3	30.7	30.4	29.8	52.2	*55.6*	*54.9*		75%	23%
Gross profit	(million €)	0.5	0.6	1.1	1.1	1.2	1.2	1.6	1.0	*1.7*	*0.9*		-37%	-4%	10.5	7.9	7.7	6.4	3.4	2.7	2.5	6.5	*6.8*	*6.5*		159%	11%
Gross profit margin	(%)	55.2	67.9	78.9	84.8	82.6	91.6	89.9	65.5	*70.1*	*65.8*		-27%	-17%	40.3	37.8	34.7	29.1	14.6	11.8	13.6	34.1	*37.7*	*36.9*		150%	31%
Net profit	(million €)	1.4	-0.6	-0.4	1.1	1.2	1.2	1.5	1.0	*1.7*	*0.9*		-37%	24%	13.2	2.6	2.0	5.2	1.9	0.5	0.8	4.9	*5.2*	*5.1*		491%	30%
Net profit margin	(%)	158.8	-70.3	-26.0	81.5	79.9	90.1	88.8	63.8	*69.0*	*63.9*		-28%	11%	50.9	12.4	8.9	23.9	7.9	2.4	4.4	25.4	*28.8*	*29.4*		472%	60%
Return on fixed tangible assets	(%)	3.7	4.2	8.8	831.7	622.0	2690	2320	1490	*2412*	*1246*		-36%	61%	16.4	14.5	17.1	54.7	20.0	8.7	11.1	45.8	*49.4*	*52.3*		314%	125%
GVA per FTE (labour productivity)	(thousand €)	1.9	2.3	3.6	6.0	8.5	5.6	7.8	10.3	*22.1*	*12.4*		39%	69%	51.1	51.5	57.9	55.0	36.3	36.9	37.3	46.8	*51.8*	*50.3*		1%	-22%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.60 Latvia: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
LVA A27 TM2440	49	183	5,886	90	50,169	15,702	16,503	8,401	50.9	5,685	34.5	4,102	24.86	14.8	45.9	45	High	2%	Stable	80%
LVA A27 TM1218	11	31	1,763	119	9,358	2,627	2,670	1,613	60.4	862	32.3	761	28.51	24.2	52.0	53	High	212%	Improved	13%
LVA A27 PGP0010	190	131	10,612	24	2,557	1,447	1,515	1,345	88.8	992	65.5	967	63.82	2.7	10.3	1,490	High	11%	Improved	7%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.61 Latvia: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
LVA A27 TM2440	48	166	5,326	85	48,482	15,015	15,800	8,672	54.9	6,074	38.4	4,552	28.81	15.7	52.4	50	High	77%
LVA A27 PGP0010	206	104	8,439	13	3,787	2,386	2,459	2,306	93.8	1,725	70.1	1,697	69.02	5.6	22.1	2,412	High	12%
LVA A27 TM1218	11	28	1,615	133	7,711	2,216	2,259	1,371	60.7	738	32.7	641	28.39	22.3	48.3	45	High	11%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.62 Latvia: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
European sprat	11.9	7.9	7.9	7.3	10.2	12.1	10.2	9.2	8.4	57.3	49.6	45.8	33.4	30.7	33.3	30.8	30.5	28.1	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	46.3%	49.1%
Atlantic herring	6.8	4.4	6.1	5.7	7.5	5.6	6.3	6.3	6.5	22.5	21.6	21.4	22.8	20.1	20.7	23.3	25.3	26.1	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	31.9%	40.7%
Atlantic cod	5.9	5.6	7.5	7.6	4.8	3.0	1.6	2.4	2.2	4.0	4.6	5.2	5.0	4.3	2.6	1.5	2.6	2.4	1.5	1.2	1.5	1.5	1.1	1.2	1.1	0.9	0.9	12.0%	4.2%
Other	0.2	0.2	0.4	0.2	0.3	0.3	0.4	0.8	1.6	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.7	0.8	0.8	1.6	1.9	1.4	1.8	1.8	2.4	2.3	4.1%	0.5%
European flounder	0.2	0.2	0.1	0.2	0.2	0.4	0.5	0.5	0.5	0.7	0.5	0.3	0.3	0.6	1.5	1.8	2.1	1.9	0.3	0.5	0.4	0.7	0.3	0.3	0.3	0.3	0.3	2.6%	3.3%
European smelt	0.4	0.5	0.7	1.3	0.6	0.8	0.4	0.3	0.2	1.8	2.0	1.1	1.5	1.5	2.5	1.5	1.1	0.6	0.2	0.3	0.6	0.9	0.4	0.3	0.3	0.3	0.3	1.6%	1.8%
Snaggletooth					0.0	0.1	0.0	0.3	0.1					0.1	0.2	0.1	0.2	0.1					0.2	0.4	0.4	1.2	1.2	1.5%	0.4%
Eelpout	0.01	0.06	0.01	0.04	0.01	0.03	0.05	0.01	-	0.01	0.02	0.01	0.02	0.01	0.03	0.04	0.01	-	0.5	2.4	2.2	1.9	0.8	1.1	1.3	0.7	0.7	0.1%	0.0%
																												100%	100%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.14 Lithuania

Short description of the national fleet

Fleet capacity

In 2015, Lithuanian fishing fleet consisted from 151 registered vessels and compare to 2014 it increased by 5.6% following with further increase in 2016 to 154 vessels. The total combined gross tonnage and engine power in 2015 was 53.6 thousand GT and 57.0 thousand kW with annual increase of 10% and 16.3%, respectively. Concerning capacity indicators for 2016, all positions were increased except GT. The most remarkable increase was observed in average vessel length and engine power, which indicates that enlargement of fleet was in the distant water fleet segment.

Fleet structure

The Lithuanian fishing fleet is represented by small-scale coastal fleet segments, fishing in coastal area of Baltic Sea (68% of number of active vessels, in terms of GT – 0.6%), large-scale fleet, operating in Baltic Sea (22% of number of active vessels, in terms of GT – 6.9%) and distant water fisheries fleet (10% of number of active vessels and in terms of GT 92.5%). SSCF is composed from two segments: coastal boats under 10 m length (61 vessel), fishing with passive gears, vessels over 10 m (8 vessels) operating in coastal area including 24-40 m drift and fixed netters fishing in Baltic Sea (2 vessels). Large-scale fleet consists from two main segments operating in Baltic Sea: demersal trawlers 24-40 m (14 vessels) and pelagic trawlers 24m-<40 m (9 vessels). The distant water fleet is dominant in terms of landings and capacity and consists from three segments: demersal trawlers and/or demersal seiners 24m-<40 m (1 vessel), vessels using pots and/or traps over 40 m (3 vessels) and the largest segment pelagic trawlers over 40 m (7 vessels).

Employment

Employment figures for 2015 shows that number of persons, employed by fishing fleet, decreased by 7.9%, compare to 2014 and total employment in 2015 was estimated at 691 jobs corresponding to 463 FTEs. Employment figures decreased in both positions, number of persons employed and especially FTE with the lowest value ever observed. The largest decline was observed in the distant water fleet segment.

Effort

In 2015 number of days at sea increased by 9.6% compare to 2014, but a significant decline by 12% was observed in 2016 decreasing to 8 112 days. The level of effort in terms of days at sea was the lowest since 2008. Different trend was seen fishing days, which increased by 5.1% in 2015 and 5.1% in 2016. It partly represents the more efficient fishing operations as more fishing days were used during days at sea in 2016. Energy consumption in 2015 declined by 38.7%, disproportionally compare to other effort variables. In 2014, fishing operations of the distant water fleet had to relocate vessels to different region, spending extra days at sea without fishing operations, consequently average energy consumption in 2014 were significantly higher compare to other years.

Production

In 2015, volume of landings decreased by 43.9% compare to 2014, but then recovered by 24.6% in 2016. The distant water fleet in 2015 covered 78.2% of national total landed volume. In terms of landings volume, the most important species for the distant water fleet in 2015 were Atlantic horse mackerel, chub mackerel and Chilean jack mackerel together representing about 57.4% of the total landings volume. The average price for Atlantic horse mackerel in 2015 was €0.8 per kg and compare to 2016 it remained unchanged. Average price for chub mackerel in 2015 was €0.6 per kg and compare to 2016 increased by 15.8%. Concerning fisheries in the Baltic Sea and coastal area volume of landings increased by 29.5% between 2014 and 2015 with a further increase by 6.8% in 2016. Reduced average prices at first sale in 2015 resulted in lower annual increase (17.7%) of production value compare to 2014, but price recovery in 2016 raised value of landings by 15.4%.

From 2008 to 2011 the highest value of landings in Baltic Sea was generated from Baltic cod catches, whereas from 2011 onwards, the most significant part of income has been generated by European sprat. In 2015, landings of European sprat landings from Baltic Sea and its coastal area generated €2.2 million, whereas Baltic cod landings €1.3 million. Compare to 2016 sprat landings in terms of value increased by 25.9%, whereas cod decline by 2.2%. The major factor for the focus on pelagic species was the current demand by processing industry and significantly reduced cod quotas. Consequently, a considerable part of the Baltic Sea fleet increased its effort in the small pelagic fishery.

In 2015, coastal area fisheries have landed the highest volume of European smelt, around 129 tonnes and compared to 34.3 tonnes in 2014 increased significantly. The record high supply of smelt decreased first sale price to €1.55 per kg, compare to €1.89 per kg in 2014. In the year 2016 landings remained at the same level (122.3 tonnes) but with relatively higher first sale price of €1.76 per kg.

Economic results for 2015 and recent trends

National fleet performance

As the economic indicators of the national fleet are strongly dependent on the activity of the distant water fleet fisheries, factors that affect the performance of other fleet segments have a minor impact at national level. Almost 91.1% of total national revenues were generated from the distant water fleet in 2015. Annual economic performance of national fleet deteriorated due to negative net profitability results from the distant water fleet segment and poor performance of Baltic Sea demersal trawlers and drift netters. Concerning the strong dependence of national results on one fleet segment, economic performance will be provided separately by each segment and fishing area in relevant further sections of the report.

The total amount of income generated by the Lithuanian national fleet in 2015 was €58.8 million, which was 41.8% lower compare to 2014, but according to the preliminary data income will recover by 53% in 2016. Total revenues consisted from 99.3% of fishing income and 0.7% of other income.

Total operating costs incurred by the Lithuanian national fleet in 2015 equated to €72.14 million and were 24.18% lower compared to the previous year. The highest part of operational costs were variable costs and fixed costs (including fishing rights costs), each of them accounted for 28%. Around 21% of total operating costs were spent on fuel.

Gross value added (GVA) and gross loss generated by the Lithuanian national fleet in 2015 were -€6 million and -€13.3 million, respectively. Negative profitability values in 2015 were estimated first time since 2008. Significant losses in the distant water fleet and poor economic performance in large-scale fleet affected such results at national level.

In 2015, Lithuanian fleet had a record high fleet capital value, which increased by 41% compared to 2014 and was accounted for €134.4 million. Large increase in capital was influenced by the distant water fleet segment.

Resource productivity and efficiency indicators

National fleet efficiency indicators are highly influenced by the distant water fleet performance as 92% of national total value of landings is generated from this segment. Value of fixed tangible assets of national fleet in 2015 increased by 41.4% to €134.4 million and was the highest value since 2008. Revenues in 2015 decreased following by losses in profits therefore increased size of capital reduced return on fixed tangible assets (ROFTA) to negative value -16%. ROFTA for the distant water fleet in 2015 was -17%, for large-scale fleet operating in Baltic Sea ROFTA was 5% and for SSCF -6%.

In 2015 labour productivity expressed in terms of GVA/FTE was €-14 thousand. Compared to 2014 it was a significant drop due to the decline in GVA achieved in 2015. GVA/FTE for the distant water fleet in 2015 was -28%, for large-scale fleet operating in Baltic Sea was 14% and for SSCF 6%.

Landings in weight per unit of effort (in fishing days) in 2015 for large-scale fleet increased by 7% compare to 2014 and showed further growth by 15.3% in 2016. The same tendency was observed in SSCF, when landings per fishing day is constantly growing since 2012 and reached the record level in 2016. Distant water fleet has a very high fluctuation of landings per unit effort.

In 2015, fuel consumption per landed tonne increased by 9.2% compare to 2014 and was 444 litres per tonne landed. This indicator is also mostly driven by distant water fisheries.

Performance by fishing activity

Small-scale coastal fleet

Small-scale coastal fleet consists of two main segments, vessels 0-10 m and larger than 10 m vessels using passive gears which operates in Baltic Sea coastal area and two vessels operating in Baltic Sea. Due to the presence of clustered segment with larger vessels fishing with drifting nets as well as boats higher than 10 m, SSCF performance is not particularly represented by small coastal vessels under 10 m in length. Therefore, economic performance of fleet under 10 m is provided in the chapter of selected fleet segments and this section will focus on combined SSCF. In 2015, combined SSCF consisted of 71 vessels and compare to 2014 it increased by 11%, whereas in 2016 it returned to the same level. In the long-term perspective, starting from 2008 this fleet had a tendency to decline and from 2014 it stabilized following by slight increase. Other capacity indicators as vessel tonnage and engine power also had a moderate increase indicating that current capacity is sufficient taking into account availability of stocks and marked demand. Effort, expressed in days at sea in the SSCF remained at the same level during 2014 and 2015, but significant decline was observed in 2016, when days at sea decreased from 6.2 thousand days to 4.1 thousand days. Nevertheless, other effort indicators did not change significantly and even improved, for instance fishing trips. Higher number of fishing trips and increased volume of landings indicates more efficient use of effort. Landings remained stable during 2014 and 2015, but significantly increased in 2016 by 52% from 0.54 thousand tonnes to 0.83 thousand tonnes. Economic indicators for this fleet are characterized by high annual volatility and strongly depends on the vessels larger than 10 m. In 2015, GVA for the SSCF increased by 12%, but higher crew wages decreased net profitability. Negative profitability in 2015 was driven by larger fixed netters. With a moderate improvement in fleet capacity an employment in 2015 increased by 11% in terms of FTE.

Large-scale fleets

Lithuanian large-scale fleet is consisting of two segments, operating in Baltic Sea and fishing mainly Baltic cod, Baltic herring and European sprat. Two segments of demersal and pelagic trawlers in large-scale fleet are highly interrelated as a part of both segments using demersal and pelagic gears depending on year and quota content. Fleet capacity figures for large-

scale fleet were almost constant, with a minor variation. In 2015, it consisted from 23 vessels, corresponding to 3.6 thousand tonnes and 7 thousand kW. In 2015, large-scale fleet had 22% increase in fishing days compare to 2014 and remained almost at the same level in 2016. Increase in effort was following by 30% higher volume of landings and 18% increase in value. The recovery trend from 2014 to 2016 in large-scale fleet indicates a positive outlook for pelagic fisheries, whereas fleet targeting cod slightly recovered from huge losses in 2014. Concerning operating costs, the highest increase was observed in repair and maintenance costs. Energy and other variable costs has a tendency to decline in 2015. Taking into account such trends of cost development, improvement in profitability could be expected as repair and maintenance expenditures according to historic data have significant annual increase in every three years. In 2015, large-scale fisheries have shown first signs of profitability recovery from the long-term downtrend. For example, Gross value added in 2011-2014 period constantly decreased from €2.71 million to €0.29 million and recovered to €1.6 million in 2015. The same trend was observed for other profitability indicators as gross and net profit. Despite the increase in landings and improved profitability, employment figures were constantly decreasing since 2013. In 2015, large-scale fleet employed 185 persons corresponding to 113 FTE with 5% and 1% annual decline, respectively.

Distant water fleet

In 2015, the Lithuanian distant water fleet segment consisted from 11 vessels and with total vessel tonnage of 47.9 thousand tonnes and reached the highest value since 2008. In 2016, capacity of the DWF slightly decreased to 10 vessels and 44.8 thousand tonnes. Effort considering fishing days, in 2015 increased by 114% from 2014 when the lowest value of effort was recorded since 2008. In 2016 effort has a tendency to increase and fishing days improved to 1.9 thousand days. Compare to 2014, value of landings in 2015 declined by 37% and recovered by 45.6% in 2016. Significant increase in capacity raised a size of capital and it value. For example, value of tangible assets in 2015 was €125 million, compared to €86 million in 2014 and €29 million in 2013. Such gradual increase in capital value raised capital depreciation costs and other capital related costs as interest, opportunity costs of capital and etc. Thus with an increase in value of landings, the distant water fleet performed in negative profitability values in 2015. Economic efficiency in terms of GVA to revenue demonstrated significant decline from 2013 to 2015. Distant water fleet employed 298 FTE in 2015 and compared to 2014 declined by 28%. In 2015, labour productivity considering GVA per FTE was -€28 thousand with a significant decline and compare to 2014.

Performance results of selected fleet segments

National fleet consists of five main segments, representing four type of fisheries, small-scale coastal fleet (two segments), demersal trawlers and pelagic trawlers operating in Baltic Sea and the distant water fleet. From the total fleet three main segments will be presented.

Passive Gears (PG) 00-10m – in 2015, total number of active vessels in this segment were 61 which operated entirely in coastal area of Baltic Sea with the passive gears. Compared to 2014 number of vessels increased by 7%. The fleet targets a variety of species but European smelt Baltic cod were dominant with the share of total income by 60% and 23% respectively. In 2015, the total income was €0.36 million and 28 FTEs were employed, accounting for 6% of total employment. Compare to 2014 revenues were increased by 40%. Significant improvement in generated profit was also observed, when in 2015 segment reported €95 thousand gross profit, compared to €15 thousand in 2014. The major expenses were crew costs including unpaid labour (49.4% in total operating cost structure) and energy costs (11.7% in total operational cost structure). This segment had a different cost structure compare to remaining fleet segments, and fuel costs were not a major driver to influence profitability.

Demersal Trawlers and Seiners (DTS) 24-40 – in 2015, this segment consisted from 14 active vessels with 26% decrease from 2014. Fishing operations are entirely in the Baltic Sea with demersal trawlers as main gear. It represents the most important fleet in terms of capacity, employment and effort in Baltic Sea. Vessels mainly targeting Baltic cod, however part of the landings are generated from second gear used for pelagic species. Demersal trawlers are energy demanding and in 2015 expenditure for fuel amounted 26.3% of total operating costs. Expenditures on fuel in 2015 decreased by 21.5% compare to 2014 and this had the influence on the recovery of profitability. However, rebound of profitability was influenced by a share of sprat landings by this segment instead of improved situation in demersal fisheries. In 2014, the revenue was €1.92 million. Demersal trawler segment in 2015 was profitable first time since 2013. Gross profit was €0.18 million and gross profit margin 9.6%. This segment employed 120 person's creating 83 FTEs and contributing to 51% of FTEs in Baltic Sea and 16% of the total FTEs generated by the Lithuanian fishing fleet. Compared to 2013 employment declined 26.3%.

Pelagic Trawlers (TM) 40XX, distant water fleet – In 2015, 11 vessels were fishing in distant waters. Lithuanian high sea vessels predominantly operating in CECAF (area 34) and some have efforts in NAFO and NEAFC. In terms of landings value, the distant water fleet were targeting mainly small pelagic species, such as Atlantic horse mackerel, Chilean jack mackerel and Chub mackerel. In 2015, revenue declined by 44% and was €53.6 million. This fleet was also the most important in terms of employment, providing 298 FTE in 2015. Compared to 2014 FTE decreased by 27.8%. At national level the distant water fleet covers 64.5% of total FTE. Fleet generated -€13.8 million gross loss.

Drivers affecting the economic performance trends

Markets and Trade

Lithuanian fishing fleet is much diversified concerning dependency on the market. The distant water fleet all production is selling in foreign ports and do not provide any landing into national market. In terms of landed volume, large-scale fleet operating in Baltic Sea sells 10% of landings in national port whereas 90% is landed in foreign ports, mainly Denmark. Different markets are for large-scale fleet depending on species. For example, 71% of Baltic cod targeted mainly by demersal trawlers are landed in national port of Klaipeda and 29% exported, whereas pelagic species as Baltic sprat and Baltic herring only 3% is landed in the national port and 97% exported. Small-scale fleet operating in coastal area selling all production into internal market.

Demand from processing industry is more important for large-scale pelagic trawlers fishing in Baltic Sea and the distant water fleet, which land production in foreign ports and mainly for the processing. Average fish prices for small pelagic species targeted by distant water pelagic trawlers in 2015 was €0.78 per kg and compare to 2014 increased by 11%, but decreased by 6% in 2016. Concerning average price for species, landed by the distant water fleet, annual increase with moderate variations is observed. For example, average price in 2014 was €0.69 per kg, when in 2015 and 2016 it increased to €0.89 per kg and €1.01 per kg, respectively. Increase in fish prices were more influenced by the demersal trawlers. Prices for pelagic species in Baltic Sea in 2015 declined by 13% to €0.21 per kg, but recovered to the €0.24 per kg in 2016. However, this price level is much lower, compare to the 2012-2013 period when it reached around €0.3 per kg.

Baltic cod is sold mainly for direct consumption as fresh production and the price level is the main driver for economic performance for Baltic demersal trawlers. Over the past several years, decreasing cod prices have had a strongly negative impact on Baltic fisheries. For example, in 2010-2011 average price for cod reached the highest level €1.24 per kg, whereas in 2015 it declined to €0.8 per kg. Compared to 2014 average cod price from vessel in 2015 declined by 15.5%. Furthermore, average retail price for fresh Baltic cod in supermarkets increased by 11.6% from €2.59 per kg in 2014 to €2.89 per kg in 2015. In 2016 cod prices form the vessel remained at the €0.8 per kg level and in retail market declined to €2.79 per kg.

The same situation with the SSCF, which deliver European smelt and Baltic cod to local market for direct consumption with insignificant amounts coming for processing. Market for fresh European smelt, from which highly depends small-scale fisheries performance, during 2015-2016 performed quite well, as landings increased significantly and price at the retail market remained at high level indicating that demand for this species is growing. For example, average price at first sale in 2015 was €1.55 per kg whereas retail average price in the local markets were €3.9 per kg without VAT. In 2016, first sale price for European smelt increased to €1.76 per kg, but retail price remained at €3.9 per kg.

Management instruments (policy)

From 2017 Lithuania in Baltic Sea fisheries introduced system of transferable fishing concessions. Transfer of quota is based on historic data (historic catches, use of selective gears, and number of offenses committed) and could be applied only to the economic entity which has a capacity, registered in Lithuanian Fleet Register.

In the 1st half of 2017, Baltic Sea fishing vessels according to I Union Priority in order to increase energy efficiency have a possibility to modernize vessel engine and be funded form EMFF. Another currently applicable measure for fishing fleet is related with investments to the fishing gears to improve selectivity. From May of 2017 vessel owners also could apply for the EMFF funds concerning support to technological development, innovation, including energy efficiency. After enforcement of the landing obligations, vessel owners in 2017 have an open call for applications concerning processing and another use of bycatch. Coastal vessels from 2016 are using EMFF compensation for the damage caused by seals.

TACs and quotas

In Mauritania and Morocco, the Lithuanian fleet operates under EU fishery partnership bilateral agreements with third countries and quotas are set for every fishing year. The new agreement with Mauritania came into force at the very end of 2015 and for each year 57.64 thousand tonnes of pelagic species were allocated to Lithuanian vessels. Agreement with Morocco is valid from mid of 2014 and 20.69 thousand tonnes are allocated. From historic point of view quotas in the most important fishing region for the Lithuanian distant water pelagic trawlers are constantly decreasing. For example, in 2008 quota for pelagic species in CECAF region in agreement with Mauritania, was 120.5 thousand tonnes. For 2016 and 2017, quotas in Mauritanian water remained unchanged – 57.6 thousand tonnes.

In the Baltic Sea, Lithuania has quotas for cod, herring, sprat and salmon, while the most important species in terms of catches are cod, herring and sprat. Quotas for cod are constantly decreasing from 2014, when 4.1 thousand tonnes were available for landings. In 2015, cod quota declined by 20% to 3.2 thousand tonnes and further declined to 2.6 and 1.8 thousand tonnes in 2016 and 2017, respectively. Better situation was in Baltic pelagic species, where Baltic herring quota increased from 3.29 thousand tonnes in 2014 to 4.77 thousand tonnes in 2015 and further growing to 5.18 thousand tonnes and 5.58 thousand tonnes in 2016 and 2017, respectively. Sprat quotas in 2015 had 11% decline to 10.7 thousand tones, then decreased to 10.1 thousand tonnes in 2016 but have a significant recovery to 13.1 thousand tonnes in 2017. Quota for salmon remains stable at 1.49 thousand units.

Status of Key Stocks

For Baltic Sea fisheries, key stocks are Baltic cod, Baltic herring and Sprat. According to 2017 ICES advice on fishing opportunities, catch and effort in Baltic Sea ecoregion, western cod stocks are managed below MSY level and reproductive capacity is reduced. The stock size indicator of Eastern Baltic cod in subdivisions 24-32 has decreased between 2011 and 2014, with an increase in 2015–2016, followed by a 45% decline in 2017. The index for small cod has continuously declined from its highest value (in 2013) in the available time-series. There has been a steep decline in the harvest rate between 2004 and 2009, followed by a slight increase until 2015 and a decline in 2016. MSY levels for Eastern Baltic cod is unknown. Pelagic species in Baltic Sea are managed at sustainable MSY level.

Operational costs (external factors)

In 2015, the distant water fleet had a different cost structure compare to other years. As previously the part of costs was spent on energy products, in 2015 non variable cost took the biggest share, around 27% of total cost structure. This untypical situation depended on significant increase of capital related costs. As was previously mentioned, the distant water fleet during 2015 increased capital value by 45%. Interest for loans related to vessels as well as currency rate (EUR/USD) differences very significantly increased capital related costs compare to last period. Variable costs accounted for 26% and energy costs for 19% of total costs. Energy costs were relatively low in 2015 due to the significant decline of marine fuel price.

For large-scale fleet, operating in Baltic Sea, the main operational cost was energy products. In total cost structure, expenditures on fuel and oil accounted for almost 25% and compare to 2014 decreased by 20%. Marine fuel prices in 2015 were favourable. According to monthly marine gasoil prices (EUMOFA) it has a constant decline from €0.87 per litre in 2012 to €0.45 per litre in 2015 and further decreasing to €0.35 litre in 2016. This tendency of fuel prices gives a positive outlook on production costs for energy demanding large-scale trawlers. A decreasing trend of other variables costs was also observed in large-scale fleet during 2015, whereas spending on crew salaries are increasing. For example, from 2012 to 2014 crew costs in total cost structure had a share of 19%, whereas in 2015 it increased to 26%. In 2015, the average annual salary per FTE increased by 13% to €11.7 thousand.

Small-scale coastal fleet, fishing with passive gears around 32% of total costs spent on salaries. Expenditures on energy products and other variable costs do not account for significant share and was 10% and 14%, respectively.

Socioeconomic impact

One of the important socioeconomic criteria is the average age of fishers. Future expectations and business efficiency is closely related to the productive labour force. Interesting and different tendencies of age distribution among fishers was observed in separate segments. In 2015, the most dominant age class in SSCF was 25-49-year-old fishers and this class covered 62% of all small-scale employees. Such age class represents most efficient labour force and compare to large-scale and the distant water fleet it contained the youngest fishers. In the large-scale fleet, operating in Baltic Sea the most dominant age class was 50-64-year fishers and they accounted for almost 62% of total employees in this fleet, whereas 25 to 49-year class covered only 27%. The distant water fleet had a more proportional distribution of two most important age classes. Age class of 50-64 years represented 49% of total employees whereas 25-49 age class covered 46% of fishers in the distant water fleet.

In the II quarter of 2015, the average wage in Lithuania was €714 per month for all type of economy and €618 per month for the overall agriculture, forestry and fisheries sectors. According to DCF data the SSCF had an average €472 per month per FTE, Large-scale fleet €832 per month per FTE and €1 152 per month per FTE in the distant water fleet.

Projections for 2016 and outlook for 2017

The main drivers of economic performance for the long-distance water fleet is related to the high costs of capital after fleet renovation, whereas other operation costs tended to decrease. Important driver for performance was the decline in energy product prices. This tendency remained in 2016 and prices slightly recovered in 2017. However, energy prices are relatively favourable for fishing business as energy costs are one of the most important shares in total cost structure. Another important driver is fish prices. Current status of average prices for small pelagic species, targeted by distant water fleet indicate good expectations as key species, Atlantic horse mackerel (HOM) and chub mackerel (MAS), have increasing yearly prices. These two species in 2016 amounted to 69% of total landing value for the DWF. In 2016, compared to 2015 HOM average price increased by 1% and according to preliminary data, in 2017 it increased by 4.7%. During 2015-2016 the average price for MAS increased by 15.8% and in 2017 further increased by 18%.

The large-scale fleet operating in the Baltic Sea is currently recovering from 2014 when the lowest point in terms of effort and economic performance was achieved. In 2015, the LSF significantly increased effort and with a slight decline of price generated positive returns from income. As the average price for Baltic sprat in 2016 increased by 20% and taking into consideration, that significant part of the fleet is moving to pelagic fisheries from demersal trawling as well as energy costs in recent years are decreasing, outlook for 2016 is foreseen as favourable for sprat fisheries, but poor cod stocks, low CPUE and market size of fish are limiting factors for the performance of demersal fisheries. Based on the BEMEF model projections, in 2017 gross profit for Baltic pelagic fisheries segment will increase gross profit by 39% compare to 2015 data, whereas demersal trawlers are expected to achieve gross loss.

For the SSCF, the situation of the fresh fish market was favourable in 2016 and further improve in 2017 is foreseen. For example, in terms of landings value, the most important species for SSCF segments are European smelt and according to primary retail market data, in the January-April of 2017 average retail price increased by 16% compare to the same period of 2016. First sale prices for cod in the begging of 2017 also indicates a significant increase. Average retail fuel prices in Lithuania during 2015 01 – 2016 01 declined by 14%, but during 2016 01 – 2017 01 increased by around 10%. Taking into account that passive gear vessels energy costs amounts only 11% of total costs, the average level of operating costs in 2017 are not expected to be much higher compare to 2016, therefore taking into account favourable market conditions and relatively high prices economic performance and profitability of the SSCF is expected to be increased. According to BEMEF model projections for the SSCF in 2017 will increase gross profitability by around 5%. The coastal fleet also is using compensation schemes for the damage, obtained by seals, compensation covers part of repairmen costs, when nets are damaged by water animals.

MODEL FORECAST

Preliminary results for 2016 forecast a 24% increase in landed weight, matched with a 43% increase in landed value, which helped foster an increase in labour costs (+39%). Furthermore, projections suggest that while fuel consumption increased by 2%, energy costs decreased 23%, and translated significantly to a decrease in operating costs, and, together with a reduction in capital costs, fostered further economic performance improvements in 2016: GVA (+620%), gross profit (+274%) and net profit (+166%).

Projection results suggest that the Lithuanian fleet operated at a profit in 2016: with an estimated net profit of €15.8 million and a margin of 18%. Positive economic developments can also be seen in performance indicators GVA to revenue (36.6%), GVA per FTE (€80 thousand) and gross profit margin (26%).

The 2016 gains are improved further by a 1% increase in the weight of landings, but a 2% decrease in the value of landings in 2017. While energy costs increase (+5%) in 2017, the fleet remains profitable with gross and net profit margins of 27% and 21%, respectively. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Data issues

Under DCF, revenues from landings reported from two distinct data sources (total value of landings as transversal variable and total income from landings as economic indicator). In Lithuania, income from landings together with other socio-economic indicators, such as expenditure, employment and capital value are collected through census with a one-year lag whereas transversal variables are collected one year prior to economic data.

Table 5.63 Lithuania: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	250	219	193	171	151	152	143	151	*99*	*95*		6%	-17%
Number of Inactive vessels_ms	(#)	125	95	89	68	47	55	46	46	*55*			0%	-39%
Vessel tonnage	(thousand GT)	61.0	50.5	49.3	46.0	45.0	44.0	48.5	53.6				10%	9%
Engine power	(thousand kW)	68.9	59.8	56.4	54.4	54.2	52.4	49.0	57.0				16%	1%
Total employed	(person)	1,046	712	706	768	732	763	750	691	*643*	*633*		-8%	-12%
FTE	(#)	617	544	512	574	566	491	573	463	*411*	*414*		-19%	-16%
Days at sea	(thousand day)	9.8	9.7	9.0	10.0	11.0	9.8	8.4	9.2	*8.1*	*8.2*		10%	-5%
Fishing days	(thousand day)	7.7	7.9	7.5	8.1	8.8	8.7	6.8	7.2				5%	-9%
Number of fishing trips	(thousand)	4.7	5.2	5.1	4.7	3.7	3.7	4.0	4.5				13%	1%
Energy consumption	(million litre)	40.3	31.4	24.5	26.4	17.4	36.5	59.5	36.5	*37.2*	*36.5*		-39%	8%
Live weight of landings	(thousand tonne)	180.8	209.1	108.1	114.5	58.0	89.7	146.4	82.2	*102.4*	*103.7*		-44%	-37%
Value of landings	(million €)	96.1	156.8	77.0	76.7	40.6	64.3	95.3	62.4	*89.4*	*87.5*		-34%	-28%
Income from landings	(million €)	92.0	55.0	42.7	48.4	43.1	65.9	99.9	58.4	*89.4*	*87.8*		-42%	-8%
Other income	(million €)	0.3	6.2	3.3	0.4	0.7	0.5	0.4	0.4	*0.4*	*0.4*		-6%	-76%
Direct income subsidies	(million €)	0.0	-	0.1	0.3	0.0	0.0	0.0	0.0				-4%	-52%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	9.2	5.9	4.8	5.6	4.4	5.8	9.3	7.0	*9.7*	*9.4*		-25%	8%
Unpaid labour value	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	*0.0*		64%	-44%
Energy costs	(million €)	27.5	12.6	14.1	12.8	11.6	19.9	28.6	15.2	*11.6*	*12.2*		-47%	-17%
Repair & maintenance costs	(million €)	15.4	9.8	6.3	6.3	6.2	6.2	14.2	9.1	*8.3*	*7.9*		-36%	-1%
Other variable costs	(million €)	23.2	19.4	16.4	13.2	11.1	13.9	29.2	20.4	*18.3*	*17.4*		-30%	13%
Other non-variable costs	(million €)	6.7	4.7	4.2	3.1	1.8	8.4	13.9	20.5	*18.6*	*17.6*		48%	235%
Annual depreciation costs	(million €)	2.0	2.1	2.4	2.3	2.2	1.8	4.7	7.9	*7.1*	*6.7*		68%	212%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-	-			
Opportunity cost of capital	(million €)	- 3.1	5.2	2.4	0.6	0.8	1.1	2.5	2.8	*0.3*	- *1.9*		12%	105%
Tangible asset value (replacement)	(million €)	62.6	55.5	54.7	56.0	50.1	43.2	95.0	134.4	*117.9*	*111.3*		41%	126%
Fishing rights	(million €)	-	-	-	-	-	-		-					
Investments	(million €)	0.5	0.1	22.0	20.9	1.2	0.4	5.8	0.0				-100%	-100%
Financial position	(%)	45.2	47.3	60.9	62.8	56.7	7.4	74.4	88.7				19%	75%
Gross Value Added	(million €)	19.4	14.7	5.1	13.4	13.0	18.0	14.4	- 6.3	*32.9*	*33.1*		-144%	-145%
GVA to revenue	(%)	21.0	24.0	11.1	27.4	29.7	27.1	14.4	- 10.8	*36.6*	*37.5*		-175%	-149%
Gross profit	(million €)	10.1	8.8	0.3	7.8	8.6	12.1	5.2	- 13.3	*23.2*	*23.6*		-357%	-276%
Gross profit margin	(%)	10.9	14.4	0.6	15.9	19.6	18.3	5.2	- 22.6	*25.8*	*26.8*		-539%	-287%
Net profit	(million €)	11.1	1.5	- 4.5	4.8	5.5	9.3	- 2.0	- 23.9	*15.8*	*18.9*		-1126%	-749%
Net profit margin	(%)	12.1	2.4	- 9.8	9.9	12.7	13.9	- 1.9	- 40.7	*17.6*	*21.4*		-1991%	-824%
GVA per FTE (labour productivity)	(thousand €)	31.4	27.1	10.0	23.3	23.0	36.6	25.2	- 13.7	*80.0*	*79.9*		-154%	-154%
Return on fixed tangible assets	(%)	12.9	12.0	- 3.9	9.7	12.7	24.0	0.5	- 15.8	*13.6*	*15.2*		-3090%	-262%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

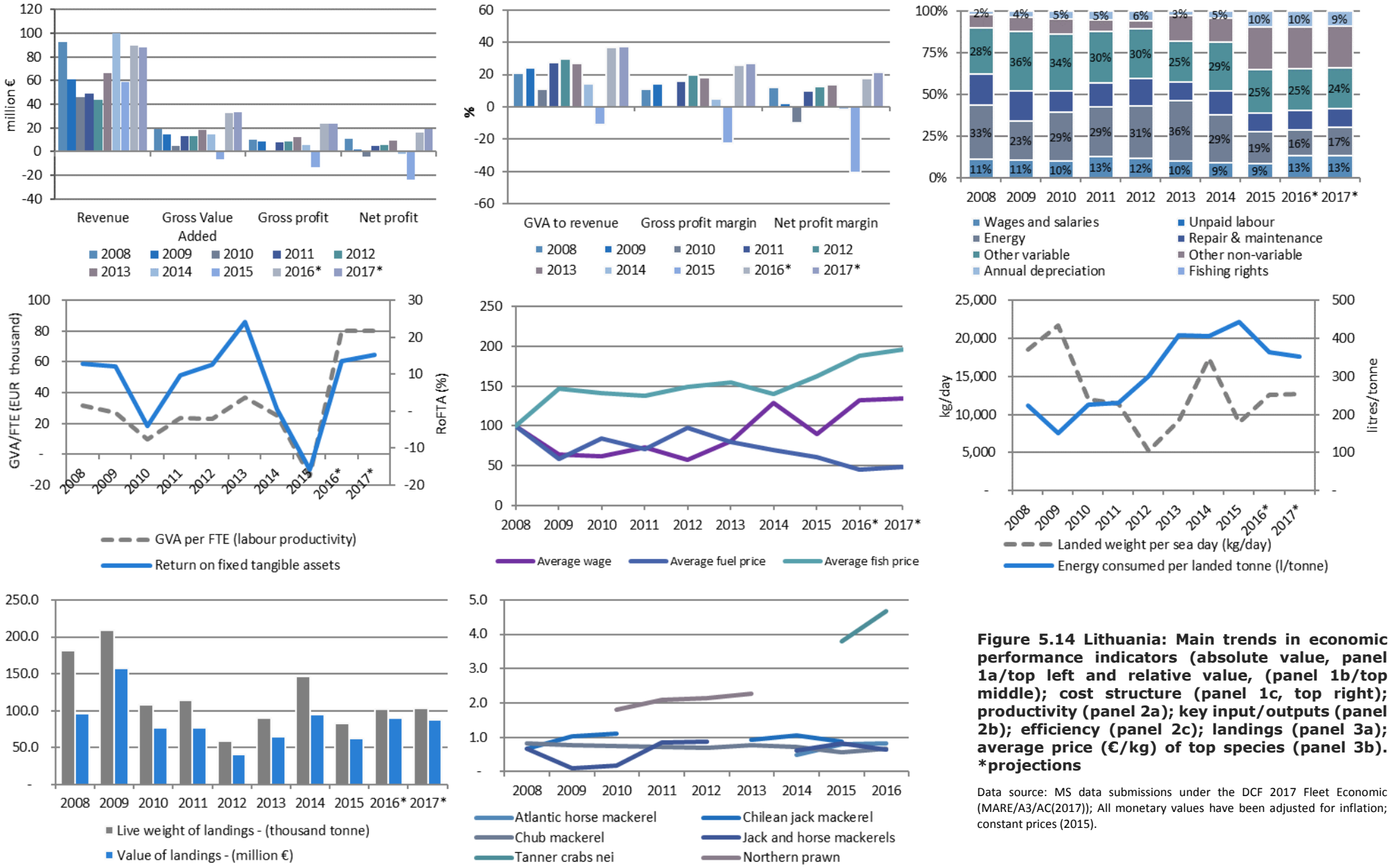


Figure 5.14 Lithuania: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.64 Lithuania: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	89	91	74	69	69	65	64	71	66	64		11%	-5%
Vessel tonnage	(thousand GT)	0.5	0.5	0.4	0.4	0.2	0.2	0.2	0.3				68%	-6%
Engine power	(thousand kW)	3	3	2	2	2	2	2	2				22%	4%
FTE	(#)	208	55	49	37	49	39	46	51	43	41		11%	-26%
Total employed	(person)	370	158	152	154	149	140	142	171	154	157		20%	-5%
Days at sea	(thousand day)	4.7	4.9	4.8	4.3	5.6	5.7	5.9	4.6	4.1	4.0		-23%	-11%
Fishing days	(thousand day)	4.5	4.8	4.6	4.2	5.6	5.6	4.7	3.9				-16%	-19%
Number of fishing trips	(thousand)	4.0	4.4	4.1	3.8	2.8	2.9	3.2	2.1				-35%	-42%
Energy consumption	(million litre)	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1		12%	-16%
Live weight of landings	(thousand tonne)	0.6	0.8	0.7	0.6	0.6	0.6	0.5	0.5	0.8	0.4		3%	-12%
Value of landings	(million €)	0.8	0.8	0.8	0.6	0.6	0.6	0.5	0.5	0.6	0.5		13%	-19%
Income from landings	(million €)	0.8	0.9	0.8	0.6	0.6	0.6	0.5	0.5	0.6	0.5		11%	-19%
Other income	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1		69%	172%
Direct income subsidies	(million €)	0.0	-	0.1	-	0.0	0.0	0.0	0.0				-4%	56%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2		81%	67%
Unpaid labour value	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		64%	-44%
Energy costs	(million €)	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1		-1%	-26%
Repair & maintenance costs	(million €)	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0		-19%	-8%
Other variable costs	(million €)	0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1		98%	30%
Other non-variable costs	(million €)	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0		-6%	-26%
Annual depreciation costs	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		37%	-21%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	- 0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	- 0.0		15%	-26%
Tangible asset value (replacement)	(million €)	0.6	0.6	0.8	0.6	0.5	0.3	0.3	0.5	0.4	0.4		44%	-13%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				-79%	-99%
Gross Value Added	(million €)	0.3	0.5	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.3		12%	-18%
GVA to revenue	(%)	39.9	57.1	44.2	48.6	54.9	64.5	48.8	47.6	63.7	53.5		-3%	-7%
Gross profit	(million €)	0.1	0.4	0.2	0.1	0.2	0.2	0.1	- 0.0	0.1	0.0		-107%	-104%
Gross profit margin	(%)	7.6	41.0	24.2	9.8	26.4	34.4	17.7	- 1.2	16.2	6.3		-107%	-105%
Net profit	(million €)	0.1	0.3	0.1	0.0	0.1	0.2	0.1	- 0.0	0.1	0.0		-152%	-129%
Net profit margin	(%)	7.6	31.6	15.7	4.0	21.4	29.9	13.4	- 6.0	13.6	4.4		-145%	-134%
Return on fixed tangible assets	(%)	5.3	57.2	21.2	5.1	30.6	58.4	25.3	- 6.1	25.0	4.4		-124%	-121%
GVA per FTE (labour productivity)	(thousand €)	1.6	9.4	7.4	8.0	7.5	9.5	5.7	5.7	10.1	6.8		-40%	-22%

		LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	24	22	22	24	25	25	24	23	23	21		-4%	-3%
Vessel tonnage	(thousand GT)	3.5	3.3	3.2	3.4	3.5	3.8	3.7	3.6				-3%	3%
Engine power	(thousand kW)	7	7	6	7	7	8	7	7				-2%	1%
FTE	(#)	87	175	155	169	162	156	114	113	97	102		-1%	-22%
Total employed	(person)	132	240	228	231	228	265	195	185	184	171		-5%	-15%
Days at sea	(thousand day)	1.9	1.8	2.5	2.7	3.0	2.8	1.7	2.7	2.2	2.4		54%	14%
Fishing days	(thousand day)	1.5	1.5	1.6	2.3	2.0	1.9	1.5	1.8				22%	4%
Number of fishing trips	(thousand)	0.7	0.8	0.8	0.8	0.9	0.8	0.7	2.4				253%	208%
Energy consumption	(million litre)	3.2	2.6	2.1	2.7	2.8	2.9	2.6	2.0	2.5	1.8		-20%	-24%
Live weight of landings	(thousand tonne)	27.8	28.4	15.4	17.7	16.3	16.4	13.3	17.4	18.3	20.0		30%	-10%
Value of landings	(million €)	7.0	6.7	5.9	6.2	6.6	6.6	3.7	4.4	5.1	4.8		18%	-28%
Income from landings	(million €)	6.8	6.4	5.9	7.3	6.6	6.2	4.0	4.6	5.1	5.1		17%	-25%
Other income	(million €)	0.2	1.2	1.1	0.4	0.4	0.5	0.0	0.0	0.0	0.0		-38%	-98%
Direct income subsidies	(million €)	-	-	0.0	-	0.0	0.0	-	-					-100%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	1.5	1.2	1.1	1.1	1.1	1.3	1.0	1.1	1.2	1.2		13%	-3%
Unpaid labour value	(million €)	-	-	-	-	-	-	-	-	-	-			
Energy costs	(million €)	1.3	1.0	1.2	1.8	2.0	1.9	1.6	1.1	0.7	0.8		-29%	-28%
Repair & maintenance costs	(million €)	0.8	0.6	0.7	1.2	0.7	1.0	0.4	0.7	0.8	0.7		80%	-6%
Other variable costs	(million €)	2.0	2.1	1.5	0.9	0.8	1.4	1.1	0.6	0.5	0.5		-43%	-57%
Other non-variable costs	(million €)	1.3	1.4	1.7	1.1	0.7	0.8	0.7	0.6	0.6	0.6		-12%	-45%
Annual depreciation costs	(million €)	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3		42%	-10%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	- 0.3	0.6	0.3	0.1	0.1	0.2	0.1	0.1	0.0	- 0.1		-26%	-31%
Tangible asset value (replacement)	(million €)	7.0	6.3	5.9	6.4	6.3	6.9	5.1	4.7	4.8	4.4		-7%	-25%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	0.5	0.1	0.2	0.6	1.0	0.3	0.3	0.0				-100%	-100%
Gross Value Added	(million €)	1.8	2.5	2.0	2.7	2.7	1.7	0.3	1.6	2.6	2.5		463%	-16%
GVA to revenue	(%)	24.7	32.4	28.0	35.4	38.5	24.9	7.2	34.9	51.2	48.4		383%	28%
Gross profit	(million €)	0.2	1.3	0.9	1.6	1.6	0.4	- 0.7	0.5	1.4	1.2		167%	-36%
Gross profit margin	(%)	3.3	17.1	12.7	20.7	23.0	6.3	- 18.0	10.4	26.7	24.0		158%	12%
Net profit	(million €)	0.2	0.4	0.4	1.2	1.2	- 0.1	- 1.0	0.1	1.1	1.0		112%	-62%
Net profit margin	(%)	3.2	5.2	5.1	16.0	17.4	- 1.2	- 25.9	2.7	21.2	20.6		110%	-5%
Return on fixed tangible assets	(%)	- 1.6	15.7	10.4	20.0	20.6	1.4	- 17.7	4.7	22.7	21.8		127%	-33%
GVA per FTE (labour productivity)	(thousand €)	20.2	14.0	12.6	16.0	16.4	10.8	2.5	14.2	27.0	24.2		-77%	-83%

		DWF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	12	11	8	10	10	7	9	11	10	10		22%	15%
Vessel tonnage	(thousand GT)	39.5	38.7	36.5	39.7	38.8	30.9	42.2	47.9				13%	26%
Engine power	(thousand kW)	41	39	35	40	40	31	36	44				23%	17%
FTE	(#)	322	314	308	368	356	296	413	298	271	271		-28%	-12%
Total employed	(person)	544	314	326	383	355	358	413	335	305	305		-19%	-13%
Days at sea	(thousand day)	3.2	3.0	1.7	3.0	2.4	1.3	0.8	2.0	1.8	1.8		161%	-10%
Fishing days	(thousand day)	1.7	1.7	1.3	1.6	1.2	1.2	0.7	1.4				114%	7%
Number of fishing trips	(thousand)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0				-64%	-53%
Energy consumption	(million litre)	36.8	28.6	22.3	23.5	14.5	33.5	56.8	34.3	34.6	34.6		-40%	11%
Live weight of landings	(thousand tonne)	152.5	180.0	92.0	96.2	41.2	72.7	132.6	64.3	83.3	83.3		-51%	-41%
Value of landings	(million €)	88.4	149.3	70.2	69.8	33.5	57.2	91.1	57.5	83.7	82.3		-37%	-28%
Income from landings	(million €)	84.3	47.7	36.0	40.5	35.9	59.1	95.4	53.2	83.7	82.3		-44%	-7%
Other income	(million €)	0.0	5.0	2.2	0.1	0.3	0.0	0.4	0.3	0.3	0.3		-12%	-71%
Direct income subsidies	(million €)	-	-	-	0.3	-	-	-	-					-100%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	7.5	4.6	3.6	4.3	3.2	4.4	8.1	5.6	8.1	8.0		-31%	9%
Unpaid labour value	(million €)	-	-	-	-	-	-	-	-	-	-			
Energy costs	(million €)	26.0	11.5	12.8	10.8	9.5	17.9	27.0	14.0	10.9	11.3		-48%	-15%
Repair & maintenance costs	(million €)	14.6	9.2	5.5	5.1	5.4	5.2	13.7	8.3	7.5	7.1		-39%	0%
Other variable costs	(million €)	21.1	17.1	14.7	12.2	10.2	12.5	28.1	19.6	17.7	16.8		-30%	19%
Other non-variable costs	(million €)	5.3	3.2	2.5	2.0	1.0	7.5	13.1	19.9	17.9	17.0		51%	300%
Annual depreciation costs	(million €)	1.7	1.8	2.1	2.0	1.9	1.4	4.5	7.6	6.8	6.5		69%	245%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-	-			
Opportunity cost of capital	(million €)	- 1.8	3.6	1.9	0.5	0.7	0.8	2.2	2.6	0.2	- 1.9		15%	129%
Tangible asset value (replacement)	(million €)	36.1	38.4	44.1	45.2	41.4	29.2	86.3	124.8	112.7	106.5		45%	172%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	-	-	21.8	20.2	0.2	0.0	5.5	-				-100%	-100%
Gross Value Added	(million €)	17.3	11.7	2.8	10.4	10.0	15.9	13.9	- 8.2	29.8	30.4		-159%	-170%
GVA to revenue	(%)	20.5	22.3	7.3	25.6	27.6	26.9	14.5	- 15.4	35.5	36.8		-206%	-174%
Gross profit	(million €)	9.8	7.1	- 0.8	6.1	6.8	11.5	5.8	- 13.8	21.7	22.4		-338%	-308%
Gross profit margin	(%)	11.6	13.5	- 2.1	15.1	18.8	19.5	6.0	- 25.7	25.9	27.1		-525%	-318%
Net profit	(million €)	9.9	1.8	- 4.8	3.6	4.2	9.3	- 0.9	- 23.9	14.6	17.8		-2540%	-824%
Net profit margin	(%)	11.8	3.3	- 12.6	9.0	11.7	15.8	- 0.9	- 44.6	17.4	21.5		-4621%	-923%
Return on fixed tangible assets	(%)	22.6	14.0	- 6.6	9.1	11.8	34.6	1.5	- 17.1	13.2	14.9		-1219%	-238%
GVA per FTE (labour productivity)	(thousand €)	53.7	37.4	9.0	28.2	28.1	53.8	33.6	- 27.6	110.1	112.0		-37%	-4%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.65 Lithuania: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
LTU OFR TM40XX °	11	298	1,979	533	64,350	57,474	53,583	- 8,238	- 15.4	- 13,793	- 25.7	- 23,924	- 44.6	18.6	- 27.6	- 17.1	Weak	-923%	Deteriorated	91.1%
LTU A27 TM2440 °	9	30	1,222	110	12,021	2,533	2,713	955	35.2	298	11.0	89	3.3	21.9	31.8	5.9	Weak	-76%	Deteriorated	4.6%
LTU A27 DTS2440 °	14	83	1,453	135	5,334	1,887	1,921	661	34.4	184	9.6	36	1.9	5.7	7.9	3.6	Weak	122%	Improved	3.3%
LTU A27 PG0010	61	28	3,175	129	259	294	360	226	62.8	95	26.5	88	24.5	4.7	8.2	99.7	High	77%	Improved	0.6%
LTU A27 DFN1012 °	10	23	1,393	426	284	240	255	67	26.1	- 103	- 40.2	- 125	- 49.1	7.3	2.9	- 32.2	Weak	-382%	Deteriorated	0.4%

Table 5.66 Lithuania: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
LTU OFR TM40XX °	10	271	1,825	415	83,270	83,676	83,978	29,839	35.5	21,729	25.9	14,644	17.4	29.9	110.1	13.2	Reasonable	93.5%
LTU A27 TM2440 °	10	20	832	97	13,476	3,271	3,271	1,846	56.4	1,055	32.2	870	26.6	38.7	90.3	33.8	High	3.6%
LTU A27 DTS2440 °	13	76	1,330	245	4,809	1,819	1,830	764	41.7	309	16.9	213	11.6	6.0	10.0	9.8	Reasonable	2.0%
LTU A27 PG0010	58	28	3,202	48	572	405	464	339	72.9	161	34.6	155	33.5	6.4	12.1	181.1	High	0.5%
LTU A27 DFN1012 °	8	15	923	546	255	223	226	101	44.7	- 49	- 21.6	- 62	- 27.3	9.7	6.5	- 20.8	Weak	0.3%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.67 Lithuania: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Atlantic horse mackerel	1.8						0.1	19.7	31.6	2.7						0.1	24.2	38.8	0.7						0.5	0.8	0.8	32%	29%
Chilean jack mackerel	11.9	76.4	13.3			9.3	0.4	9.6		18.1	75.1	12.0			10.1	0.4	10.9		0.7	1.0	1.1			0.9	1.1	0.9		15%	13%
Chub mackerel	12.8	13.0	5.0	7.6	2.8	9.4	13.8	6.9	12.1	15.6	17.2	6.7	10.6	4.1	12.0	18.9	12.2	18.4	0.8	0.8	0.8	0.7	0.7	0.8	0.7	0.6	0.7	11%	15%
Jack and horse mackerels nei	2.0	0.4	0.4	0.8	1.6		2.9	5.2	1.7	3.0	4.0	2.5	1.0	1.9		4.8	6.2	2.6	0.7	0.1	0.2	0.9	0.9		0.6	0.8	0.6	8%	8%
Tanner crabs nei								4.6	1.4								1.2	0.3								3.8	4.7	7%	1%
Northern prawn	1.7		0.3	1.6	1.5	1.0		4.2	22.8	1.2		0.2	0.8	0.7	0.4		0.7	0.9	1.5		1.8	2.1	2.1	2.3		6.2	24.6	7%	1%
Cunene horse mackerel	33.7	45.3	38.4	15.7	8.9	29.2	39.9	2.4		51.0	51.0	42.3	18.6	10.1	33.9	43.7	2.6		0.7	0.9	0.9	0.8	0.9	0.9	0.9	0.9		4%	3%
European sprat	2.9	2.3	1.7	1.3	2.9	3.4	2.2	2.2	2.8	23.3	19.9	10.2	9.7	11.3	10.4	9.7	11.0	11.6	0.1	0.1	0.2	0.1	0.3	0.3	0.2	0.2	0.2	4%	13%
Beaked redfish	2.3				3.9	1.9	2.4	2.1	2.1	1.4				1.0	1.4	0.8	0.5	1.0	1.6				3.7	1.4	3.1	4.0	2.2	3%	1%
Atlantic cod	3.7	3.2	4.3	4.1	2.7	2.0	1.1	1.4	1.4	2.6	2.8	3.2	3.1	2.5	1.7	1.2	1.7	1.7	1.4	1.1	1.4	1.3	1.1	1.2	0.9	0.8	0.8	2%	2%
																												93%	87%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.15 Malta

Short description of the national fleet

Fleet capacity

During 2016, the Maltese fishing fleet consisted of 1 014 registered vessels, 283 of which were inactive, having a combined gross tonnage of 7.2 thousand GT, engine power of 73.9 thousand kW and an average age of 28 years. The vast majority of the inactive vessels are below 12m. In 2016, twenty-five vessels ceased their fishing activities while the Maltese Fishing Vessel Register (FVR) did not open for new registrations during 2016, though registrations were accepted for recreational vessels. The size of the Maltese fishing fleet decreased between 2008 and 2015, with the number of vessels falling by 6%; the fishing capacity, in terms of GT and kW decreased by 18% and 6%, respectively, for the same period. The major factor causing the number of vessels to decrease was the compensations given to vessel owners for decommissioning in line with the three management plans in place within the 25Nm FMZ in order to ensure the sustainability of stocks through better monitoring and to ensure financial stability for fishers.

Fleet structure

The Maltese fishery is a relatively small industry of a typically Mediterranean artisanal type, and is frequently described as a multi-species and multi-gear fishery, with the majority of the fishers switching from one gear to another several times throughout the year. The vast majority of the Maltese fishing fleet is composed of small-scale fishing vessels (91% in 2016) with an engine power of 37.8 thousand kW and a combined gross tonnage of 1.5 GT.

The total number of fishing enterprises in the Maltese fleet was 756 in 2016. The majority of fishing enterprises, 75.8%, owned a single vessel, 23.8% of enterprises owned two to five fishing vessels while only 0.4% of the fishing enterprises owned six or more fishing vessels.

Employment

Employment has been increasing since 2012 with total jobs of 1 463 in 2015. This corresponds to 872 FTEs or an average of 1.1 FTE per vessel. 78% of the total jobs were employed with the small-scale fishing vessels. This implies that the small-scale fishing sector is of fundamental importance to the social and economic aspects of the Maltese Fishing Fleet. The average age of the fishers within the whole fleet is 45 years old.

Effort

The Maltese fleet spent a total of around 23.3 thousand days at sea in 2016, 20.9 thousand of which were fishing days. The total number of days at sea and fishing days decreased by 7% and 10% between 2015 and 2016, respectively. However, the total number of days at sea has decreased by 40% since 2008.

The quantity of fuel consumed in 2015 totalled around 3.69 million litres. Although the days at sea and number of trips have decreased by 20% and 24%, respectively, between 2014 and 2015, the fuel consumption remained the same in 2015. On the other hand, the energy cost has decreased by 16% as a result of lower fuel prices. In fact, the average price per litre of fuel has decreased by 17% from 2014 to 2015.

Production

The total weight landed by the Maltese fleet in 2016 was 2.3 thousand tonnes of seafood, with a landed value of €9.8 million, a 16% decrease on 2015. The average weight of landings has also decreased during the period analysed.

The main exploited species include swordfish (*Xiphias gladius)*, common dolphinfish (*Coryphaena hippurus*), Atlantic bluefin tuna (T*hunnus thynnus)*, demersal and small pelagic species and a number of additional species some of which although caught in smaller quantities have a high commercial value such as the red shrimps.

In 2016, swordfish catches produced the highest landed value (€2.52 million) by the national fleet and representing 25% of the total value of landings, followed by common dolphinfish (€1.31 million), Atlantic bluefin tuna (€0.74 million), and silver scabbardfish (€0.47 million). In terms of landings weight, swordfish landings amounted to 410 tonnes, common dolphinfish 240 tonnes and Atlantic bluefin tuna 100 tonnes.

The prices obtained for these key species in general increased between 2008 and 2015. However, in 2016, prices for some of the key species such as swordfish, Atlantic bluefin tuna, giant red shrimp, red porgy, red scorpionfish and common octopus has dropped. Hence such reduction will deteriorate the economic performance of the Maltese national fleet for 2016.

Red porgy achieved the highest average price per kilo in 2016 (€16.41 per kg), followed by giant red shrimp (€15.03 per kg). Atlantic bluefin tuna, giant red shrimp, red scorpionfish, red porgy and surmullet attain the highest prices amongst all species landed by the Maltese fishing fleet.

Economic results for 2015 and recent trends

National fleet performance

Although the Maltese national fleet remained in a net loss making position in 2015, its economic performance has improved when compared to previous years. The trend is expected to improve further in 2016, as fuel prices continued to decrease while the average landed prices of the key species remained relatively high.

The total amount of income generated by the Maltese national fleet in 2015 was around €12.5 million, an increase of 7% due to an 11% increase in the total value of landings and a 28% decrease in other income (€0.88 million). When including direct income subsidies and income from fishing rights, total income amounted to €13.5 million.

The operating costs in 2015 amounted to €10.0 million. Crew cost and energy costs were the two major cost items (€3.8 million and €2.3 million respectively). However, €2.1 million of crew cost were estimated for the unpaid labour which remained in the hands of the fishers as working capital. Between 2014 and 2015, the operating costs decreased by 17% due to lower fuel prices and less unpaid labour cost. When including capital costs and non-variable costs, total costs amounted to €14.4 million, exceeding total revenue and generating a net loss of -€0.9 million.

In terms of economic performance, the total amount of gross value added (GVA), gross profit and net profit in 2015 were estimated at €5.9 million, €2.1 million and -€0.9 million, respectively. Between 2014 and 2015, the GVA increased by 13%, gross profit and net profit increased by 352% and by 83%, respectively. This indicates that the economic situation of the Maltese fishing fleet is weak but significantly improving when compared to previous years. This improvement is mainly driven due to an increase in value of landings, lower fuel costs and lower crew costs.

In 2015, the Maltese fishing fleet had an estimated (depreciated) replacement value of €65.5 million and investments amounted to €1.1 million, an 8% reduction on 2014.

Resource productivity and efficiency indicators

In 2015, the gross profit margin was 17.2%, an increase of 337% when compared to previous year. This indicates a low, yet improving operating efficiency of the sector. This is also seen in the net profit margin for 2015 which was increased to -7% from -43.5% (2014). This result is the second best year (after 2013) of operating efficiency since 2008.

The Rate of Return on Fixed Tangible Assets (RoFTA) of -1%, in 2015, shows an improvement when comparing it to previous years. On the other hand, the labour productivity (GVA/FTE) has increased by 44% between 2014 and 2015. This indicates an increase in efficiency.

Fuel consumption per landed tonne has followed an overall decreasing trend since 2008. In 2015, it is estimated an average of 1.5 thousand litres per tonne landed. This is a standard consumption for a typical fishing vessel in the Mediterranean.

Landings in weight per unit of effort (in days at sea) followed an increasing trend since 2008. In 2015, such indicator reported an increase of 27% when compared to 2014. Also, the fact that the days at sea decreased by 20% between 2014 and 2015 while the weight of the total landings increased by 1%, indicates an improved efficiency in the Maltese fishing fleet operation.

Performance by fishing activity

Small-scale coastal fleet

In 2016, there were 663 active vessels belonging to the "small-scale coastal fleet" according to the European definition (defined as vessels less than 12 metres and not using towed gear as listed in table 3 in Annex 1 of Commission Regulation (EC) No 26/2004 of 30 December 2003). This represents 91% of the active vessels or 65% of the whole Maltese fishing fleet.

Fisheries in Malta are a relatively small industry where its social significance far outweighs its economic importance. It is in fact a traditional activity which operates on a small-scale, producing small volumes of a very valuable product. The industry is mainly artisanal and it is considered as a typical fisheries found in many Mediterranean countries. The majority of the small-scale fishing vessels conduct their coastal activities on a seasonal basis. There are no inland fisheries in Malta.

The Maltese national fishing fleet is mainly divided into two categories: The professional full-time fishing vessels and the part-time fishing vessels. 44% of the small-scale fishing vessels work on a full time basis in the fishing industry whilst 56% fish on a part time basis.

In 2015, 78% of the total jobs (1 138 employees) in the Maltese fishing industry worked on small-scale fishing vessels. This corresponds to 567 FTEs. In 2015, there was an increase of 4% in the total jobs of the small-scale fishing vessels. The small-scale fishing sector has an overall increasing trend in jobs for the period analysed. However, there have been constant fluctuations in the crew costs across the years due to the unpaid labour. In 2015, wages amounted to €390 thousand while the unpaid labour cost amounted to €1.63 million. The vast majority of the employees in the small-scale fishing are the owners themselves with no employees. Others have their families and friends who voluntarily help them during a fishing trip.

The landings value of the small-scale fishery increased by 8% from 2014 to 2015 but decreased again by 10% in 2016 when compared to the previous year. The landings value of the small-scale fishery in 2016 was the lowest since 2010 (€3.6 million). In terms of profitability, in 2015, the economic performance of the small-scale fishery has improved since it registered a gross loss of €0.6 million in 2015 from a gross loss of €2.7 million in 2014. Same trend was followed for the net profit as it registered a net loss of €1.7 million in 2015 from a net loss of €3.9 million in 2014.

In 2015, the economic performance (net profit) of the small- scale fishing vessels (-€1.7 million) was far worse than the large-scale fishing vessels who reported a net profit of €0.9 million. The GVA of the small-scale fishing vessels was €1.4 million while for large-scale fishing vessels was €4.5 million. The large-scale fishing vessels had a gross profit of €3 million while the small-scale fishing vessels had a gross loss of -€0.6 million. Although both fishing activities showed an improvement in the economic performance of 2015, it is clear that the large-scale fishery had a very good economic performance while the small-scale fishery had a poor economic performance. The main drivers to such losses in the small-scale fishing sector were due to an increase repairs and maintenance cost, other variable and non-variable costs.

Large-scale fleet

The large-scale fishing vessels that were active during 2016 amounted to 68. This represents 9% of the active Maltese fishing vessels. All large-scale fishing vessels work on a full time basis in the fishing industry.

In 2015, 22% of the total jobs (325 employees) in the Maltese fishing industry worked with the large-scale fishing vessels. This corresponds to 305 FTEs. In 2015, there was an increase of 2% in the total jobs of the large-scale fishing vessels. The large-scale fishing sector has an overall increasing trend in jobs since 2008.

The landings value of the large-scale fishing vessels increased by 12% between 2014 and 2015 but was decreased again by 18% in 2016. The revenue of this segment contributes to 67% to total revenue. In 2015, the large-scale fishery reported a net profit of €0.9 million. In terms of profitability, Gross Value Added (GVA) and gross profit increased by 12% and 50%, respectively, between 2014 and 2015.

These results indicate that the economic performance of the large-scale fishery has been improving in previous years since the net loss for 2014 was the lowest since 2008 while in 2015 they reported a net profit for the first time since 2008.

Performance results of selected fleet segments

The Maltese fishing fleet is highly diversified with a broad range of vessel types targeting different species in the Mediterranean. The national fleet consisted of 20 active (DCF) fleet segments in 2015 and 5 inactive fleet segments consisting of 258 vessels. These vessels are classed as inactive if they did not land any catch in 2015.

Out of nine large-scale fishing segments, six generated a net profit during 2015. On the other hand, out of eleven small-scale fishing segments, only one segment made a net profit during 2015. This means that seven of the active fleet segments made a net profit in 2015 while thirteen made an overall loss. This shows that the economic performance of all the active fleet segments of the small-scale fishery (except for one segment) is very weak. Further analysis on the performance of the fleet segments of the small-scale fishery is provided below.

Vessels using other active gears 06-12m – 9 vessels made up this segment in 2015, which operates predominantly in the Mediterranean. This segment employed 34 jobs/ FTE during the same period. The fleet targets mainly common dolphinfish (*Coryphaena hippurus*) by using fish aggregating devices (FADs). In 2015, the total value of landings was about €0.23 million. In the same year, this segment generated a net loss of €0.08 million or an average net loss of €9 738 per vessel, 53% decrease in losses over the previous year. Such loss was mainly generated due to an increase of 25% and 26% in energy consumed per day at sea and energy consumed per landed tonne, respectively. On the other hand, there was also a reduction of 22% in the average landed value of Common dolphinfish. This shows a weak, yet improving economic performance for this segment. Such improvement was mainly due to an overall reduction in the operating costs. For 2016, the economic performance for this segment is expected to continue improving giving that the average landed value of common dolphinfish increased again by 28%.

Vessels using active and passive gears 06-12m- 132 vessels made up this segment in 2015, which operates predominantly in the Mediterranean. This segment employed 229 jobs which are equivalent to 157 FTE during the same period. This fleet segment targets several species, mainly common dolphinfish (*Coryphaena hippurus*) and swordfish (*Xiphias gladius*) by using fish aggregating devices (FADs), and drifting long-lines (LLD), respectively. In 2015, the total value of landings was about €0.86 million and generated a net loss of €0.7 million or €5 283 per vessel. The net loss for this segment decreased by 59% from 2014 to 2015, showing an improvement in the economic performance. Such improvement was mainly due to an overall reduction in the operating costs. However, the losses were mainly generated due to an increase of 12% and 16% in energy consumed per day at sea and energy consumed per landed tonne, respectively. On the other hand, there was also a reduction of 18% in the average income from landings. The average landed price of Common dolphinfish (*Coryphaena hippurus*) and swordfish (*Xiphias gladius*) were both decreased from 2014 to 2015. This shows a weak, yet improving economic performance for this segment. For 2016, the average landed value of common dolphinfish increased again by 28% but that of the swordfish continued to deteriorate.

Vessels using polyvalent passive gears only 06-12m- 159 vessels made up this segment in 2015, which operates predominantly in the Mediterranean and represents 22% of the small-scale fishery in Malta. This segment employed 243 jobs which are equivalent to 113 FTE during the same period. This fleet segment uses different metiers. In 2015, the net profit, gross profit and gross value added followed a deterioration trend. They amounted for -€0.6 million, -€0.3 million and €0.1 million, respectively. Although the number of vessels in the segment increased, the number of days at sea and fishing days decreased by 36% and hence value of landings and weight of landings decreased by 7% and 16%, respectively. On the other hand, the operating costs (excluding energy costs) increased while the energy consumed per day at sea and per landed income has also increased by 48% and 13%, respectively. This resulted in a weak and deteriorated economic performance for 2015.

A short description of two important segments in terms of total value of landings is provided below.

Vessels using hooks 18–24m – 17 vessels made up this segment in 2015, which operates predominantly in the Mediterranean. This segment employed 109 jobs/ FTE during the same period. The fleet targets a variety of species mainly by using surface and bottom long-liners. Surface long-liners target mainly large pelagic species such as Atlantic bluefin tuna (*Thunnus, thynnus*), swordfish (*Xiphias gladius*), and common dolphinfish (*Coryphaena hippurus*) while bottom long-liners target demersal species such as bluntnose sixgill shark (*Hexanchus griseus*), red scorpion fish (*Scorpaena scrofa*), silver

scabbardfish (*Lepidopus caudatus*) species amongst others. In 2015, the total value of landings was about €2.27 million. After a net profit of €0.4 million in 2014, this segment reported a net loss of €0.08 in 2015. The main reason for such loss was due to an increase in crew costs and other variable cost (excluding energy costs and repairs and maintenance costs). Also the value of landings has decreased while the landings weight has remained the same. Hence, the fall in the average landed price of the Common dolphinfish, silver scabbardfish and swordfish have affected the economic performance of this segment.

Demersal trawlers 18-24m – 8 vessels make up this segment in 2015, which operates predominantly in the Mediterranean. This segment employed 33 jobs/FTE in 2015. The fleet targets a variety of species but in particular demersal and deep water species, such as deep water rose shrimp (*Parapenaeus longirostris*), giant red shrimp (*Aristeomorpha foliacea*) and red mullets (*Mullus spp.*). In 2015, the total value of landings was almost €1.22 million. This fleet segment was profitable during 2015, with a reported gross profit of around €0.5 million and a net profit of €0.06 million. This indicates high profitability for 2015 with an improved economic development trend. The main drivers behind the profit were the reduction in energy costs and repairs and maintenance costs.

Drivers affecting the economic performance trends

Between 2014 and 2015, there was an increase in the value of landings by 11% while there was a decrease in labour costs and energy costs. These facts were the main driving sources behind the overall improvement in the economic performance between 2014 and 2015. However, the increase of 33% in the other operational variable costs and 1% in the repairs and maintenance cost led to some particular segments to report a weak economic performance. As seen above, the large-scale fishery had a very good economic performance while the small-scale fishery had a poor economic performance.

Markets and Trade (including fish price)

Fishing in Malta is mainly a traditional artisanal activity which operates on a small-scale. The majority of the fish landed is sold in the local market. In recent years, the status of the fish stock has reduced which led to a general increase in prices for some of the key species. From 2005 to 2014, the consumption of seafood in Malta has increased from 30.6 kg per capita to 32 kg per capita. The latter made Malta the seventh largest domestic market for seafood per capita in the EU. This advancement could have been the result of a local publicity campaign which aimed at educating consumers, increasing consumer awareness, and diversifying national consumption patterns. Such campaign was co-financed by the European Fisheries Fund (EFF).

Atlantic bluefin tuna, giant red shrimp, red scorpionfish, red porgy and surmullet attain the highest prices amongst all species landed by the Maltese fishing fleet. This is due to the fact that these species are characterised by a high demand both locally and abroad. In the latter case the main export markets for Giant red shrimp is in Europe while Japan is the main export market for Atlantic bluefin tuna.

Management instruments and regulation (policy)

Currently there are three management plans in place within the 25nM FMZ. These were developed in line with Article 19 of Council Regulation 1967/2006 and include: lampara purse seine fishery, bottom otter trawler fishery and lampuki FAD fisheries. The main objectives of management plans are to ensure the sustainability of stocks through better monitoring and to ensure financial stability for fishers.

Lampara fishery targets mainly small pelagic species, including chub mackerel (*Scomber japonicus*) and round sardinella (*Sardinella aurita*). The objectives of the lampara fishery management plan are to ensure that stocks are fished at sustainable levels, ensuring financial stability for fishers and safeguarding artisanal fishing activity. Following this management plan, the lampara vessel activities are monitored by a tracking system and catch logbooks and the fishing capacity in terms of GT and dimensions of the gear is frozen. In addition, the lampara management plans requested the implementation of a 20% reduction in line with the precautionary approach on the current lampara capacity in terms of number of vessels by the end of 2015.

The bottom otter trawl fishery main targets are shared stocks including red shrimps (*Aristaeomorpha foliacea*), red mullets (*Mullus s*pp.) and deep water rose shrimp (*Parapenaeus longirostris*). The status of the latter stock together with that of European hake (*Merluccius merluccius*) is monitored annually at a regional level. The statuses of both stocks are in overexploitation. This management plan serves to aid in the recovery of the stocks whilst ensuring financial stability of fishers. The plan indicates that a 20% capacity reduction, together with a temporal reduction of 10% must be conducted by end of 2016.

The lampuki fish aggregating device (FAD) fishery targets juvenile species of *Coryphaena hippurus*. Lampuki is a highly migratory species and stocks are shared between diverse Mediterranean countries. The management plan for this fishery affects Maltese fishing fleet licensed to fish for the lampuki using FADs inside and outside the 25nM FMZ. The number of fishing vessels authorised to fish in the FAD fishery are frozen (130 vessels). Following this management plan, the activities of these vessels are monitored by means of tracking system and catch logbook. Moreover, the management plan stated that the Department of Fisheries and Aquaculture will continue to enhance data collection and research on the stock.

Stock status, TACs and quotas

Status of fish stocks

The status of some of the fish stocks in the Mediterranean are overexploited with 90% of the fish stocks being overfished. F and Fmsy or F0.1 are unavailable for most of the fish stocks for Malta. However, in 2016 the joint stock assessments for European hake (*Merluccius merluccius*), deep-water pink shrimp (*Parapenaeus longirostris*) in GSAs 12-16, and red mullet (*Mullus barbatus*) in GSAs 15-16 were updated by Maltese, Tunisian and Italian scientists, combining data collected

throughout the Central Mediterranean. The stock assessments were conducted under the auspices of the MedSudMed project, and finalised at the 2016 GFCM demersal working group. The assessments showed that hake was in overexploitation with relative intermediate biomass, and that current fishing mortality has to be reduced by 70-80% to reach FMSY. Deep water rose shrimp was also considered to be in overexploitation, with relative high biomass, and current fishing mortality has to be reduced by 20-30% to reach FMSY. Red mullet was considered to be in overexploitation, with relative low biomass and current fishing mortality has to be reduced by 18% to reach FMSY.

Management Strategy Evaluation (MSE) was also performed taking into consideration hake and deep water rose shrimp, using the same data used for the assessments. The result shows that the overall catches of the trawl fishery showed a large reduction.

One of the main problems of the economic performance of the Maltese national fleet is the status of fish stocks in the Mediterranean that have been declining for many years.

TACs and quotas

The bluefin tuna fishery in Malta has been managed under an IQ system. In 2009, the transferability of quotas was allowed and the system changed from IQ to ITQ. As a consequence, data on income from leasing out quota or other fishing rights, lease/rental payments for quota or other fishing rights and the value of quota and other fishing rights was collected for the first time for the year 2009.

In 2015, for the first time since the establishment of the bluefin tuna recovery plan in 2006, there was an increase in the quota, as the EU is allowed to fish over 9 372 metric tonnes. The annual increase in quota of 20% over three years (2015-2017) is due to the progressive recovery of the stock, as demonstrated by scientific evidence. As a result, Malta has benefitted and obtained an increase in the TACs of Bluefin tuna.

In 2015 and 2016, bluefin tuna represented the 3rd most important species for Maltese fleets in terms of landings (180 tonnes in 2015 and 100 tonnes in 2016), just after swordfish and common dolphinfish. In terms of value, bluefin tuna is one of the most valued species targeted by the Maltese fleets achieving an average first-sale price of €10.80 per kg in 2015 and €7.64 per kg in 2016.

In 2016, the EU announced the plan to impose the catch limits on the Swordfish. This will be the second species which is facing the catch limits in the Mediterranean. Given that the two key specifies in Malta will be subject to catch limits, some fishers fear that this will impact their profitability and their survival. This will have high impacts on the profits of those vessels that use to catch low weight of Swordfish.

Operational costs (external factors)

In 2015, the large-scale fishing vessels in Malta experienced an overall reduction in their operating costs in terms of crew costs, unpaid labour, energy costs and repairs and maintenance costs. However, the other variable costs increased by 34%.

On the other hand, the small-scale fishing vessels in Malta experienced a reduction of 4% in energy costs due to lower fuel prices and a reduction in unpaid labour costs. However, although the number of fishing days and days at sea has decreased by 24% and 23% respectively, the crew costs, repairs and maintenance costs and other variables costs increased by 2%, 10% and 31% over the previous year, respectively.

The reduction in fuel prices in 2015, was a key driver for the improvement in the economic performance of the Maltese fishing fleet.

Innovation and Development

At the end of 2015, Malta inaugurated a larger and more spacious fish market facility than the previous one which was built in 1937. The new fish market facility was built with the latest European standards and innovative technology in order to help the Maltese fishers to compete with other Member State.

The modernization of the hard standing facility of a dry standing area of circa 6 000 sq.mts with maximum hoisting capacity of 250 tonnes will provide fishers with the possibility of maintaining their fishing vessels in Malta rather than resort to other nearby countries such as Sicily and Tunisia.

In 2015, a publicity campaign *Eat Fresh Fish* took place around Malta and Gozo with the aim to increase the household consumption and the local demand. The awareness campaign was a project co-funded by the EU and aimed at promoting the health benefits of including fresh fish in one's diet.

In 2015, a newly completed landing facility was one the projects that will help the improvement of fishing ports across the island. The projects had been co-financed by the European Maritime Fisheries Fund.

In 2016, a new scheme for the modernization of engines was introduced. This will help the fishers to be more cost effective.

A number of infrastructural projects in the southern coastal areas as well as several new and upgraded facilities are helping the Maltese fishers to be more cost efficient. Such innovations and developments will support coastal communities in diversifying their economies.

Socioeconomic impact

Although the Maltese fishing fleet is benefiting from a number of young people who voluntarily help their family whilst at sea, on a seasonal basis, the Maltese fishing industry is experiencing the challenge to obtain the young generation into the profession of fishing. Fishing in Malta is mainly seasonal and as a consequence some of the full-time fishers own at least one small and one large vessel which enable them to practice off-shore fishing during the milder seasons and coastal activities during the winter months. The average number of fishers employed on each full-time boat is increasing when

undertaking trips of more than two days. Additionally, extra hands are sometimes recruited for bluefin tuna seines and common dolphinfish seasons.

91% of the active fishing vessels are small-scale fishers who fish a quarter of the total catches. These jobs are at risk as fish stocks in the Mediterranean are declining. Food security, livelihoods, and regional stability and security are all under threat.

Projections for 2016 and outlook for 2017

Overall, at the Maltese national fleet level, slight decrease in landings volume and lower average prices of top species resulted in a 15% decrease in the value of landings, from €11.6 million in 2015 to €9.8 million in 2016. Total operational costs for the year 2016 are expected to decline, consistent with the decrease in effort (days at sea) which decreased by 7% between 2015 and 2016. Thus, the economic performance for 2016 is expected to deteriorate slightly at gross profit level due to an expected decrease in income from the sales of landings and the lower variable costs. Most economic variables for the year 2016 are expected to decrease due to a reduction in effort. As a consequence, profitability from this point of view is expected to be negatively affected. Expected economic performance improvements in 2016 shows GVA (-19%), gross profit (-35%) and net profit (-57%).

Negative economic developments can also be seen in performance indicators GVA to revenue (-6%), GVA per FTE (-17%) and net profit margins (-83%). Profitability is expected to be positively affected due to the increase in tuna quotas which will generate higher landings income for certain segments with Atlantic bluefin tuna as the main target species and also due to lower fuel prices. In 2016, the average landed value per vessel decreased by 9% while no change in the average landed weight. Hence, the economic performance of 2016 of the Maltese fishing fleet is expected to decrease despite fuel prices continued to decrease while the average landed prices of the key species remained relatively high.

Given that in 2017, the majority of the fish stocks remained in over exploitation while the fuel prices have increased, then the economic performance of the Maltese fishing fleet for 2017 is expected to deteriorate (e.g. GVA to decrease 14% and gross profit to decrease 22%).

MODEL FORECAST

Preliminary results for 2016 forecast a 6% decrease in landed weight, and a 15% decrease in landed value. Projections suggest that overall operating costs decrease, most notably energy costs which are estimated to have decreased by 21% due to the continued low fuel prices. Yet, significant reductions in energy, labour and capital costs, were not sufficient to offset lower revenue and foster further economic performance improvements in 2016. Results suggest that GVA decreased 197%, gross profit 35% and net profit by 57% in 2016. GVA per FTE also decreased 17%, estimated at €5 700.

Nonetheless, results indicate that the Maltese fleet operated at a gross profit in 2016, estimated at €1.4 million and a gross profit margin of 13%. Revenue generated by the fleet was not enough to cover total costs and the fleet is projected to have suffered net losses of €1.4 million.

Landings in weight (-4%) and value (-10%) are expected to reduce further in 2017, while energy costs increase 8%, resulting in a further 14% decrease in GVA and 22% in gross profit. In 2017, the fleet remains profitable with a gross profit margin of 11% and due to lower capital costs, slightly recovers to post a net profit of €-1.2 million. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Data issues

No major issues detected. In order to improve the data collection system and to address the remarks made in previous annual economic reports; for the reference year 2014 and 2015, economic data were collected on a census basis instead of a sampling, obtaining a response rate of 98% in each year. This eliminated the issue of data quality. Moreover, in 2015, Malta recalculated all the historical data for reference years 2008 to 2013, to ensure standardisation in the methodology of calculation. Before carrying out this exercise, Malta has liaised with other Member States with regards to the methodology used for the preparation of this data, so as to ensure standardisation with other data from the region.

Moreover, given that the Maltese fishing fleet is mainly composed of small-scale fisheries, it is very challenging to collect precise and complete data from the fishers. The reason being that the majority of small-scale fishery do not engage an accountant and thus they do not have professional bookkeeping. Having said this, Malta does its best to enhance the quality of the data at data collection level and also at analysis level.

Table 5.68 Malta: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	1,316	1,111	1,112	1,087	1,060	1,040	1,045	1,039	*731*	*668*		-1%	-6%
Number of Inactive vessels_ms	(#)	613	339	270	453	278	266	336	258	*283*			-23%	-29%
Vessel tonnage	(thousand GT)	7.5	8.3	12.3	12.1	8.0	7.8	7.7	7.5				-3%	-18%
Engine power	(thousand kW)	87.5	82.2	85.5	83.4	77.9	76.1	75.5	76.1				1%	-6%
Total employed	(person)	1,019	1,172	1,222	988	1,234	1,201	1,418	1,463	*1,392*	*1,283*		3%	24%
FTE	(#)	830	884	887	734	410	784	1,116	872	*843*	*783*		-22%	8%
Days at sea	(thousand day)	47.0	48.3	63.5	41.2	33.7	28.4	31.3	25.0	*23.3*	*21.4*		-20%	-40%
Fishing days	(thousand day)	47.0	48.2	63.5	39.6	32.3	25.3	28.6	23.3				-19%	-43%
Number of fishing trips	(thousand)	43.3	44.0	63.3	37.7	29.2	22.4	27.2	20.8				-24%	-46%
Energy consumption	(million litre)	4.9	5.0	5.2	6.0	2.9	6.8	3.7	3.7	*3.6*	*3.4*		0%	-25%
Live weight of landings	(thousand tonne)	1.3	1.6	1.8	1.9	2.2	2.4	2.4	2.4	*2.3*	*2.2*		1%	26%
Value of landings	(million €)	8.8	9.3	10.5	12.1	13.0	12.5	10.5	11.6	*9.8*	*8.8*		11%	6%
Income from landings	(million €)	8.8	9.3	10.5	12.1	13.0	12.5	10.5	11.6	*9.8*	*8.8*		11%	6%
Other income	(million €)	0.3	0.7	-	2.2	0.5	2.5	1.2	0.9	*0.9*	*0.8*		-28%	-17%
Direct income subsidies	(million €)	0.1	0.0	0.6	0.0	0.5	0.0	0.0	0.1				98%	-72%
Income from leasing fishing rights	(million €)		0.0	0.0	0.2	0.1	0.5	0.3	1.0				190%	463%
Wages and salaries of crew	(million €)	1.4	1.6	2.5	2.1	2.1	1.5	1.9	1.6	*1.4*	*1.3*		-15%	-13%
Unpaid labour value	(million €)	2.6	10.3	8.2	6.6	2.1	1.3	4.2	2.1	*2.0*	*1.7*		-49%	-58%
Energy costs	(million €)	2.9	2.7	3.8	4.1	4.0	3.7	2.7	2.3	*1.8*	*1.9*		-16%	-34%
Repair & maintenance costs	(million €)	1.5	1.2	1.1	1.1	1.2	1.2	1.8	1.8	*1.8*	*1.5*		1%	39%
Other variable costs	(million €)	4.4	3.3	3.0	2.3	2.4	2.1	1.6	2.2	*2.0*	*1.8*		33%	-21%
Other non-variable costs	(million €)	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	*0.3*	*0.3*		-1%	9%
Annual depreciation costs	(million €)	3.5	4.4	5.5	4.6	4.6	3.9	2.9	2.8	*2.8*	*2.4*		-5%	-33%
Rights costs	(million €)		0.0	0.1	0.2	1.0	0.1	0.5	1.1	*1.1*	*1.0*		141%	245%
Opportunity cost of capital	(million €)	0.1	2.5	2.0	2.6	0.9	1.8	1.3	0.2	- *0.0*	- *0.1*		-84%	-87%
Tangible asset value (replacement)	(million €)	80.7	91.5	91.1	134.5	98.5	77.1	72.0	65.5	*44.6*	*39.3*		-9%	-29%
Fishing rights	(million €)		1.0	0.9	0.7	0.7	0.8	0.8	1.3				64%	54%
Investments	(million €)	1.0	1.0	1.5	1.8	2.2	1.5	1.2	1.1				-8%	-26%
Financial position	(%)	24.2	47.8	42.3	50.6	5.0	31.6	31.4	19.3				-39%	-42%
Gross Value Added	(million €)	- 0.1	2.6	2.3	6.6	5.7	7.7	5.3	5.9	*4.8*	*4.1*		13%	38%
GVA to revenue	(%)	- 0.9	26.3	21.8	46.1	42.0	51.7	45.0	47.5	*44.7*	*42.5*		6%	43%
Gross profit	(million €)	- 4.1	- 9.2	- 8.5	- 2.1	1.5	5.0	- 0.8	2.1	*1.4*	*1.1*		352%	182%
Gross profit margin	(%)	- 44.7	- 92.0	- 81.2	- 14.9	11.3	33.1	- 7.3	17.2	*13.0*	*11.3*		337%	161%
Net profit	(million €)	- 7.6	- 16.1	- 15.9	- 9.3	- 4.0	- 0.7	- 5.1	- 0.9	- *1.4*	- *1.2*		83%	90%
Net profit margin	(%)	- 83.5	-160.0	-152.5	- 65.3	- 29.3	- 4.8	- 43.5	- 6.9	- *12.7*	- *12.8*		84%	91%
GVA per FTE (labour productivity)	(thousand €)	- 0.1	3.0	2.6	9.0	13.9	9.9	4.7	6.8	*5.7*	*5.2*		44%	11%
Return on fixed tangible assets	(%)	- 9.3	- 14.9	- 15.4	- 5.0	- 3.1	1.4	- 5.3	- 1.0	- *3.1*	- *3.4*		81%	86%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

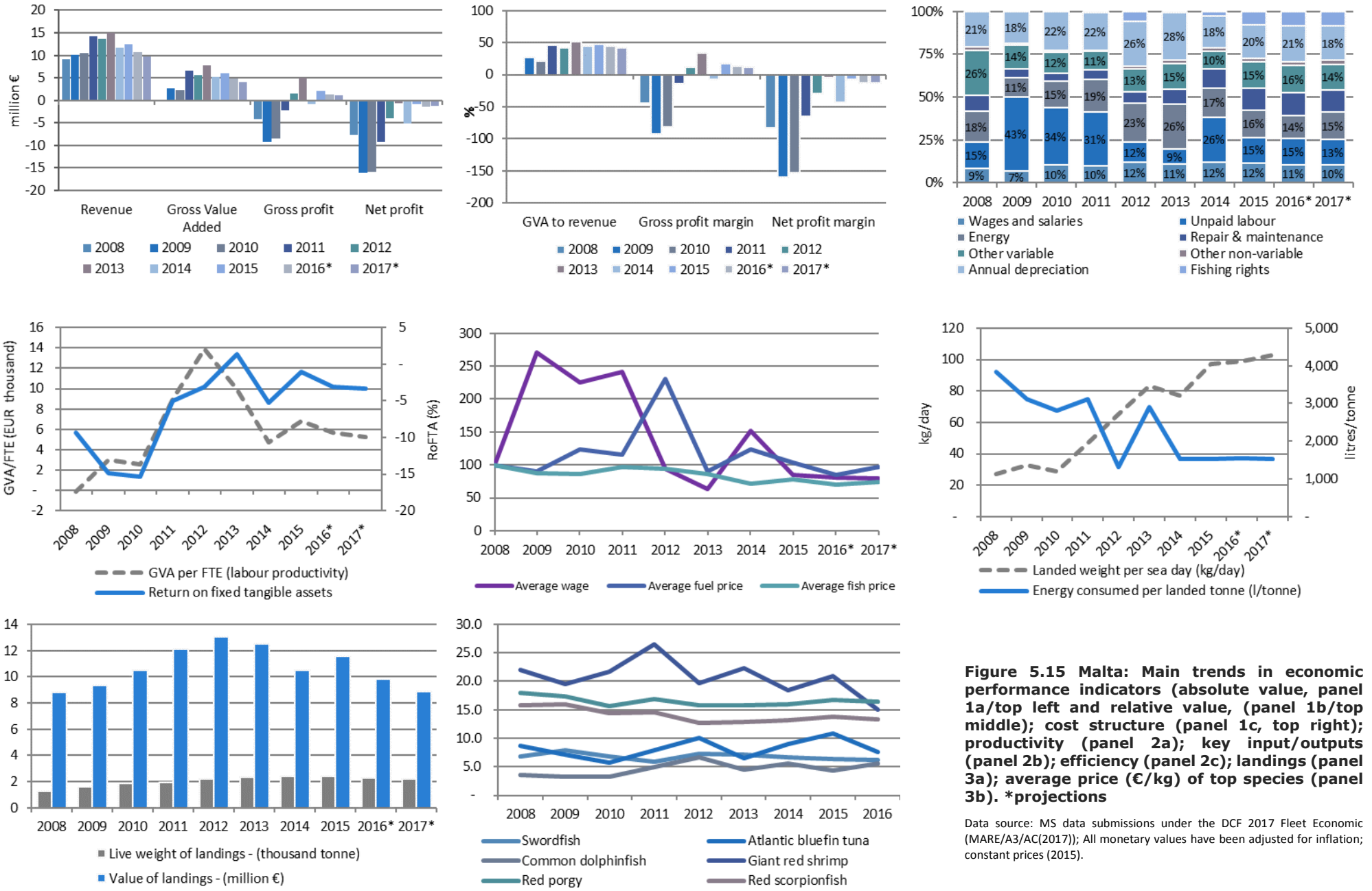


Figure 5.15 Malta: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.69 Malta: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**			
Total number of vessels	(#)	622	679	760	533	708	707	648	721	*663*	*603*		11%	8%
Vessel tonnage	(thousand GT)	1.6	1.7	1.8	1.4	1.7	1.7	1.5	1.7				12%	3%
Engine power	(thousand kW)	36	38	43	31	40	41	36	41				14%	9%
FTE	(#)	696	713	765	594	289	648	804	567	*516*	*470*		-29%	-12%
Total employed	(person)	850	863	925	670	956	911	1,098	1,138	*1,043*	*949*		4%	27%
Days at sea	(thousand day)	43.1	43.6	59.9	35.9	28.3	22.6	26.6	20.4	*18.5*	*16.8*		-23%	-45%
Fishing days	(thousand day)	43.1	43.6	59.9	35.7	28.0	21.4	26.1	19.9				-24%	-46%
Number of fishing trips	(thousand)	41.4	42.0	61.6	35.4	27.5	20.8	25.7	19.3				-25%	-47%
Energy consumption	(million litre)	1.4	2.1	1.7	1.1	1.1	1.6	1.2	1.4	*1.3*	*1.1*		15%	-3%
Live weight of landings	(thousand tonne)	0.4	0.3	0.8	0.8	0.7	0.7	0.6	0.6	*0.6*	*0.5*		5%	2%
Value of landings	(million €)	2.8	2.2	4.4	4.6	4.5	3.8	3.7	4.0	*3.6*	*3.1*		8%	6%
Income from landings	(million €)	2.8	2.2	4.4	4.6	4.5	3.8	3.7	4.0	*3.6*	*3.1*		8%	6%
Other income	(million €)	0.01	-	-	-	0.11	1.43	0.01	0.13	*0.11*	*0.09*		778%	-43%
Direct income subsidies	(million €)	0.04	-	0.00	0.00	0.04	0.01	0.02	0.03				31%	66%
Income from leasing fishing rights	(million €)		-	0.03	0.00	0.02	0.04	0.06	0.18				222%	636%
Wages and salaries of crew	(million €)	0.17	0.21	0.27	0.36	0.45	0.20	0.38	0.39	*0.32*	*0.28*		2%	35%
Unpaid labour value	(million €)	2.1	7.4	6.4	5.1	1.5	0.7	3.5	1.6	*1.5*	*1.3*		-54%	-58%
Energy costs	(million €)	0.9	1.1	1.3	1.1	1.4	1.3	1.1	1.1	*0.8*	*0.8*		-4%	-9%
Repair & maintenance costs	(million €)	0.5	0.5	0.5	0.4	0.6	0.3	0.7	0.8	*0.7*	*0.6*		10%	52%
Other variable costs	(million €)	1.5	1.3	1.3	0.9	1.2	0.6	0.6	0.8	*0.7*	*0.6*		31%	-29%
Other non-variable costs	(million €)	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	*0.1*	*0.1*		18%	-5%
Annual depreciation costs	(million €)	1.2	1.3	1.6	1.0	1.4	1.2	0.9	1.0	*0.9*	*0.8*		10%	-15%
Rights costs	(million €)		0.02	0.02	0.08	0.73	0.08	0.04	0.01	*0.01*	*0.00*		-86%	-96%
Opportunity cost of capital	(million €)	0.0	0.5	0.5	0.3	0.2	0.4	0.2	0.0	*- 0.0*	*- 0.0*		-81%	-84%
Tangible asset value (replacement)	(million €)	17.3	18.3	23.0	15.3	20.1	16.6	13.7	15.2	*13.6*	*11.3*		10%	-15%
Fishing rights	(million €)		0.1	0.1	0.1	0.1	0.1	0.1	0.2				72%	86%
Investments	(million €)	0.3	0.5	0.9	1.0	1.4	0.8	0.7	0.7				-4%	-14%
Gross Value Added	(million €)	- 0.1	- 0.9	1.0	2.2	1.3	2.9	1.2	1.4	*1.5*	*1.2*		14%	28%
GVA to revenue	(%)	- 5.0	- 39.6	23.6	47.2	28.0	55.5	33.0	34.1	*39.4*	*36.6*		3%	67%
Gross profit	(million €)	- 2.4	- 8.5	- 5.6	- 3.3	- 0.6	2.0	- 2.7	- 0.6	*- 0.4*	*- 0.5*		77%	79%
Gross profit margin	(%)	- 86.2	- 382.8	- 127.2	- 72.2	- 14.1	37.7	- 73.0	- 15.4	*- 11.0*	*- 14.1*		79%	85%
Net profit	(million €)	- 3.7	- 10.3	- 7.7	- 4.6	- 2.2	0.4	- 3.9	- 1.7	*- 1.3*	*- 1.2*		56%	62%
Net profit margin	(%)	- 130.1	- 461.3	- 174.2	- 101.0	- 48.3	7.8	- 105.3	- 42.0	*- 36.3*	*- 37.7*		60%	71%
Return on fixed tangible assets	(%)	- 21.3	- 53.5	- 31.4	- 28.5	- 10.1	4.8	- 26.5	- 11.0	*- 9.9*	*- 10.9*		58%	54%
GVA per FTE (labour productivity)	(thousand €)	- 0.2	- 1.2	1.4	3.7	4.4	4.5	1.5	2.5	*2.8*	*2.5*		-66%	-27%

		LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**			
Total number of vessels	(#)	81	93	82	101	74	67	61	60	*68*	*65*		-2%	-25%
Vessel tonnage	(thousand GT)	3.5	4.0	4.7	5.1	4.4	4.5	3.6	3.4				-5%	-19%
Engine power	(thousand kW)	19	20	21	25	20	19	17	16				-2%	-19%
FTE	(#)	134	171	122	139	121	135	312	305	*327*	*313*		-2%	89%
Total employed	(person)	169	309	297	318	278	290	320	325	*349*	*334*		2%	15%
Days at sea	(thousand day)	3.9	4.7	3.6	5.3	5.4	5.8	4.7	4.6	*4.8*	*4.6*		-2%	-4%
Fishing days	(thousand day)	3.9	4.6	3.6	3.9	4.3	3.8	2.4	3.4				40%	-10%
Number of fishing trips	(thousand)	1.9	2.0	1.7	2.2	1.8	1.6	1.5	1.5				-3%	-19%
Energy consumption	(million litre)	3.5	2.9	3.5	4.9	1.9	5.2	2.5	2.3	*2.3*	*2.3*		-7%	-34%
Live weight of landings	(thousand tonne)	0.9	1.2	1.1	1.1	1.5	1.7	1.8	1.8	*1.7*	*1.7*		0%	37%
Value of landings	(million €)	6.0	7.1	6.0	7.5	8.6	8.7	6.8	7.6	*6.2*	*5.8*		12%	5%
Income from landings	(million €)	6.0	7.1	6.0	7.5	8.6	8.7	6.8	7.6	*6.2*	*5.8*		12%	5%
Other income	(million €)	0.3	0.7	-	2.2	0.4	1.1	1.2	0.8	*0.8*	*0.7*		-37%	-10%
Direct income subsidies	(million €)	0.03	0.02	0.63	0.04	0.49	0.01	0.01	0.03				332%	-85%
Income from leasing fishing rights	(million €)		0.01	0.00	0.15	0.04	0.44	0.29	0.83				184%	435%
Wages and salaries of crew	(million €)	1.3	1.4	2.3	1.7	1.7	1.3	1.5	1.3	*1.1*	*1.0*		-19%	-21%
Unpaid labour value	(million €)	0.4	2.8	1.9	1.5	0.6	0.5	0.6	0.5	*0.5*	*0.4*		-21%	-58%
Energy costs	(million €)	2.1	1.5	2.5	3.0	2.7	2.4	1.6	1.2	*1.0*	*1.1*		-24%	-46%
Repair & maintenance costs	(million €)	1.1	0.7	0.6	0.8	0.6	0.9	1.1	1.1	*1.1*	*1.0*		-5%	31%
Other variable costs	(million €)	2.9	1.9	1.7	1.3	1.1	1.5	1.0	1.4	*1.4*	*1.2*		34%	-15%
Other non-variable costs	(million €)	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	*0.2*	*0.2*		-9%	20%
Annual depreciation costs	(million €)	2.2	3.0	3.9	3.6	3.2	2.7	2.0	1.8	*1.8*	*1.6*		-12%	-40%
Rights costs	(million €)		0.00	0.10	0.11	0.30	0.02	0.41	1.09	*1.09*	*1.00*		165%	597%
Opportunity cost of capital	(million €)	0.0	1.2	1.2	1.1	0.5	1.0	0.6	0.1	*- 0.0*	*- 0.1*		-85%	-88%
Tangible asset value (replacement)	(million €)	36.7	45.9	58.0	55.1	54.1	44.8	34.2	30.4	*31.0*	*28.0*		-11%	-35%
Fishing rights	(million €)		0.8	0.8	0.6	0.6	0.6	0.6	1.0				62%	48%
Investments	(million €)	0.7	0.5	0.7	0.8	0.8	0.7	0.5	0.4				-15%	-40%
Gross Value Added	(million €)	0.1	3.5	1.2	4.0	4.4	4.5	4.0	4.5	*3.0*	*2.6*		12%	46%
GVA to revenue	(%)	1.0	45.1	20.4	43.0	49.2	48.0	50.5	54.1	*44.8*	*42.7*		7%	47%
Gross profit	(million €)	- 1.6	- 0.7	- 2.9	0.8	2.2	2.6	1.8	2.8	*1.5*	*1.2*		50%	759%
Gross profit margin	(%)	- 26.1	- 9.1	- 47.7	9.0	24.3	28.3	23.1	33.1	*22.0*	*20.0*		43%	12563%
Net profit	(million €)	- 3.9	- 4.9	- 8.0	- 3.6	- 1.5	- 0.9	- 0.8	0.9	*- 0.4*	*- 0.4*		219%	127%
Net profit margin	(%)	- 62.0	- 63.2	- 132.9	- 38.6	- 17.1	- 10.0	- 9.6	10.9	*- 5.3*	*- 5.7*		214%	123%
Return on fixed tangible assets	(%)	- 10.5	- 8.1	- 11.7	- 4.9	- 1.9	0.2	- 0.4	3.3	*- 1.2*	*- 1.5*		855%	162%
GVA per FTE (labour productivity)	(thousand €)	0.5	20.5	10.1	28.6	36.5	33.9	13.0	14.8	*9.1*	*8.4*		-62%	-40%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.70 Malta: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
MLT A37 HOK1824	17	109	1,456	2,313	386	2,269	2,598	1,118	43.1	551	21.2	- 79	- 3.06	5.2	10.3	- 0.5	Weak	92%	Improved	20.9%
MLT A37 HOK0612	43	115	2,061	1,831	250	1,486	1,561	765	49.0	192	12.3	- 20	- 1.29	5.0	6.7	- 0.4	Weak	98%	Improved	12.5%
MLT A37 PS2440	2	4	68	202	372	1,540	1,540	1,347	87.4	1,184	76.9	1,131	73.42	36.8	305.4	126.4	High	269%	Improved	12.4%
MLT A37 DTS1824	8	33	913	4,549	131	1,222	1,496	764	51.1	505	33.8	56	3.75	7.9	23.2	1.0	Weak	107%	Improved	12.0%
MLT A37 HOK1218	12	62	1,122	1,026	244	1,328	1,331	741	55.6	412	30.9	242	18.15	5.3	11.9	9.6	Reasonable	271%	Improved	10.7%
MLT A37 PMP0612	132	157	3,919	2,543	153	857	872	238	27.3	- 388	- 44.5	- 708	- 81.19	4.0	1.5	- 16.2	Weak	18%	Improved	7.0%
MLT A37 PGP0006	348	160	8,484	2,213	108	738	754	149	19.8	- 80	- 10.7	- 313	- 41.47	1.4	0.9	- 9.5	Weak	94%	Improved	6.1%
MLT A37 PGP0612	159	113	4,111	2,760	101	725	733	148	20.2	- 297	- 40.5	- 590	- 80.53	3.9	1.3	- 13.5	Weak	91%	Improved	5.9%
MLT A37 DTS2440	3	20	252	3,927	54	394	544	116	21.3	30	5.5	- 319	- 58.68	4.3	5.8	- 5.9	Weak	87%	Improved	4.4%
MLT A37 MGO1824	2	11	159	139	174	267	267	205	76.7	114	42.6	61	22.70	8.3	18.6	7.0	High	120%	Improved	2.1%
MLT A37 MGO0612	9	34	309	2,235	47	229	229	43	18.7	- 31	- 13.4	- 88	- 38.21	2.2	1.3	- 9.7	Weak	49%	Improved	1.8%
MLT A37 MGO1218	3	13	155	543	105	208	208	143	68.9	47	22.4	15	7.09	7.4	11.0	3.0	Weak	151%	Improved	1.7%
MLT A37 PS1218	2	10	86	47	197	113	113	90	79.8	34	30.3	20	17.63	5.5	8.9	10.7	Reasonable	6%	Improved	0.9%
MLT A37 PMP0006	20	14	1,290	1,309	13	93	93	50	53.9	- 17	- 18.7	- 31	- 33.90	4.9	3.6	- 15.5	Weak	17%	Improved	0.7%
MLT A37 PS1824	1	3	29	111	93	50	50	40	79.9	32	63.1	- 13	- 26.18	2.9	13.8	- 1.7	Weak	-451%	Deteriorated	0.4%
MLT A37 DFN0006	7	4	159	632	2.9	26.7	38.4	34.0	88.4	- 18	- 47.0	- 25	- 65.59	14.2	9.3	- 38.8	Weak	96%	Improved	0.3%
MLT A37 HOK0006	10	4	354	1,924	4.5	21.5	21.5	1.1	5.0	- 18	- 83.3	- 26	- 119.44	5.2	0.3	- 23.3	Weak	96%	Improved	0.2%
MLT A37 FPO0006	1	0	30	251	2.5	7.2	7.2	5.9	81.6	5	67.2	5	62.67	5.2	29.6	63.8	High	112%	Improved	0.1%
MLT A37 DFN0612	1	1	5	56,974	0.0	0.3	0.3	- 2	- 850.5	- 5	- 1,892.6	- 7	- 2,524.31	5.2	- 4.2	- 19.7	Weak	-143%	Deteriorated	0.0%
MLT A37 PS0612	1	6	3	121,375	0.6	0.1	0.1	- 77	- 67,291.0	- 108	- 94,675.9	- 113	- 98,833.50	5.2	- 12.8	- 123.7	Weak			0.0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.71 Malta: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
MLT A37 HOK1824	19	122	1,647	2,579	387	2,078	2,441	995	40.7	477	19.6	- 184	- 7.54	4.2	8.2	- 1.6	Weak	22.9%
MLT A37 HOK0612	37	99	1,732	2,319	170	1,051	1,115	514	46.1	111	9.9	- 62	- 5.57	4.1	5.2	- 2.5	Weak	10.4%
MLT A37 DTS1824	6	25	865	4,163	107	897	1,101	559	50.8	369	33.5	55	4.96	7.7	22.6	0.9	Weak	10.3%
MLT A37 HOK1218	9	47	769	1,059	178	1,049	1,052	615	58.4	354	33.7	234	22.21	5.6	13.2	12.1	High	9.8%
MLT A37 PMP0612	121	144	3,675	2,120	169	950	964	430	44.6	- 265	- 27.5	- 543	- 56.38	4.8	3.0	- 14.0	Weak	9.0%
MLT A37 PGP0006	321	148	7,736	1,657	133	880	894	372	41.6	99	11.1	- 104	- 11.63	1.8	2.5	- 3.6	Weak	8.4%
MLT A37 PGP0612	141	100	4,226	2,956	84	621	628	122	19.4	- 258	- 41.1	- 504	- 80.16	3.8	1.2	- 13.4	Weak	5.9%
MLT A37 DTS2440	4	27	257	6,577	43	318	515	- 106	- 20.6	- 175	- 34.0	- 615	- 119.29	2.6	- 4.0	- 9.1	Weak	4.8%
MLT A37 MGO1218	6	26	296	1,613	70	414	414	293	70.7	100	24.2	40	9.69	7.4	11.3	3.7	Weak	3.9%
MLT A37 PS1824	1	3	77	60	172	338	338	327	96.8	270	80.0	228	67.55	19.7	113.6	34.7	High	3.2%
MLT A37 PMP1824	2		219		105	318	318											3.0%
MLT A37 MGO0612	14	53	410	2,757	59	315	315	62	19.8	- 39	- 12.4	- 122	- 38.82	1.9	1.2	- 9.1	Weak	3.0%
MLT A37 PS2440	2	4	52	208	361	200	200	29	14.6	8	4.1	- 42	- 21.18	4.7	6.6	- 4.8	Weak	1.9%
MLT A37 MGO1824	1	6	54	95	127	172	172	133	77.8	75	43.6	50	29.08	10.7	24.3	11.1	High	1.6%
MLT A37 PS1218	3	15	71	110	126	112	112	79	70.1	23	20.9	3	2.76	3.7	5.2	1.1	Weak	1.1%
MLT A37 PMP0006	25	17	806	2,833	7	49	49	4	7.3	- 32	- 65.6	- 49	- 99.91	2.0	0.2	- 19.7	Weak	0.5%
MLT A37 DFN0006	8	4	85	3,198	0.7	4.1	17.3	11.6	66.7	4	22.1	- 4	- 23.06	1.8	2.8	- 5.5	Weak	0.2%
MLT A37 PMP1218	1		51		3	15	15											0.1%
MLT A37 HOK0006	8	3	175	4,638	1.5	13.2	13.2	- 4.2	- 31.6	- 16	- 119.8	- 22	- 164.23	4.0	- 1.4	- 25.2	Weak	0.1%
MLT A37 DFN0612	1	1	32	3,679	0.6	5.1	5.1	3	62.8	- 50	- 979.4	- 51	- 1,010.03	99.5	6.0	- 154.9	Weak	0.0%
MLT A37 FPO0006	1	0	19	4,461	0.1	1.2	1.2	0.0	3.4	- 0	- 10.6	- 0	- 34.93	0.9	0.2	- 6.2	Weak	0.0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.72 Malta: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Swordfish	1.77	2.10	2.91	3.10	3.67	3.28	2.49	3.08	2.52	0.26	0.27	0.42	0.53	0.50	0.46	0.38	0.49	0.41	6.84	7.88	6.87	5.83	7.28	7.13	6.60	6.29	6.15	27%	20%
Atlantic bluefin tuna	2.55	1.89	0.89	1.13	1.39	1.01	1.41	1.94	0.74	0.30	0.26	0.15	0.14	0.14	0.16	0.16	0.18	0.10	8.61	7.18	5.78	7.95	10.15	6.53	9.03	10.79	7.64	17%	7%
Common dolphinfish	0.86	1.28	1.69	1.75	1.20	1.71	1.15	1.44	1.31	0.24	0.39	0.53	0.35	0.18	0.38	0.21	0.33	0.24	3.64	3.24	3.19	5.01	6.65	4.47	5.51	4.31	5.53	12%	14%
Giant red shrimp	0.60	0.77	0.59	1.10	0.95	0.89	0.47	0.61	0.33	0.03	0.04	0.03	0.04	0.05	0.04	0.03	0.03	0.02	21.96	19.47	21.69	26.57	19.71	22.30	18.50	20.93	15.03	5%	1%
Red porgy	0.14	0.16	0.24	0.37	0.40	0.21	0.38	0.35	0.28	0.01	0.01	0.02	0.02	0.03	0.01	0.02	0.02	0.02	18.01	17.37	15.70	16.90	15.86	15.74	16.04	16.72	16.41	3%	1%
Red scorpionfish	0.23	0.29	0.28	0.28	0.39	0.28	0.34	0.34	0.31	0.01	0.02	0.02	0.02	0.03	0.02	0.03	0.02	0.02	15.79	15.92	14.38	14.58	12.75	12.91	13.10	13.79	13.36	3%	1%
Silver scabbardfish	0.01	-	-	-	0.05	0.42	0.44	0.33	0.47	-	-	-	-	0.02	0.12	0.04	0.08	0.11	2.78	2.20	2.48	2.95	2.73	3.43	11.88	3.99	4.23	3%	3%
Surmullet	0.13	0.23	0.47	0.63	0.59	0.16	0.42	0.32	0.40	0.02	0.04	0.05	0.06	0.08	0.02	0.05	0.04	0.04	8.13	6.29	8.89	9.81	7.79	7.13	9.37	8.47	9.40	3%	2%
Chub mackerel	0.04		0.19	0.44	0.52	0.74	0.39	0.29	0.37	0.02		0.06	0.12	0.25	0.31	0.83	0.54	0.66	2.46		3.10	3.66	2.08	2.41	0.48	0.54	0.55	3%	22%
Common octopus		0.08		0.19	0.28	0.18	0.24	0.23	0.15		0.01		0.03	0.04	0.02	0.03	0.03	0.02		6.49		6.09	6.95	7.87	7.65	8.15	6.37	2%	1%
																												77%	72%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.16 Netherlands

Short description of the national fleet

Fleet capacity

In 2016, the Dutch fishing fleet consisted of 721 registered vessels, 203 of which were inactive, with a combined gross tonnage of 110 thousand GT, a total power of 248 thousand kW and an average age of 31 years. Within the last 10 years the size of the fishing fleet fluctuated between 713-739 vessels. In 2016, the number of fishing enterprises totalled 573, with the vast majority (83%), owning a single vessel. Around 17% of the enterprises owned two to five fishing vessels and only a few enterprises owned more than 5 vessels.

Fleet structure

According to the EU standards the Dutch fishing fleet can be divided into a small-scale coastal fleet (vessels under 12m using passive gears; 34% of the vessels in 2016) and a large-scale fleet (66% of the vessels in 2016). Nationally, the fishing fleet is divided into an active cutter fleet (active vessels with a minimum vessel length of 12m and landings value of 50 000 euro or more using an active fishing gear), a trawler fleet (targeting pelagic fish species) and the other coastal fisheries fleet (fisheries that do not fit in above mentioned fleets).

The cutter fleet can be divided into 4 kW-categories. The first category is the ≤191 kW (≤260 Hp) shrimp vessels fishing with beam trawls or demersal trawls. The second category, vessels with 192-221 kW (261-300 Hp) engines, fish with pulse/SumWing/beam trawls or demersal trawls on shrimps and/or flatfish and are called 'Eurokotters'. The largest kW-category, vessels with 1 105-1 472 kW (1 500-2 000 Hp) engines, mainly fish with pulse/SumWing/beam trawls on flatfish. The vessels between the Eurokotters and the largest kW-category, vessels with engines between 222-1 104 kW (301-1 500 Hp), fish mainly with Danish/Scottish seines (flyshoot) or demersal trawls. Within the two largest kW categories the number of vessels are increasing over the period 2014-2016. Former fishing vessels return from activities for the offshore industry to flatfish fisheries or flyshoot fisheries and foreign vessels are being bought.

The trawler fleet fish with midwater trawls on pelagic fish species. The number of vessels in this fleet has decreased in recent years from 14 vessels in 2012 down to 7 vessels in 2016. The other small-scale fisheries fleet can be subdivided into inactive vessels, static gear vessels, and other coastal fisheries like dredges, pole and line fisheries, etcetera.

Employment

Total employment in 2016 was estimated around 2 000 jobs, corresponding to around 1 700 FTEs. Around 20% of the jobs come from the small coastal fleet, whereas the rest comes from the large-scale fleet (60% from cutter fleet and 20% from the trawler fleet). The decrease of the number of vessels in the pelagic trawler fleet caused a decrease in the number of jobs in this fleet. The number of jobs slightly increased in the active cutter fisheries. If expressed in FTE, the contribution of the small coastal fleet is much lower: about 6% of the total.

Effort

In 2016, the Dutch fleet spent a total of 52.4 thousand days at sea, an increase of 7% from 2015 (49.0 thousand days at sea). Compared with 2008-2015 average the effort increased by 4% in 2016. The quantity of fuel consumed in 2016 is estimated around 150.0 million litres, an increase of 7% from 2015 but a decrease of 21% compared with the 2008-2015 average. The increase in fuel consumption (+7%) can be linked to the increased days spent at sea (+7%). The major factors causing the decrease in fuel consumption over years include the results of innovation programmes (introduction of new technics in fishing gear) that commenced in 2008 and the decrease of effort in kW-days. Transition to sustainable fisheries is an ongoing process. In 2016, almost all EU allowances for pulse technique were in effect in the Netherlands. This resulted in up to 60% less fuel consumption per vessel per day at sea. It is estimated that the total fuel consumption will increase a bit in the next few years, caused by an increase in the number of (larger) active flatfish and flyshoot vessels.

The average Landings per unit of Effort (LpuE) for the Dutch large-scale fisheries amounted 7.01 tonne per DaS in 2016, an increase of 4% compared to 2015. The reason of this increase can be found in the increased landings of pelagic fish by the pelagic trawler fleet. The average LpuE for the trawler fleet amounted 150.8 tonne per DaS. Without the trawler fleet, the large-scale LpuE amounted 1.95 tonne per DaS. The small-scale coastal fleet amounted 0.12 tonnes per DaS.

Production

The total weight of fish and shellfish landed by the Dutch fleet in 2016 was 367.5 thousand tonnes, with a value of €469.2 million. Compared to 2015, the total landings weight and value increased by 11% and 24% respectively. The increase in weight is mainly caused by the increased landings weight of pelagic fish species. The total landings of pelagic fish fluctuate from year to year. Due to increased fish prices for the most important demersal fish species and a 108% price increase (due to low production on EU market) of common shrimps there was a great increase in landings value in 2016.

The demersal fleet targets mainly flatfish and common shrimp. The top landed flatfish species are European plaice and sole. Whereas sole normally generated the largest share of landings in value during the previous years, in 2016 the value of landings of common shrimp was higher. The landed value of common shrimp was €117.7 million, sole's was "only" €100.6 million. These species represent respectively 25% and 21% of the total landings value. European plaice is most important species in terms of the landings weight. European plaice (33.7 thousand tonnes) generated the third highest landed value (€53.9 million, or 11% of total landings value).

The trawler fleet targets pelagic species. In 2016 the most important species were Atlantic herring (€37.2 million), Atlantic mackerel (€27.9 million), blue whiting (€17.5 million), Atlantic horse mackerel (€16.9 million), and pilchard (€11.5 million).

Economic results for 2015 and recent trends

National fleet performance

The economic performance of the Dutch national fleet improved in 2015 and it is expected to continue in 2016 and 2017.

The total amount of income generated by the Dutch national fleet in 2015 was €378.6 million. This consisted of €376.1 million landings value and around €2.5 million in non-fishing income. When including income from leasing fishing rights, total income amounted to €379.0 million. Total income decreased between 2014 and 2015 but is expected to have increased strongly in 2016 due to increased fish prices and landings.

Total costs in 2015 were €346 million, consisting of €310 million in operating costs and a further €35 million in capital costs. Total costs for 2015 decreased 7% from 2014. Labour and energy costs, normally the two major fishing expenses, amounted to €107 and €54 million, respectively in 2015. Saving fuel is one of the most important goals of the Dutch fleet. Energy costs decreased 31% between 2014 and 2015 (48% since 2008). Energy costs are likely to decrease further in 2016, due to decreasing fuel prices.

Gross Value Added (GVA), gross profit and net profit generated by the Dutch national fleet in 2015 were estimated at €184 million, €69 million and €33 million, respectively. GVA increased 7%, gross profit and net profit increased 6% and 60%. These results indicate a highly improved economic situation compared to previous years. All indicators are expected to further increase in 2016. The major factors causing the improvement in economic performance include higher landings of more valuable species, higher fish prices and lower costs mainly because of decreasing fuel prices and fuel saving (e.g. pulse) techniques in the flatfish fleet.

In 2015, the Dutch fleet had a (depreciated) replacement value of €299 million, which was lower than the year before, and a value of fishing rights of €350 million. Fishing rights and quota are transferable in the Netherlands. Selling/buying and leasing these rights are quite common and prices fluctuate substantially from year to year, depending on market availability (e.g. quota for sole or plaice available or not). Since the introduction of the pulse (high selectivity for sole) sole prices grew substantially (lease prices of around €3.35 in 2015) but are expecting to drop again in 2016 due to a higher TAC and national quota. Investments amounted to €19 million in 2015 and did not change significantly compare to 2014. Dutch vessels are old: the average age is 31 years. The annual increase in age was almost a year as no investment in building new vessels is being made. However, the improved economic performance stimulates fleet renewal in the cutter fleet. New flyshoot and shrimp vessels are expected in 2016 and 2017. Investments in larger flatfish vessels are not expected on short term as long as there are uncertainties about retaining the pulse technique and consequences of Brexit and the landings obligation.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 18.1%, indicating a high operating efficiency of the sector. This percentage increased yearly since 2011 (gross profit margin of 5.8%). Net profit margin was estimated at 8.8%, a 63% increase on 2014. The Rate of Return on Fixed Tangible Assets (RoFTA) improved substantially in comparison with previous years and moved further positive in 2015, from 8 to 12%.

Labour productivity (GVA/FTE) increased substantially in 2015: €114 thousand per FTE. GVA increased (7%) and the number of FTE decreased (4%), indicating efficiency gains.

Fuel consumption per landed tonne has followed an overall decreasing trend since 2008, and amounted 0.42 thousand litres per tonne landed in 2015. LpuE (in days at sea) also showed a decreasing trend since 2008 caused by reduced catches in pelagic fisheries (-17%). The landed weight per DaS amounted 6.75 tonne.

Performance by fishing activity

Small-scale coastal fleet

In 2015, there were 171 vessels belonging to the small-scale coastal fleet according to the European definition (vessels under 12m using passive gears). The segment accounts only for <1% of the national total volume of landings. The segment employs 18% of total number of fishers and 6% in terms of FTE.

The segment generated €3.3 million of gross value added (€2.7 million in 2014), €2.5 million of gross profit (€1.6 million in 2014) and €1.8 million of net profit (€0.8 in 2014).

Large-scale fleet

In 2015, there were 344 vessels belonging to the large-scale fleet. The large-scale fleet is dominated by the pelagic trawler fleet and demersal beam trawl fleet. The segment accounts over 99% of the national total volume of landings. The segment employs 82% of total number of fishers and 94% in terms of FTE.

The segment generated €181.0 million of gross value added (€169.0 million in 2014), €66.0 million of gross profit (€74.3 million in 2014) and €31.5 million of net profit (-€31.4 in 2014).

Performance results of selected fleet segments

The Dutch fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the North Sea (demersal fleet) and North East Atlantic Ocean (pelagic fleet), around the UK and Ireland. Besides that, a part of the pelagic fleet operates in African waters and in the Pacific.

The economic performance of the fleet relies heavily on innovation and technical/structural development. The Dutch government and the EU supported the fisheries sector to produce fish in a more sustainable way with economic perspectives. Projects started a few years ago (e.g. 'knowledge networks') helped to improve entrepreneurship in fisheries so that fishers will be able to compete in international fish business in future. In 2016 this project ended.

The national fleet consisted of 14 (DCF) fleet segments in 2015. Almost all of the larger active fleet segments made profits in 2015. Table 5.69 provides a breakdown of key performance indicators for all 14 fleet segments in 2015. A short description of the five most important segments in terms of total value of landings is provided below.

Beam trawl over 40m – 52 vessels make up this segment which operates predominantly in the North Sea. The fleet targets a variety of species but in particular flatfish, such as sole, plaice and turbot. In 2015, the total value of landings was over €120 million and around 392 FTEs were employed in this fleet segment, contributing to 32% and 24% of the total income from landings and FTEs generated by the Dutch fishing fleet, respectively. This fleet segment was profitable in 2015, with a reported GVA, gross profit and net profit of €68.9 million, €35.4 million and €29.7 million, respectively.

Conventional beam trawl vessels and SumWing vessels made a small profit whereas vessels fishing with pulse techniques made a high profit.

Pelagic trawl over 40m – 8 vessels made up this segment which operated predominantly in the North East Atlantic Ocean and to a lesser extend in the North Sea. The fleet targeted pelagic species, particularly herring, mackerel, horse mackerel, blue whiting, pilchard and sardinella. The total estimated value of landings was over €102 million and around 336 FTEs were employed in this fleet segment, representing 27% of the total Dutch value of landings and 21% of the FTEs of the Dutch fishing fleet. It should be noted that the prices used to calculate the value of landings of the pelagic trawlers are obtained from the pelagic sector (see data issues). They are internal prices used to calculate the wage of the crew of the fishing vessel. The integrated companies cover the whole production chain from fishing to the consumer and there are no real ex-vessel prices available. Based on those prices, this fleet segment was not profitable. Information about the economic performance of the overall companies is not available, so it is hard to evaluate whether those profits resemble reality.

Beam trawl 18-24m – 157 vessels made up this segment which operated predominantly in the North Sea and in the coastal zone. The fleet mainly targeted common shrimp and some vessels targeted langoustines (seasonally) and flatfish, such as sole, plaice and turbot. In 2015, the total value of landings was around €68 million and around 431 FTEs were employed in this fleet segment, contributing to 18% and 27% of the total income from landings and FTEs generated by the Dutch fishing fleet, respectively.

This fleet segment was profitable in 2015, with a reported GVA, gross profit and net profit of €38.7 million, €14.0 million and €7.9 million, respectively.

Demersal trawls and seiners 24-40m – 22 vessels made up this segment which operated predominantly in the North Sea. The fleet targeted a variety of species like mullet, gurnard, squid and sea bass (mainly fly shoot method) but also flatfish, such as plaice and turbot. In 2015, the total value of landings was over €33 million and around 117 FTEs were employed in this fleet segment, contributing to 9% and 7% of the total income from landings and FTEs generated by the Dutch fishing fleet, respectively.

This fleet segment was profitable in 2015, with a reported GVA, gross profit and net profit of €18.8 million, €8.2 million and €6.6 million respectively.

Beam trawl 24-40m – 26 vessels made up this segment which operated predominantly in the North Sea. The fleet targeted in particular flatfish, such as sole, plaice and turbot. In 2015, the total value of landings was over €29 million and around 136 FTEs were employed in this fleet segment, contributed to 8% of both the total income from landings and FTEs generated by the Dutch fishing fleet.

This fleet segment was profitable in 2015, with a reported GVA, gross profit and net profit of €16.1 million, €7.5 million and €5.6 million, respectively.

Drivers affecting the economic performance trends

As mentioned earlier in this chapter higher average fish prices, increased fishing opportunities, lower fuel costs and further introduction of innovative fuel saving fishing gears were the main driving forces behind the overall improvement in economic performance.

The Dutch demersal fishing fleet is dominated by trawlers, beam trawlers and demersal trawlers. As trawling is typically fuel intensive, fluctuations in fuel consumption and fuel prices are therefore key drivers of the fleet's profitability.

Markets and Trade

European plaice generally compete with other (non-)European flatfish species. However, they also compete with whitefish species on the same market in and outside Europe. An increased dollar exchange rate helped this flatfish to become more competitive, where important non-European whitefish species became less competitive due to relatively higher import prices. As effect of the increased competitiveness the plaice price went up.

Most flatfish caught by the Dutch fishing sector is consumed in southern Europe in countries like Italy, Spain and France. In northern Europe, Germany is an important country for the consumption of flatfish. In terms of product characteristics demand varies across Europe. Countries in southern Europe tend to prefer whole fish whereas north western European countries prefer convenience products like fillets.

Nigeria, an important export market for small pelagics, started a structural fish embargo at the start of 2014. In this same year Russia introduced a ban on seafood imports from Europe. These changes decreased the market opportunities for the pelagic trawler sector. In reaction, the EU allowed the fisheries to bank quota to 2015 to prevent waste of fish products.

Management instruments

The Dutch fleet is managed mainly through ITQs for the most important species, together with a range of input controls.

In the context of the recovery of cod stocks, a number of effort measures (including real time closures) were implemented depending on the fishing gear in the North Sea, the Irish Sea, Skagerrak and west of Scotland. Many additional yearly restrictions exist, depending on the fleet segment, the species and area. In 2015, the North Sea cod management plan was discontinued and limits on days at sea in the North Sea stopped.

Due to Natura 2000 demersal trawl fisheries are facing many area closures. Besides that, other activities in the North Sea such as windmill parks claim more and more space. As a result, fisheries are forced to change their fishing grounds.

The Landing Obligation

There is much concern about discarding in mixed fisheries, especially in terms of sustainability of fish populations which is in turn a threat to the future of fisheries. This led to the implementation of a landing obligation (or discard ban) for European fisheries in the latest CFP reform in 2013. The landing obligation will prohibit discarding all species with a TAC by 2019, with a gradual implementation. The aim is to incentivise fishers to avoid non-target species, juvenile fish and catches that exceed quota through better selectivity. Measures were put into place to allow for some flexibility, such as quota uplifts. Furthermore, in the Netherlands a *de minimis* exemption was set in 2016 in the sole fisheries that allows for a 7% discard of the catch in the North Sea.

Fishers fear that the discard ban will have a large impact on their profitability. The revenue from undersized fish and low value species will most likely not cover the costs of processing this fish on board and at shore (labour, storage, ice, unloading and transportation). If the catch is processed on board additional crew will be needed. Capacity problems on board will most likely entail additional costs as a result of increased steaming back and forth to fishing areas. A third concern is related to choke species[25], i.e. losing catches of species where quota are still available. Discards are highly variable depending on the fishery in terms of quantity and composition. It is expected that a quota uplift may not be sufficient in some fisheries to prevent a "choke". In such a situation, the fishing activities are halted regardless of the available quota for other species. Particularly in a mixed fishery where the stocks and quotas of the target species are high, this could be an issue as many species are caught at the same time and multiple choke species may occur. Dab, rays, turbot and brill are potential choke species candidates in mixed demersal fisheries (Batsleer, 2016). Therefore, to continue fishing throughout the year, it will be vital to have either enough quota available or adapt fishing strategies.

TACs and quotas

Total initial available quota for the Dutch fleet in 2016 was 291 thousand tonnes. For the most important species, quota is managed through ITQs.

The global quota for sole, which is especially important for the Dutch fleet, increased by 11% (including 137 tonnes top up for the purpose of the landing obligation) to 10 292 tonnes in 2016. The Dutch quota for European plaice increased 3% (including 1 194 tonnes top up for the purpose of the landing obligation) to 48 917 tonnes. Most of the sole and plaice quota is available for the North Sea and Norwegian Sea, 9 971 tonnes and 47 112 tonnes, respectively.

The Netherlands conducts quota swaps with other member states. This, together with the transferable quota from 2015 to 2016, allowed for a sufficient amount of quota for important fish species like plaice and *nephrops* in 2016. Trading with other member states allowed for a 2% increase in sole quota, amounting to a total of 10 491 tonnes. For European plaice this amounted to a total of 64 662 tonnes (+32%).

In 2015, sole quota was fully used. Lease prices for this species went up from around €0.28 per kg in 2012 to around €3.35 per kg in 2015. Reduced sole TACs and the introduction of pulse technique in the Netherlands (high selectivity for sole) were the main drivers for this increase in quota lease prices. In the last years sole TACs increased again which increased the availability of sole quota. This fact, together with an increased effort in shrimp fisheries (due to good shrimp prices) brought back the lease price for sole to around €1.75 per kg at the end of 2016.

The utilisation of plaice quota was low in 2015 and 2016 and lease prices were also very low.

[25] A choke species is a species for which available quota is insufficient to cover catches.

Status of Key Stocks

Most of the imported stocks fished by the Dutch fleet such as sole and plaice in the North Sea are fished at sustainable levels, below or at MSY. Some other stocks (like cod) are still overfished. These species (like cod) are caught as bycatch or a target for only a couple of vessels.

Innovation and Development

Around 80 commercial vessels are currently using pulse technique. Most of these vessels target flatfish. There are 4 vessels licensed to fish with pulse technique on shrimp. Dissension within the (Dutch) shrimp sector inhibits the developments of this technique. Increased cooperation between (and within) the Dutch, German and Belgian shrimp fishers could accelerate the innovation process.

Different projects to shorten the fish value chain are also on-going. Some fishers did research on different kinds of cooperation, where other started to sell their own fish directly via internet.

Projections for 2016 and outlook

The number of vessels within the trawler fleet will decrease from 8 to 7 in 2016. The remaining pelagic vessels become more efficient (faster freezing technics) and have enough capacity to fish their quota. Increased landings of pelagic fish species in 2016 (+13%) will improve economic performances in this year. For 2017 it is expected that economic performance will improve even further (increase of most important fishing rights).

Increased fish prices for sole (+1% to €10.41 per kg), plaice (+10% to €1.60 per kg) and common shrimp (+108% to €6.30 per kg) in 2016, together with increased landing volumes for plaice (+5% to 33.7 thousand tonnes) and sole (+5% to 9.7 thousand tonnes) and stable landing volumes for common shrimp (-1% to 18.7 thousand tonnes) will improve the landings income for the demersal flatfish and shrimp fisheries. These changes in income, together with decreased fuel prices (-17% to €0.34 per litre) will generally improve economic performances across fleet types and for the Dutch demersal fishery overall.

It is expected that profitability in 2016 will reach historical high values. Projections for 2016 show an overall increase of 11% in landed weight and a 25% increase in landed value. Together with a decrease in most notably fuel costs (-33%), gross profits and net profits are expected to increase up to 150% and 300%, respectively. These gains in 2016 are in a lesser extend also expected for 2017 if fish and fuel prices do not fluctuate too much in the 2nd half of the year.

Vessels that do not own sole quota (e.g. static gear vessels) may also see their situation improve in 2016 and 2017, compared to 2015. The increased amount of fishing rights for sole will increase the availability of sole quota (and reduce lease prices). The lease price for sole increased substantially the last years due to optimal use of sole TAC. The relatively high lease price (around €3.35 per kg) realised an enormous increase in total costs for some vessels. At the beginning of 2017 lease price dropped to €1.70 per kg.

There are different future drivers that could influence the performance of the (Dutch) fisheries. Dutch fisheries are highly dependent on the UK waters. It is still very unclear what the UK exit will imply, however, the most important fleet segments are getting up to 60% of their landings value from fishing areas in UK waters. British political leaders have made clear that Britain will take back control on its fisheries. Therefore, it is not unreasonable to expect that Brexit may potentially have large negative consequences on the current Dutch fishing fleet.

Beside Brexit it is still not clear if fishing with pulse technique will be permitted in future. If (a part of) the fleet needs to fall back on the traditional way of fishing (conventional beam trawl fisheries), these vessels fuel consumption (and amount of unwanted bycatch) shall increase again (up to 60%) and will influence the fleet performance especially in years with high fuel prices.

Another important future driver is that the fisheries sector is preparing to meet the requirements with respect to landing obligation which started in January 2015 for the pelagic fisheries and in January 2016 for the demersal fisheries. Fishers started projects (supported by the Dutch government and EU) to decrease unwanted bycatch and to improve survivability. It is expected that quota for especially Turbot/Brill and Rays (for demersal fisheries) and boarfish (pelagic fisheries) are not sufficient in some fisheries to prevent a "choke". In these situation, the fishing activities will be halted regardless of the available quota for other species.

MODEL FORECAST

Preliminary results for 2016 forecast an 11% increase in landed weight, with a 24% increase in landed value. Projections suggest that increases in effort and fuel consumption translated in part to a 6% increase in operating costs, and, together with an 8% reduction in capital costs fostered further economic performance improvements in 2016: GVA (+56%), gross profit (+105%) and net profit (+227%).

Projection results suggest that the Dutch fleet operated at a profit in 2016: with an estimated net profit margin of 23%. Positive economic developments can also be seen in performance indicators GVA to revenue (61%), GVA per FTE (€166 thousand) and gross and net profit margins, 30% and 23%, respectively.

The 2016 gains are slightly less in 2017 as an increasing landings weight is counteracted by low prices, resulting in a 13% decrease in revenue. However, fuel costs are increasing in 2017 (+27%) the fleet remains profitable with gross and net profit margins of 21% and 13%, respectively. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Data issues

Most of the segments in the Dutch fishing fleet were well covered. In some of the smaller segments (DRB 0-10 m, DTS 0-10 m and TBB 12-18 m) variation in activity levels was high resulting in high uncertainty in the economic indicators estimates and large fluctuations from year to year. Moreover, the smaller fleet segments are clusters of vessels using different fishing techniques:

- Drift and/or fixed netters 12-18m include drift and/or fixed netters 12-18m and vessels using pots and/or traps 12-18m;
- Drift and/or fixed netters 18-24m include drift and/or fixed netters 18-24m, vessels using pots and/or traps 18-24m and vessel using other active gears 18-24m;
- Dredgers 24-40m include drift and/or fixed netters 24-40m, dredgers 24-40m and dredgers 40m or larger;
- Beam trawlers 0-10m include demersal trawlers and/or demersal seiners 10-12m, purse seiners 0-10m, beam trawlers 0-10m, beam trawlers 10-12m, pelagic trawlers 0-10m and pelagic trawlers 10-12m;
- Beam trawlers 12-18m include demersal trawlers and/or demersal seiners 12-18m, beam trawlers 12-18m and pelagic trawlers 12-18m.

Therefore, these figures should be viewed as indicative for the size of the sector rather than describing the exact trends. Currently work is being carried out to improve the estimation procedures.

Prices of pelagic fish

The prices of pelagic fish used to calculate the fishing revenue of the pelagic trawler fleet are not real prices. They are internal prices used within the fishing companies to calculate the wage of the fishing crew. The integrated companies cover the whole production chain from fishing to the consumer and there are no real ex-vessel prices available. Those prices probably underestimate the value of landings of pelagic fish.

Table 5.73 Netherlands: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	727	713	725	737	735	739	735	718	*518*	*521*		-2%	-2%
Number of Inactive vessels_ms	(#)	181	152	155	192	190	208	200	203	*203*			2%	11%
Vessel tonnage	(thousand GT)	155.4	138.8	137.2	130.5	135.5	128.7	134.1	125.8				-6%	-8%
Engine power	(thousand kW)	338.4	296.0	294.0	288.8	287.9	276.2	280.1	266.0				-5%	-10%
Total employed	(person)	2,212	2,087	2,116	2,051	2,035	2,095	2,014	1,966	*1,938*	*1,988*		-2%	-6%
FTE	(#)	1,884	1,964	1,815	1,707	1,724	1,742	1,679	1,619	*1,731*	*1,831*		-4%	-9%
Days at sea	(thousand day)	50.9	54.3	51.3	47.0	51.8	50.7	48.7	49.0	*52.4*	*54.8*		1%	-3%
Fishing days	(thousand day)	44.6	47.7	45.0	41.1	45.6	44.6	42.9	43.2				1%	-3%
Number of fishing trips	(thousand)	28.4	29.0	29.9	27.3	28.2	27.9	28.0	28.0				0%	-1%
Energy consumption	(million litre)	237.4	231.7	210.1	203.5	170.1	170.4	153.3	140.2	*147.7*	*158.0*		-9%	-29%
Live weight of landings	(thousand tonne)	416.0	355.8	386.8	353.3	343.7	345.1	382.4	330.5	*367.5*	*396.9*		-14%	-10%
Value of landings	(million €)	421.2	365.4	378.8	360.4	368.4	368.6	374.8	375.0	*466.8*	*405.1*		0%	0%
Income from landings	(million €)	427.8	368.0	381.9	366.9	370.8	369.8	378.5	376.1	*468.2*	*406.1*		-1%	-1%
Other income	(million €)	1.5	1.9	2.3	1.9	2.4	2.0	6.2	2.5	*2.4*	*2.4*		-60%	-4%
Direct income subsidies	(million €)													
Income from leasing fishing rights	(million €)	-	-	-	-	-	1.5	0.6	0.8				34%	177%
Wages and salaries of crew	(million €)	98.1	91.1	88.2	86.6	91.1	93.3	97.8	107.1	*133.8*	*115.6*		10%	16%
Unpaid labour value	(million €)	10.7	9.7	7.1	6.8	8.2	9.2	9.1	8.5	*12.8*	*8.9*		-6%	-2%
Energy costs	(million €)	125.5	81.2	117.8	118.6	109.6	98.4	79.3	54.4	*47.0*	*59.6*		-31%	-48%
Repair & maintenance costs	(million €)	58.5	61.0	55.4	60.3	62.3	50.9	56.6	63.6	*59.6*	*60.3*		12%	10%
Other variable costs	(million €)	41.3	37.1	39.1	37.8	33.8	34.4	38.9	34.4	*35.9*	*38.6*		-12%	-8%
Other non-variable costs	(million €)	41.9	40.0	38.9	37.4	35.3	37.0	38.2	42.0	*40.7*	*41.0*		10%	9%
Annual depreciation costs	(million €)	52.6	43.0	46.0	53.4	46.2	55.3	40.5	34.0	*32.0*	*32.4*		-16%	-29%
Rights costs	(million €)	2.8	2.5	1.7	3.3	1.3	0.2	8.7	0.3				-96%	-89%
Opportunity cost of capital	(million €)	9.2	13.2	10.0	2.0	- 2.9	- 1.6	3.6	1.4	*0.5*	- *2.3*		-60%	-70%
Tangible asset value (replacement)	(million €)	460.6	495.8	484.3	409.7	336.9	265.6	314.8	298.7	*262.7*	*266.0*		-5%	-24%
Fishing rights	(million €)	210.1	269.6	240.2	240.5	227.1	256.7	273.1	349.5				28%	42%
Investments	(million €)	18.7	60.7	26.9	30.6	34.3	9.3	18.2	18.7				2%	-34%
Financial position	(%)	50.4	50.1	50.5	54.2	57.0	53.1	50.4	54.1				7%	3%
Gross Value Added	(million €)	162.2	150.7	133.0	114.6	132.2	151.2	171.7	184.2	*287.4*	*209.0*		7%	27%
GVA to revenue	(%)	37.8	40.7	34.6	31.1	35.4	40.7	44.6	48.7	*61.1*	*51.2*		9%	29%
Gross profit	(million €)	53.4	49.8	37.7	21.3	32.9	48.6	64.8	68.6	*140.8*	*84.5*		6%	56%
Gross profit margin	(%)	12.4	13.5	9.8	5.8	8.8	13.1	16.8	18.1	*29.9*	*20.7*		7%	58%
Net profit	(million €)	- 8.4	- 6.3	- 18.3	- 34.2	- 10.4	- 5.1	20.7	33.1	*108.3*	*54.4*		60%	474%
Net profit margin	(%)	- 2.0	- 1.7	- 4.8	- 9.3	- 2.8	- 1.4	5.4	8.8	*23.0*	*13.3*		63%	472%
GVA per FTE (labour productivity)	(thousand €)	86.1	76.7	73.3	67.2	76.7	86.8	102.3	113.8	*166.0*	*114.2*		11%	40%
Return on fixed tangible assets	(%)	0.2	1.4	- 1.7	- 7.9	- 3.9	- 2.5	7.7	11.6	*41.4*	*19.6*		50%	1297%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

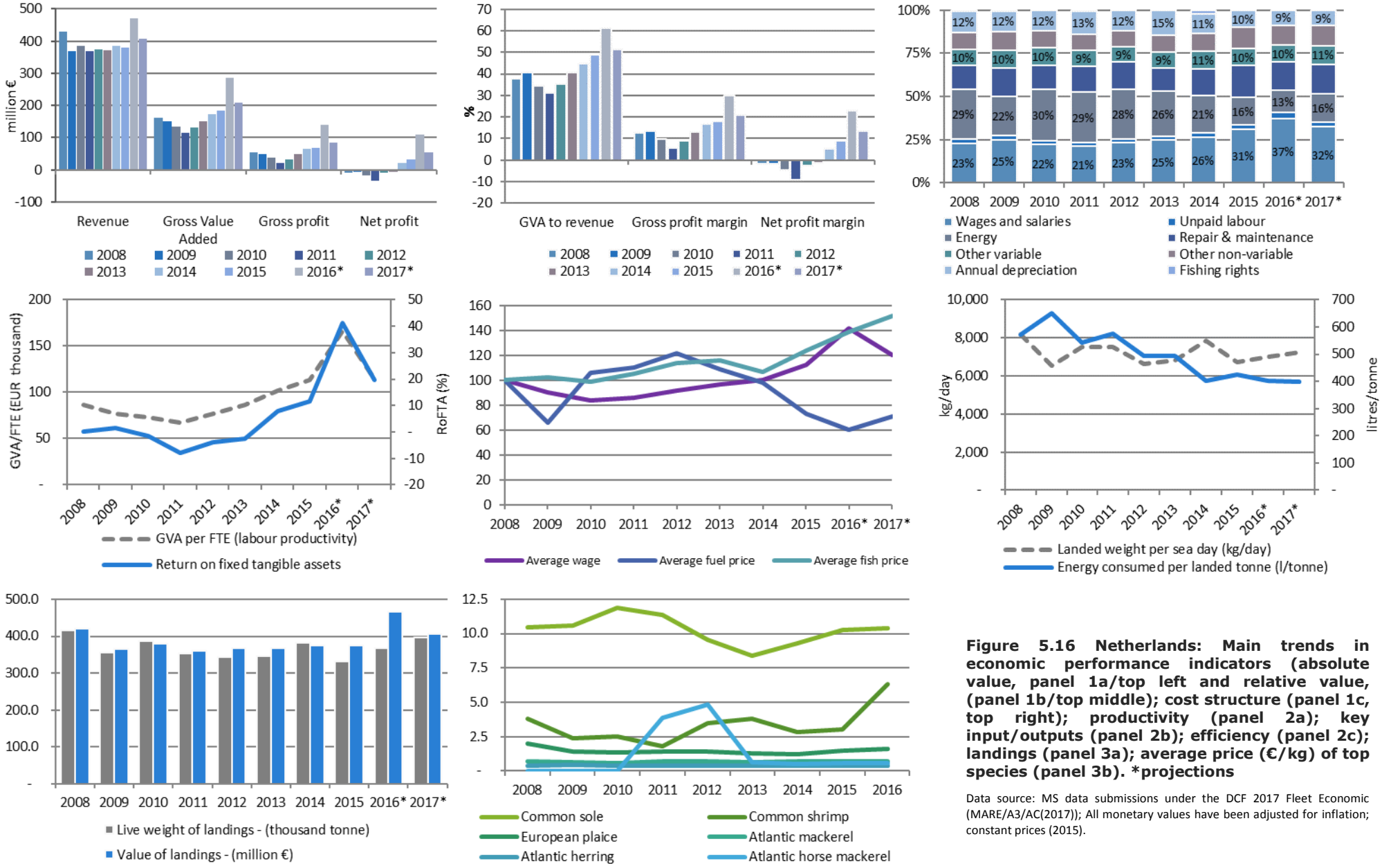


Figure 5.16 Netherlands: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.74 Netherlands: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**			
Total number of vessels	(#)	155	174	175	163	176	184	178	171	*175*	*176*		-4%	-1%
Vessel tonnage	(thousand GT)	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4				-3%	-6%
Engine power	(thousand kW)	9	12	13	13	16	17	17	19				12%	35%
FTE	(#)	135	235	125	76	109	105	88	98	*117*	*121*		11%	-21%
Total employed	(person)	352	302	324	302	335	383	321	362	*371*	*373*		13%	9%
Days at sea	(thousand day)	2.5	2.6	2.7	2.4	2.9	2.8	2.9	3.0	*3.6*	*3.7*		4%	13%
Fishing days	(thousand day)	2.4	2.4	2.5	2.2	2.7	2.6	2.7	2.8				3%	13%
Number of fishing trips	(thousand)	4.9	4.4	4.4	4.3	4.7	4.1	4.2	4.6				12%	6%
Energy consumption	(million litre)	0.9	0.6	0.8	1.3	0.8	0.8	1.0	0.4	*0.5*	*0.5*		-59%	-52%
Live weight of landings	(thousand tonne)	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.5	*0.4*	*0.6*		19%	2%
Value of landings	(million €)	3.4	3.1	3.6	3.7	3.9	3.3	3.1	3.3	*3.4*	*3.7*		5%	-6%
Income from landings	(million €)	9.0	5.6	4.8	4.7	5.9	5.0	4.0	3.9	*4.0*	*4.3*		-1%	-29%
Other income	(million €)	0.1	0.0	-	0.0	0.2	0.1	0.3	0.7	*0.7*	*0.7*		123%	548%
Direct income subsidies	(million €)													
Income from leasing fishing rights	(million €)	-	-	-	-	-	0.2	0.5	0.1				-81%	0%
Wages and salaries of crew	(million €)	1.6	0.6	0.4	0.4	0.9	0.6	0.4	0.4	*0.4*	*0.4*		-16%	-49%
Unpaid labour value	(million €)	1.1	0.8	0.5	0.5	0.8	0.7	0.6	0.4	*0.4*	*0.4*		-41%	-50%
Energy costs	(million €)	0.8	0.4	0.6	0.5	0.7	0.6	0.5	0.4	*0.4*	*0.5*		-9%	-25%
Repair & maintenance costs	(million €)	1.2	0.6	0.8	0.6	0.8	1.1	0.6	0.4	*0.5*	*0.5*		-29%	-46%
Other variable costs	(million €)	0.7	0.5	0.6	0.2	0.3	0.3	0.2	0.2	*0.3*	*0.3*		15%	-48%
Other non-variable costs	(million €)	0.9	0.4	0.6	0.3	0.5	0.4	0.3	0.3	*0.3*	*0.3*		-16%	-43%
Annual depreciation costs	(million €)	1.8	1.0	1.4	1.0	1.0	0.9	0.8	0.7	*0.8*	*0.8*		-2%	-34%
Rights costs	(million €)	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1				-18%	-4%
Opportunity cost of capital	(million €)	0.4	0.3	0.3	0.1	- 0.1	- 0.1	0.1	0.0	*0.0*	- *0.1*		-57%	-68%
Tangible asset value (replacement)	(million €)	21.7	12.2	14.3	12.1	12.3	11.0	9.7	10.1	*10.3*	*10.7*		4%	-24%
Fishing rights	(million €)	3.2	3.7	4.5	2.5	3.4	2.4	2.7	3.1				14%	-2%
Investments	(million €)	1.3	0.6	0.7	0.6	0.6	0.6	0.5	0.5				0%	-30%
Gross Value Added	(million €)	5.5	3.7	2.2	3.0	3.9	2.7	2.7	3.3	*3.3*	*3.5*		21%	-3%
GVA to revenue	(%)	60.0	66.5	45.8	64.4	63.4	52.6	62.5	70.4	*70.2*	*69.2*		13%	19%
Gross profit	(million €)	2.8	2.3	1.3	2.1	2.1	1.4	1.6	2.5	*2.6*	*2.7*		54%	31%
Gross profit margin	(%)	30.5	40.7	26.9	44.3	34.8	27.3	38.2	54.8	*54.5*	*53.5*		43%	58%
Net profit	(million €)	0.6	1.0	- 0.4	1.1	1.2	0.6	0.8	1.8	*1.8*	*2.0*		124%	158%
Net profit margin	(%)	6.3	17.5	- 8.9	22.6	19.8	11.3	18.1	37.8	*38.2*	*39.8*		109%	205%
Return on fixed tangible assets	(%)	4.6	10.7	- 0.9	9.3	8.9	4.6	9.2	17.9	*17.7*	*17.8*		95%	169%
GVA per FTE (labour productivity)	(thousand €)	40.4	15.9	17.6	39.9	35.3	25.6	30.6	33.3	*28.5*	*28.7*		19%	5%

	LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
	2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**			
Total number of vessels	391	387	395	382	369	347	357	344	*343*	*344*		-4%	-8%
Vessel tonnage	143.7	131.2	130.5	123.3	128.7	119.4	124.7	110.2				-12%	-14%
Engine power	292	261	260	250	248	226	231	211				-9%	-16%
FTE	1,749	1,729	1,690	1,631	1,615	1,637	1,590	1,521	*1,615*	*1,709*		-4%	-9%
Total employed	1,860	1,785	1,793	1,749	1,700	1,712	1,694	1,604	*1,567*	*1,614*		-5%	-9%
Days at sea	48.4	51.7	48.6	44.6	48.9	47.9	45.7	46.0	*48.8*	*51.1*		0%	-4%
Fishing days	42.2	45.3	42.5	38.9	42.9	42.0	40.1	40.4				1%	-4%
Number of fishing trips	23.5	24.6	25.5	23.0	23.6	23.7	23.9	23.3				-2%	-3%
Energy consumption	236.5	231.1	209.3	202.2	169.2	169.6	152.2	139.8	*147.2*	*157.5*		-8%	-29%
Live weight of landings	415.5	355.3	386.2	352.8	343.2	344.6	382.0	330.0	*367.1*	*396.3*		-14%	-10%
Value of landings	417.9	362.3	375.3	356.7	364.5	365.3	371.7	371.7	*463.4*	*401.4*		0%	0%
Income from landings	418.8	362.4	377.1	362.1	365.0	364.8	374.5	372.2	*464.1*	*401.9*		-1%	-1%
Other income	1.4	1.9	2.3	1.9	2.2	1.9	5.8	1.8	*1.7*	*1.7*		-69%	-28%
Income from leasing fishing rights	-	-	-	-	-	1.4	0.1	0.8				407%	253%
Wages and salaries of crew	96.5	90.5	87.8	86.2	90.2	92.8	97.3	106.8	*133.5*	*115.2*		10%	17%
Unpaid labour value	9.6	8.9	6.6	6.2	7.4	8.5	8.5	8.2	*12.4*	*8.5*		-4%	2%
Energy costs	124.7	80.7	117.2	118.1	109.0	97.7	78.8	53.9	*46.6*	*59.1*		-32%	-48%
Repair & maintenance costs	57.3	60.4	54.6	59.7	61.5	49.8	56.0	63.2	*59.1*	*59.9*		13%	11%
Other variable costs	40.5	36.6	38.5	37.5	33.5	34.0	38.7	34.1	*35.7*	*38.4*		-12%	-8%
Other non-variable costs	40.9	39.6	38.3	37.1	34.8	36.6	37.8	41.7	*40.4*	*40.7*		10%	10%
Annual depreciation costs	50.8	42.0	44.6	52.5	45.1	54.4	39.7	33.2	*31.2*	*31.6*		-16%	-29%
Rights costs	2.7	2.3	1.6	3.2	1.1	0.1	8.6	0.2				-98%	-93%
Opportunity cost of capital	8.6	12.1	9.0	1.8	- 2.6	- 1.5	3.2	1.3	*0.5*	- *2.2*		-59%	-70%
Tangible asset value (replacement)	430.0	455.5	437.1	367.9	300.8	239.0	277.2	271.5	*252.4*	*255.3*		-2%	-24%
Fishing rights	160.1	205.2	183.6	172.6	156.8	173.8	188.5	233.0				24%	31%
Investments	17.4	60.1	26.2	30.0	33.6	8.7	17.7	18.2				3%	-34%
Gross Value Added	156.7	147.0	130.8	111.6	128.4	148.5	169.0	180.9	*284.0*	*205.6*		7%	28%
GVA to revenue	37.3	40.3	34.5	30.7	35.0	40.5	44.4	48.4	*61.0*	*50.9*		9%	29%
Gross profit	50.6	47.6	36.5	19.2	30.8	47.2	74.3	66.0	*138.2*	*81.8*		-11%	51%
Gross profit margin	12.0	13.1	9.6	5.3	8.4	12.9	19.5	17.7	*29.7*	*20.3*		-10%	53%
Net profit	- 8.8	- 6.5	- 17.2	- 35.1	- 11.8	- 5.8	31.4	31.5	*106.5*	*52.4*		0%	510%
Net profit margin	- 2.1	- 1.8	- 4.5	- 9.6	- 3.2	- 1.6	8.3	8.4	*22.9*	*13.0*		2%	504%
Return on fixed tangible assets	- 0.1	1.2	- 1.9	- 9.1	- 4.8	- 3.0	12.5	12.1	*42.4*	*19.7*		-3%	1768%
GVA per FTE (labour productivity)	89.6	85.0	77.4	68.4	79.5	90.7	106.2	119.0	*175.9*	*120.3*		17%	30%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.75 Netherlands: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
NLD A27 TBB40XX °	52	392	10,637	1,354	34,210	119,235	119,610	68,944	57.6	35,413	29.6	29,708	24.84	85.5	175.8	91.2	High	403%	Improved	31.6%
NLD A27 TM40XX °	8	336	1,787	202	242,705	102,442	103,079	26,983	26.2	- 3,044	- 3.0	- 21,224	- 20.59	89.4	80.3	- 13.1	Weak	-49%	Deteriorated	27.2%
NLD A27 TBB1824 °	157	431	21,052	916	21,196	68,388	68,953	38,704	56.1	13,956	20.2	7,895	11.45	57.4	89.8	18.1	Reasonable	630%	Improved	18.2%
NLD A27 DTS2440 °	22	117	4,227	729	13,104	32,618	32,865	18,786	57.2	8,229	25.0	6,616	20.13	90.5	161.1	45.0	High	895%	Improved	8.7%
NLD A27 TBB2440 °	26	136	4,094	1,244	8,680	29,174	29,281	16,119	55.1	7,513	25.7	5,551	18.96	63.3	118.6	45.8	Reasonable	1940%	Improved	7.7%
NLD A27 DTS1824 °	12	50	1,994	929	3,594	9,865	10,255	5,748	56.1	2,116	20.6	1,744	17.01	73.0	115.6	38.8	Reasonable	1424%	Improved	2.7%
NLD A27 DRB2440 °	7	23	513	136	5,606	7,021	7,103	4,311	60.7	1,411	19.9	1,283	18.07	123.9	184.3	72.1	Reasonable	-41%	Deteriorated	1.9%
NLD A27 PG0010 °	155	88	2,635	1,123	343	2,430	4,136	2,913	70.4	2,265	54.8	1,564	37.82	7.4	33.3	17.9	High	206%	Improved	1.1%
NLD A27 TBB1218 °	16	24	941	876	606	1,900	1,911	795	41.6	117	6.1	- 238	- 12.43	28.4	33.3	- 9.4	Weak	42%	Improved	0.5%
NLD A27 DFN1824 °	8	6	278	598	90	270	506	302	59.8	111	22.0	61	12.04	33.8	53.4	9.9	Reasonable	-10%	Deteriorated	0.1%
NLD A27 PG1012 °	16	11	398	328	141	827	498	351	70.4	273	54.8	188	37.82	7.4	33.2	17.9	High	195%	Improved	0.1%
NLD A27 DFN1218 °	8	4	178	216	86	424	199	140	70.4	109	54.8	75	37.82	7.4	33.3	17.9	High	241%	Improved	0.1%
NLD A27 TBB0010 °	17	1	253	120	142	380	174	107	61.8	80	46.0	17	9.99	20.9	81.9	2.9	Weak	140%	Improved	0.0%
NLD A27 DTS0010 °	11	1	13	333	3	15	15	6	39.9	4	25.1	- 26	- 167.05	1.9	5.3	- 6.9	Weak			0.0%

Table 5.76 Netherlands: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
NLD A27 TBB40XX °	53	422	11,449	1,332	37,409	133,112	133,494	83,995	62.9	46,562	34.9	40,847	30.60	88.7	199.0	122.5	High	28.4%
NLD A27 TBB1824 °	157	466	22,759	998	21,029	123,207	123,889	94,301	76.1	49,714	40.1	43,788	35.34	95.7	202.4	97.9	High	26.3%
NLD A27 TM40XX °	7	343	1,825	182	275,322	110,369	110,993	42,826	38.6	10,476	9.4	- 5,023	- 4.53	94.3	124.8	- 3.5	Weak	23.6%
NLD A27 TBB2440 °	28	164	4,930	1,329	9,791	38,329	38,444	24,424	63.5	13,117	34.1	11,044	28.73	69.1	149.2	83.9	High	8.2%
NLD A27 DTS2440 °	22	111	4,026	685	13,274	35,096	35,349	22,313	63.1	10,954	31.0	9,385	26.55	102.3	201.0	63.4	High	7.5%
NLD A27 DTS1824 °	8	39	1,563	1,066	2,455	9,660	9,953	6,908	69.4	3,351	33.7	3,113	31.27	91.2	177.2	102.7	High	2.1%
NLD A27 DRB2440 °	7	30	657	144	6,782	8,572	8,654	5,732	66.2	2,191	25.3	2,068	23.90	118.2	191.2	115.7	High	1.8%
NLD A27 PG0010 °	156	105	3,144	1,478	311	2,456	4,179	2,927	70.0	2,272	54.4	1,593	38.13	6.3	28.0	17.8	High	0.9%
NLD A27 TBB1218 °	18	25	994	843	666	3,804	3,817	2,627	68.8	1,269	33.2	878	23.01	53.8	104.2	32.8	High	0.8%
NLD A27 DFN1824 °	9	5	236	413	110	411	768	594	77.4	303	39.5	248	32.35	60.5	123.5	34.3	High	0.2%
NLD A27 PG1012 °	19	12	460	421	127	934	567	405	71.3	317	55.8	220	38.78	7.2	33.2	17.3	High	0.1%
NLD A27 TBB0010 °	14	1	193	128	101	416	190	139	73.0	109	57.3	59	31.08	30.0	138.8	10.3	High	0.0%
NLD A27 DFN1218 °	8	3	115	148	81	267	136	89	65.6	70	51.2	37	27.39	7.2	32.8	8.8	High	0.0%
NLD A27 DTS0010 °	12	6	65	86	60	118	118	95	80.4	78	65.7	47	39.34	2.9	15.8	12.4	High	0.0%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.77 Netherlands: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Common sole	98.7	101.7	104.4	90.7	87.0	83.9	85.4	94.4	100.6	9.4	9.6	8.8	8.0	9.1	10.0	9.2	9.2	9.7	10.5	10.6	11.9	11.4	9.6	8.4	9.3	10.3	10.4	25%	3%
Common shrimp	58.3	45.3	43.5	29.1	50.8	76.8	66.4	57.3	117.7	15.4	19.2	17.3	16.0	14.6	20.1	23.4	18.9	18.7	3.8	2.4	2.5	1.8	3.5	3.8	2.8	3.0	6.3	15%	6%
European plaice	40.8	33.4	38.3	40.8	45.3	42.7	35.5	46.8	53.9	20.7	23.4	28.3	28.8	32.2	33.8	29.3	32.2	33.7	2.0	1.4	1.4	1.4	1.4	1.3	1.2	1.5	1.6	12%	10%
Atlantic mackerel	14.4	15.1	14.8	19.2	17.5	14.5	32.0	27.9	27.1	20.1	23.4	24.9	28.4	25.7	21.6	46.8	39.4	37.5	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	7%	12%
Atlantic herring	21.8	22.1	20.8	18.6	32.8	31.8	31.2	27.3	37.2	56.7	47.7	55.8	45.4	85.1	88.0	85.2	75.9	103.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	7%	23%
Atlantic horse mackerel				0.0	0.0	0.1	18.5	17.0	16.9				0.0	-	0.2	36.4	30.3	30.7				3.9	4.9	0.7	0.5	0.6	0.6	5%	9%
Blue whiting(=Poutassou)	29.5	12.2	11.5	1.6	9.4	17.1	10.5	16.9	17.5	78.5	35.7	35.0	4.6	27.2	51.6	38.6	56.4	58.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	5%	17%
Turbot	18.3	15.7	15.4	14.9	13.8	13.8	15.2	15.2	16.0	1.8	1.7	1.5	1.5	1.8	1.8	1.6	1.8	1.9	10.4	9.3	10.4	10.0	7.8	7.7	9.4	8.5	8.4	4%	1%
Chilean jack mackerel	21.3	17.9	5.5				4.6	8.7		36.9	37.4	11.2				9.8	17.1		0.6	0.5	0.5				0.5	0.5		2%	5%
Surmullet	7.4	5.3	4.7	6.7	4.3	2.3	3.5	7.5	9.3	1.0	0.7	0.7	0.7	0.5	0.2	0.7	2.1	1.5	7.1	8.0	6.8	9.9	8.8	9.9	5.1	3.5	6.2	2%	1%
																												85%	86%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.17 Poland

Short description of the national fleet

Fleet capacity

The national fleet capacity continued to slightly increase, with a total of 875 vessels, 63 of which were inactive in 2016, having a combined gross tonnage (GT) of 34.2 thousand tonnes and engine power of 81.5 thousand kilowatts (kW). In 2016, the total number of vessels increased by 2 compared to 2015. Majority of the inactive vessels belong to the two smallest length classes (<10, and 10-12m). In 10-12m length class 16% of the registered vessels reported no activity in 2016. The share of inactive vessels was noticeable in 12-18 m length class (8%) and caused most likely unfavourable economic situation of 12-18 DFN segment. The share of inactive vessels in a total number of other segments doesn't exceed 5%.

The Polish distant water trawler fleet (one vessel operating in North Atlantic and two vessels in African waters) is excluded from the analysis except for capacity, employment and weight of landings data as practically the entire segment is owned by one parent company. For confidentiality reasons the data cannot be published.

Fleet structure

In 2016, the Polish large-scale fishing fleet (length >12m) consisted of 193 vessels (=24%), whereas 617 vessels (=76%) were accounted for the small-scale coastal fleet (<12m passive gears).

Employment was estimated at 2 491 jobs, corresponding to 2 280 FTEs or an average of 2.8 FTE per vessel in 2015.

Effort an estimated 71.8 thousand days were spent at sea in 2015, a slight decrease (4%) on 2014, while the amount of energy consumed decreased by 5%. Lower energy consumption was observed in small-scale fisheries (vessels below 12 meters) as well as for vessels belonging to 12-18 DFN segment. These fleet segments reduced effort in 2015 as well to limit negative net profits.

The 18% reduction in energy costs was a result of the continued lower fuel prices and efforts made to use more fuel efficient engines and fishing techniques.

Polish vessels operate mainly in the Baltic Sea. In 2015, there were only two vessels (in 2016, three vessels) fishing in African waters (FAO 34 and 47) and one operating in North Atlantic (FAO 27.I and 27.II). Because of the low number of vessels they contribute negligible to the total effort but substantially to the total production.

The total Production in 2016, slightly increased compared to 2015, with a weight of landings of 198.6 thousand tonnes. The main species in the Baltic are European sprat, Atlantic herring, Atlantic cod, and European flounder. In terms of weight sprat is by far the dominant species (60.6 thousand tonnes), whereas the highest revenue was generated by Atlantic herring in 2016 (€14.7 million and 43.9 thousand tonnes) following by sprat (€12.9 million).

Economic results for 2015 and recent trends

National fleet performance

Polish Baltic fleet generated €5.58 million net profit in 2015. Economic performance of the Polish had gradually deteriorated since 2012 up to 2014. The economic situation improved in 2015 mainly thanks to lower costs paid by the fleet for fuel (lower prices) and other variable costs.

Based on the available information on catches value in 2016 and the effort deployed the overall performance in 2016 is expected to improve, however the small-scale segments as well as other segments significantly dependant on cod (12-18 DFN and DTS) may deteriorate as a result of tough situation with Baltic cod.

Revenue, estimated at €49.6 million, raised 3.2% due to increased landings income as other income increase remarkably however remain relatively to landings revenue at low level (less than €1 million). When including direct income subsidies, total income (no income from fishing rights) amounted to €56.1 million. Direct income subsidies accounted for less than €6.6 million (remain almost unchanged compared to 2014).

Total operating costs decreased due to the 18% decrease in energy costs and lower other non-variable costs (-16%) as well as labour (-7%) and maintenance costs (-8%), while other variable costs increased by 8%. When including capital costs, total costs amounted to €40.7 million, not exceeding total revenue and generating a net profit of €5.6 million.

Gross Value Added (GVA), gross profit in 2015 were estimated at €27.95 million, €13.49 million, respectively. GVA increased 19%, gross profit increased by 70%. These results indicate an improved economic situation compared to previous years mainly due to higher volume and value of fish landed and lower energy costs.

The (depreciated) replacement value of the Polish fleet was estimated at €94.4 million and investments amounted to €1.4 million, again over 40% decrease compared to previous year what can be explained by reduced amount of money available from EU founds (EFF/EMFF).

Generally, the cost structure has remained relatively constant over the years, with some apparent increase in depreciation costs and reduced share of energy costs.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 27.2% compared to 16.5% in 2014 and 16.2% in 2013, indicating an improvement in the efficiency of the sector. Net profit margin was estimated at 11%, a significant increase compared to 2014 (1.9%).

The Rate of Return on Fixed Tangible Assets (RoFTA) improved in comparison to previous years and amounted to 9% (4% in 2013)

After an overall improved development trend since 2008, labour productivity (GVA/FTE) decreased in 2014 by 23%; however, in 2015, returned to 2013 level of €12 thousand.

Fuel consumption per landed tonne has fluctuated in analysed period. In 2015, amounted to 129 litres per landed tonne, a 16% decrease compared to 2014.

Landings in weight per unit of effort (in days at sea) indicator increased in 2015 by 14% and amounted to 2.6 tonnes per day. The indicator did not change significantly in 2016 (2.7 thousand tonnes per day).

Performance results of selected fleet segments

Pelagic trawlers (24-40)

Polish pelagic trawlers 24-40 m length is the most important, from the economic point of view segment, operating in the Baltic Sea. In 2015, 41 vessels make up this segment. The number of vessels and employment in the segment did change slightly compared to 2014 (-5% and – 6%, respectively). In 2015, the segment contributed to 54% and 38% (40% in 2016) of the total volume of landings and income from landings generated by the Polish Baltic fishing fleet. The fleet targets particular pelagic species, such as sprat and herring. In 2015 and 2016, sprat had 59% and 56% share in catch composition of the segment, following by herring (34% and 39%). In 2015, the total value of landings was €18.4m (4% more compared to 2014) and 239 FTEs were employed. Individual sprat quota available for vessels belonging to the segment remained unchanged in 2015 compared to 2014. In 2016, were slightly lower (-8%) however significantly increased in 2017 (+32%). Even better situation took place with the second economically most important fish for the segment. Herring quota during 2015-2017 has been raise three times by 43%, 7% and 35%. In 2017, the 24-40 TM vessels have twice higher quota that they had in 2014. Increased herring landings had negative effect on first sale prices. In 2015 they were 17% lower than year before however in 2016 slightly recovered (+9%) and again were 8% higher in the first quarter of 2017. Average sprat prices (landed for reduction and human consumption) fluctuated and were in 2015 13% lower than in 2014. In 2016 it recovered (+8%) and again dropped by 6% in the first quarter of 2017. The fleet segment was profitable, with a reported gross profit of around €6.3 million, and produced a net profit of €2.7 million in 2015 (€0.81 million in 2014). Most of segment's economic indicators have improved in 2015 compared to 2014. The segment generated higher GVA in total (17%) but also per FTE (19%). Net profit margin was positive (15%). Profitability indicator was at "reasonable" level in 2015 and economic development is improved.

Passive gears 0-10 m

The passive gears segment constituted of 508 vessels in 2015 and 509 in 2016 (in 2014, 489 vessels) operating in the Baltic Area including lagoon brackish waters. The segment is the biggest one in terms of people engaged. In 2015 there were 930 FTEs (or 1054 total jobs). The number of fishers decreased 9% (total jobs). The fleet targets a variety of saltwater species: Atlantic herring, European flounder, Atlantic cod and a variety of freshwater species, such as freshwater bream, pike perch and pike. In 2015, the total volume of landings was 8.8 thousand tonnes (+2% compared to 2014) worth €6.8 million (-14% compared to 2013). According to provisional data in 2016 landed volume was again lower by 4%, however value of landings increased by as much as 20%. The improvement was thanks higher value of herring landings (15%) caused by higher herring prices achieved by the segment (+37%) as well as higher landing value of perch, pike perch and eel (24%, 35% and 88%, respectively).

The segment produced net loss of €1.4 million and a gross loss of €0.7 million. The economic development trend deteriorated in 2015 – net profit margin was twice time lower compared to the 2008-2014 average, profitability was again weak. The segment is affected by poor condition and availability of Baltic cod. Before 2012 cod had been the most important species in terms of landings value (over €2 million) in the segment. In 2015, cod landings dropped to €1.1 million and in 2016 to €0.8 million what is less than half of the 2009 value. The situation however is likely to improve in 2016 due to, as was said earlier improvement in herring fisheries.

Drivers affecting the economic performance trends

Polish fleet is dominated by trawlers, so the fuel price has always a major impact on the overall economic performance. Fuel prices decreased slightly from 2013 to 2014 and remained in 2015 at similar lever, thus it has limited positive effect on the fleet.

Poor condition of Baltic cod (skinny fish) has been negatively influencing the performance of the demersal fleet segments targeting cod (DTS, DFN, HOK and PG1012). The situation did not improve in 2015 or 2016. The small-scale fisheries additionally were affected by very small abundance of cod in coastal waters. On the other hand, small pelagic species were in sound condition what, combined with good market situation for that fish, creates good perspectives for these segments dependant of sprat and herring (18-24 and 24-40 TM).

Since the EU accession (2004) subsidies for fisheries became a substantial part of the Polish fisheries sector incomes. In 2014 however due to termination of EFF (2007-2013) the inflow of money to the fisheries has decreased significantly what

affected direct incomes as well as funds that used to be available mainly for repairs and investments. The new EMFF program has not been lunched yet so in 2015 and 2016 most of the funds were not available.

Polish fish market is characterised by very well developed fish processing sector with total annual output exceeding €2 billion and generating a total demand close to million tonnes of raw material (live weight). Taking this into account the Polish market is dominated by imported fish and highly dependent on global market prices. This has strong positive and negative impact on the fisheries incomes by influencing first sale prices offered to fishers.

Markets and Trade

In 2015, retail fish and fish products prices on Polish market were slightly lower than in the previous year however at the end of the year the started to increase and in December were over 1% higher compared to December 2014. In 2016 the fish market in Poland was evidently influenced by increase of imported fish raw materials. In the first half of 2016, these products were more expensive than in the same period of the previous year by almost 3% and in August 2016 – by over 4% compared to December 2015. Price increases affected primarily fresh and chilled fish, frozen seafood, salted fish, dried and smoked fish, and fish preserves and products. The export prices of Norwegian herring have continued its rising trend that started in mid of 2014. In 2015, price of frozen herring flaps imported from Norway was 10% higher than in 2014. Prices for frozen cod imported to Poland from Russia or Norway went up in 2015 by as much as 25%. Unfortunately, the first sale prices offered in 2014 for Polish fishers did not followed the imported fish prices increase. In 2015, herring prices were 16% and in 2016 7% lower than in 2014. This could be a result of limited interest of fish processing sector in buying domestic lower quality (smaller and less fatty) herring raw material as well as too high compared to demand supplies from landings. In the 1st quarter of 2017 first sale herring prices were slightly higher compared to 2016 (+7%). Similar unfavourable situation took place in Baltic cod market. First sale price for Baltic cod was in 2015 3% lower than in 2014 (with 15% landing increase) in 2016 the prices recovered but only by 3% compared to 2014. According to provisional information from 2017 cod prices continued upward trend and were 6% higher in the 1st quarter compared to year before. What is positive and attract consumers is increasing availability of fresh Baltic cod in discount supermarkets.

Management instruments

The Polish Baltic fleet is managed mainly through TACs and subsequently individual quotas imposed for all TAC species (sprat, herring, cod, and salmon) except for plaice. The quotas are allocated to fishing vessels based mainly on their historical catches. The allocation key based on length classes and remained unchanged in 2015-2017. Small-scale fisheries (vessels under 8 m length, 12 meters in sprat fisheries) has been operating in pool quota system.

Regulation (EU) No 1380/2013 introduced a landing obligation, including for all catches of species which are subject to catch limits. In the Baltic Sea it came into force since 1 January 2015 for salmon, sprat, cod, and herring and, since 1 January 2017 also plaice.

A multiannual plan for the stocks of cod, herring and sprat in the Baltic Sea and the fisheries exploiting those stocks was adopted by European Parliament and the council on 6 July 2016. According to the regulation a target fishing mortality for the stocks concerned shall be achieved as soon as possible and, on a progressive, incremental basis, by 2020. The regulation set up mortality ranges for six Baltic fish stocks while left undefined for two (Eastern Baltic cod and Bothnian Bay herring).

TACs and quotas

Total available quota for the Polish Baltic fleet in 2015 was 130.2 thousand tonnes, a 14% more compared to 2014 (114.6 thousand tonnes). The 2016 and 2017 quotas amounted to 127.8 and 137.3 thousand tonnes respectively. In 2015 available quotas for sprat and herring were higher than in 2014 (by 7% and 49% respectively) since cod quota decreased by 16%. In 2016, combined Central and Western Baltic herring quota available for Poland were again raised by 16% while sprat and combined Eastern and Western cod quotas were cut by 7% and 27%. The 2017 cod quotas were significantly reduced – for Western Baltic by as much as 56% and for Eastern Baltic by 25%. On the other hand, quotas for small pelagic were increased by 8% for herring and 29% for sprat.

In 2015 and 2016, relative changes in individual quotas followed the changes in TAC available for Poland. The system of individual quota allocation remained unchanged in 2017, however there were some changes in coefficient distribution factor among different length classes. Despite of cod TAC reduction smaller vessels received bigger quotas than in 2016. In case of vessels of 8-9.99 m and 10-11.99 individual quotas raised by 69% and 12%, respectively, in 2017. On the other hand, vessels bigger than 25.5 meters did not received any cod quota (except for a common one in order to secure a cod bycatch). In return they benefited a higher sprat individual quota. Due to increased interest of 12-14.99 meter vessels in pelagic catches it was decided to increase their individual quota coefficient distribution factor. It resulted in 2.5 times higher individual sprat quota allocated for this vessel group in 2017.

Performance by fishing activity

Small-scale coastal fleet

In 2015, 611 vessels and in 2016 617 vessels were assigned to the small-scale fleet according to the European definition (vessels under 12m using passive gears). These vessels operate exclusively in the Baltic Sea and two brackish water lagoons, targeting mainly herring, cod, flounder and various kinds of freshwater species which are not managed under a TAC regime. Weight and value of landings of the small-fleet has not changed significantly over the past years and varied between 10-13 thousand tonnes or €10-12 million. The effort however has increased remarkably between 2010 and 2014 by 30% in number of fishing days, sea day or fishing trips. In 2015, it was slightly reduced, however come back to 2014 level in 2016. According to preliminary data in 2016 value and volume of landings will be lower by 2% and 14%. To the reason behind that is poor

condition of Baltic cod stocks to be especially evident in the shallow coastal areas. In 2016, volume and value of the segment cod landing decreased by 23%. In 2015, GVA of the fleet amounted to €6 million, 13% less than in 2014. The sector maintains gross and net losses (i.e., negative profits) of €1.1 million and 2.5 million, respectively. The number of people working in the fleet decreased in 2015 by 7% compared to 2014 but still was higher by 4% on 2008-2014 average. The wages (that are major cost item) did not follow the decreased number of engaged people and were 3% higher than in 2014. The segment is characterised by high value of unpaid labour, in 2015 it was estimated to be €3.12.

Large-scale fleet

In 2015, 192 active vessels and in 2016 193 active vessels were assigned to the large-scale fleet. These vessels mainly operated in the Baltic Sea, while one large trawler fished in the North Atlantic. The Baltic vessels targeting mainly sprats, herring, cod and flounder. After a one year (2014) decline in the value of landings of the large-scale fleet in 2015 it recovers slowly and reached €38.7 million). It is expected that that the landings value will approach €40 million in 2016. The weight of landings showed an increasing trend since 2010 until 2013. In 2014, the fleet landed 113.3 thousand tonnes of fish, 11% decrease. In 2015 and 2016 the landings volume beat the record value (129.3 and 133 thousand tonnes, respectively). The costs of the fleet generated in 2015 were again lower than in the previous year. The decrease could be especially observed in case of two most important cost items i.e. energy and wages – decline respectively by 18% and 10%. Cost variables showed mostly downward developments except for other-variable and depreciation cost where a 10% and 29% growth were observed. The fleet generated GVA €22 million, produced €14.6 million gross and €8.1 million net profit. All economic parameters improved remarkably, GVA by 32%, gross profit by 79%, and net profit by 213%. The number or people employed in the large-scale fleet decreased by 13% and 10% (FTE or total jobs).

Projections for 2016 and outlook

MODEL FORECAST

Forecasts for 2016 report a 6% increase in landed weight and a 5% increase in landed value. Fishing effort deployed is expected to increase (days at sea in 4%) with a 1% increase in fuel consumption. Together with continued low fuel prices, energy costs are expected to have decreased by 20%, fostering improvements to economic performance in 2016: gross profit (+20%) and net profit (+49%). GVA to revenue is relatively high at 61.3% while GVA per FTE is relatively low at €14 thousand in 2016. TAC for sprat is 29% higher in 2017 than in 2016 also herring quotas was increased by 8%. This should have a positive impact on pelagic trawlers segments but also on small-scale vessels that becoming more dependent on herring catches. The demersal trawlers, netters as well as small-scale fisheries will be affected by severe reduction of cod quota (-25% for Eastern cod and -56% for Western). Unfavourable biological condition and suspended possibility of individual quota exchange caused that cod landings in the first month of 2017 were very low. A decrease in the landing weight of 22% and landing value in 5% in 2017, together with fuel price increases leading to higher energy costs (+4%) stagnate any further economic development: GVA is expected to decrease by 5%, gross profit by 3% while net profit increases by 18%% in 2017, and the national fleet is still expected to operate with profits (gross profit margin of 31.7% and net profit margin of 20%).

Data issues

Similar to previous years, due to confidentiality reasons, distant water fleet (vessels over 40m fishing outside Baltic Sea) were excluded from the economic analysis. However, transversal data (except for value of landings) and employment data were provided for all fleet segments. In order to ensure consistency with data provided for previous years, premiums paid by government for scrapped vessels were taken into account when calculating invested capital (not the PIM method).

Note that data issues influence calculation of many indicators. Only partial data for the segments TM 40XX and DTS40XX were provided. Ideally, at the national level, these confidential data should be included; if this is not possible then these fleets should be excluded from the national totals in order to obtain reliable results.

Table 5.78 Poland: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	864	832	806	793	790	798	838	873	812	774		4%	7%
Number of Inactive vessels_ms	(#)	41	109	99	84	38	43	42	68	63			62%	4%
Vessel tonnage	(thousand GT)	30.0	41.0	38.2	37.3	33.4	33.4	33.9	34.0				0%	-4%
Engine power	(thousand kW)	96.6	99.0	90.7	86.9	82.9	81.9	81.4	81.5				0%	-8%
Total employed	(person)	3,026	2,699	2,590	2,548	2,601	2,515	2,703	2,491	2,515	2,209		-8%	-7%
FTE	(#)	2,822	2,552	2,433	2,400	2,487	2,361	2,550	2,280	2,336	1,809		-11%	-9%
Days at sea	(thousand day)	66.4	62.1	58.1	58.7	67.2	71.3	74.6	71.8	74.4	63.4		-4%	10%
Fishing days	(thousand day)	62.5	59.8	55.5	56.8	64.1	68.1	71.2	68.7				-4%	10%
Number of fishing trips	(thousand)	54.4	51.6	47.4	47.7	54.2	58.6	62.2	60.3				-3%	12%
Energy consumption	(million litre)	16.0	12.5	17.1	17.6	20.2	19.3	18.4	17.5	17.8	16.1		-5%	1%
Live weight of landings	(thousand tonne)	126.2	212.1	170.8	179.5	179.2	195.0	171.3	187.9	198.6	155.5		10%	7%
Value of landings	(million €)	40.0	41.3	43.1	47.4	55.4	56.5	47.9	48.7	51.2	48.8		2%	3%
Income from landings	(million €)	40.0	41.3	43.2	47.4	55.4	56.5	47.9	48.7	51.2	48.8		2%	3%
Other income	(million €)	0.8	0.5	0.2	0.4	0.2	0.1	0.2	0.9	0.9	0.8		430%	162%
Direct income subsidies	(million €)	24.7	19.9	16.0	17.9	15.4	11.5	6.7	6.6				-2%	-59%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	11.2	10.2	12.3	10.0	12.5	13.5	10.7	10.1	10.8	10.1		-6%	-12%
Unpaid labour value	(million €)				4.7	5.2	5.6	4.9	4.4	4.9	4.3		-11%	-14%
Energy costs	(million €)	11.6	7.3	8.4	10.7	14.2	12.8	11.1	9.0	7.2	7.5		-18%	-17%
Repair & maintenance costs	(million €)	4.0	3.1	3.3	4.5	4.0	5.3	4.6	4.2	4.3	4.2		-8%	2%
Other variable costs	(million €)	4.7	3.7	4.0	4.9	4.9	5.0	3.9	4.2	4.3	3.6		8%	-5%
Other non-variable costs	(million €)	5.5	3.9	3.6	4.6	5.3	5.3	5.0	4.2	4.3	4.1		-16%	-11%
Annual depreciation costs	(million €)	1.8	1.6	1.8	2.2	3.4	3.8	3.6	4.7	4.7	4.5		29%	79%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	2.2	3.0	3.2	1.9	1.2	3.1	3.4	3.2	3.1	1.4		-4%	27%
Tangible asset value (replacement)	(million €)	121.4	144.8	106.8	94.5	99.6	97.0	99.3	94.4	96.6	91.2		-5%	-13%
Fishing rights	(million €)													
Investments	(million €)	8.7	2.2	3.8	8.6	6.9	6.1	2.5	1.4				-42%	-74%
Financial position	(%)	8.0	6.0	5.0	14.5	12.9	10.5	4.6	7.7				67%	-12%
Gross Value Added	(million €)	15.1	23.8	24.0	23.0	27.3	28.3	23.5	28.0	31.9	30.2		19%	18%
GVA to revenue	(%)	36.9	57.0	55.5	48.2	49.1	50.0	49.0	56.4	61.3	60.9		15%	14%
Gross profit	(million €)	3.9	13.6	11.8	8.4	9.6	9.2	7.9	13.5	16.2	15.7		70%	47%
Gross profit margin	(%)	9.6	32.5	27.1	17.6	17.2	16.2	16.5	27.2	31.0	31.7		65%	39%
Net profit	(million €)	- 0.1	9.1	6.7	4.3	4.9	2.3	0.9	5.6	8.3	9.8		508%	39%
Net profit margin	(%)	- 0.1	21.7	15.6	9.0	8.9	4.0	1.9	11.3	16.0	19.8		489%	29%
GVA per FTE (labour productivity)	(thousand €)	5.4	9.3	9.9	9.6	11.0	12.0	9.2	12.3	13.7	16.7		33%	29%
Return on fixed tangible assets	(%)	1.7	8.3	9.3	6.5	6.2	5.5	4.3	9.4	11.9	12.3		115%	56%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015). Number of vessels in 2016 and 2017 include active vessels only.

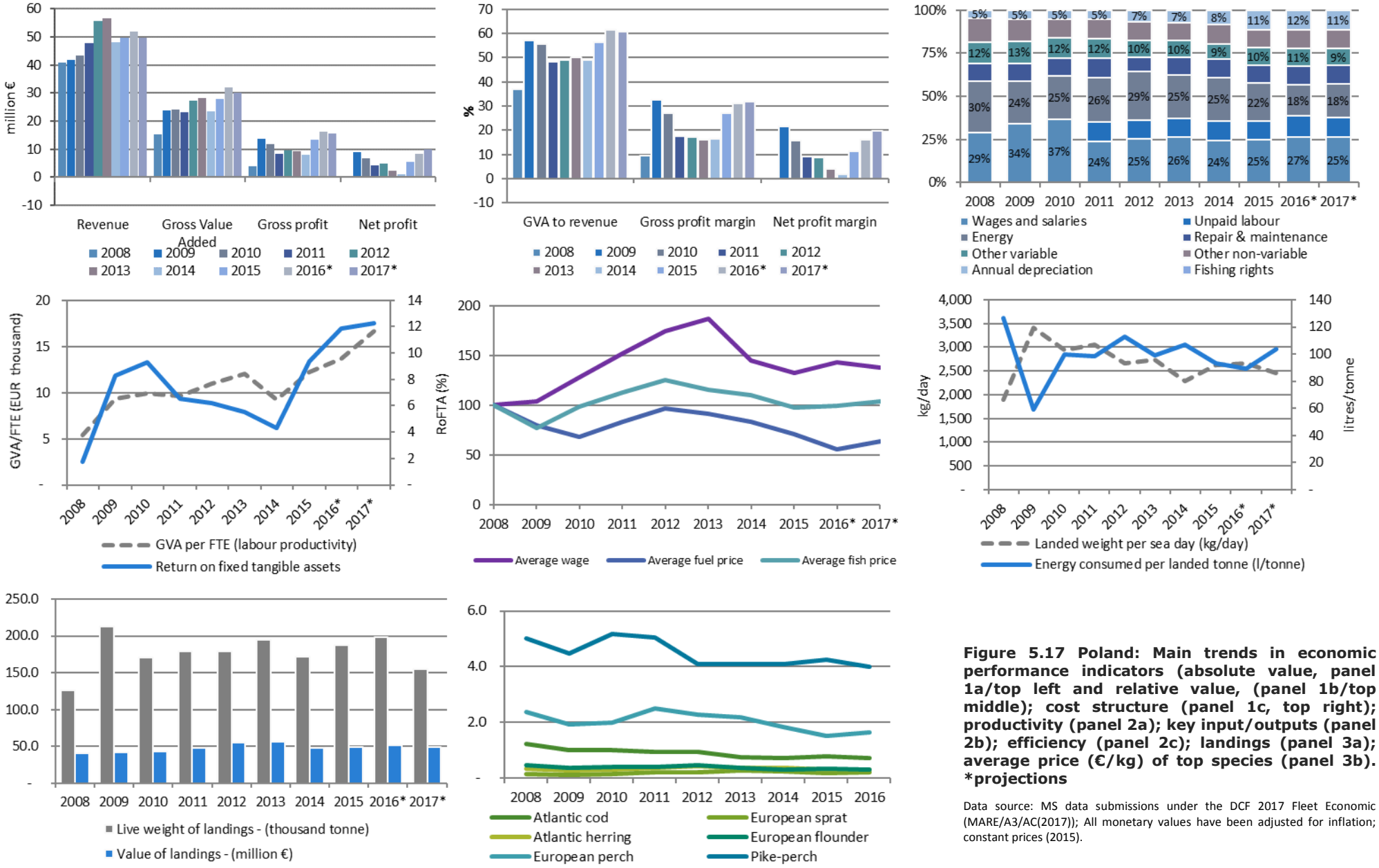


Figure 5.17 Poland: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.79 Poland: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	563	509	517	518	545	553	595	611	*617*	*605*		3%	13%
Vessel tonnage	(thousand GT)	2.7	2.3	2.3	2.4	2.6	2.6	2.7	2.7				-1%	6%
Engine power	(thousand kW)	24	20	20	20	21	21	21	21				-1%	0%
FTE	(#)	1,201	1,202	1,121	1,163	1,271	1,290	1,420	1,267	*1,343*	*1,113*		-11%	2%
Total employed	(person)	1,379	1,313	1,264	1,301	1,372	1,389	1,519	1,417	*1,437*	*1,397*		-7%	4%
Days at sea	(thousand day)	45.6	42.8	39.5	40.0	43.5	48.1	51.2	49.4	*52.2*	*46.5*		-4%	11%
Fishing days	(thousand day)	45.0	42.4	38.7	39.5	42.6	47.4	50.5	48.8				-3%	12%
Number of fishing trips	(thousand)	44.4	42.0	38.2	38.5	41.8	46.4	49.7	48.1				-3%	12%
Energy consumption	(million litre)	2.1	1.5	1.9	1.7	1.7	2.0	2.2	1.8	*1.9*	*1.3*		-18%	-6%
Live weight of landings	(thousand tonne)	9.9	11.5	11.0	11.4	12.6	13.0	12.8	12.7	*12.4*	*12.9*		-1%	8%
Value of landings	(million €)	10.4	10.7	10.4	11.3	12.0	12.0	11.1	10.0	*11.4*	*10.0*		-10%	-10%
Income from landings	(million €)	10.4	10.7	10.4	11.3	12.0	12.0	11.1	10.0	*11.4*	*10.0*		-10%	-10%
Other income	(million €)	0.3	0.2	0.1	0.1	0.0	0.0	0.1	0.3	*0.3*	*0.3*		408%	187%
Direct income subsidies	(million €)	12.8	9.1	6.7	7.3	10.6	8.7	5.5	6.0				9%	-31%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	1.0	2.5	3.6	3.1	3.7	4.3	3.9	4.0	*4.5*	*4.0*		3%	26%
Unpaid labour value	(million €)				3.3	3.4	3.8	3.2	3.1	*3.6*	*3.1*		-4%	-9%
Energy costs	(million €)	1.5	0.9	1.1	1.2	1.3	1.4	1.4	1.1	*0.9*	*0.8*		-20%	-11%
Repair & maintenance costs	(million €)	0.5	0.6	0.4	0.7	0.6	0.9	0.7	0.8	*0.8*	*0.8*		8%	22%
Other variable costs	(million €)	1.2	1.0	1.0	1.2	1.3	1.5	1.5	1.5	*1.6*	*1.2*		4%	23%
Other non-variable costs	(million €)	1.0	0.7	0.7	0.8	1.0	0.9	0.7	0.9	*0.9*	*0.9*		27%	11%
Annual depreciation costs	(million €)	0.2	0.3	0.4	0.4	0.3	0.4	0.3	0.4	*0.5*	*0.4*		29%	36%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	0.6	0.7	0.8	0.5	0.4	0.9	1.0	1.0	*0.9*	*0.4*		0%	45%
Tangible asset value (replacement)	(million €)	30.7	32.8	25.6	24.2	28.4	27.5	28.4	28.2	*28.8*	*28.2*		-1%	0%
Fishing rights	(million €)													
Investments	(million €)	0.3	0.7	1.2	0.5	1.3	0.8	0.7	0.7				-6%	-15%
Gross Value Added	(million €)	6.4	7.6	7.3	7.5	7.8	7.3	6.9	6.0	*7.4*	*6.7*		-13%	-18%
GVA to revenue	(%)	60.1	69.9	69.7	66.3	64.5	60.9	61.5	57.9	*63.3*	*64.4*		-6%	-11%
Gross profit	(million €)	0.5	5.1	3.7	1.1	0.7	- 0.8	- 0.3	- 1.1	- *0.7*	- *0.5*		-347%	-178%
Gross profit margin	(%)	18.2	47.0	35.3	10.0	5.5	- 6.5	- 2.2	- 10.8	- *6.0*	- *4.4*		-383%	-171%
Net profit	(million €)	0.2	4.1	2.5	0.3	0.0	- 2.1	- 1.6	- 2.5	- *2.1*	- *1.3*		-62%	-594%
Net profit margin	(%)	9.6	38.2	24.1	2.5	0.2	- 17.2	- 14.0	- 24.6	- *17.9*	- *12.9*		-75%	-497%
Return on fixed tangible assets	(%)	4.5	14.6	12.9	3.2	1.3	- 4.3	- 2.1	- 5.5	- *4.0*	- *3.2*		-165%	-229%
GVA per FTE (labour productivity)	(thousand €)	5.4	6.3	6.5	6.5	6.1	5.7	4.8	4.7	*5.5*	*6.0*		-15%	-21%

		LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	259	211	187	188	205	200	199	192	*193*	*169*		-4%	-7%
Vessel tonnage	(thousand GT)	22.8	16.5	14.1	13.8	14.6	14.8	15.4	15.0				-3%	-6%
Engine power	(thousand kW)	67	54	47	45	47	47	47	45				-3%	-10%
FTE	(#)	1,351	1,093	1,043	966	1,036	934	990	866	*845*	*697*		-13%	-18%
Total employed	(person)	1,377	1,116	1,056	977	1,049	946	1,003	899	*903*	*812*		-10%	-16%
Days at sea	(thousand day)	20.3	18.4	17.8	17.9	23.3	22.7	22.8	22.0	*21.5*	*16.9*		-4%	8%
Fishing days	(thousand day)	17.3	16.8	16.3	16.7	21.1	20.3	20.3	19.6				-4%	6%
Number of fishing trips	(thousand)	10	10	9	9	12	12	12	12				-2%	14%
Energy consumption	(million litre)	13.8	11.0	15.2	15.9	18.5	17.2	16.2	15.7	*15.9*	*14.9*		-3%	2%
Live weight of landings	(thousand tonne)	90.2	124.1	104.5	104.2	112.8	127.9	113.3	129.3	*133.1*	*142.5*		14%	16%
Value of landings	(million €)	29.6	30.6	32.7	36.1	43.4	44.6	36.8	38.7	*39.8*	*38.7*		5%	7%
Income from landings	(million €)	29.6	30.6	32.7	36.1	43.4	44.6	36.8	38.7	*39.8*	*38.7*		5%	7%
Other income	(million €)	0.6	0.3	0.1	0.3	0.1	0.1	0.1	0.6	*0.6*	*0.5*		443%	151%
Direct income subsidies	(million €)	11.9	10.8	9.3	10.6	4.8	2.8	1.2	0.6				-53%	-92%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	10.2	7.7	8.7	6.8	8.8	9.2	6.8	6.1	*6.3*	*6.2*		-10%	-26%
Unpaid labour value	(million €)				1.4	1.9	1.8	1.7	1.2	*1.3*	*1.2*		-26%	-26%
Energy costs	(million €)	10.0	6.3	7.3	9.5	12.9	11.4	9.7	7.9	*6.3*	*6.7*		-18%	-17%
Repair & maintenance costs	(million €)	3.5	2.6	2.9	3.8	3.3	4.4	3.9	3.4	*3.6*	*3.4*		-11%	-1%
Other variable costs	(million €)	3.5	2.7	3.0	3.7	3.5	3.5	2.4	2.7	*2.7*	*2.4*		10%	-16%
Other non-variable costs	(million €)	4.4	3.1	2.9	3.9	4.3	4.4	4.2	3.3	*3.4*	*3.2*		-23%	-16%
Annual depreciation costs	(million €)	1.6	1.3	1.4	1.8	3.1	3.4	3.3	4.2	*4.2*	*4.0*		29%	85%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	1.5	1.9	2.0	1.2	0.8	2.1	2.3	2.3	*2.2*	*1.0*		-2%	35%
Tangible asset value (replacement)	(million €)	86.2	91.0	66.0	60.1	67.1	66.0	67.8	66.2	*67.8*	*63.1*		-2%	-8%
Fishing rights	(million €)													
Investments	(million €)	8.4	1.5	2.6	8.2	5.7	5.3	1.7	0.8				-56%	-84%
Gross Value Added	(million €)	8.7	16.2	16.7	15.5	19.6	21.0	16.7	22.0	*24.5*	*23.5*		32%	35%
GVA to revenue	(%)	28.7	52.4	50.9	42.6	44.9	47.1	45.2	56.0	*60.7*	*60.0*		24%	26%
Gross profit	(million €)	- 1.5	8.5	8.1	7.2	8.9	10.0	8.2	14.6	*16.9*	*16.2*		79%	108%
Gross profit margin	(%)	- 5.1	27.4	24.6	19.9	20.4	22.3	22.1	37.2	*41.8*	*41.2*		68%	98%
Net profit	(million €)	- 4.7	5.4	4.7	4.2	5.0	4.4	2.6	8.1	*10.4*	*11.1*		213%	164%
Net profit margin	(%)	- 15.7	17.3	14.2	11.6	11.4	10.0	7.0	20.7	*25.8*	*28.4*		194%	159%
Return on fixed tangible assets	(%)	- 3.7	7.9	10.1	9.0	8.6	9.9	7.2	15.7	*18.6*	*19.2*		117%	124%
GVA per FTE (labour productivity)	(thousand €)	6.8	15.4	16.7	16.7	19.6	23.4	17.5	26.4	*30.2*	*35.4*		-25%	7%

		DWF									Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**			
Total number of vessels	(#)	1	3	3	3	2	2	2	2	*2*		0%	-13%
Vessel tonnage	(thousand GT)	3.9	19.4	19.5	19.5	15.6	15.6	15.4	15.4			0%	-1%
Engine power	(thousand kW)	3	14	15	15	12	12	11	11			0%	-5%
FTE	(#)	270	258	270	270	180	137	140	147	*147*		5%	-33%
Total employed	(person)	270	270	270	270	180	180	180	175	*175*		-3%	-24%
Days at sea	(thousand day)	0.5	0.9	0.9	0.8	0.5	0.5	0.5	0.4	*0.7*		-28%	-43%
Fishing days	(thousand day)	0.3	0.7	0.5	0.6	0.4	0.5	0.4	0.3			-30%	-40%
Number of fishing trips	(thousand)	0.02	0.05	0.04	0.03	0.02	0.03	0.03	0.02			-15%	-25%
Energy consumption	(million litre)												
Live weight of landings	(thousand tonne)	26.1	76.5	55.4	63.9	53.8	54.1	45.3	45.9	*53.1*		1%	-14%
Value of landings	(million €)												
Income from landings	(million €)												
Other income	(million €)												
Direct income subsidies	(million €)												
Income from leasing fishing rights	(million €)												
Wages and salaries of crew	(million €)												
Unpaid labour value	(million €)												
Energy costs	(million €)												
Repair & maintenance costs	(million €)												
Other variable costs	(million €)												
Other non-variable costs	(million €)												
Annual depreciation costs	(million €)												
Rights costs	(million €)												
Opportunity cost of capital	(million €)												
Tangible asset value (replacement)	(million €)												
Fishing rights	(million €)												
Investments	(million €)												
Gross Value Added	(million €)												
GVA to revenue	(%)												
Gross profit	(million €)												
Gross profit margin	(%)												
Net profit	(million €)												
Net profit margin	(%)												
Return on fixed tangible assets	(%)												
GVA per FTE (labour productivity)	(thousand €)												

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.80 Poland: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue	As a % of total landed weight
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)					
POL A27 TM2440 °	41	238	5,044	104	73,279	18,424	18,446	9,612	52.1	6,251	33.9	2,705	14.66	14.1	40.4	13	Reasonable	145%	Improved	37.2%	39.0%
POL A27 DTS1218 °	69	263	8,044	224	18,332	8,949	9,151	5,346	58.4	3,520	38.5	2,365	25.84	6.9	20.3	20	High	40%	Improved	18.5%	9.8%
POL A27 PG0010 °	508	930	40,926	98	8,811	6,762	6,835	4,331	63.4	- 657	- 9.6	- 1,412	- 20.66	5.4	4.7	- 5	Weak	-210%	Deteriorated	13.8%	4.7%
POL A27 DTS1824 °	38	161	3,809	154	14,709	6,191	6,294	3,687	58.6	2,725	43.3	1,556	24.73	6.0	22.9	16	High	-2%	Stable	12.7%	7.8%
POL A27 TM1824	20	66	2,369	86	15,503	3,987	4,084	2,703	66.2	2,091	51.2	1,714	41.98	9.3	41.0	27	High			8.2%	8.3%
POL A27 PG1012	101	337	8,463	234	3,881	3,247	3,476	1,639	47.1	- 461	- 13.3	- 1,121	- 32.25	6.2	4.9	- 6	Weak			7.0%	2.1%
POL A27 DFN1218	23	104	2,501	349	1,088	1,162	1,296	633	48.9	19	1.4	- 224	- 17.31	5.9	6.1	- 1	Weak			2.6%	0.6%
POL A27 PG0010	2																				
POL OFR TM40XX	2	147	379		45,914									-							24.4%
POL A27 DTS40XX	1	34	261		6,398									-							3.4%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.81 Poland: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	As a % of total revenue	As a % of total landed weight
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)			
POL A27 TM2440 °	44	262	5,563	112	75,168	20,219	20,242	11,506	56.8	7,818	38.6	4,069	20.10	14.1	43.8	17	High	38.9%	37.9%
POL A27 PG0010	511	979	43,074	108	8,440	8,147	8,221	5,766	70.1	- 245	- 3.0	- 969	- 11.78	6.1	5.9	- 3	Weak	15.8%	4.3%
POL A27 DTS1218 °	66	238	7,285	195	19,041	7,998	8,191	5,086	62.1	3,454	42.2	2,375	28.99	6.9	21.4	21	High	15.7%	9.6%
POL A27 TM1824	27	83	2,981	83	20,322	5,641	5,772	4,164	72.1	3,298	57.1	2,808	48.65	10.4	50.1	32	High	11.1%	10.2%
POL A27 DTS1824 °	28	113	2,682	148	10,802	4,452	4,528	2,833	62.6	2,141	47.3	1,297	28.63	6.1	25.0	18	High	8.7%	5.4%
POL A27 PG1012 °	106	365	9,155	247	3,984	3,241	3,481	1,639	47.1	- 456	- 13.1	- 1,126	- 32.36	5.7	4.5	- 6	Weak	6.7%	2.0%
POL A27 DFN1218 °	27	116	2,778	287	1,467	1,462	1,618	913	56.4	140	8.7	- 135	- 8.31	6.7	7.9	1	Weak	3.1%	0.7%
POL OFR TM40XX	2	147	669		53,086									-					
POL A27 DTS40XX	1	33	251	-	6,263	-								-					3.2%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.82 Poland: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Atlantic cod	15.0	12.6	15.1	14.9	17.9	14.6	13.1	14.7	11.4	12.2	12.4	14.9	15.6	18.6	19.2	18.2	18.5	15.6	1.2	1.0	1.0	1.0	1.0	0.8	0.7	0.8	0.7	30%	10%
European sprat	9.3	11.7	8.5	11.6	14.6	21.9	13.9	13.0	12.9	55.4	84.6	58.8	56.1	62.8	80.3	58.3	64.0	60.6	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	27%	34%
Atlantic herring	6.2	6.6	8.2	11.2	12.0	8.7	10.4	11.7	14.7	17.0	22.5	24.8	30.0	27.0	23.6	28.3	38.0	43.9	0.4	0.3	0.3	0.4	0.5	0.4	0.4	0.3	0.3	24%	20%
European flounder	4.3	3.6	4.6	3.9	4.6	4.5	4.1	3.2	4.6	9.1	9.7	11.2	9.7	10.1	11.8	12.6	9.3	14.6	0.5	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.3	7%	5%
European perch	1.8	1.3	1.7	2.0	2.3	2.1	2.1	1.3	1.6	0.7	0.7	0.8	0.8	1.0	1.0	1.1	0.9	1.0	2.4	1.9	2.0	2.5	2.3	2.2	1.8	1.5	1.6	3%	0%
Pike-perch	1.0	0.8	0.8	0.7	1.3	1.7	1.2	1.0	1.4	0.2	0.2	0.2	0.1	0.3	0.4	0.3	0.2	0.3	5.0	4.5	5.2	5.1	4.1	4.1	4.1	4.3	4.0	2%	0%
Sea trout	0.5	1.9	2.1	1.1	0.7	0.7	0.6	0.7	1.1	0.1	0.4	0.4	0.2	0.2	0.1	0.1	0.1	0.2	4.1	5.2	5.5	5.4	4.9	5.8	5.1	5.9	6.2	1%	0%
Pelagic fishes nei							0.3	0.7	0.2							1.1	3.0	0.9							0.2	0.2	0.2	1%	2%
Sandeels(=Sandlances	-	-	-	-	0.4	0.3	0.5	0.7	1.0	-	-	-	-	2.3	1.6	3.6	4.2	5.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	1%	2%
European eel	0.6	0.5	0.5	0.4	0.5	0.7	0.5	0.4	0.8	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	12.0	9.3	9.4	12.1	15.3	14.8	12.9	10.0	13.2	1%	0%
																												97%	74%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).

5.18 Portugal

Short description of the national fleet

Fleet capacity

In 2015, the national fleet capacity is composed by 8 205 vessels, having a combined gross tonnage (GT) of 100 thousand tonnes and engine power of 368 thousand kilowatts (kW), distributed by Mainland Fleet, Azores and Madeira. In 2015, 55 new vessels entered the Portuguese fleet, while 158 ceased their fishing activities. The national fleet is characterized by a prevalence of small fishing vessels, representing 90% of the all fleet, have a length of less than 12 meters, with small gross tonnage, representing about 13% of the national total. The average vessel length is 7m and the average age of the registered fleet is around 32 years but in terms of active fleet is around 22 years. The active fleet represents 47% of the national fleet.

Fleet structure

The Portuguese fishing fleet includes the Mainland Fleet, Azores and Madeira and developing the respective fisheries in accordance with the operating areas and gears. The national fleet contains vessels from the small-scale, large-scale and vessels which operate in distant waters and are grouped into 11 major segments (DFN, DRB, DTS, FPO, HOK, MGO, PS, TBB, MGP, PGP and PMP). The most important segments in terms of value from landings are: Demersal Trawl and Seine over 40m (DTS40XX), Polyvalent Passive Gears only above 10m (PGP0010), DTS2440, and Purse Seiners 18-24 metres (PS1824) that together represents 44% in value landings

Employment

Employment was estimated at 16 086 jobs, corresponding to 8 130 FTEs or an average of 2.1 FTE per active vessel. Although the results show a part time structure of the employment, many fishers work full time on fisheries but in part time on more than one vessel. The average FTE per vessel increased from 1.9 to 2.1 in the 2000-15 period. The average wage per FTE remained stable on the same period, at around €16 400. According to the 2011 census of the population, the average age of the fishers was 43.6 years. In 2015, the average wage was estimated to increase to around 44.4 years.

The Portuguese official statistics reports three different age-classes to classify the annual trends in the age of the fishers': below 35, between 35 and 55 and over 55 (55 years is the retirement age in Portugal for the fishers). Comparing 2014 to 2015 revels a decrease in the younger class (22.2% in 2014 and 21.9 in 2015) and an increase in the older one (19.0% in 2014 and 19.2 in 2015). This trend can be explained due to the age of the fishing vessels (in the last 10 years the renewal of fishing vessels was practically inexistent) and the correspondent poor working conditions not compatible to the other working activities. Another reason can be due the small amount of the retirement salaries.

Effort

An estimated 353 thousand days were spent at sea, which represents a 5% increase related with 2014, reverses the decreasing trend of the period 2008-14 (10% decrease over the period). The average days at sea per vessel shows also the same trend: 2014 achieved the lowest value of 85 days of activity per vessel, and in 2015 the observed value was 91. Landed weight per sea day seems to be increasing over the period, albeit the normal fluctuations from year to year; at 520 kg/sea day, it was 9% higher than the 2008 value. The energy consumption decrease 4% compared to 2014.

Vessels operate mainly in the Northwest Atlantic, with some important activities in the NAFO and Savlbard/Irminger areas (Demersal trawlers), Indian and Pacific oceans (Surface longliners) and near Madeira coast, for the Madeiran fleet.

Production

Contradicting the last years' historical trend, the production in 2015 increase 12% compared to 2014 to a value of 183 thousand tonnes of seafood reaching the values achieved in 2013. Total landed value was €352 million. The increasing of landings resulted mainly from the recuperation of chub mackerel catches in 2014 which now represents 32% of the total landings in volume, with a landed price of €0.3 per kg. Despite the total catches increase, landings remain constant due to the significant landing reduction of the common octopus (OCT) with a landed price of €4.7 per kg. In the Azores islands the tuna landings continues to decrease, follows the last years' tendency, due to the fluctuations of tuna migration patterns and the stocks availability.

Despite the fall in common octopus catches in 2015, this specie is still the most important one in terms of value generating the landed value of €35.6 million. The landed values of European pilchard generated a value €30.2 million representing a decrease of 32% between 2008 and 2015.

In terms of landed weight, 46 thousand tonnes of chub mackerel were landed in 2015, followed by Atlantic horse mackerel (22.7 thousand tonnes). Due to the limitations imposed by the Iberian sardine management plan, catches of European pilchard reaches the lowest historical volume of 13.9 thousand tonnes representing a decrease of 78% between 2008 and 2015. This strong reduction affects in an important manner not only the fleet segments that catch this specie but also the processing industry. In order to overcome the strong reduction in the European pilchard catches the importations of these specie increases between 2010 and 2015 something like 11.6% in each year. In 2015, the European pilchard importations represents 2 times more than the national production.

Fortunately, average price of the European pilchard increase from 0.7 €/kg in 2008 to the maximum observed value of 2.2 €/kg in 2015 and the fish stock shows some recuperation and new values for the Portuguese catches limitation are expect in near future which will appoint to a good direction to the optimal values in terms of sustainability/economics and necessary catches to feed the internal consumption and industry needs. These three species represent 45% of the total Portuguese landings.

Economic results for 2015 and recent trends

National fleet performance

In 2015, the Portuguese national fleet improved its economic performance, recovering from the minimum low of 2012 where it achieved a net loss into a net profit of €76.5 million in 2015. This trend tends to stabilised in 2016 and 2017, as fuel prices and rate of interest (opportunity costs) remained low and the expecting landing values tends also to be constant.

Revenue, estimated at €356.7 million, follows the historical declining trend with a negative variation of €8.2 million compared with 2014, due to decrease of average fish price, with higher catches in volume of small pelagic fish with low value (like chub mackerel) and a significant reduction of landed values of common octopus (€9 million).

Total operating costs decreased mainly due to the decreasing of crew and energy costs. From 2012 to 2015 crew costs decreased 13% (FTE 12%), while energy costs decreased 45%. When including capital costs, total costs amounted to €280 million representing a 28% reduction compared to 2012.

Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €254 million, €121 million and €77 million, respectively. Over the 2008-15 period, GVA, gross profit and net profit increased 5%, 28% and 216%, respectively. These results indicate an improving economic situation compared to previous years, benefiting mainly from observed low energy costs in the recent years.

Overall, the cost structure has remained relatively constant over the years, with a slight increase in labour costs and a decrease in the energy cost.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 33.9%, indicating a satisfactory operating efficiency of the sector. Net profit margin was estimated at 21.5%, a 96% increase related to 2014.

The Rate of Return on Fixed Tangible Assets (RoFTA) has been improving since 2012, where it achieved a minimum of 7.1% due to drop of landings revenue and very high fuel prices. Since then, decreasing operational costs were observed. Due to the reduction of fishing effort and lower fuel prices. This decreasing have been contributing to the better economic performance of the fishing fleet. In 2015 RoFTA achieved 18.9%.

Labour productivity (GVA/FTE) follows the recent trend increased in 2015 to 31 (+13% by comparison with the previous year), reversing the decreasing trend of 2012 and 2013. This was due to the combination of improving GVA and a decrease in FTE.

Fuel consumption per landed tonne has followed a decreasing trend since 2013 to an all-time low of 434 litres per tonne landed.

Landings in weight per unit of effort (in days at sea) increase to 520 kg/day close to the maximum value achieved in 2013. The indicator shows some mixed results, increasing in 2010 and remained stable after that year, due to the decreasing of both effort and landings.

Performance by fishing activity

Small-scale coastal fleet

In 2015, the small-scale coastal fleet (SSCF) comprised 3 044 vessels, corresponding to 79% of the total active fleet, with a combined gross tonnage of 7.2 thousand units and a total power of 98 thousand kW. The majority of SSCF, up to 60.5%, operates along the coast using polyvalent passive gears (mainly nets, longlines, pots and traps) catching a diverse amount of species, being the cephalopods (octopus and cuttlefish) the major group achieving 47% of SSCF landings. Demersal and pelagic species like conger, seabream, pout and chub mackerel are the following species that with cephalopods represents 61% of SSCF landings. In 2015, this fleet generated 8 522 jobs, corresponding about 53% of the national employment and a decrease of 1% in FTE by comparison with the previous year. The average fleet activity in 2015 reaches a value of 75 days at sea/vessel.

Landings in weight increase slightly, following the trend of the whole fleet but with improved prices of fish it achieved a higher level of value. In 2015 landings from the SSCF represented 11.2% in weight and 23.2% in value of the total Portuguese landings, revealing high quality of the fresh product catch by this fleet segment.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the SSCF in 2014 were €64.4 million, €31.9 million and €22.1 million, respectively. The performance of the fleet improved consistently since 2012. Furthermore, this part of the national fleet contributes significantly to the economic and social sustainability of local fishing communities. Projections for 2015 and 2016, suggest that the SSCF continued to decrease in capacity (number, GT and kW) but in terms of economic performance, a further improvement is expected.

The cost structure of the fleet remained stable over the period 2008-15 with Wages and salaries of the crew being the major cost and highly linked to the income from landings.

Large-scale Fleet

The large-scale fleet comprised 807 vessels and it represents 21% of the active Portuguese fleet. The majority of large-scale fleet use mobile gears (purse seine, demersal trawl and dredges) and in 2015 generated 7 234 jobs, representing 45% of total fleet employment. In 2015, the activity and landings of this fleet increase but income slightly decrease (-1%). That can be explained with the significant reduction of the landing of the common octopus (OCT) with a landed price of 4.7 €/kg and the increase of landings of chub mackerel (MAS) with a landed price of 0.3 €/kg. Even so, once to the operational costs has decrease, the economic performance shows an improvement, with better indicators for Gross Value Added (GVA), gross profit and net profit.

Distant water fleet

The distant water fleet comprised 20 surface longliners in 2015. It must be stressed that the 12 demersal trawlers included in the previous years in this fleet were reclassified for the Large-scale fleet, so it is not appropriated to compare the economic and social indicators with the previous years. In 2015, the fleet generated 327 jobs. In terms of economic performance, the fleet showed an estimated Gross Value Added (GVA), gross profit and net profit of €10.3 million, €7.4 million and €4.3 million, respectively.

Outermost region fleets

Madeira

The Madeiran fleet consisted of 436 vessels in 2015, having a combined gross tonnage (GT) of 4 thousand and an engine power of 16.5 thousand kW. The majority of this fleet had an overall length of 12 meters or less and the active fleet amounted to only 91 vessels in 2015. The Madeiran fleet develops its activity mainly in Subarea 2 ZEE-Madeira, with vessels operating in certain seasons of the year in Azorean waters and the Canary Islands, under reciprocity agreements. The majority of the active vessels operated with long-lines and the most representative species are Black scabbardfish and Bigeye tuna, representing 45% and 15% of total landings, respectively.

Azores

In 2015, the fleet of Azores consisted of 761 vessels, having a combined gross tonnage of 8.4 thousand GT and an engine power of 51.3 thousand kW. 85.5% of this fleet had an overall length of 12 meters or less and the active fleet represents 76% of the fleet. The Azorean fleet develops its activity mainly in Sub-area Azores EEZ, and is licensed mostly for longliners (HOK) and nets (DFN). The most representative species are; tunas (41.2%), blue jack mackerel (8.4%), blackspot seabream (6.8%), conger (6.4%9 and silver scabbard fish (5.6%) that in total are representing around 66% of the total of landings.

Performance results of selected fleet segments

The Portuguese fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the Portuguese Exclusive Economic Zone (27.IX.a for the mainland fleet, 27.X for the Azores's fleet and CECAF 34.1.2 for the Madeira's fleet). The national fleet consisted of 54 (DCF) fleet segments in 2015, and 6 inactive length classes. A short description of the most important segments is provided below.

Demersal trawl and seine over 40m (mainland fleet) – 10 vessels made up this segment which operates predominantly in Area 27 (NAFO, Norway, Banana hole and Irminger). The fleet targets a variety of species but in particular Atlantic Cod, Atlantic redfish and Greenland halibut. In 2015, the total value of landings was around €52.0 million and around 308 FTEs were employed in this fleet segment, contributing to 14.8% and 3.8% of the total income from landings and FTEs generated by the Portuguese fishing fleet, respectively. This fleet segment was reasonably profitable, with a reported gross profit of around €20.48 million and net profit of €14.5 million in 2015.

Demersal trawl and seine 24-40m (mainland fleet) – 59 vessels made up this segment in 2015; the fleet targets a variety of species but in particular deep water rose shrimp, Atlantic horse mackerel and Atlantic mackerel. In 2015, the total value of landings was around €42 million and around 488 FTEs were employed in this fleet segment, contributing to 11.9% and 6.0% of the total income from landings and FTEs generated by the Portuguese fishing fleet, respectively. The fleet segment reported a gross profit of around €10 million and net profit of €5 thousand.

Hooks 24-40m (OFR – mainland fleet) – 9 vessels made up this segment, which operates predominantly along the African Coast and in the Indian Ocean (FAO areas 34, 41, 51 and 57). The fleet targets a variety of species but in particular large pelagic fishes such as blue shark, bigeye tuna and swordfish. In 2015, the income from landings reached €9.5 million and 108 FTEs were employed in this fleet segment, contributing 2.7% and 1.3% of the total income from landings and FTEs generated by the Portuguese fishing fleet, respectively. This fleet segment had a reported gross profit of around €3.9 million and net profit of €2.2 million in 2015. This is fleet segment continues the improvement observed in 2014 explained by the 2013 fleet adjustment in the capacity of the segment targeting swordfish in the Atlantic Ocean north of 5º N and the fuel price decrease.

Purse seine 18-24m (mainland fleet) – 51 vessels made up this segment in 2015, which operates predominantly in Area 27 (27.IX.a and 27.VIII.c). The fleet targets a variety of species but in particular small pelagic fishes, such as Atlantic pilchard, chub mackerel and Atlantic horse mackerel. In 2015, the total value of landings was €27.1 million and the fleet segment employed around 493 FTEs, contributing 7.7% and 6.1% of the total income from landings and FTEs, respectively. The fleet segment achieved a reported gross profit of around €6.6 million and net profit of €4.2 million. The average price per kg continued its upward trend in 2014, contributing to the stability of the segment.

Hooks 24-40m (Azores) – This fleet segment generates over 25% of total landings value and around 37% of total weight in Azores. It's composed by 27 vessels operating exclusively in Area 27.X.a. The fleet targets mainly tuna fishes (big eye tuna, albacore and skipjack). In 2015, the total value from landings was €8.1 million and the fleet segment employed 287 FTEs. Albeit the importance of the fleet segment, its going through difficult years with weak profitability, achieving a reported gross profit of €2 million and net profit of -€0.3 million.

Hooks 12-18m (Madeira) – This fleet segment generates over 52% of total landings value and around 40% of total weight in Madeira. It's composed by 18 vessels operating exclusively in Madeiran waters (34.1.2). The fleet targets mainly black scabbard fish (BSF), which constitutes over 89% of the fleet segment landings value. In 2015, the total value from landings was €7.0million and the fleet segment employed 182 FTEs. The fleet segment remained profitable over the period 2008-2015, generating a reported gross profit of €1.9 million and a net profit of €1.7 million.

Drivers affecting the economic performance trends

Higher average fish prices, lower fuel costs and further effort reduction were the main driving forces behind the overall improvement.

The increase in the average prices was a consequence of the lower availability of fish due to decreasing catches. The decrease on landings on sardine, traditionally the most caught specie in Portugal, due to the restrictions imposed on catches, made the average price of this species go up from €0.8 per kg in 2011 to €2.2 per kg in 2015 and mitigating the economic effects on purse seiners.

Markets and Trade

About 22% of landings occur in foreign harbours. Of the Portuguese harbours, Sesimbra, Olhão, Matosinhos, Aveiro and Figueira da Foz are the most important with about 21%, 11%, 10.7%, 8.8% and 7.6% of domestic landings, respectively. Peniche and Sines are also relevant with 7.1% of domestic landings each.

Around 89% of landings in foreign harbours occur in Spain, 5% in Mauritius, 3% in Namibia, 2% in Morocco and the remaining in several third countries.

The number of recognized Producers organizations as been maintained as in 2014; 15 OP's of which 12 on mainland. These organizations account for 1696 vessels, increasing for 40% of total licensed vessels. Purse seiners are the most represented segment in those structures and sardine and chub mackerel the main species landed. Around 98.6% of sardine and 82.9% of chub mackerel landed in Portugal were accounted to producer's organizations.

The average price of fresh fish landed in 2015 in national harbours decreased in relation to 2014, from €2.02 per kg to €1.81 per kg. This was force by the decrease of average price in mainland (-13.8%, from €1.91 per kg to €1.65 per kg) that the positive increment from Azores and Madeira couldn't invert. The biggest increase happened in Madeira (+24.8%), followed by Azores (+13.5%). In 2016, average price of fresh fish landed had recovered in €0.23 per kg, to €2.1 per kg, representing an increase of 18.3%.

Management instruments

In 2015, fishing permits constraints have been pursued on the use of certain gear for the most vulnerable species. In specific circumstances, the administration has allowed gear transfers between vessels providing that the receiving vessel achieves a better economic profitability without increasing fishing effort. The allocation of new gear permits was strongly restricted to ensure that levels of fishing effort do not exceed those commensurate with the sustainable use of fishery resources and in order to keep the existing balances between fleet segments.

In 2015, the following recovery plans / adjustment of fishing effort or capacity control schemes were applied:

- Recovery plan for Southern hake and Norway lobster stocks in the Cantabrian Sea and South Western Iberian waters with the aim of rebuilding those stocks to within safe biological limits. This recovery plan sets TAC constraints and progressive adjustments to the maximum number of fishing days available to vessels subject to a system of fishing effort limitations (reducing fishing mortality rate of 10% per year). The vessels under this recovery plan are identified with a special fishing permit;
- Fishing effort rules as a method to ensure the precautionary management of deep sea stocks. The system in place includes the limitation of the global fishing effort for those stocks and the issuing of a special fishing permit to vessels targeting deep-sea species;
- -Management plan to promote the recovery of the Iberian sardine stock. This plan establishes several harvesting rules for seiners, total allowed catches, actions to protect juveniles and to greatly decrease the fishing effort in order to reach MSY in a short period;
- Adjustment of fishing effort for surface longline vessels targeting swordfish in the north Atlantic with the aim to maintain the sustainability of the fishery. A goal of around 38% of capacity reduction has been defined in order to allow an adequate balance between fishing effort and available quotas;
- Recovery plan for bluefin tuna, freezing fishing capacity. Catching vessels are not authorized to fish actively for bluefin tuna. Only by-catches of bluefin tuna not exceeding 5% of the total catch on board are authorized;
- Eel management plan, including fishing gear restrictions, limited catching seasons and a recreational fishing ban.

TACs and quotas

Fishing opportunities for Portugal increased by 22% in 2015 (+ 10% in 2014). Considering the global species under catch restrictions, it is worth noting the increase in the share of mackerel (+ 70%), mackerel (+ 37%), blue whiting (+ 32%);

European anchovy (+ 10%), Norway lobster (+ 15%) and monkfish (+ 14%). In contrast, the proportion of seabream, hake and megrim fell 50%, 15% and 39%, respectively.

Portugal has fishing quotas in national and international waters and fisheries partnership agreements with third countries. There are also fishing opportunities in the NAFO, NEAFC, ICCAT and IOTC areas.

In the North Atlantic, there was an increase in the initial quota for cod in Svalbard, Norway and NAFO, but by the end of the year, due to trade with other Member States, Portugal lost 10% of cod's fishing opportunities. The second relevant fishery for the Portuguese fleet in the North Atlantic is that of redfish. In this case, by 2015, Portugal had got a reduction in the initial quota of redfish (12%), but again, using swaps achieved greater fishing possibilities than in 2014 (+ 22%).

The North Atlantic quotas (NAFO, Norway and Svalbard) are normally not sufficient to cover the fishing needs of the Portuguese fleet segments operating in these waters, with quotas being almost fully utilized.

As regards highly migratory species, tuna and swordfish are the most important for the Portuguese fleet. In 2015, Portugal slightly increased the tuna quota and lost 16% of swordfish quota. During the year, it was possible to negotiate swaps in order to reduce the loss of this quota (-3.4%), for quantities close to the needs of Portuguese fishing.

As for the partnership agreements with third countries, the situation has not changed since last year. In 2015, were 2 vessels in Cabo Verde and 5 in Morocco.

Projections for 2016 and outlook

Preliminary results for 2016 forecast a 1.2% increase in landed weight. The increase was achieved by a strong increase in the landings in the distant water fleet (35.0% increases in relation of 2015). The landings in fresh fish in national ports, which represents 65% of the overall landings, the landed weight decrease 11%, but the value increase 3.4%. According to the Statistics Portugal report for 2016 the fish average price increase €0.23 per kg representing an increase of 18.3% in the landing value when compared with 2015.

In relating of costs for 2016 the structure is expecting to remain constant and the main costs (labour and fuel) prediction is to be similar to the ones achieved in 2015, so it will be expected higher values for the economic indicators.

It should be stressed that since 2005 (year when the public support to new vessel construction stops) the investment costs related with new vessels construction are very close to zero, since the fleet renewal represents only 0.1% of the total capacity (GT and kW) per year. Maintaining the renewal indicators in the observed levels for 2005-2016 can compromise all the fishing activity in the near future. The main factors related to that are the instability for the TACs and quotas for the future, the problems with the financial sector in Portugal and the difficulty of new investors enter in this activity, since if a new investor wants get in this business with a new production unit (new vessel), first he has to buy an old equivalent one and after that scrap the vessel, which will represent a large investment. It is observed also that the ship owners tend to keep the vessel to an over age limit, doing only the necessary repairs, since they have size constrains for the new vessel, which represents a large investment that for one unit that will be equivalent in terms of GT to the one they own.

MODEL FORECAST

Preliminary results for 2016 forecast a slight increase in landed weight (-1%) with a 1% decrease in value. Projections suggest operating costs decrease, most notably energy costs which are estimated to have decreased by 21% due to the continued low fuel prices. A projected 2% reduction in labour costs together with a reduction in capital costs, lead to an increase in the 2016 economic performance. Economic performance projections for 2016 suggest a 3% increase in GVA, +8% in gross profit, +15% in net profit and +6% in GVA per FTE, estimated at €33 thousand in 2016.

Nonetheless, results indicate that the Portuguese fleet operated at a profit in 2016: with an estimated net profit of almost €88 million and margin of 25%. Positive economic developments are also seen in performance indicators GVA to revenue (+4%), gross profit margin (+9%) and net profit margin (+15%).

The economic performance is worsened in 2017 as increased landings (+10% compared to projected 2016 figures) are matched with a 2% decrease in value. Increased energy costs (+12%), labour costs (+3%) and other variable costs (+3%) are offset by lower fixed and capital costs and the fleet remains profitable, with gross and net profit margins of 34% and 24%, respectively. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Data issues

Some differences were detected in the total value of landings and income from landings, as they are the result of two different data collection procedures, the first from administrative sources, the second from the annual economic survey to the fleet. Differences should be less than 5%, according to the survey specifications.

Table 5.83 Portugal: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	8,770	8,731	8,655	8,507	8,399	8,311	8,256	8,205	*3,862*	*3,380*		-1%	-4%
Number of Inactive vessels_ms	(#)	4,016	4,105	4,178	4,260	4,316	4,287	4,311	4,334	*4,233*			1%	3%
Vessel tonnage	(thousand GT)	107.2	107.7	104.4	102.2	101.1	100.1	100.4	100.3				0%	-3%
Engine power	(thousand kW)	389.2	393.2	383.6	374.9	371.2	368.0	368.1	367.7				0%	-3%
Total employed	(person)	17,239	17,860	16,583	18,258	16,754	17,867	16,992	16,086	*15,710*	*14,158*		-5%	-7%
FTE	(#)	9,155	9,260	9,155	9,614	9,241	9,748	8,515	8,130	*7,911*	*9,379*		-5%	-12%
Days at sea	(thousand day)	441.1	425.0	402.3	390.9	385.4	368.8	335.6	352.5	*345.7*	*375.1*		5%	-10%
Fishing days	(thousand day)	399.6	383.7	362.1	351.9	348.9	331.5	321.5	338.2				5%	-5%
Number of fishing trips	(thousand)	382.0	370.9	357.1	343.1	336.1	312.6	310.9	320.6				3%	-7%
Energy consumption	(million litre)	107.7	108.6	108.5	106.1	103.6	100.4	82.9	79.6	*78.6*	*86.9*		-4%	-22%
Live weight of landings	(thousand tonne)	193.9	171.6	194.7	197.7	189.1	196.0	163.4	183.4	*184.5*	*203.3*		12%	-2%
Value of landings	(million €)	400.8	361.0	399.2	408.9	386.8	367.7	353.4	351.9	*347.7*	*340.8*		0%	-8%
Income from landings	(million €)	402.9	367.2	402.5	412.7	382.6	362.9	363.7	355.9	*353.3*	*343.7*		-2%	-8%
Other income	(million €)	1.3	0.9	3.6	3.8	3.4	1.9	1.2	0.8	*0.8*	*0.6*		-32%	-65%
Direct income subsidies	(million €)	-	4.2	3.3	1.9	1.0	0.1	4.2	3.8				-10%	82%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	151.6	135.1	144.8	151.9	144.7	131.1	130.4	127.8	*125.1*	*129.4*		-2%	-10%
Unpaid labour value	(million €)	5.8	5.7	6.0	6.0	8.7	4.8	5.6	5.3	*5.3*	*5.3*		-4%	-12%
Energy costs	(million €)	74.3	59.4	62.7	75.4	78.7	67.3	57.7	43.1	*34.1*	*38.1*		-25%	-37%
Repair & maintenance costs	(million €)	21.5	23.6	24.4	23.9	22.8	22.5	24.8	18.8	*18.5*	*15.0*		-24%	-20%
Other variable costs	(million €)	40.5	37.7	44.3	41.6	38.2	35.7	34.2	32.4	*32.3*	*33.3*		-5%	-17%
Other non-variable costs	(million €)	15.8	14.9	20.8	12.1	13.1	15.9	12.8	8.3	*7.9*	*6.6*		-35%	-45%
Annual depreciation costs	(million €)	45.8	52.7	51.2	45.9	45.6	41.1	41.5	36.0	*35.1*	*28.7*		-13%	-22%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-				
Opportunity cost of capital	(million €)	8.3	27.3	19.6	31.4	36.2	27.5	18.1	8.6	*8.0*	*6.4*		-53%	-64%
Tangible asset value (replacement)	(million €)	469.8	528.3	498.3	490.4	480.2	469.1	457.2	451.3	*318.1*	*257.4*		-1%	-7%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	9.4	21.1	22.5	14.4	11.5	13.3	17.9	14.4				-19%	-8%
Financial position	(%)	-	-	-	-	-	-	-	-					
Gross Value Added	(million €)	252.1	232.6	253.8	263.6	233.2	223.5	235.5	254.2	*261.3*	*251.2*		8%	5%
GVA to revenue	(%)	62.4	63.2	62.5	63.3	60.4	61.3	64.5	71.3	*73.8*	*73.0*		10%	14%
Gross profit	(million €)	94.7	91.8	103.0	105.7	79.8	87.6	99.5	121.1	*130.9*	*116.5*		22%	28%
Gross profit margin	(%)	23.4	24.9	25.4	25.4	20.7	24.0	27.3	33.9	*37.0*	*33.8*		24%	39%
Net profit	(million €)	40.5	11.8	32.2	28.3	- 2.0	19.0	39.9	76.5	*87.7*	*81.4*		92%	216%
Net profit margin	(%)	10.0	3.2	7.9	6.8	- 0.5	5.2	10.9	21.5	*24.8*	*23.6*		96%	245%
GVA per FTE (labour productivity)	(thousand €)	27.5	25.1	27.7	27.4	25.2	22.9	27.7	31.3	*33.0*	*26.8*		13%	19%
Return on fixed tangible assets	(%)	10.4	7.4	10.4	12.2	7.1	9.9	12.7	18.9	*30.1*	*34.1*		49%	88%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

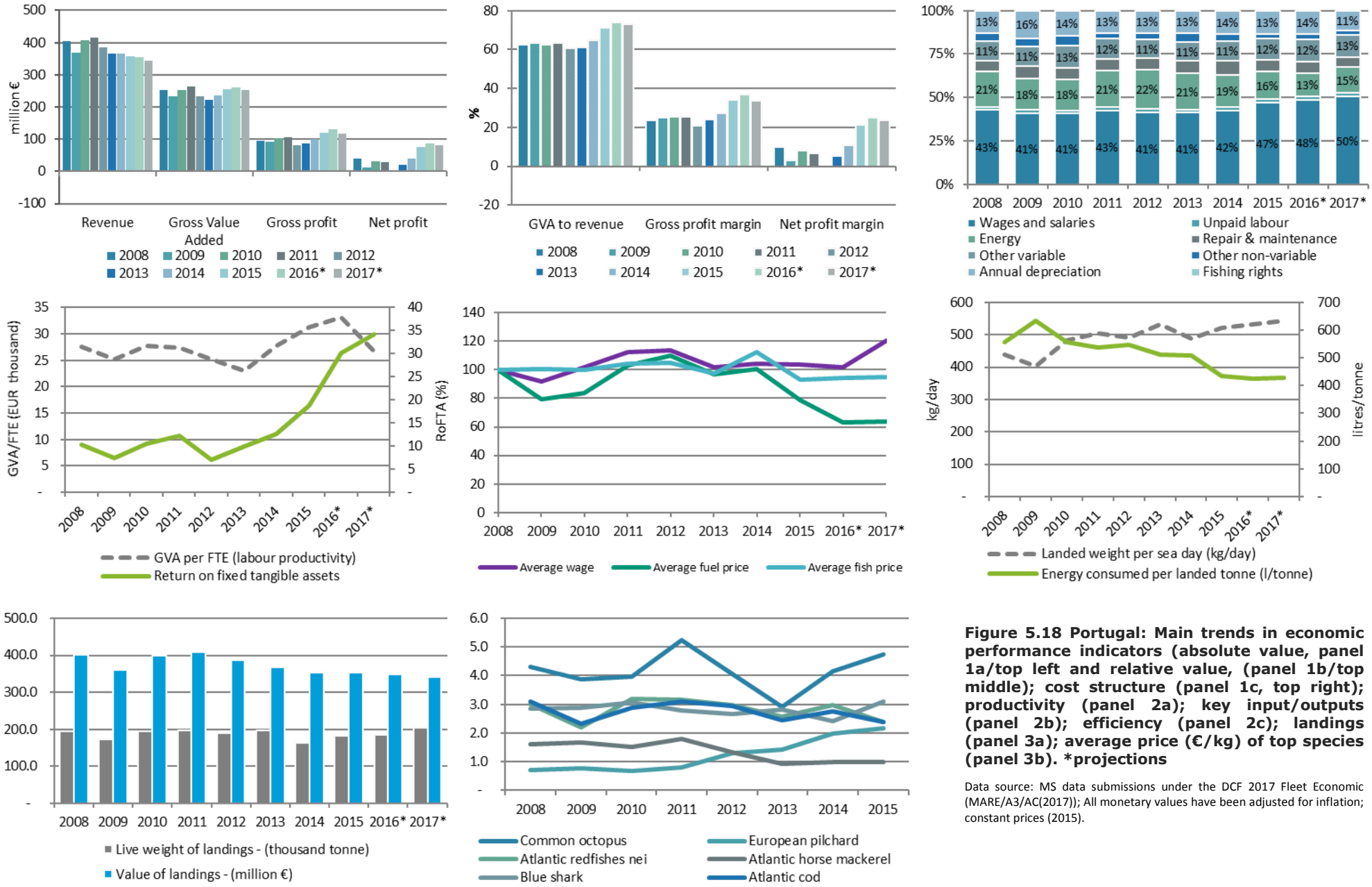


Figure 5.18 Portugal: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.84 Portugal: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	3,792	3,665	3,540	3,338	3,230	3,185	3,097	3,044	3,049	2,613		-2%	-11%
Vessel tonnage	(thousand GT)	7.9	7.8	7.7	7.5	7.5	7.4	7.4	7.2				-2%	-5%
Engine power	(thousand kW)	108	108	107	104	103	101	100	98				-2%	-6%
FTE	(#)	3,246	3,063	2,827	3,370	3,022	3,413	2,967	2,923	2,927	2,920		-1%	-7%
Total employed	(person)	9,397	9,321	8,523	10,075	8,862	9,857	8,957	8,522	8,539	7,353		-5%	-8%
Days at sea	(thousand day)	285.1	272.0	253.6	245.8	248.5	236.4	213.8	225.6	225.9	225.7		6%	-10%
Fishing days	(thousand day)	264.8	253.7	236.2	228.4	231.2	218.8	212.1	225.3				6%	-4%
Number of fishing trips	(thousand)	255.9	245.5	232.3	223.9	226.7	213.0	214.9	222.3				3%	-3%
Energy consumption	(million litre)	12.3	12.6	12.7	11.7	12.1	10.8	7.7	7.6	7.6	7.6		-1%	-33%
Live weight of landings	(thousand tonne)	22.0	19.4	21.9	17.8	20.5	22.1	20.2	20.5	20.5	20.5		1%	-1%
Value of landings	(million €)	95.8	76.6	79.6	76.6	76.7	76.1	82.3	81.6	81.8	80.6		-1%	1%
Income from landings	(million €)	97.5	79.1	79.8	76.6	76.4	75.7	83.0	81.7	81.9	80.7		-2%	1%
Other income	(million €)	0.1	0.1	0.8	0.4	0.5	0.2	0.0	0.1	0.1	0.1		305%	-76%
Direct income subsidies	(million €)	-	0.1	0.2	0.0	0.0	0.0	0.0	0.0				77%	-67%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	37.5	30.2	30.7	29.4	29.9	28.9	30.9	27.7	27.8	27.4		-10%	-11%
Unpaid labour value	(million €)	4.3	4.8	4.0	4.8	8.2	4.2	4.9	4.7	4.7	4.7		-4%	-6%
Energy costs	(million €)	8.4	7.5	7.6	8.5	8.6	8.0	7.2	6.6	5.3	5.8		-9%	-17%
Repair & maintenance costs	(million €)	3.0	3.3	3.3	3.1	3.1	3.1	3.2	3.0	2.9	2.5		-7%	-6%
Other variable costs	(million €)	6.3	5.4	5.2	5.0	4.9	4.8	5.5	6.5	6.5	6.4		17%	22%
Other non-variable costs	(million €)	2.7	1.8	2.8	1.9	1.9	2.2	1.8	1.3	1.3	1.1		-28%	-40%
Annual depreciation costs	(million €)	8.7	9.7	9.6	9.0	9.2	9.1	8.8	8.5	8.5	7.3		-4%	-7%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-				
Opportunity cost of capital	(million €)	1.3	4.1	3.1	4.7	5.5	4.2	2.7	1.2	1.6	1.4		-54%	-66%
Tangible asset value (replacement)	(million €)	72.8	79.8	78.7	73.7	73.1	71.7	68.1	64.7	64.9	56.1		-5%	-13%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	2.7	4.6	2.9	1.3	1.3	1.2	1.6	1.7				6%	-26%
Gross Value Added	(million €)	77.3	61.1	61.6	58.5	58.3	57.7	65.3	64.4	65.8	64.9		-1%	2%
GVA to revenue	(%)	79.2	77.2	76.4	76.0	75.8	76.0	78.6	78.7	80.4	80.4		0%	2%
Gross profit	(million €)	35.5	26.1	26.9	24.2	20.3	24.5	29.4	31.9	33.3	32.9		8%	19%
Gross profit margin	(%)	36.3	33.0	33.3	31.5	26.3	32.4	35.4	39.0	40.6	40.7		10%	20%
Net profit	(million €)	25.5	12.3	14.2	10.5	5.6	11.3	17.9	22.1	23.1	24.1		24%	59%
Net profit margin	(%)	26.1	15.6	17.6	13.7	7.3	14.9	21.5	27.1	28.2	29.9		26%	63%
Return on fixed tangible assets	(%)	36.7	20.6	21.9	20.7	15.2	21.6	30.2	36.1	38.2	45.5		20%	51%
GVA per FTE (labour productivity)	(thousand €)	23.8	20.0	21.8	17.3	19.3	16.9	22.0	22.0	22.5	22.7		30%	11%

		LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	922	923	898	874	819	812	822	807	771	722		-2%	-7%
Vessel tonnage	(thousand GT)	63.8	65.6	63.2	63.0	60.9	61.7	61.3	55.8				-9%	-11%
Engine power	(thousand kW)	178	179	172	170	164	166	165	158				-4%	-7%
FTE	(#)	5,537	5,835	5,949	5,835	5,825	6,037	5,199	4,928	4,651	6,152		-5%	-14%
Total employed	(person)	7,431	8,124	7,651	7,751	7,478	7,668	7,653	7,234	6,781	6,432		-5%	-6%
Days at sea	(thousand day)	146.5	144.5	138.9	136.4	130.2	126.7	116.4	122.4	114.3	144.5		5%	-9%
Fishing days	(thousand day)	127.8	123.7	118.9	116.7	111.5	107.5	104.5	108.8				4%	-6%
Number of fishing trips	(thousand)	125.8	125.2	124.5	119.0	109.1	99.3	95.8	98.0				2%	-14%
Energy consumption	(million litre)	78.7	81.1	78.9	78.7	78.9	79.0	65.1	64.2	61.9	72.6		-1%	-17%
Live weight of landings	(thousand tonne)	162.5	142.7	160.4	168.3	155.7	166.3	134.5	156.4	156.1	175.6		16%	0%
Value of landings	(million €)	277.5	253.5	278.3	295.4	273.7	265.4	249.2	252.4	243.9	260.2		1%	-7%
Income from landings	(million €)	277.8	255.5	279.3	297.5	277.5	258.0	255.4	253.7	246.3	263.0		-1%	-7%
Other income	(million €)	1.2	0.7	2.4	2.9	2.7	1.6	0.9	0.6	0.6	0.6		-34%	-65%
Direct income subsidies	(million €)	-	3.9	2.7	1.9	1.0	0.1	4.2	3.8				-10%	91%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	108.9	100.1	107.1	115.6	110.0	96.7	94.5	97.2	93.8	102.1		3%	-7%
Unpaid labour value	(million €)	1.5	1.0	2.0	1.1	0.5	0.6	0.6	0.6	0.6	0.6		-4%	-43%
Energy costs	(million €)	54.5	43.7	45.3	55.4	60.5	51.9	44.2	32.0	24.8	32.3		-27%	-37%
Repair & maintenance costs	(million €)	15.7	17.5	17.7	17.7	17.2	17.1	19.5	14.3	13.7	12.5		-27%	-18%
Other variable costs	(million €)	28.6	26.8	29.7	30.2	28.0	25.5	24.8	22.0	21.0	26.9		-12%	-21%
Other non-variable costs	(million €)	11.6	11.4	15.2	9.3	10.0	11.8	10.1	6.5	6.0	5.5		-35%	-43%
Annual depreciation costs	(million €)	31.6	37.5	35.7	31.7	31.6	27.9	29.2	24.7	23.3	21.4		-15%	-23%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-				
Opportunity cost of capital	(million €)	4.2	14.5	10.2	16.7	19.1	14.8	9.7	4.4	5.6	5.0		-54%	-65%
Tangible asset value (replacement)	(million €)	238.8	281.0	259.6	260.1	253.2	252.5	244.5	232.2	221.4	201.3		-5%	-9%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	6.0	14.4	18.1	11.9	9.2	11.3	15.5	11.9				-23%	-4%
Gross Value Added	(million €)	168.7	156.9	173.8	187.8	164.4	153.2	157.9	179.6	181.4	186.3		14%	8%
GVA to revenue	(%)	60.4	61.2	61.7	62.5	58.7	59.0	61.6	70.6	73.5	70.7		15%	16%
Gross profit	(million €)	58.3	55.8	64.8	71.0	53.9	55.9	62.7	81.7	86.9	83.6		30%	35%
Gross profit margin	(%)	20.9	21.8	23.0	23.6	19.2	21.6	24.5	32.1	35.2	31.7		31%	46%
Net profit	(million €)	22.5	3.8	18.9	22.7	3.1	13.3	23.9	52.6	58.1	57.2		120%	241%
Net profit margin	(%)	8.0	1.5	6.7	7.6	1.1	5.1	9.3	20.7	23.5	21.7		122%	268%
Return on fixed tangible assets	(%)	11.2	6.5	11.2	15.1	8.8	11.1	13.7	24.7	29.0	30.9		80%	122%
GVA per FTE (labour productivity)	(thousand €)	30.5	26.9	29.2	32.2	28.2	25.4	30.4	36.4	39.0	30.6		20%	6%

		DWF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	40	38	39	35	34	27	26	20	42	44		-23%	-41%
Vessel tonnage	(thousand GT)	13.5	12.0	12.7	11.5	11.1	9.1	8.9	6.7				-25%	-41%
Engine power	(thousand kW)	26	24	25	22	22	18	17	13				-27%	-44%
FTE	(#)	371	362	381	410	396	301	348	278	333	307		-20%	-24%
Total employed	(person)	411	415	410	433	416	345	381	327	389	374		-14%	-19%
Days at sea	(thousand day)	9.4	8.4	9.8	8.7	6.7	5.6	5.4	4.5	5.4	4.9		-17%	-42%
Fishing days	(thousand day)	7.0	6.3	7.1	6.8	6.2	5.2	4.9	4.1				-18%	-35%
Number of fishing trips	(thousand)	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2				-19%	-21%
Energy consumption	(million litre)	16.6	14.9	16.9	15.6	12.7	10.6	10.1	7.4	9.1	6.7		-26%	-47%
Live weight of landings	(thousand tonne)	9.5	9.5	12.4	11.6	11.5	7.5	8.7	6.5	8.0	7.2		-25%	-35%
Value of landings	(million €)	27.5	30.9	41.3	36.9	30.5	25.8	21.9	18.0	22.0			-18%	-41%
Income from landings	(million €)	27.5	32.6	43.4	38.7	28.8	29.3	25.3	20.5	25.2			-19%	-36%
Other income	(million €)	-	0.1	0.3	0.5	0.2	0.1	0.2	0.1	0.1			-51%	-49%
Direct income subsidies	(million €)	-	0.1	0.3	0.0	-	-	-	-					-100%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	5.2	4.8	7.0	6.9	4.9	5.5	5.0	2.8	3.4			-43%	-49%
Unpaid labour value	(million €)	-	-	-	-	-	-	-	-	-				
Energy costs	(million €)	11.3	8.2	9.8	11.5	9.6	7.4	6.3	4.4	4.0			-29%	-52%
Repair & maintenance costs	(million €)	2.8	2.8	3.4	3.0	2.5	2.2	2.1	1.5	1.8			-28%	-43%
Other variable costs	(million €)	5.7	5.5	9.4	6.5	5.2	5.4	3.8	3.9	4.7			2%	-34%
Other non-variable costs	(million €)	1.6	1.7	2.7	0.9	1.2	1.8	0.9	0.5	0.6			-48%	-69%
Annual depreciation costs	(million €)	5.5	5.6	5.9	5.3	4.8	4.1	3.5	2.7	3.3			-22%	-45%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-				
Opportunity cost of capital	(million €)	0.8	2.2	1.7	2.9	3.1	2.0	1.1	0.4	0.8			-65%	-80%
Tangible asset value (replacement)	(million €)	44.3	42.8	44.3	44.5	41.6	34.6	28.9	21.3	31.8			-26%	-47%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	0.6	2.1	1.4	1.2	1.0	0.8	0.8	0.9				12%	-20%
Gross Value Added	(million €)	6.1	14.6	18.4	17.3	10.5	12.6	12.4	10.3	14.1			-17%	-22%
GVA to revenue	(%)	22.2	44.7	42.1	44.2	36.4	42.8	48.5	49.8	55.7			3%	24%
Gross profit	(million €)	0.9	9.8	11.4	10.5	5.7	7.1	7.4	7.4	10.7			0%	-2%
Gross profit margin	(%)	3.4	30.1	26.1	26.7	19.6	24.2	29.0	36.0	42.1			24%	59%
Net profit	(million €)	- 5.4	2.1	3.8	2.3	- 2.3	0.9	2.7	4.3	6.8			56%	622%
Net profit margin	(%)	- 19.5	6.3	8.6	5.9	- 7.9	3.2	10.8	20.8	26.9			93%	1877%
Return on fixed tangible assets	(%)	- 10.4	10.0	12.4	11.6	2.0	8.6	13.5	22.0	33.5			63%	223%
GVA per FTE (labour productivity)	(thousand €)	16.5	40.4	48.3	42.3	26.6	41.7	35.5	36.9	42.3			-15%	-1%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.85 Portugal: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
PRT A27 DTS40XX IWE	10	308	1,876	620	21,764	52,015	44,062	33,480	76.0	20,480	46.5	14,545	33.01	42.2	108.7	35	High	352%	Improved	12.3%
PRT A27 DTS2440	59	488	13,765	826	28,144	37,308	42,221	23,295	55.2	10,006	23.7	5,014	11.88	27.2	47.7	13	Reasonable	422%	Improved	11.8%
PRT A27 PGP0010	1,840	1,507	136,095	279	11,583	39,495	39,674	30,991	78.1	15,309	38.6	10,557	26.61	10.4	20.6	37	High	82%	Improved	11.1%
PRT A27 PS1824	51	493	7,599	98	35,738	27,112	27,872	21,515	77.2	6,637	23.8	4,168	14.95	30.2	43.6	24	Reasonable	86%	Improved	7.8%
PRT A27 PS2440	19	220	2,878	97	18,215	15,483	15,581	11,965	76.8	4,472	28.7	3,000	19.26	34.1	54.4	32	Reasonable	254%	Improved	4.3%
PRT A27 HOK2440	16	163	3,375	693	3,127	13,379	13,915	9,601	69.0	6,003	43.1	4,772	34.30	22.1	58.9	44	High	2005%	Improved	3.9%
PRT A27 DFN1218	84	443	15,146	599	3,825	13,476	13,500	9,702	71.9	3,850	28.5	1,621	12.01	13.2	21.9	13	Reasonable	252%	Improved	3.8%
PRT A27 HOK1824	21	207	4,048	483	2,875	10,512	11,283	7,323	64.9	2,855	25.3	1,906	16.90	21.6	35.4	24	Reasonable	96%	Improved	3.1%
PRT OFR HOK2440 IWE	9	108	2,332	1,034	3,774	9,473	11,030	5,250	47.6	3,922	35.6	2,161	19.59	12.3	48.6	23	Reasonable	9929%	Improved	3.1%
PRT A27 HOK0010 P3	351	316	26,380	527	1,872	9,428	9,622	7,845	81.5	3,845	40.0	2,424	25.19	12.7	24.8	26	High	6%	Improved	2.7%
PRT A27 HOK2440 P3°	27	287	5,073	1,061	3,819	8,148	9,469	6,030	63.7	2,027	21.4	- 287	- 3.03	13.9	21.0	0	Weak	-1384%	Deteriorated	2.6%
PRT A27 PS1218	36	203	5,167	70	11,197	7,955	8,300	6,480	78.1	2,383	28.7	1,793	21.60	20.2	31.9	39	High	55%	Improved	2.3%
PRT OFR HOK40XX IWE	4	62	1,048	1,782	1,545	5,785	7,830	4,566	58.3	3,843	49.1	3,217	41.09	11.7	73.6	56	High	933%	Improved	2.2%
PRT A27 FPO0010	161	143	12,383	364	1,389	7,379	7,433	5,966	80.3	3,168	42.6	2,498	33.60	19.6	41.7	59	High	15%	Improved	2.1%
PRT OFR HOK1218 P2	18	182	4,152	526	1,931	7,037	7,409	5,531	74.6	1,916	25.9	1,666	22.49	19.9	30.4	97	High	23%	Improved	2.1%
PRT A27 HOK1218	22	177	3,934	369	1,771	6,924	7,161	5,585	78.0	2,736	38.2	2,393	33.42	16.1	31.6	71	High	138%	Improved	2.0%
PRT A27 FPO1218	45	198	5,846	362	1,651	7,006	7,021	5,172	73.7	2,271	32.3	1,385	19.72	14.7	26.1	23	Reasonable	72%	Improved	2.0%
PRT A27 DFN1824	28	291	6,462	696	2,261	6,511	6,527	4,501	69.0	2,190	33.6	967	14.81	7.9	15.5	11	Reasonable	237%	Improved	1.8%
PRT A27 HOK1012 P3	69	332	8,527	739	1,467	6,280	6,303	4,829	76.6	2,240	35.5	1,486	23.58	7.8	14.5	29	High	59%	Improved	1.8%
PRT A27 HOK1218 P3	40	212	4,824	432	1,807	5,529	5,696	4,469	78.4	2,022	35.5	1,419	24.91	11.5	21.1	33	High	99%	Improved	1.6%
PRT A27 FPO1012	54	117	7,338	461	1,030	5,141	5,147	4,037	78.4	2,155	41.9	1,571	30.52	16.1	34.5	39	High	21%	Improved	1.4%
PRT A27 PS1012	30	146	3,669	95	4,733	4,693	4,783	3,811	79.7	1,372	28.7	1,078	22.53	16.7	26.1	45	High	22%	Improved	1.3%
PRT A27 DTS1824	7	44	1,527	2,979	451	3,731	4,505	2,686	59.6	1,470	32.6	1,003	22.27	27.6	61.1	30	High	627%	Improved	1.3%
PRT A27 DFN0010	232	134	11,969	331	916	4,160	4,174	3,449	82.6	1,573	37.7	1,023	24.51	14.0	25.7	31	High	4189%	Improved	1.2%
PRT A27 PGP1218	27	150	3,863	574	1,197	4,074	4,173	2,974	71.3	1,495	35.8	840	20.12	9.9	19.8	17	High	163%	Improved	1.2%
PRT A27 DTS1218	10	52	2,092	704	1,013	3,106	3,135	2,235	71.3	1,177	37.5	887	28.30	20.3	43.0	41	High	148%	Improved	0.9%

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
PRT A27 DRB1218	13	40	1,415	211	1,087	2,641	2,641	2,264	85.7	1,348	51.0	1,111	42.06	22.9	56.6	71	High	662%	Improved	0.7%
PRT A27 HOK0010	146	97	9,520	190	607	2,378	2,379	2,031	85.4	1,079	45.3	890	37.42	9.8	20.9	78	High	599%	Improved	0.7%
PRT A27 DFN1012	22	72	3,096	665	382	2,242	2,246	1,827	81.3	973	43.3	748	33.30	11.9	25.4	45	High	131%	Improved	0.6%
PRT A27 MGO0010	29	107	2,292	34	2,793	1,866	1,865	1,559	83.6	770	41.3	641	34.36	7.4	14.6	67	High	176%	Improved	0.5%
PRT OFR HOK2440 P2	7	108	1,111	609	1,230	2,733	1,752	456	26.0	- 334	- 19.1	- 1,095	- 62.51	7.3	4.2	- 19	Weak	-292%	Deteriorated	0.5%
PRT A27 PS0010	23	29	1,589	104	1,325	1,727	1,745	1,458	83.5	598	34.3	435	24.94	29.6	50.3	44	High	3%	Stable	0.5%
PRT OFR HOK1824 P2	3		531	488	461	1,570	1,570													0.4%
PRT A27 FPO1824	7	65	1,460	628	516	1,361	1,425	982	68.9	390	27.4	180	12.61	9.1	15.1	8	Reasonable	77%	Improved	0.4%
PRT A27 DRB1012	23	47	2,800	729	813	1,376	1,377	898	65.2	476	34.6	230	16.71	9.0	19.1	14	Reasonable	185%	Improved	0.4%
PRT A27 DRB0010	44	44	4,466	414	751	1,309	1,316	892	67.8	437	33.2	273	20.76	10.3	20.3	22	High	188%	Improved	0.4%
PRT A27 DTS0010	5	22	1,126	1,042	322	1,260	1,265	816	64.5	339	26.8	258	20.41	21.7	37.1	51	High	-27%	Deteriorated	0.4%
PRT A37 FPO2440	2	15	563	5,025	98	931	1,240	868	70.0	458	36.9	280	22.59	27.3	57.9	24	High	252%	Improved	0.3%
PRT A27 HOK1012	10	30	1,051	676	205	1,195	1,200	865	72.1	410	34.2	323	26.93	15.2	28.8	43	High	-1%	Stable	0.3%
PRT A27 TBB0010	43	59	3,328	647	235	903	1,054	797	75.6	494	46.9	370	35.14	5.1	13.5	43	High	1387%	Improved	0.3%
PRT A27 PS1012 P3°	13	103	2,502	435	785	996	998	640	64.1	299	30.0	153	15.36	3.3	6.2	16	Reasonable	19%	Improved	0.3%
PRT A27 PMP0010	47	33	2,575	499	203	909	923	651	70.6	294	31.8	159	17.18	10.8	19.7	21	Reasonable	200%	Improved	0.3%
PRT OFR HOK0010 P2°	49	55	2,840	677	210	912	921	653	70.9	256	27.7	142	15.44	7.2	11.9	20	Reasonable	-36%	Deteriorated	0.3%
PRT OFR MGP0010 P2	10	29	918	222	149	687	868	680	78.3	206	23.7	181	20.80	16.3	23.4	114	High	-11%	Deteriorated	0.2%
PRT A27 DFN0010 P3	42	42	2,699	381	273	760	854	662	77.5	318	37.2	230	26.93	8.2	15.8	39	High	-2%	Stable	0.2%
PRT A27 PGP1012	11	28	1,099	656	194	677	681	442	64.9	211	30.9	88	12.98	8.3	15.8	13	Reasonable	46%	Improved	0.2%
PRT A27 TBB1012	7	16	767	527	170	326	628	489	77.9	308	49.0	240	38.17	11.3	30.6	48	High	1072%	Improved	0.2%
PRT OFR MGP1824 P2°	3	35	579	128	769	545	552	357	64.7	51	9.2	9	1.63	8.7	10.2	3	Weak	110%	Improved	0.2%
PRT A27 PS0010 P3	25	31	2,132	702	259	383	443	311	70.2	133	30.1	68	15.32	5.7	10.0	16	Reasonable	75%	Improved	0.1%
PRT A27 MGO1012	6	22	475	70	304	314	314	207	66.0	77	24.6	32	10.09	5.9	9.4	11	Reasonable	-42%	Deteriorated	0.1%
PRT OFR MGP1012 P2	1		159	511	36	178	178													0.0%
PRT A27 PGP0010 P3°	10	17		341	120	622	175	107	61.3	49	28.0	6	3.30	3.4	6.3	4	Weak	-62%	Deteriorated	0.0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.86 Portugal: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
PRT A27 DTS40XX IWE	11	297	1,807	605	21,487	51,671	43,773	34,153	78.0	21,240	48.5	14,414	32.93	43.5	115.1	32.2	High	12.4%
PRT A27 DTS2440	58	480	13,525	798	28,633	36,901	41,759	25,313	60.6	12,168	29.1	6,994	16.75	27.4	52.8	18.5	Reasonable	11.8%
PRT A27 PGP0010	1,623	1,511	136,429	280	11,585	39,599	39,772	31,983	80.4	16,260	40.9	11,906	29.93	10.4	21.2	47.3	High	11.2%
PRT A27 PS1824	52	492	7,577	95	36,524	27,079	27,841	21,847	78.5	6,987	25.1	4,353	15.64	30.2	44.4	25.3	Reasonable	7.9%
PRT A27 PS2440	20	220	2,872	95	18,558	15,474	15,572	12,093	77.7	4,605	29.6	2,991	19.21	34.1	55.1	31.0	Reasonable	4.4%
PRT A27 HOK2440	17	163	3,373	693	3,125	13,370	13,906	9,796	70.4	6,200	44.6	4,819	34.65	22.1	60.1	42.2	High	3.9%
PRT OFR HOK2440 IWE	11	132	2,850	1,034	4,613	11,596	13,478	7,056	52.4	5,433	40.3	3,274	24.29	12.3	53.5	34.8	High	3.8%
PRT A27 DFN1218	51	436	14,905	601	3,751	13,313	13,336	10,303	77.3	4,521	33.9	3,113	23.34	13.3	23.6	36.9	Reasonable	3.8%
PRT A27 HOK1824	20	207	4,048	483	2,875	10,512	11,277	7,602	67.4	3,134	27.8	2,181	19.34	21.6	36.7	29.4	High	3.2%
PRT OFR HOK40XX IWE	5	78	1,310	1,782	1,932	7,243	9,803	6,537	66.7	5,632	57.4	4,831	49.28	11.7	84.3	76.3	High	2.8%
PRT A27 HOK0010 P3	373	314	26,217	525	1,869	9,428	9,622	7,959	82.7	3,958	41.1	2,383	24.77	12.7	25.3	24.9	High	2.7%
PRT A27 HOK2440 P3°	6	288	5,086	1,078	3,770	8,165	9,488	7,364	77.6	3,353	35.3	2,815	29.67	13.9	25.6	73.4	High	2.7%
PRT A27 PS1218	37	201	5,121	68	11,452	7,891	8,236	6,506	79.0	2,441	29.6	1,805	21.91	20.2	32.3	38.9	High	2.3%
PRT A27 FPO0010	160	143	12,386	364	1,390	7,381	7,434	6,049	81.4	3,250	43.7	2,558	34.40	19.6	42.3	61.1	High	2.1%
PRT A27 HOK1218	21	177	3,932	369	1,770	6,919	7,157	5,692	79.5	2,844	39.7	2,497	34.88	16.1	32.2	77.7		2.0%
PRT A27 FPO1218	60	198	5,855	363	1,648	7,016	7,035	5,074	72.1	2,169	30.8	935	13.30	14.6	25.6	13.4	High	2.0%
PRT A27 HOK1012 P3	69	328	8,424	732	1,464	6,280	6,303	4,959	78.7	2,370	37.6	1,583	25.11	7.9	15.1	31.8	Reasonable	1.8%
PRT A27 DFN1824	26	267	5,924	668	2,161	6,134	6,149	4,439	72.2	2,262	36.8	1,065	17.32	8.2	16.6	13.2	Reasonable	1.7%
PRT A27 HOK1218 P3	41	211	4,808	431	1,806	5,529	5,696	4,553	79.9	2,106	37.0	1,459	25.62	11.6	21.5	33.5	High	1.6%
PRT A27 FPO1012	52	117	7,334	461	1,028	5,138	5,145	4,109	79.9	2,229	43.3	1,641	31.90	16.1	35.1	42.9	High	1.5%
PRT A27 DTS1824	7	50	1,722	3,380	448	4,042	4,880	3,108	63.7	1,791	36.7	1,302	26.68	26.6	62.6	39.1	High	1.4%
PRT A27 PS1012	29	145	3,635	91	4,928	4,674	4,763	3,861	81.1	1,432	30.1	1,133	23.78	16.8	26.7	49.6	High	1.3%
PRT A27 PGP1218	36	151	3,895	584	1,188	4,098	4,202	2,974	70.8	1,486	35.4	568	13.52	9.8	19.7	10.4	High	1.2%
PRT A27 DFN0010	449	134	11,958	330	918	4,156	4,171	3,320	79.6	1,446	34.7	340	8.15	14.0	24.8	7.5	Weak	1.2%
PRT A27 DTS1218	10	52	2,107	721	997	3,130	3,159	2,341	74.1	1,274	40.3	971	30.74	20.4	44.7	45.5	Reasonable	0.9%
PRT A27 DRB1218	13	40	1,415	211	1,087	2,641	2,641	2,290	86.7	1,374	52.0	1,127	42.68	22.9	57.2	72.9	High	0.7%
PRT A27 HOK0010	133	97	9,484	188	612	2,375	2,376	2,066	86.9	1,114	46.9	936	39.39	9.8	21.4	90.2	High	0.7%
PRT A27 DFN1012	21	72	3,115	679	377	2,254	2,258	1,872	82.9	1,014	44.9	789	34.95	11.8	25.8	50.0	High	0.6%
PRT OFR HOK2440 P2	8	123	1,270	609	1,406	3,129	2,000	491	24.5	- 412	- 20.6	- 1,296	- 64.79	7.3	4.0	- 22.1	High	0.6%
PRT A27 MGO0010	33	108	2,315	33	2,906	1,868	1,867	1,587	85.0	797	42.7	643	34.44	7.3	14.7	59.9	High	0.5%
PRT A27 PS0010	21	29	1,574	99	1,378	1,720	1,737	1,478	85.1	622	35.8	468	26.92	29.8	51.4	51.5	Weak	0.5%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values. Not all fleet segments are shown

Table 5.87 Portugal: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)								Live weight of landings (thousand tonne)								Average landed price (real) (€)								% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015	in value	in weight
Common octopus	39.8	26.7	41.7	38.5	40.4	37.9	44.5	35.6	9.2	6.9	10.5	7.3	9.9	13.0	10.7	7.5	4.3	3.9	4.0	5.3	4.1	2.9	4.2	4.7	10%	4%
European pilchard(=Sa	44.2	41.1	38.9	42.5	41.1	39.8	31.8	30.2	63.3	53.7	56.5	53.9	31.6	28.3	16.0	13.9	0.7	0.8	0.7	0.8	1.3	1.4	2.0	2.2	9%	8%
Atlantic redfishes nei	18.4	20.4	29.8	29.5	24.8	22.5	24.3	28.7	6.2	9.3	9.4	9.3	8.3	8.8	8.2	12.0	3.0	2.2	3.2	3.2	3.0	2.6	3.0	2.4	8%	7%
Atlantic horse macker	15.6	17.5	15.8	17.0	21.5	17.6	20.4	22.2	9.6	10.5	10.5	9.5	16.1	18.8	20.6	22.7	1.6	1.7	1.5	1.8	1.3	0.9	1.0	1.0	6%	12%
Blue shark	20.1	20.9	27.0	25.3	22.4	16.2	15.4	16.6	7.1	7.3	8.8	9.0	8.4	5.7	6.4	5.3	2.9	2.9	3.1	2.8	2.7	2.8	2.4	3.1	5%	3%
Atlantic cod	9.8	8.8	12.4	14.9	14.4	20.0	17.0	15.6	3.2	3.8	4.3	4.8	4.9	8.2	6.2	6.5	3.1	2.3	2.9	3.1	3.0	2.4	2.8	2.4	4%	4%
Black scabbardfish	17.1	14.6	14.1	14.5	13.9	11.8	12.4	15.5	6.0	5.2	4.7	4.9	4.8	4.1	4.1	4.7	2.9	2.8	3.0	3.0	2.9	2.9	3.0	3.3	4%	3%
Chub mackerel	8.4	3.8	6.8	14.6	13.9	19.0	7.9	12.7	24.8	14.6	23.7	32.8	38.7	46.1	29.2	46.0	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	4%	25%
Swordfish	4.3	5.4	7.2	6.1	6.3	7.2	8.3	10.7	1.1	1.3	1.8	1.6	2.0	2.0	2.6	3.0	3.8	4.2	4.1	3.8	3.2	3.7	3.2	3.6	3%	2%
Bigeye tuna	8.2	12.6	11.9	15.3	15.6	12.7	11.1	8.8	2.6	5.5	4.1	7.4	6.4	5.5	4.2	3.4	3.2	2.3	2.9	2.1	2.4	2.3	2.7	2.6	3%	2%
																									56%	68%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.19 Romania

Short description of the national fleet

Fleet capacity

In 2015, the Romanian fishing fleet consisted of 151 registered vessels, with a combined gross tonnage of 0.873 thousand GT (as roll over on 2015 year), a total power of 6.0 thousand kW and average age of 18 years. The size of the Romania fishing fleet decreased between 2008 and 2015, with the number of vessels falling by 31% and GT and kW by 11% respectively comparing with the average of 2008-2014. The major factors causing the fleet decrease over the time period included the restructuring plan for the fleet, the decreasing interest for investment in the industry (due to the financial difficulties encountered in this period, it did not make the sector attractive to investors) and the lack of specialized infrastructure (no specialised fishing ports properly equipped on the Romanian coast – landing sites and first sale centres need modernisation). At the same time no subsidies or any other kind of support were granted by the authorities to possible investors or fishers, which used partly the availabilities of the EFF for fleet restructuring and modernization. The fishing sector is one of the smallest in the EU in terms of size and landings. The fishing fleet is operating only in national jurisdictional waters of the Black Sea.

Fleet structure

The Romanian fishing fleet is divided into a small-fleet segment (89% of all active vessels in 2015, 113 from a total of 127) with an engine power of 2.13 thousand kW and a large-fleet segment (just 11% of all active vessels in 2015) with an engine power of 3.7 thousand kW. The number of active vessels in the SSCF decreased for 41% from 2008-2015, while the number of large-scale vessels increased for 128% in the same period.

Employment

In 2015, total employment was reported at 352 fishers, corresponding to 44 FTEs (note, these values are explained by the accentuated seasonality and the low qualification of fishers; this situation should be improved by dedicated measures ensuring the up-grading qualification of employed staff). The level of employment decreased between 2008 and 2015, with total employed decreasing 523 as number, while the number of FTEs increased around 4% over the period, an insignificant increasing. The major factors causing employment to decrease include the big reduction of active number vessels, the majority of fishers acting occasionally on their own because of the economic crisis and, as a consequence, the decrease of the funds available for investments and business development. More than that the fishing technic dominated by passive gears is another important factor for such low level of FTE calculated. The poor exploitation of pelagic species such as European anchovy, and mainly European sprat (despite the significant quota under EU regulation) and turbot as a demersal species (under the quota system introduced by the EU imitating the catch level), and the fact that the fleet is in poor technical conditions (example: small boats under 12 m, without deck), operated by a low number of fishers, and low number of young fishers in the sector were also reasons for the small jobs number. But, in the last two years a slight increase is observed from 304 fishers in 2013, to 352 (the actual number) in 2015, as a consequence of the increased number of vessel over 12 m used in 2015, 14 vessels – requiring a higher number for crew composition.

Effort

The total days at sea of the Romanian fleet totalized of around 4.0 thousand days in 2015. The total number of days at sea increased around 11% between 2008 and 2015, but the evolution of fishing days being not following a similar trend, contrary being at same level. The major factors causing the increase in days at sea include the use of passive gears number by the active vessels. In the last two years the activity was focused to fishing Thomas' rapa whelk due to an increase in demand in the market, especially in the tourist season and the availabilities for export. The fishers are switching to this species as an alternative counteraction of the quota system for turbot introduced by the EC since 2009.

The amount of fuel consumed in 2015 totalled around 0.7 million litres, leading to €0.52 million in fuel costs, a decrease of around €0.034 million, as from 2014 level of €0.55 million. Fuel costs are mainly explained by the relative stability of fuel price on domestic market during the 2015 year (due to the specific international oil crises), despite the increasing number of days at sea and the number of active vessels, and also in the improvement of the data collection process from year to year.

Production

The total weight of landings of the Romanian fleet in 2015 was €4.84 thousand tonnes of fish and seafood, with a value of €4.28 million. The total weight and value of landings increased overall during the period 2008 to 2014 with 453% and 248% respectively, a big percentage. This is explained by Thomas' rapa whelk catches who generated the highest landed value by the national fleet around €3.48 million, followed by turbot around €0.27 million, European anchovy €0.13 and European sprat €0.1 million, in 2015. In terms of landings weight in 2015, Thomas' rapa whelk (rapana) was 4 460 tonnes representing 92.1% of total weight landings by the national fleet, European anchovy 112 tonnes, European sprat 106 tonnes, mussels 45.6 tonnes, and turbot 31.2 tonnes as the main important species landed. The fleet was orientated to exploit this species – rapana, switching from other species due the availabilities of faster and easiest way to sell it, as a whole, because of the absence of port facilities and processing units. The sales are oriented to the companies having relations for export operations, mainly. The fishers are not in the position to store the catch or to do preliminary processes as sorting/packing, and unfortunately those aspects lead to a decrease of price during the period for Thomas' rapa whelk (rapana).

The average prices for the 5 key species are relatively stable between 2008 and 2015. For turbot was registered the highest level of €8.7 per kg in 2015, as the most valuable species caught by the fleet. Thomas' rapa whelk, is the exception because of its highest average price per kilo in 2011 (€4.4 per kg) due to unusual demand on the market in the tourist season, followed the next years with a calmer market, but with decreasing trend until €0.8 kg in 2015. This situation was caused by the increasing quantity landed year to year. Other explanation is due to the switching type of sales from the "whole individual" for foreign market, instead of continuing to process the catches (even in a preliminary stage, for restaurants buying and others). As a consequence, the price decline until to an average of €0.8 per kg in 2015 and the trend is the same for 2016. The major factors causing changes in the price of individual species include the expected inverse relationship between price and availability of supplies. Another explanation is that the specialized vessels over 18m capturing sprat in 2008 were mostly inactive from 2009 onwards; this fleet segment only contained one or two vessels active during the time period, with a positive increasing trend till 14 vessels in 2015, but used for Thomas' rapa whelk catches mainly.

The economic evolution of the Romanian fleet is strictly related to the changes in the structure of the fleet segments during 2008-2015 and the seasonality of small pelagic species, and as it was mentioned these catches are less than 9% of the total catches in 2015. Meantime the demand of internal market is not increased; the level of sales is relative stable. This aspect determined the current structure of the Romanian fleet which is characterised as being an ageing of the small-scale coastal fleet, with a low level of technical capacity. More than that, the new activity for Thomas' rapa whelk opportunities to fish is reflected by catch composition as the most attractive species to be commercialized without significant difficulties.

Economic results for 2015 and recent trends

National fleet performance

The fishing activity is traditional for the fishers' communities. The fishing communities comprise a small number of fishers along the 250 km of Romanian littoral. The decreasing number is due to the fact that the young people are not attracted by this activity. According to data transmitted a dedicated analysis should be done as explanations for these big amounts increasing for 2015 comparing with 2014. First of all is to be underlined the increased level of catches from 2.2 thousand tonnes in 2014, to 4.84 thousand tonnes in 2015, an increase more than 120%, and corresponding to a high increase of the landings value amounting €4.3 million in 2015, versus €2.5 million in 2014. The substantial quantitative increase is due to the concentration of fishers to Thomas' rapa whelk exploitation. The percentage of the total catches of Thomas' rapa whelk in 2015 year reached a high level of 92%, from the total annual catches. The same high level is recorded for the value of landings amounting €3.48 million for Thomas' rapa whelk, 81.3% from a total amount of landings of €4.28 million. The existing TAC system for turbot, mainly, is the key answer for this increase of Thomas' rapa whelk level of landings and value. Also, should be underlined that an increased demand for this species was observed, received by fishers, from companies specialized in export operation of it. The Romanian fishing fleet is operating only in the Community water of the Black Sea subject to national jurisdiction. There are no fishing trips outside this area, and the fleet is fully dependent on the availability fishery species in these waters, fishing area. The combined these two important aspects conducted apparently to the conclusion that the fleet is strictly specialized in mono fish species catches, i.e., Thomas' rapa whelk (rapana). But this aspect should be analysed on strict relation of the market situation, technical condition of the vessels (which is very poor) and the availability of the rapana stock species, which is an invasive species in the Black Sea area.

The reduced number of fishers is due to the fact that the young people are not attracted by this activity. The investment lacking in the sector causes a level of productivity strictly related to the costs level, small quantities of pelagic species catches, and a low level of technical working conditions, both on board vessels and in landing points. The infrastructure comprising adequate equipment for landing operations, aiming the stabilisation of the activity are missing: there are no ports facilities for fishery (dedicated to discharging, receiving, storing – including refrigeration capacities, selling facilities, etc.). As a result, the whole fishing activity is fully dependent on the weather conditions in the Black Sea, which has very large differences of temperature between winter and summer, and strong winds. These meteorological conditions are encountered during in the same season, seriously affecting the fishing activities, and consequently are determining the instability and lack of predictability for fishing. The switches in fishing technique producing high instability has bad influences in the process of data collection, also. The large number of individual and small enterprises do not use an accounting system and they are facing difficulties to allocate properly costs to each kind of fishing technique and to each gear type used. The data are delivered for the entire activity during the year, for they own small boats, under 12 m, which is counting for 89% of the total active fleet in 2015.

As a conclusion it should be mentioned that the fishery in Romania is not specialised, as techniques and gears used; it is basically, traditional a mixed small-scale fishery on which the techniques/gear types are not the main consideration of fishers. In the last years, catching mainly small pelagic species, was replaced as importance by Thomas' rapa whelk catches. The management system for better exploitation of existing stocks, aiming the stability, has to be implemented by the member state. As it was also mentioned in previous reports of the past years, the fishers are not receiving amounts of money as other incomes (e.g.: direct subsidies, fishing rights, and other income – due to the missing of additional activities). More than 99% of the incomes are coming from landings income. The percentage of inactive vessels has a decreasing trend, but not conducting to a significant increasing of number of fishers. This is an additional reason of the flabby catches, other than rapana fishery.

The amount of income generated by the Romanian national fleet from landings in 2015 was €4.3 million. There are no amounts on non-fishing income, taking into account the explanations provided as above. The Romanian fleet total income increased 74% between 2014 and 2015. Total operating costs accounted for the Romanian national fleet in 2015 equated to €1.56 million, amounting to 39% of total income, this situation conducting to a high profitability. Crew cost and fuel costs, the two major fishing expenses, amounted €0.51 and €0.52 million, respectively. Should be underlined that the level of costs, including wages and fuel costs, were decreasing comparing with 2014. For the analysed period 2008 – 2015, total operating costs increased 132%, due to the evolution of fuel prices, the increase of the percentage of active vessels resulting in more days for a similar level of fishing days, and an improvement in the period of data collection, as a result of increased quality of fisher inspectors involved in this activity, correlated with the queries of control provisions regulations.

The slight increase of fishing costs during the period 2008-2015, comparing with the percentage of landings increase and value of it, during the similar time period, and the reduction on number of fishers, lead to the good economic performance. For a relatively stable level of the costs corresponding to a greater catch amount is resulting in the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Romania national fleet in 2015 to a level of €3.5 million, €3.0 million and €2.7 million, respectively, in 2015. The increased level comparing with 2014 are quite big, 137%, 568% and 913%, respectively, based on a high level of the revenue in the same year and, as it was mentioned above, lower level of expenditure in 2015 (around 39% from total income), than 2014.

In 2015, the Romanian fleet had an estimated depreciated replacement value of €2.33 million. Investments in the fleet amounted only to €0.21 million in 2015 with a slight increase comparing with 2014 due to the need of additional fishing gears corresponding to the increase of active vessels number. The major factors causing this stable situation at a lower level in the capital is owed to some specific factors: the smaller dimension of the fleet (low number of total vessels, low number of fishers), less concentration of the capital (there still exist a large number of companies owning one small boats – less than 12m, despite their associations in few fishing organization), a high dependency to the internal market, the absence of the fishing infrastructure and a subsidies system. There is a huge missing of a common and coordinated supply chain (this chain could be organized under existing fisher's organization helping the creation of a selling system – no fishery auction). It would be underlined the fact that a fishery auction is under construction to Tulcea, not far from the Black Sea coast, where is focused the biggest volume of fish transactions in Romania, near to the Danube Delta, Tulcea town, a traditional source for fish in the country.

The lack of developing of alternative activities, is resulting in no additional income recorded. The sector is acting as itself, outside from restaurants chains or potential big buyers. This is resulting to be not so attractive for investment due to the reasons mentioned above and to the constraints imposed by operating only in the Black Sea. As it was mentioned the exploitation is strongly dependent on weather conditions that is affecting the small-scale fishery – the main segment of the Romanian fleet, one of the smallest in the EU.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 69%, an increase of 50 percentage points from 2014. Since 2008, many economic indicators have increased and profit margins have changed from negative to positive. While landings and earnings are much higher in 2015, expenditure remains low. The low levels of investment may reflect a scepticism towards stock recovery and is a worrying sign.

The Rate of Return on Fixed Tangible Assets (RoFTA) improved in comparison to previous year and amounted 117% in 2015. Labour productivity (GVA/FTE) also record increase in period 2008- 2015 for 279%: GVA increased for 137% and the number of FTE also increased by 17% in the period analysed. So, for comparable levels of fisher numbers, a slight increase of active vessels number (with a high increase for vessel number over 12 m) resulting a stable level of expenditure, but comparing with the volume and value of catches in 2015, the results are confirming the huge dependency of entire fleet to market conditions, weather conditions during the fishing season and the lack of fishing infrastructure.

Fuel consumption per landed tonne amounted 147 litres per tonne landed in 2015. On the other hand, the landed weight per sea day increased significantly for 995% from 2008-2015. These discrepancies are owed all most to the low level of catches in 2008 - €0.4 thousand tonnes and compared with €4.8 thousand tonnes in 2015, over 450% increase, due to the rapana catches.

Performance by fishing activity

Resuming the activity of total fleet are 4 segments in 2015, two active segments (PG VL00-06, PG VL06-12) belong to SSCF and, as in the last year, two segments (PMP VL12-18, PMP VL24-40) belong to the large-scale fleet.

Small-scale coastal fleet

In 2015, there were 127 total active vessels in the Romanian fishing fleet of which around 113 (89% of all active vessels) are in the segment of SSCF (a decrease for 41% from average level 2008-2014).

The amount of income generated by the Romanian SSCF in 2015 was €1.6 million. Landings income increased 87% between average level 2008 and 2015.

In terms of economic performance, the amount of Gross Value Added (GVA), gross profit and net profit generated by the SSCF in 2014 were €1.25 million, €1.0 million and €0.88 million, respectively. Between 2008 and 2014 as average level, GVA and gross profit increased 134%, 476% respectively, while net profit increase 705% in the same period. The explanations are in essentials the same as above, the increase of percentage of active vessels on the caches contribution, mainly to rapana species.

Large-scale fleet

For the large-scale fleet should be observed an increase of active number vessels form 12 in 2014, to 14 vessels in 2015 (11% of total active vessels) in Romanian fishing sector.

The amount of income generated by the Romanian large-scale fleet in 2015 was €2.68 million. Landings income increased 620% between 2008 and 2014.

In terms of economic performance, the amount of Gross Value Added (GVA), gross profit and net profit generated by the large-scale fleet in 2015 were €2.28 million, €2 million and €1.7 million, respectively. Those increase comparing with 2008 have registered big percentage between 2008 and 2014, GVA, gross profit and net profit increased 109%, 1250% and

122%, respectively. This result is explicable to low catches level as volume and also low level value of catches €0.54 million in 2008, comparing with €2.68 million in 2015, mainly due to the same species Thomas' rapa whelk.

Performance results of selected fleet segments

The Romanian fleet has a small range of vessel types fishing only in the Black Sea and catching a reduce number of species, pelagic and demersal. The national fleet is characterised by the 4 fleet segments analysed above (DCF) in 2015, with 127 total active vessels. All four fleet segments made profit.

Vessels using passive gears only for vessels VL06-12m

The segment PG VL06-12m, is the largest segment. As it was mentioned, it operates only in the Romanian waters of the Black Sea, as the all national fleet. The fleet targets a variety of species sometimes using several gears on the same fishing season. In 2015 the major gears used have been the passive ones. The fleet traditionally targets small pelagic species, such as European anchovy, European sprat, other small pelagic species as well as some quantities of turbot, picked dogfish as bycatch and Thomas' rapa whelk. It should be mentioned that turbot is a target species, but the quantity available is subject to EC TAC limits; this species is fished by fixed gears, using small boats. The main characteristic of the segment – for all boats used, is that during the fishing season the fishers switch from one fishing technique to another, using the same boats and targeting the mentioned species. The use of passive gear in a bigger percentage has the result of a stable number of fishing days, despite the reduction of vessels number. The owners of the small boats prefer to pay a fixed fee to financial authorities per each year, as small or individual investors, and on the next year they are receiving dividends from the net profit.

This fishery is not a specialized, and is a mixed one. The fishery includes also the artisanal fishery. This is due to the fact that investment is lacking in the sector for improvement of the quality of activity. The biggest change is observed in the increasing of the number of engines/motors used, compared with 2008, but the average per boats is still low, due to the limitation of EC Regulation 1380/2013, so a lot of these boats having no engine. In 2015, the total value of landings was almost €1.60 million and around 290 fishers was employed in this fleet segment, contributing more than 80% of the total number of fishers. But the contribution to the income from landings is 34%. This fleet continues to be the most important segment in the Romanian fleet, having reported a gross profit of around €0.98 million and net profit of €0.88 million in 2015. The owners of the small boats, specially, prefer to pay a fixed fee to financial authorities per each year, as small or individual investors, and on the next year they are receiving dividends from the net profit. So, their contribution to salaries as costs is very low, and this is one of the main explanation for the high level profitability indicators.

The importance of this fleet segment is represented by the percentage of fishers 290, comparing with the second fleet segment PMP VL 1240 who counts as only for 62 fishers, as well as the number of vessels. This is characterising the traditional activity more related to small communities. The large-scale fishery segment in 2015 continue to be enlarged slightly over 2014, but depending too much on Rapana catches.

Drivers affecting the economic performance trends

Higher income from landings and further capacity/effort reduction were the main driving forces behind the overall improvement. Between average on the analysed period 2008-2014 in 2015 the landing income increased for 453%, while the total number of vessels decreased for 56%. The same decreased level is observed for the total number of fishers dropping from 875 in 2008 to 352 in 2015. Consequently, the amount for wages and salaries of crew dropped from €0.60 million in 2008 to €0.51 million in 2015.

Management instruments

As a management instrument the regulation introducing the TAC for sprat and turbot had a significant influence on total catches, but total different for the two species. Considering the sprat quota is never covered by catches. This is due to the fact there is now demand on local market, the processing facilities are missing. The quality of fish individuals is not at the same level as it is the imported one, who make a strong competition on the market – example given: the sprat imported from Baltic Sea has a good quality, better than the local one. So the level of the price for Black Sea sprat is not more than €1.0 per kg in 2015. For turbot quota the situation is different, especially in the last year, due to the limitation at maximum level of 43.2 tonnes, the fishers switched to catch Thomas' rapa whelk because of the facilities for sales very easy from the first sales centres in big quantities without other special conditions, example for packaging. The critical issue related to the fact that more fishers are targeting this species is what one the price was decreased. Considering these aspects for rapana fishery, Romania and Bulgaria agreed to design a common project for this type of fishery in order to ensure the sustainability of exploitation, related also to the impact of marine ecosystem. The huge increase of quantities exploited in the last years should involve the fishers, scientists and administrations for appropriate technical measures for this fishery and socio-economic aspects, mainly for the preservation of the number of fishers and ensuring a reasonable exploiting rate of the stock.

Markets and Trade

Market and trades as a key factor is affecting the activity, especially for the level of prices. The domestic market has no increased the demand for local fishery, so that the catches are a similar/comparative levels for small pelagics, as well as for demersal species. More than that, despite the increased volume of catches, on a limited market and depending to the traders the prices are getting a decreasing trend. The total incomes are increasing but this is a result of increased total catches, being not a result of higher prices, especially for rapana. The exception is represented by turbot price who has a significant increase up to an average of €8.7 per kg in 2015.

Considering the fact that the last meeting of STECF dedicated to the assessment of stocks in the Black Sea was postponed, the EC approved the annual regulations for TACs for both species based on the preliminary assessments of GFCM (as regional management organisation) and receiving the obligations of both countries for the sustainable exploitation of these stocks, especially for turbot. The matter is very important for both Romanian and Bulgarian parties, due to the fact the stocks on the Black Sea are shared stocks with the third countries which are not applying the same methodologies for assessment, and more than that are not implementing the same/similar management measures as the EU impose to its member states. The best solutions of the EU are to have a precautionary approach to preserve the limits of the stock to ensure a future MSY indicator to be achieved in the region by all riparian countries. For all species, mainly pelagic species, the catches of EU member states are totalling less than 15% from the total catches in the Black Sea, so having an insignificant influence on the status species stocks.

In Romania the local products are facing the competition of imported fish, especially from the super market chains. These supermarkets are offering a large variety of species, oceanic fish mainly, also salmon (even it is from aquaculture), specially mackerel, bream, and sea food, trout with a very competitive price, well presented and in large quantities. The lack of organization measures of the fisher associations in this respect is other major factor affecting the level of fish prices, and the capacity to increase the number of fishers in the sector. That would be a future task in order to maintain the possibilities to consolidate the evolution of the sector.

The lack of investments in the fishing infrastructure in Romania is a major factor of the limitation of sector development. The investment lacking in the sector causes a level of productivity strictly related to the costs level, which are not high, but is a consequence in the small number of fishers. The young people has no motivation to enter in the sector, even to investing money, because of low level of interest from local authorities to ensure minimum conditions for developing activities for fishery. That's why the technical level on board on the small boats is quite impossible to be done, also to the position of the financial sector which is not friendly with this kind of investors.

The infrastructure comprising adequate equipment for landing operations, aiming the stabilisation of the activity are missing: there are no ports facilities for fishery (dedicated to discharging, receiving, storing – including refrigeration capacities, selling facilities etc.). As a result, the whole fishing activity is fully dependent on the weather conditions in the Black Sea.

There is a huge missing of a common and coordinated supply chain (this chain could be organised under existing fisher organisations helping the creation of a selling system – no fishery auction). It would be underlined the fact that a fishery auction is under construction to Tulcea, not far from the Black Sea coast, where is focused the biggest volume of fish transactions in Romania, near to the Danube Delta, Tulcea town, a traditional source for fish in the country. This investment is under finalisation having the source European fishery fund.

In order to be able to fulfil the obligations of the EU regulations and to improve the activity, including better socio-economic results, some measures could be implemented to improve the national fishery sector and its final results:

- the improvement of technical level for vessels, as well as of the gears used – i.e. greater selectivity;
- organising training sessions for fishers for a better knowledge of the targets of the new CFP, especially for discard ban, using the European funds and promoting the scientists position and research results;
- implementation of project using the European fishery fund for modernisation of ports/landing points in order to improve the fishing infrastructure; this could enlarge the number of jobs related to fishery sector;
- diversify the activities to reduce the dependency of the people to the direct fishing activities;
- use of European funds to strengthen the fisher professional associations to organise the real and complete chain for fish selling products, including transport activities till buyers' destination;
- financing the labelling and public awareness on the local fish and fish products origin, aiming the increase of the added value of the own activity, increasing the direct income.

Projections for 2016 and outlook

The Romania fishing fleet of is highly represented by the small-scale fishery counting for 89% of the total active vessels. The SSCF has mainly similar levels of marked evaluation for species and its landed value due to the restrictive dependency on its demand. This aspect is due to the poor concentration of ownership, very low level of investments in the sector, resulting in insufficient means for the improvement of technical conditions of the vessels/boats used, as well as for the facilities in ports, and for development of additional activities direct and indirect linked with fishing activity.

The trend of the decreasing number of vessels during the last years, figures indicating the same trend for 2015/2016, and perhaps for 2017. This trend is observed also, for the number of fishers and a slight reduction of number of days at sea. These trends reflect the strong dependency of the demand not only on the market, but by the demand of buyers, especially for Thomas' rapa whelk. This is not a good sign of the sustainable consolidation of the sector, which is continuing to fluctuate year to year and season to season. The increasing dependency to Thomas' rapa whelk exploitation could determine negative impact on the whole sector evolution for the future.

The absence of activity on other activities that fishery would conduct to the conclusion that the fishing activity will remain totally separated to other additional activities supporting the fishers in keeping and improving the life standard. The access of fishers to the finance activities, including loans, is reflected in the character of the sector's general and technical low level.

The alternative should be the European maritime and fisheries fund that wold help fishers achieving of a certain stability. The cooperation with the Advisory council for Black Sea must be an additional factor to contribute to best understanding of the challenges of fishing activity in member state, as well as an opportunity to enlarge the cooperation with riparian countries, taken into account the situation that in the Black Sea the fish stocks are shared by all riparian countries.

The slight increase of the vessels number over 12 m, the small-scale fishery is continuing to characterize the component of the fleet. So the boats under 12m overall length will continue to be used in large percentage. Don't changing the methods of fishing (i.e. using the same mixture between polyvalent mobile and passive gears), the same boats shifting from one gear to another in the same period of time will have similar consequences in 2016, including 2017. This fishery will continue

to be characterized by a very high level of Thomas' rapa whelk species catches, because of small number of pelagic species with important economic value.

MODEL FORECAST

The 41% increase in landed weight projected for 2016, is countered by a 9% decrease in landed value. Projections suggest that the modest increase in effort (1% in days at sea) increases energy consumption by 5%. Nonetheless, operating costs decrease, most notably for energy costs which are estimated to decrease by 16% due to the continued low fuel prices and labour costs (-13%). Yet, the increase in capital costs, fostered a slight deterioration in performance in 2016: GVA (-9%), gross profit (-9%) and net profit (-12%).

Results indicate that the Romanian fleet operated at a profit in 2016: with an estimated net profit of €2.4 million and a net profit margin of 61%.

The 2016 results are further offset in 2017: the 1% increase in landed value is counteracted by higher fuel costs (+31%). The 20% reduction in capital costs lessens this effect and the fleet remains profitable with gross and net profit margins of 67% and 60% respectively.

Data issues

The collection of data process, request some improvements in order to eliminate the minor inconsistences and thus to eliminate the need for additional checks. For this reason, could be organised some sessions with the fishers and the existing professional organizations to improve their understanding of the new requests of DCF. These new requests are based on the enlarging needs of the EU related to ecosystem approach, links with control regulation and the European funds consuming. The data base up-grade should be based on these needs helping member state to face the new challenges on DCF.

Thus the data will be used for the specific purposes of different end-users, but still having the actual purposes: especially for assessment of the evaluation indicators on profitability of the fleet and deep analyses for fleet segments, for the economic and social indicators analyses for a better level to be achieved. Also, data will be used in the next planning activity by the EC for the future multiannual management plans in the Black Sea waters. This will be in the interest to identify the most appropriate measures for specific fish species under exploitation ensuring the sustainable and consolidated, modernised fishing activity. It would help to identify those directions for development ensuring the upper level of activity, aiming to improve the qualitative results in the future, rather than quantitative once in the present.

Table 5.88 Romania: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	441	440	429	488	261	196	158	151	*121*	*125*		-4%	-56%
Number of Inactive vessels_ms	(#)	36	280	223	288	78	84	35	24	*26*			-31%	-84%
Vessel tonnage	(thousand GT)	2.3	2.3	1.0	1.0	0.7	0.6	0.8	0.9				11%	-31%
Engine power	(thousand kW)	8.7	8.2	5.4	7.0	5.9	6.2	6.1	6.0				-1%	-11%
Total employed	(person)	875	289	444	454	471	304	330	352	*343*	*355*		7%	-22%
FTE	(#)	42	31	38	28	39	37	38	44	*50*	*51*		17%	22%
Days at sea	(thousand day)	3.7	4.1	4.3	2.6	3.3	2.8	2.8	4.0	*4.1*	*4.2*		46%	20%
Fishing days	(thousand day)	3.7	3.9	4.1	2.5	3.3	2.7	2.7	3.7				35%	13%
Number of fishing trips	(thousand)	3.6	4.0	4.1	2.6	3.4	2.9	2.7	3.6				34%	8%
Energy consumption	(million litre)	0.1	0.1	0.2	0.3	0.2	0.4	0.5	0.7	*0.7*	*0.7*		30%	195%
Live weight of landings	(thousand tonne)	0.4	0.3	0.2	0.5	0.8	1.6	2.2	4.8	*6.8*	*6.9*		120%	453%
Value of landings	(million €)	0.9	0.7	0.6	1.5	1.0	1.5	2.5	4.3	*3.9*	*3.9*		74%	248%
Income from landings	(million €)	0.9	0.7	0.6	1.5	1.0	1.5	2.5	4.3	*3.9*	*3.9*		74%	248%
Other income	(million €)	-	-	-	-	-	-	-	-	-	-			
Direct income subsidies	(million €)	-	-	-	-	-	-	-	-					
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	0.60	0.25	0.24	0.50	0.29	0.40	0.80	0.51	*0.45*	*0.45*		-36%	17%
Unpaid labour value	(million €)	-	-	-	-	0.04	0.16	0.24	0.04	*0.03*	*0.03*		-84%	-40%
Energy costs	(million €)	0.17	0.07	0.25	0.28	0.17	0.36	0.55	0.52	*0.43*	*0.57*		-6%	96%
Repair & maintenance costs	(million €)	0.06	0.03	0.03	0.09	0.06	0.09	0.14	0.10	*0.11*	*0.11*		-23%	45%
Other variable costs	(million €)	0.07	0.02	0.02	0.24	0.13	0.11	0.19	0.03	*0.03*	*0.03*		-85%	-74%
Other non-variable costs	(million €)	0.03	0.02	0.02	0.03	0.02	0.04	0.09	0.11	*0.11*	*0.11*		19%	202%
Annual depreciation costs	(million €)	0.06	0.01	0.02	0.11	0.07	0.11	0.21	0.19	*0.20*	*0.20*		-13%	117%
Rights costs	(million €)	-	-	-	-	-	0.03	0.05	0.07	*0.08*	*0.08*		48%	568%
Opportunity cost of capital	(million €)	-0.02	0.34	0.04	0.06	0.11	0.07	0.10	0.09	*0.13*	*0.06*		-6%	-9%
Tangible asset value (replacement)	(million €)	9.93	8.77	3.38	4.17	3.59	3.27	3.17	2.33	*2.95*	*2.94*		-26%	-55%
Fishing rights	(million €)	0.06	0.02	0.03	0.03	0.02	0.01	0.02	0.07				330%	157%
Investments	(million €)	0.20	0.12	0.07	0.06	0.13	0.11	0.18	0.21				15%	68%
Financial position	(%)	40.0	28.0	31.0	34.0	45.0	59.0	11.0	2.1				-81%	-94%
Gross Value Added	(million €)	0.6	0.6	0.2	0.9	0.6	0.8	1.5	3.5	*3.2*	*3.1*		137%	373%
GVA to revenue	(%)	64.3	79.4	44.2	58.7	60.6	57.7	60.4	82.2	*82.2*	*78.9*		36%	35%
Gross profit	(million €)	- 0.0	0.3	0.0	0.4	0.3	0.3	0.4	3.0	*2.7*	*2.6*		568%	1127%
Gross profit margin	(%)	- 0.8	43.5	1.6	26.3	26.8	19.0	18.1	69.4	*69.9*	*66.5*		284%	261%
Net profit	(million €)	- 0.1	- 0.0	- 0.1	0.2	0.1	0.1	0.1	2.7	*2.4*	*2.3*		1913%	4682%
Net profit margin	(%)	- 5.6	- 6.2	- 9.5	15.2	8.0	6.8	5.4	62.9	*61.3*	*59.7*		1056%	3023%
GVA per FTE (labour productivity)	(thousand €)	14.2	18.1	6.4	31.6	15.4	22.5	39.2	79.7	*64.2*	*61.2*		103%	279%
Return on fixed tangible assets	(%)	- 0.7	3.4	- 0.4	7.0	5.4	5.1	7.3	119.2	*85.1*	*81.9*		1541%	2991%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

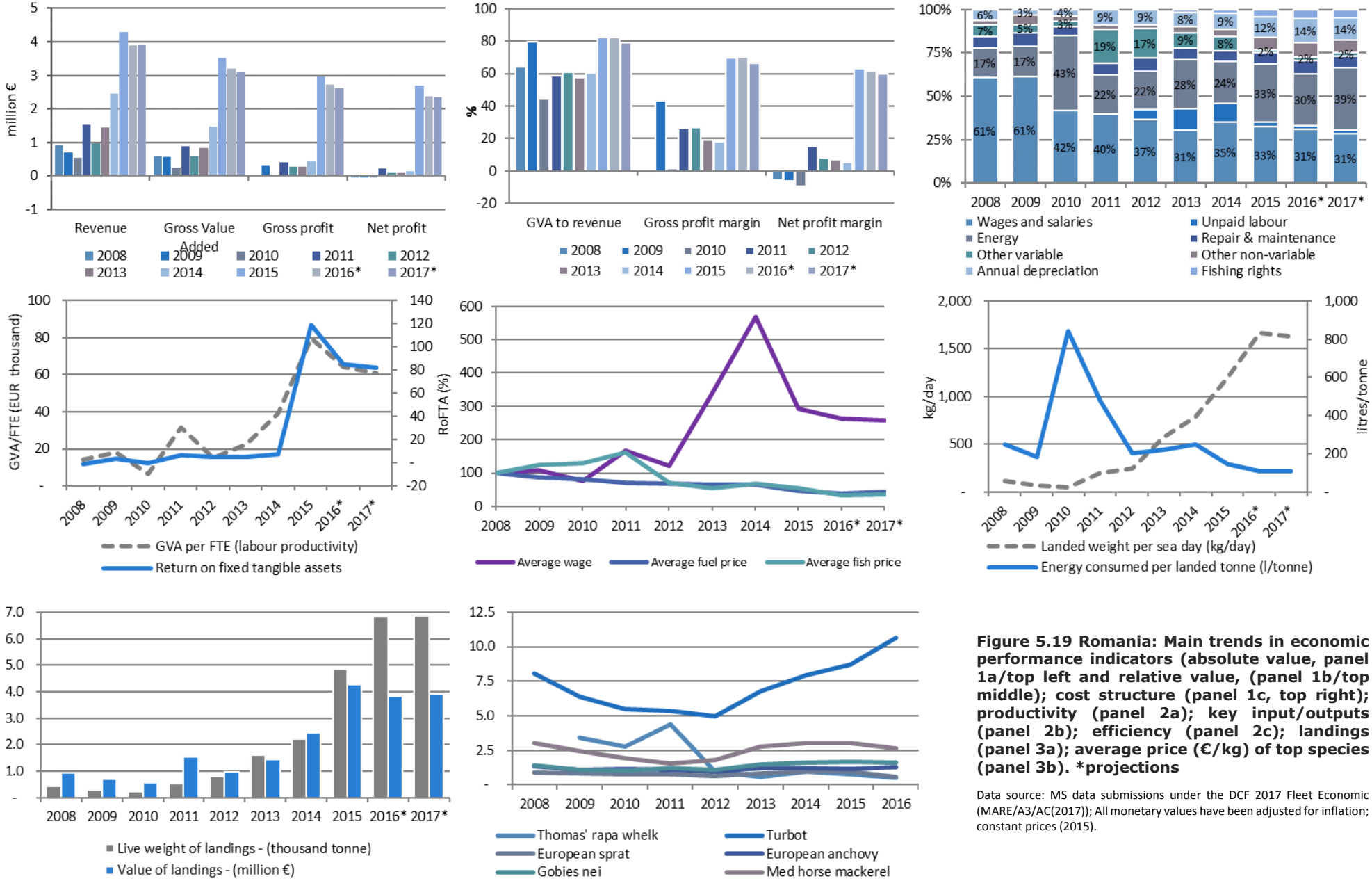


Figure 5.19 Romania: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.89 Romania: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14	LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**				2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**			
Total number of vessels	(#)	395	153	205	197	179	106	111	113	*104*	*108*		2%	-41%	10	7	1	3	4	6	12	14	*17*	*17*		17%	128%
Vessel tonnage	(thousand GT)	0.4	0.2	0.2	0.2	0.3	0.2	0.2	0.2				5%	-16%	0.8	0.5	0.1	0.4	0.3	0.4	0.5	0.7				19%	56%
Engine power	(thousand kW)	3	1	2	3	4	3	2	2				-10%	-19%	2	2	0	1	1	2	3	4				15%	115%
FTE	(#)	31	28	38	26	35	27	24	21	*19*	*20*		-14%	-31%	11	4	0	3	4	10	14	24	*31*	*31*		67%	266%
Total employed	(person)	790	242	436	434	445	278	279	290	*266*	*278*		4%	-30%	85	47	8	20	26	26	51	62	*77*	*77*		22%	65%
Days at sea	(thousand day)	3.4	3.9	4.3	2.6	3.2	2.5	2.2	3.1	*2.9*	*3.0*		42%	-1%	0.3	0.1	0.0	0.1	0.1	0.4	0.6	0.9	*1.2*	*1.2*		62%	325%
Fishing days	(thousand day)	3.4	3.8	4.1	2.5	3.2	2.4	2.2	2.8				29%	-9%	0.2	0.1	0.0	0.1	0.1	0.3	0.6	0.9				58%	339%
Number of fishing trips	(thousand)	3.4	3.9	4.1	2.5	3.3	2.5	2.2	3.0				40%	-3%	0.1	0.1	0.0	0.1	0.1	0.4	0.5	0.6				8%	212%
Energy consumption	(million litre)	0.0	0.0	0.2	0.2	0.1	0.2	0.2	0.3	*0.2*	*0.3*		12%	79%	0.1	0.0	0.0	0.0	0.0	0.1	0.3	0.4	*0.5*	*0.5*		46%	405%
Live weight of landings	(thousand tonne)	0.1	0.2	0.2	0.4	0.7	1.0	1.0	1.6	*1.6*	*1.6*		61%	199%	0.3	0.1	0.0	0.1	0.1	0.6	1.2	3.2	*5.2*	*5.2*		169%	858%
Value of landings	(million €)	0.4	0.6	0.6	1.4	0.9	1.0	1.2	1.6	*1.2*	*1.3*		36%	87%	0.5	0.1	0.0	0.1	0.1	0.5	1.3	2.7	*2.6*	*2.7*		109%	620%
Income from landings	(million €)	0.4	0.6	0.6	1.4	0.9	1.0	1.2	1.6	*1.2*	*1.3*		36%	87%	0.5	0.1	0.0	0.1	0.1	0.5	1.3	2.7	*2.6*	*2.7*		109%	620%
Other income	(million €)	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-	-	-			
Direct income subsidies	(million €)	-	-	-	-	-	-	-	-						-	-	-	-	-	-	-	-					
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-						-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	0.42	0.21	0.24	0.46	0.26	0.27	0.39	0.23	*0.18*	*0.18*		-40%	-28%	0.18	0.04	0.00	0.04	0.03	0.13	0.42	0.28	*0.27*	*0.27*		-33%	136%
Unpaid labour value	(million €)	-	-	-	-	0.04	0.12	0.12	0.03	*0.02*	*0.02*		-78%	-34%	-	-	-	-	-	0.04	0.11	0.01	*0.01*	*0.01*		-90%	-50%
Energy costs	(million €)	0.06	0.04	0.24	0.23	0.14	0.24	0.25	0.20	*0.15*	*0.18*		-19%	19%	0.11	0.03	0.00	0.05	0.04	0.13	0.30	0.32	*0.29*	*0.39*		4%	235%
Repair & maintenance costs	(million €)	0.02	0.02	0.03	0.08	0.05	0.07	0.07	0.06	*0.05*	*0.06*		-14%	18%	0.04	0.01	-	0.01	0.01	0.03	0.07	0.05	*0.06*	*0.06*		-33%	108%
Other variable costs	(million €)	0.02	0.01	0.02	0.23	0.13	0.08	0.10	0.02	*0.02*	*0.02*		-80%	-76%	0.04	0.01	0.00	0.01	0.01	0.04	0.10	0.01	*0.01*	*0.01*		-90%	-66%
Other non-variable costs	(million €)	0.01	0.02	0.02	0.03	0.01	0.03	0.04	0.08	*0.07*	*0.07*		95%	251%	0.02	0.00	0.00	0.00	0.00	0.02	0.05	0.03	*0.04*	*0.04*		-40%	122%
Annual depreciation costs	(million €)	0.00	0.00	0.02	0.10	0.06	0.08	0.11	0.10	*0.09*	*0.10*		-6%	89%	0.06	0.01	0.00	0.01	0.01	0.03	0.11	0.09	*0.11*	*0.11*		-20%	166%
Rights costs	(million €)	-	-	-	-	-	0.02	0.02	0.03	*0.02*	*0.02*		29%	356%	-	-	-	-	-	0.01	0.03	0.04	*0.05*	*0.05*		62%	834%
Opportunity cost of capital	(million €)	- 0.00	0.03	0.01	0.01	0.03	0.02	0.01	0.01	*0.01*	*0.00*		-23%	-55%	- 0.01	0.09	0.01	0.02	0.05	0.04	0.09	0.08	*0.12*	*0.06*		-3%	103%
Tangible asset value (replacement)	(million €)	1.74	0.68	0.88	0.93	0.96	0.79	0.28	0.17	*0.16*	*0.16*		-40%	-81%	3.26	2.28	0.57	1.46	1.55	2.00	2.83	2.15	*2.79*	*2.78*		-24%	8%
Fishing rights	(million €)	0.06	0.02	0.03	0.02	0.02	0.01	0.01	0.04				206%	62%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03				1167%	2712%
Investments	(million €)	0.09	0.03	0.05	0.03	0.09	0.07	0.10	0.17				75%	166%	0.06	0.04	0.01	0.01	0.02	0.02	0.08	0.04				-56%	3%
Gross Value Added	(million €)	0.27	0.50	0.24	0.85	0.55	0.58	0.72	1.25	*0.95*	*0.94*		73%	134%	0.32	0.06	- 0.00	0.05	0.04	0.26	0.76	2.28	*2.25*	*2.16*		198%	971%
GVA to revenue	(%)	70.1	84.8	44.2	60.2	62.6	58.7	61.4	77.7	*76.5*	*73.9*		27%	23%	60.2	51.7	- 24.8	40.3	42.1	55.7	59.5	85.0	*84.9*	*81.3*		43%	109%
Gross profit	(million €)	- 0.1	0.3	0.0	0.4	0.3	0.2	0.2	1.0	*0.8*	*0.7*		365%	476%	0.1	0.0	- 0.0	0.0	0.0	0.1	0.2	2.0	*2.0*	*1.9*		754%	2720%
Gross profit margin	(%)	- 38.4	48.8	1.6	27.8	28.7	19.4	18.1	61.7	*60.6*	*58.0*		241%	307%	26.4	16.2	- 56.9	7.3	9.2	18.0	18.1	74.0	*74.3*	*70.6*		309%	1252%
Net profit	(million €)	- 0.1	0.3	- 0.0	0.3	0.2	0.1	0.1	0.9	*0.6*	*0.6*		809%	751%	0.1	- 0.1	- 0.0	- 0.0	- 0.0	0.0	0.0	1.8	*1.7*	*1.7*		4600%	61072%
Net profit margin	(%)	- 38.4	44.2	- 3.7	19.5	18.0	10.0	8.2	54.9	*52.4*	*50.1*		567%	564%	16.4	- 70.3	-1,996.8	- 16.6	- 48.3	1.9	3.0	67.7	*65.5*	*64.2*		2150%	122%
Return on fixed tangible assets	(%)	- 8.8	42.7	- 1.2	31.0	19.7	14.7	37.7	528.8	*418.1*	*399.3*		1303%	2625%	2.5	0.3	- 0.5	0.1	0.2	2.6	4.4	88.3	*66.4*	*63.6*		1905%	6331%
GVA per FTE (labour productivity)	(thousand €)	8.9	18.2	6.4	32.8	15.8	21.5	30.3	60.6	*50.1*	*47.5*		41%	76%	28.7	17.1	- 1.3	18.5	11.1	25.2	54.1	96.4	*72.8*	*69.8*		115%	227%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.90 Romania: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
ROU A37 PMP1218 °	12	14	678	127	2,212	1,826	1,826	1,561	85.5	1,382	75.7	1,266	69.3	13.2	114.7	96.1	High	381%	Improved	42.6%
ROU A37 PG0612 °	101	18	2,805	171	1,573	1,548	1,548	1,200	77.5	957	61.9	853	55.1	13.3	65.8	539.9	High	561%	Improved	36.1%
ROU A37 PMP2440 °	2	10	245	151	1,021	852	852	714	83.8	600	70.4	547	64.1	11.4	71.5	74.4	High	427%	Improved	19.9%
ROU A37 PG0006 °	12	2	317	188	36	56	56	47	83.3	31	56.2	28	50.4	6.5	19.9	326.7	High	418%	Improved	1.3%

Table 5.91 Romania: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
ROU A37 PMP1218 °	14	16	925	84	4,158	2,077	2,077	1,803	86.8	1,598	76.9	1,452	69.9	12.9	113.5	94.1	High	53.5%
ROU A37 PG0612 °	94	17	2,622	152	1,606	1,211	1,211	926	76.4	737	60.9	638	52.7	11.1	54.5	430.5	High	31.2%
ROU A37 PMP2440 °	3	15	270	138	1,058	567	567	443	78.1	367	64.7	279	49.2	5.1	29.5	28.2	High	14.6%
ROU A37 PG0006 °	10	2	276	269	18	29	29	23	77.6	15	50.3	12	40.9	4.1	11.6	166.5	High	0.8%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.92 Romania: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Thomas' rapa whelk		0.01	0.03	0.96	0.55	0.78	1.83	3.48	3.09		-	0.01	0.22	0.59	1.31	1.95	4.46	6.50		3.43	2.80	4.41	0.94	0.60	0.94	0.78	0.48	81.3%	92.1%
Turbot	0.38	0.31	0.26	0.23	0.21	0.29	0.34	0.27	0.31	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	8.09	6.37	5.46	5.34	4.94	6.78	7.92	8.68	10.62	6.3%	0.6%
European sprat	0.21	0.07	0.02	0.10	0.06	0.05	0.08	0.10	0.03	0.23	0.09	0.03	0.13	0.09	0.06	0.08	0.11	0.05	0.89	0.81	0.75	0.76	0.66	0.83	0.97	0.96	0.58	2.3%	2.3%
European anchovy	0.02	0.02	0.05	0.05	0.02	0.13	0.07	0.13	0.13	0.02	0.02	0.05	0.04	0.02	0.11	0.06	0.11	0.10	1.35	1.10	1.13	1.11	0.98	1.19	1.22	1.18	1.31	3.0%	2.3%
Gobies nei	0.02	0.02	0.01	0.02	0.02	0.01	0.02	0.04	0.03	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.02	0.02	1.43	1.12	1.03	1.21	1.10	1.48	1.62	1.64	1.59	0.9%	0.4%
Mediterranean horse	0.04	0.04	0.01	0.03	0.04	0.07	0.02	0.04	0.09	0.01	0.02	0.01	0.02	0.02	0.03	0.01	0.01	0.03	3.01	2.42	1.95	1.53	1.81	2.77	3.00	3.04	2.66	0.9%	0.2%
Mediterranean mussel		-	-	-	-	-	0.01	0.07	0.08		-	-	-	-	-	0.01	0.05	0.07		3.01	2.85	2.28	1.78	0.84	1.29	1.53	1.20	1.6%	1.0%
Caspian shad	-	0.01	-	-	-	0.03	0.01	0.02	0.01	-	0.01	-	-	-	0.02	0.01	0.01	0.01	1.50	1.10	1.02	1.01	1.12	1.23	1.45	1.44	1.94	0.5%	0.2%
Pontic shad	0.17	0.16	0.11	0.10	0.05	0.04	0.01	0.04	0.03	0.05	0.06	0.05	0.05	0.02	0.01	-	0.01	0.01	3.55	2.60	2.47	2.22	2.23	3.17	3.34	3.40	3.32	0.9%	0.2%
Picked dogfish	0.04	0.02	0.01	0.01	0.01	0.01	0.01	0.05	0.01	0.01	-	-	-	-	-	-	0.01	-	3.66	3.59	2.72	2.54	2.72	3.57	3.37	3.56	2.91	1.2%	0.2%
																												99%	100%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.20 Slovenia

Short description of the national fleet

Fleet capacity

In 2016, the Slovenian fishing fleet consisted of 171 registered vessels, with a combined gross tonnage of 590 GT, a total power of 8.5 thousand kW and an average age of 38.3 years. The average length of the fishing vessels was 6, 96 metres in the same year. The size of the fleet decreased between 2008 and 2016; the number of vessels by 6% and GT and kW by 40% and 20%, respectively. The major factors causing the fleet to decrease include the scrapping of vessels, including two of the largest vessels in Slovenian fishing fleet.

In 2016, there were 83 active vessels which represent 49% of all fishing vessels in the same year. The number of all active vessel increase for 7% from 2008-2015, while a decrease of 6% was recorded in 2016 to 2015. One of the reasons for increased number of active vessels (2008-2015) is scrapping of some large vessels. Many fishers lose their jobs and decided to starts fishing on his own. Also the economic crisis over the past few years had the similar effect on increased number of active vessels. One of the reasons for drop in 2016 is crisis in Purse seiners sector where the number of vessels decreased by half in the last few years. Regardless of increased number of active vessels, the number of passive vessels is still very high. The case is complex and there are several reasons for this situation. One of the reasons is high age of these vessels. Many vessels are very old and they are no longer suitable for fishing. Also many owners cannot fish anymore because they are retired but they do not have a successor who would continue with the fisheries. In many cases the fisher found a new job, because he could no longer earn a living from fishing, but still own the fishing vessel.

Fleet structure

The Slovenian fishing flees nationally divided into a small-fleet segment (87% of all active vessels in 2016) with an engine power of 3.0 thousand kW and a large-fleet segment (13% of all active vessels in 2016) with an engine power of 1.5 thousand kW. The number of vessels in the SSCF increase for 20% from 2008-2016, while the number of large-scale vessels decrease for 56% in the same period. Scrapping is the major factor for decreased large-scale fleet. On the other hand, those fishers who lost their jobs because of scrapping, starts to fish on their own, which results in a higher number of small-scale vessels.

The Slovenian national economy is insignificantly influenced by the marine fisheries sector. However, the sector has a particular social impact in terms of employment. The watershed moment for Slovenian marine fisheries began with Slovenian independency in the year 1991. This period marked a decrease in the extent of fishing regions and a substantial loss of market for fish products. A large number of poorly equipped small-scale fishers, inadaptability of large-scale fisher, along with discordance among fishing, producing and marketing capabilities brought the sector into crisis. Landings of almost 6 thousand tonnes in 1990 have decreased to less than 200 tonnes in 2016.

The existence of two sea fishery reserves where all fishing activities are banned (Portorož and Strunjan fishery reserves) further limit the reduced Slovenian fishing area. Moreover, there is an important industrial port in the Gulf of Koper. Due to the safety and international rules, a common routing system and traffic separation scheme was established in the Northern Adriatic, which also has an important impact on fisheries. For the last few years, this has had a negative impact, particularly on those fishers who are engaged only in small-scale coastal fishing.

Employment

In 2015, the number of fishing enterprises totalled 88, with the majority (73%), owning a single vessel. 27% of the enterprises owned two to five fishing vessels and none of the enterprises owned six or more vessels. Total employment in 2014 was estimated at 119 jobs, corresponding to 84 FTEs. The level of employment increased between 2008 and 2015, with total employed increasing by 9%, whiles the number of FTEs increased also by 9%.

The Slovenian fishing fleet consists predominantly of small vessels of less than 12 meters (mainly vessels of 6 meters). Self-employed fishers who own one fishing vessel about six meters long represent a typical Slovenian fishing enterprise.

Effort

In 2015, the fleet spent a total of around 8.7 thousand days at sea. Effort, in days at sea, increased 29% between 2008 and 2015. The fisheries in the Adriatic Sea is very intense, consequently most of the fish stocks are overexploited. Although small Slovenian fisheries have a negligible effect on fish stocks, feels the effects of intensive fishing, which resulting in lower landings and increased effort. Furthermore, the fisheries sector, particularly the SSCF, is affected by the limited size of marine fishing area. Most of the fleet is poorly equipped and unable to operate in international waters. One of the reasons for increased days at sea is also the high price of fuel in the past few years, which encourages the fishers to do shorter and more frequent trips.

The quantity of fuel consumed in 2015 was around 240 thousand litres, a decrease of around 56% from 2008. The major factor causing this decrease includes the scrapping of several vessels in the fleet, including two of the largest vessels.

Production

The total weight of seafood landed in 2015 was around 200 tonnes, with a landed value of €1.27 million. The total weight and value of landings decreased by 70% and 45%, respectively, over the period analysed. In 2009, the national fleet

generated the highest landed value (€2.4 million), followed by 2008 (€2.3 million). In terms of landings weight, in 2009 the fleet landed around 866 tonnes, 2010 (764 tonnes) and 2011 (719 tonnes). The major factor causing the decrease in landed weight and value, especially for European anchovy and sardine, include scrapping of fishing vessels. In the last quarter of 2011, Slovenia sent the two largest ships to be scrapped (pelagic trawlers 24-40m); those vessels targeted mainly sardine and anchovy and represented around 50% of the Slovenian landed weight. The climate changes could be also one of the reason for reduce landings. The Northern Adriatic Sea was very warm over the past few years, which could be the reason for the reduced presence of certain fish species, e.g. whiting. The landings volume of whiting decreased from 2012 to 2015 for more than 85%.

Prices obtained for the key species targeted by the fleet generally remain stable between 2008 and 2015. Slight annual variations of the prices are the results of increased or decreased volume of landings thru the period. European pilchard accounted for 26% of the total landings value obtained by the Slovenian fleet in 2008, decreasing to only 8% of income in 2015, while European anchovy decreased from 23% in 2008 to 3% in 2015. On the other hand, gilthead sea bream, Common sole and European squid records increased value of landings from 2008-2015 for 600%, 162% and 30% respectively. Slovenia, in the last period, invested a large amount of money in marine aquaculture, especially in shellfish farming. Increased production of shellfish could be one of the reasons for the increased Gilthead sea bream value and volume of landings.

Economic results for 2015 and recent trends

National fleet performance

The amount of income generated by the Slovenian national fleet in 2015 was €2.35 million. This consisted of €1.27 million in landings value, €0.76 million in non-fishing income and €0.32 in subsidies. The Slovenian fleet's landings income decreased 45% between 2008 and 2015, while other income increased 9% during the same period. Due to reduced landings, Slovenian fishers are looking for the opportunity to generate earnings in other industries, such as tourism, aquaculture etc.

Large increase in subsidies was recorded in 2015 according to 2014 (+357%). The reason for increase are payments to fishers that were implemented by Slovenia through the measure ''Socio-economic compensation for the management of the Community fishing fleet in the framework of OP EFF 2007-2013'' which were a consequence of Croatia's accession to the EU. Through Croatia's Accession Treaty which entered into force on 1 July 2013, the provision became applicable in EU legal order that Slovenia may finance a scheme of individual premiums for fishers who would benefit from the access regime laid down in Part 11 of Annex I to Regulation (EC) No 2371/2002 (this access regime is now provided for in point 8 of Annex I to Regulation (EU) No 1380/2013) as amended by the Act of Accession of Croatia. The scheme may only apply during the period 2014 to 2015 or, if this occurs earlier, up until the date of the full implementation of the arbitration award resulting from the Arbitration Agreement between the Government of the Republic of Slovenia and the Government of the Republic of Croatia, signed in Stockholm on 4 November 2009.

Total operating costs incurred by the fleet in 2015 equated to €1.79 million, amounting to 76% of total income. Crew cost and Unpaid labour value, the two major fishing expenses, were €0.61 and €0.35 million, respectively. Between 2008 and 2015, total operating costs decreased 25%, largely due to scrapping of several vessels. In the last few years, especially in 2012 and 2013, Slovenian fisheries sector records an increased value of direct income subsidies. It has been intended primarily to diversify their activities. The results of these investments are also increased depreciation costs and other income.

In terms of economic performance, the amount of Gross Value Added (GVA), gross profit and net profit generated by the Slovenian fleet in 2015 were €1.56 million, €0.6 million and €0.24 million, respectively. Between 2008 and 2015, GVA, gross profit and net profit decreased 10%, 22% and 63% respectively. The major factors causing the deteriorated trend in economic performance in 2015 included lower income from landings and lower income from other sources. The Slovenian fishing fleet was in a poor economic condition because of old and poorly equipped fleet and reduced catches. In 2015, the Slovenian fleet had an estimated (depreciated) replacement value of €4.37 million. Investments by the fleet amounted to €0.17 million in 2015.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 29.5%, a 16% increase from 2008. Net profit margin was estimated at 12% in 2015, resulting in 44% decrease from 2008.

The Rate of Return on Fixed Tangible Assets (RoFTA) declined in comparison to previous and amounted 8% in 2015. Labour productivity (GVA/FTE) also record decrease in period 2008- 2015 for 17%: GVA decreased for 10% while the number of FTE increased by 9% in the period analysed.

Fuel consumption per landed tonne has followed an overall increasing trend since 2008, and amounted 1.218 litres per tonne landed in 2015. On the other hand, the landed weight per sea day decreased significantly for 77% from 2008-2015. One of the reasons for that is scrapping of some large vessels with high volume of landings and, subsequently, changed composition of the fleet consisting now in majority of smaller vessels with lower landed weight per sea day. Lower volume of landings of Purse Seiners segment in last few years also affect productivity and efficiency indicators since this segment has the best ratio between the weight of catches and fuel consumption.

Performance by fishing activity

The Slovenian fleet has a range of vessel types targeting different species predominantly in the Adriatic Sea. The fleet consisted of 8 (DCF) fleet segments in 2015, with 4 inactive length classes consisting of 88 vessels. Two of active segments (DFN VL00-06, DFN VL06-12) belongs to SSCF and two (DTS VL12-18, PS VL12-18) belongs to the large-scale fleet.

Small-scale coastal fleet

In 2015, there were 88 active vessels of which around 76 (87% of all active vessels) are classified as small-scale (an increase for 20% from 2008). The majority of these vessels operate in the coastal waters of Slovenia.

The amount of income generated by the Slovenian SSCF in 2015 was €1.33 million. This consisted of €0.74 million in landings value, €0.40 million in non-fishing income and €0.19 million in direct subsidies. Landings income increased 90% between 2008 and 2015, while other income increased for more than 100% during the same period. Due to reduced landings, Slovenian fishers are looking for the opportunity to generate earnings in other industries, such as tourism, aquaculture etc.

In terms of economic performance, the amount of Gross Value Added (GVA), gross profit and net profit generated by the SSCF in 2015 were €0.86 million, €0.27 million and €0.01 million, respectively. Between 2008 and 2015, GVA, gross profit and net profit following the positive trend although the substantial fall was recorded in 2015. The major factors causing the improvement in economic performance in period analysed included increases in landing income and income from other sources while, on the other hand, operation costs remain relative stabile during the period analysed. In 2015, the SSCF had an estimated (depreciated) replacement value of €1.51 million. Investments by the fleet amounted to €0.14 million in 2015.

Large-scale fleet

12 vessels (13% of all active vessels) represents Slovenian large-scale sector in 2015. The majority of these vessels operate in the coastal waters of Slovenia.

The amount of income generated by the Slovenian large-scale fleet in 2015 was €1.02 million. This consisted of €0.53 million in landings value, €0.14 million in direct subsidies and €0.36 million in non-fishing income. Landings income decreased 73% between 2008 and 2015. The major factor for decreased value of landing income is scrapping of some vessels and in the last few years a crisis in PS segment.

In terms of economic performance, the amount of Gross Value Added (GVA), gross profit and net profit generated by the large-scale fleet in 2015 were €0.7 million, €0.33 million and €0.27 million, respectively. Between 2008 and 2015, GVA, gross profit and net profit increased 55%, 62% and 65% respectively, while the GVA decreased for 55%. The major factor causing for decreasing in economic performance is lover income from landings of PS sector and scrapping of some vessels. In 2015, the large-scale fleet had an estimated (depreciated) replacement value of €1.28 million. Investments by the fleet amounted to €0.03 million in 2015.

Performance results of selected fleet segments

The entire active fleet made an overall profit in 2015. Two of the segments (DTS 12-18m and DFN 00-06m) revealed an improving economic trend in 2015 while PS 12-18m and DFN 06-12m revealed deteriorated trend.

Demersal trawlers and demersal seiners 12-18m - 10 vessels make up this segment and are based predominantly in the Adriatic. The fleet targets a variety of species, the most important being whiting, musky octopus and European squid. The value of landings was €0.38 million and 11 FTEs were employed in this fleet segment in 2015, contributing to 30% and 13% of the total income from landings and FTEs generated by the MS fishing fleet respectively. This fleet segment made a profit in 2015.

Purse seiners 12-18m - 2 vessels make up this segment and are based predominantly in the Adriatic. The most important targeting species are European anchovy and European pilchard. The value of landings was €0.15 million and 7 FTEs were employed in this fleet segment in 2015, contributing to 12% and 8% of the total income from landings and FTEs generated by the MS fishing fleet respectively. This fleet segment made a profit in 2015. Regardless of profit made in 2015 this segment is in crises for past few years. The profit is results of other income (€0.16 million) which represents 48% of total income. The value of landings decreased from €0.8 million in 2008 to €0.15 million in 2015. Also other economic and social indicators, except other income, decrease substantially in the period mentioned. The main reasons are that the targeting fish is too small for fishing, problems with employees which are hard to get because of the seasonal nature of work and high tax on occasional work in Slovenia and because of large Italian and Croatian fleet which are more cost effective and landed large amount of sardine and anchovy at a lower price.

Drift and fixed netters 0-6m – Around 35 vessels make up this segment which operate in Slovenian coastal areas of the Adriatic. These vessels target demersal species, such as sole, European flounder and sea bream. The total value of landings was €0.19 million and around 23 FTEs were employed in this fleet segment in 2015, contributing 15% and 27% of the total income from landings and FTEs generated by the national fleet respectively. This fleet segment made a loss in 2015.

Drift and fixed netters 6-12m – Around 41 vessels make up this segment which operate in Slovenian coastal areas of the Adriatic. These vessels target demersal species, such as sole, Mullets, turbot and sea bream. The total value of landings was €0.55 million and around 44 FTEs were employed in this fleet segment in 2015, contributing 43% and 52% of the total income from landings and FTEs generated by the national fleet respectively. This fleet segment made a profit in 2015.

Drivers affecting the economic performance trends

Lower income from landings and income from other sources and higher operating cost were the main driving forces behind the overall deteriorated trend.

The Slovenian fleet's landings income decreased 45% between 2008 and 2015. Other income increased 9% during the same period, but a fall of 48% was recorded in 2015 regarding 2014. Due to reduced landings, Slovenian fishers are looking for the opportunity to generate earnings in other industries, such as tourism, aquaculture etc. In the last few years, especially in 2012 and 2013, Slovenian fisheries sector records an increased value of direct income subsidies. It has been intended primarily to diversify their activities.

Markets and Trade

The Slovenian seafood trade balance is relatively stable over the years and it is significantly negative. Slovenia is a net importer of fish and fish products. In 2015 imports were approximately four times larger than export and amounted to 15 724 tonnes (€75.2 million) of fish and other fish product. On the other hand, export amounted to 3 871 tonnes (€22.3 million) in the same year. The majority of the imported fish and fish products come mainly from European Union. The largest Slovenian seafood import partners are Italy, Spain and Croatia. Concerning export, the largest partners are Austria, Croatia and Bosnia and Herzegovina.

The Slovenian volume of landings for 2015 amounted less than 200 tonnes. In the same year Slovenian aquaculture sector has produced 1.590 tonnes of fish and shellfish. Slovenian market for marine products is fragmented and disorganized. A large number of producers and dealers are unorganized and acting individually. Most of the catches are sold directly to known customers. Part of landed catches is sold also on the fish market in Trieste, Italy.

Prices obtained for the key species targeted by the fleet generally remain stable between 2008 and 2015. Slight annual variations of the prices are the results of increased or decreased volume of landings thru the period.

Management instruments

In Slovenia the field of fisheries, together with relevant legislation and management, is currently the responsibility of the Fisheries Sector at the Ministry of Agriculture, Forestry and Food (MAFF). The Ministry developed a new information system (InfoRib) which collects data on marine species, landings, register of fishing vessels and socio-economic data. The data are linked to each fishing vessel and enable assessment of the socio-economic status in marine fisheries. Those data provide the basis for adopting measures in favour of sustainable development and for the common European fisheries policy.

Fisheries management is regulated mostly by capacity limitations and spatial restrictions. Capacity limitation is related to increase of vessel power and GT in terms of total national fleet capacity. Spatial restrictions are related with the existence of two sea fishery reserves where all fishing activities are banned (Portorož and Strunjan fishery reserves). Moreover, there is an important industrial port in the Gulf of Koper. Due to the safety and international rules, a common routing system and traffic separation scheme was established in the Northern Adriatic, which also has an important impact on fisheries.

From 2014 GFCM management plan for small pelagic fish in GSA 17 has been in force. By the provisions of this plan maximum number of fishing days for targeting sardine and anchovy has been set, as well as temporal closure period.

TACs and quotas

Slovenia does not have any TACs and quotas.

Status of Key Stocks

According to the GFCM Working Group on Stock Assessment of Small Pelagic Species (WGSASP) held in November 2016, the stock of sardine in GSAs 01 and 03 was the only stock considered as sustainably exploited. Six other stocks were considered to be outside safe biological limits (either overexploited, in overexploitation, a combination of both, depleted or ecologically unbalanced).

According to the GFCM Working Group on Stock Assessment of Demersal Species (WGSAD) held in November 2016, out of the 27 stock assessments validated by the group, five were found in a state of "sustainable exploitation" and 22 were assessed as "in overexploitation" in the Mediterranean Sea.

Operating costs

Between 2008 and 2015, total operating costs decreased 25%, largely due to scrapping of several vessels. In the last few years, especially in 2012 and 2013, Slovenian fisheries sector records an increased value of direct income subsidies. It has been intended primarily to diversify their activities. The results of these investments are also increased depreciation costs and other income. In the period 2013-2015, i.e. after the scraping, operating costs remained relatively stable, with slight annual variations as a result of increased or decreased number of active vessels in the fleet. One of the drivers which effect on the economic situation of the fleet are repair & maintenance costs which are relatively high and represented 11% of total operating costs in 2015. In the future an increase in the value of repair & maintenance costs is expected because of old fleet. Energy costs are one of the key drivers only for Demersal trawlers and demersal seiners 12-18m segment. Reduced energy costs helped this segment to a quite good economic performance in 2015.

Innovation and Development

Slovenia had a derogation regards the minimum distance from coast and the minimum sea depth for the ''volantina'' trawlers; Article 13(1) of Regulation (EC) No 1967/2006 shall not apply in territorial waters of Slovenia, irrespective of the depth, between 1.5 and 3 nautical miles from the coast, to 'volantina' trawlers which are used by vessels:

(a) bearing the registration number mentioned in the Slovenian management plan;

(b) having a track record in the fishery of more than five years and not involving any future increase in the fishing effort deployed;

(c) holding a fishing authorisation and operating under the management plan adopted by Slovenia in accordance with Article 19(2) of Regulation (EC) No 1967/2006.

The derogation shall apply until 23 March 2017.

In 2016 Slovenia has requested a new derogation regards minimum distance from coast for the ''volantina'' trawlers. For this purpose, Slovenia, in the first half of 2016, carried out a study which has shown that cephalopods caught with bottom trawls type "Volantína" does not represent the target fish species. Key conclusions of the study was that ''Volantína'' represent multispecies fishery because in the catch were represented 47 commercial species. Target species was whiting (*Merlangius merlangus*) which represented 37.01% of the catch. The share of cephalopods in the catch represented 9.93%.

Based on the results of the study Slovenia expects that the Commission will adopt a new derogation. Non-acceptance of the derogation, because of very limited fishing area, will definitely lead to the collapse of the sector and consequently to job losses on sea and on shore.

Social impact

Although the marine fishing sector is numerically small and has an insignificant influence on national economy, it is still considered to have a strong social impact on the Slovene coastal region in terms of employment. Besides, this activity is also important for maritime identity and tourism. In addition to directly creating employment opportunities, it is linked to the economy of the entire region, especially to tourism and catering. As said before, the value and volume of landings, as key drivers do not have affect only on fishers but also to the people on shore. Slovenian fish processing industry, on the other hand, less depends on Slovenian fisheries because most of the raw materials are imported from another, mostly EU, countries.

Projections for 2016 and outlook

National Fleet

Due to scrapping the size of the fishing fleet decreased between 2008 and 2016; the number of vessels by 6% and GT and kW by 40% and 20% respectively. Because of that and because of poor landing volume of Purse Seiners segment, the weight of landings decreases in 2016 by 80% regarding 2008. Also in 2017 the positive trend regarding volume of landings it cannot be expected. Landing volume and income, which depends on the status of fish stocks, are the main drivers in Slovenian fishing fleet. They have the effect on all others economic and social indicators. If the fish stocks in the Adriatic Sea will recover in the future, we can expect also an increased trend in economic and social situations of the sector.

As the fleet is generally old and poorly equipped we can expect that repair and maintenance costs will continue to increase in the future furthermore, because of old fleet increase in inactive vessels is expected.

Small-scale coastal fleet

The same issues regarding age and equipment of the fleet apply also to the SSCF. The economic situation of SSCF is largely dependent on the landing volume of migratory species, such as sole, see bream, turbot or European flounder so it is very difficult to predict the volume of landings. It depends on a variety of factors, such as sea temperature, other climatic factors, condition of the stock, fishing effort in neighbouring countries etc. Based on current data the volume of landings decrees in 2016 for 22% regarding 2015, mostly because of reduced landings of sea bream.

MODEL FORECAST

Preliminary results for 2016 forecast a 22% decrease in landed weight, matched with a 10% decrease in landed value. Projections suggest operating costs decrease, most notably energy costs which are estimated to decrease by 36% due to the continued low fuel prices. Together with a reduction in capital costs, fostered mixed economic performance results in 2016: GVA (+2%), gross profit (-1%) and net profit (+41%).

Results indicate that the Slovenian fleet operated at a profit in 2016: with an estimated net profit margin of 17%. Positive economic developments can also be seen in performance indicators gross profit (+3%), and net profit (+40%). Contrary, GVA decreased by 4%.

The 2016 gains are offset in 2017 as landings decrease further (-3% compared to projected 2016 figures) but value of landings did not change significantly. Yet, with increased fuel costs in 2017 (+12%), GVA decreases by 4%, gross profit decreases by 8% and net profit by 3%. Nonetheless, the fleet remains profitable with gross and net profit margins of 31% and 18%, respectively. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

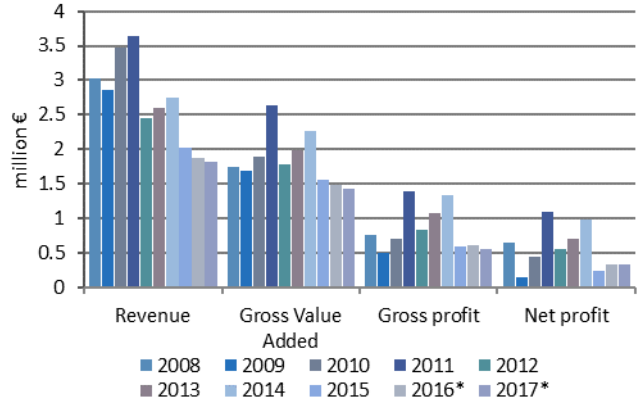
Data issues

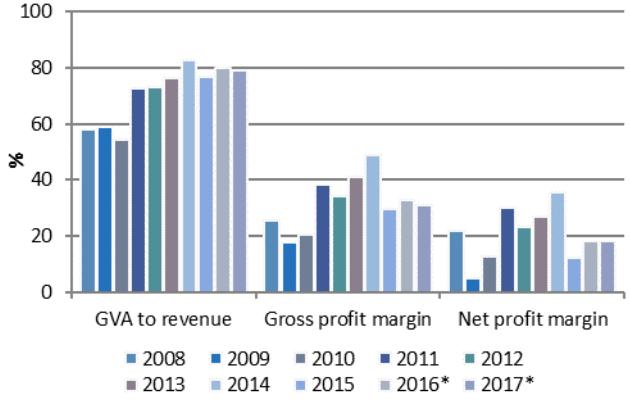
No major issues detected. The economic data on the fishing sector were collected mostly from accounting records – AJPES, from data base 'InfoRib', through questionnaires and sales notes. In the monitoring programme all fishing vessels were included. The data collected from all sources were combined in such a way that a complete set of accounting items is compared for each business enterprise. The target population was all fishing sector in Slovenia. There were approx. 100 companies or fishers in Slovenia. In March 2016 the questionnaires for 2015 were sent to all users of fishing vessels in Slovenia. Where the questionnaire was the only source used, the response rate was around 70%. Where the data from annual accounts of business enterprises was used the response rate was 100%, because there are economic reports for all investigated companies or fishers.

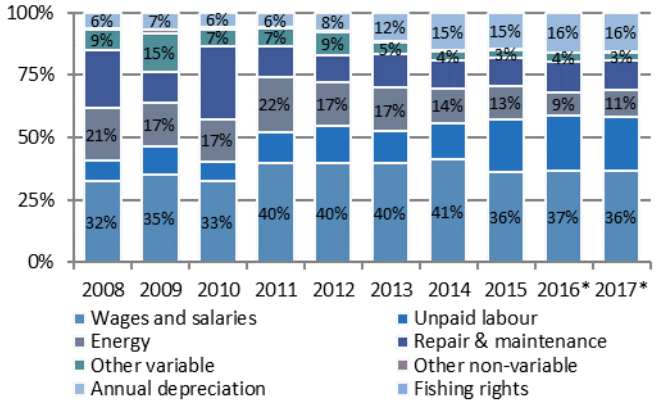
Table 5.93 Slovenia: National fleet statistics and economic performance results. *projections

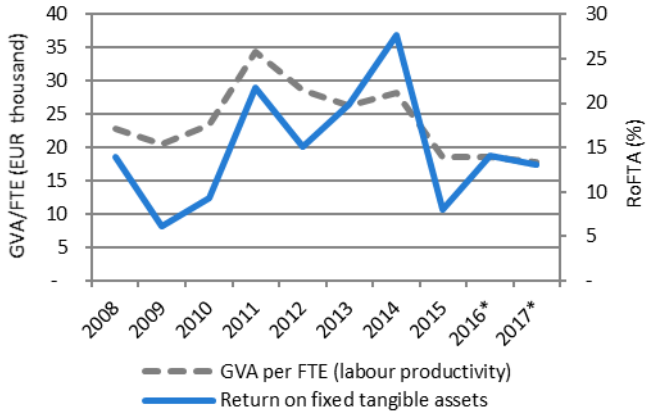
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	181	185	185	186	181	171	170	169	*83*	*84*		-1%	-6%
Number of Inactive vessels_ms	(#)	96	98	94	102	92	88	79	81	*88*			3%	-13%
Vessel tonnage	(thousand GT)	1.0	1.0	1.0	1.0	0.8	0.6	0.6	0.6				0%	-31%
Engine power	(thousand kW)	10.7	11.0	11.0	10.9	10.1	8.5	8.5	8.5				0%	-15%
Total employed	(person)	109	117	116	114	107	107	126	119	*113*	*113*		-6%	5%
FTE	(#)	77	82	81	77	63	75	80	84	*80*	*80*		4%	9%
Days at sea	(thousand day)	6.8	6.9	7.7	7.7	7.6	7.6	8.6	8.7	*7.8*	*7.9*		1%	15%
Fishing days	(thousand day)	6.8	6.9	7.7	7.7	7.6	7.6	8.6	8.7				1%	15%
Number of fishing trips	(thousand)	5.6	5.6	5.8	5.9	5.5	5.4	6.1	6.0				-2%	5%
Energy consumption	(million litre)	0.5	0.6	0.6	0.5	0.3	0.3	0.2	0.2	*0.2*	*0.2*		8%	-46%
Live weight of landings	(thousand tonne)	0.7	0.9	0.8	0.7	0.3	0.2	0.3	0.2	*0.2*	*0.1*		-23%	-65%
Value of landings	(million €)	2.3	2.4	2.1	2.1	1.5	1.2	1.3	1.3	*1.1*	*1.1*		0%	-31%
Income from landings	(million €)	2.3	2.4	2.1	2.1	1.5	1.2	1.3	1.3	*1.1*	*1.1*		0%	-31%
Other income	(million €)	0.7	0.5	1.4	1.5	1.0	1.4	1.5	0.8	*0.7*	*0.7*		-48%	-33%
Direct income subsidies	(million €)	0.2	0.3	0.2	0.3	0.4	0.5	0.1	0.3				392%	11%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	0.78	0.89	0.96	0.94	0.69	0.69	0.68	0.61	*0.55*	*0.54*		-10%	-24%
Unpaid labour value	(million €)	0.20	0.29	0.22	0.30	0.26	0.22	0.24	0.35	*0.33*	*0.33*		47%	42%
Energy costs	(million €)	0.51	0.44	0.50	0.53	0.30	0.30	0.23	0.22	*0.14*	*0.16*		-5%	-45%
Repair & maintenance costs	(million €)	0.55	0.32	0.86	0.28	0.19	0.23	0.18	0.19	*0.18*	*0.17*		6%	-49%
Other variable costs	(million €)	0.20	0.38	0.20	0.18	0.16	0.09	0.06	0.06	*0.05*	*0.05*		-14%	-70%
Other non-variable costs	(million €)	0.01	0.04	0.03	0.01	0.01	0.00	0.00	0.00	*0.00*	*0.00*		13%	-72%
Annual depreciation costs	(million €)	0.15	0.18	0.17	0.14	0.13	0.20	0.25	0.25	*0.24*	*0.24*		-3%	41%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-	-			
Opportunity cost of capital	(million €)	-0.04	0.19	0.10	0.16	0.14	0.17	0.11	0.11	*0.03*	*- 0.00*		-4%	-8%
Tangible asset value (replacement)	(million €)	4.4	5.4	5.7	5.8	4.6	4.4	3.9	4.4	*2.7*	*2.5*		11%	-11%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	0.26	0.34	0.38	0.22	0.32	0.19	0.22	0.17				-21%	-38%
Financial position	(%)	50.6	59.8	57.3	54.8	68.7	51.8	42.9	63.8				49%	16%
Gross Value Added	(million €)	1.7	1.7	1.9	2.6	1.8	2.0	2.3	1.6	*1.5*	*1.4*		-31%	-22%
GVA to revenue	(%)	57.8	58.8	54.5	72.5	73.1	76.1	82.5	76.8	*79.8*	*78.9*		-7%	13%
Gross profit	(million €)	0.8	0.5	0.7	1.4	0.8	1.1	1.3	0.6	*0.6*	*0.6*		-55%	-37%
Gross profit margin	(%)	25.4	17.7	20.3	38.4	34.1	41.2	49.0	29.5	*33.0*	*31.0*		-40%	-9%
Net profit	(million €)	0.7	0.1	0.4	1.1	0.6	0.7	1.0	0.2	*0.3*	*0.3*		-75%	-63%
Net profit margin	(%)	21.7	5.1	12.7	30.1	23.1	27.0	35.7	12.1	*18.4*	*18.3*		-66%	-46%
GVA per FTE (labour productivity)	(thousand €)	22.7	20.4	23.3	34.3	28.5	26.4	28.2	18.6	*18.7*	*17.9*		-34%	-29%
Return on fixed tangible assets	(%)	14.0	6.2	9.4	21.7	15.1	19.9	27.6	8.1	*14.1*	*13.1*		-71%	-50%

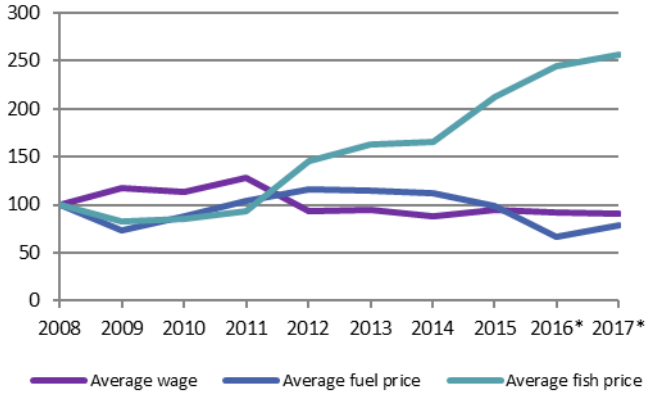
Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

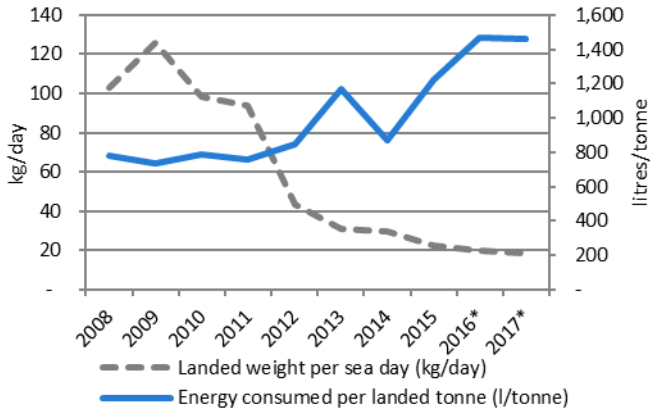


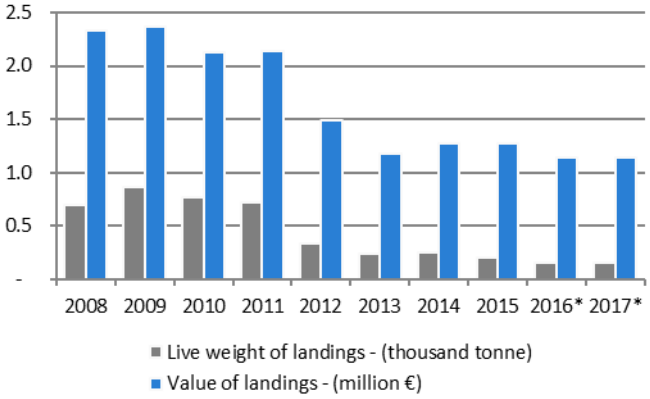












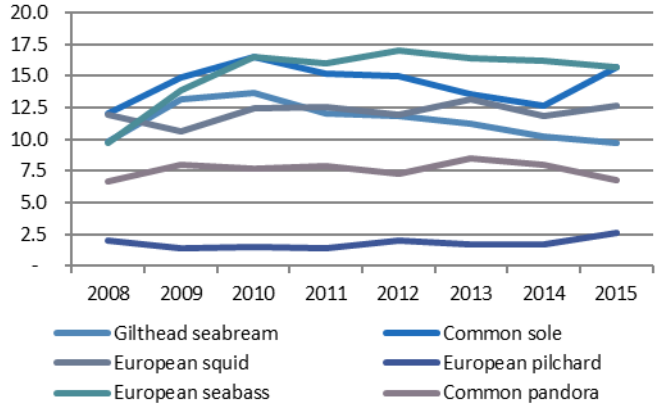


Figure 5.20 Slovenia: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.94 Slovenia: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14	LSF									Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*				2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	60	62	67	62	67	69	77	76	72	74		-1%	15%	25	25	24	22	22	14	14	12	*11*	10		-14%	-42%
Vessel tonnage	(thousand GT)	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2				-10%	10%	0.6	0.6	0.6	0.6	0.5	0.2	0.2	0.2				-5%	-60%
Engine power	(thousand kW)	3	2	3	3	3	4	4	4				-13%	23%	4.6	4.4	4.4	4.1	3.6	1.9	1.9	1.8				-8%	-50%
FTE	(#)	48	45	49	42	44	50	60	66	63	65		10%	37%	29.3	37.4	32.4	35.4	18.8	24.7	20.3	17.8	*16.7*	15.4		-12%	-37%
Total employed	(person)	67	64	72	62	68	71	89	90	86	88		1%	28%	42.0	53.0	44.0	52.0	39.0	36.0	37.0	29.0	*27.1*	24.9		-22%	-33%
Days at sea	(thousand day)	4.81	4.66	5.36	5.71	6.24	6.40	7.44	7.62	6.77	6.94		2%	31%	1.95	2.21	2.39	1.97	1.38	1.25	1.16	1.09	*1.01*	0.93		-6%	-38%
Fishing days	(thousand day)	4.81	4.66	5.36	5.71	6.24	6.40	7.44	7.62				2%	31%	1.95	2.21	2.39	1.97	1.38	1.25	1.16	1.09				-6%	-38%
Number of fishing trips	(thousand)	3.63	3.43	3.70	3.96	4.16	4.25	4.98	4.95				-1%	23%	1.92	2.15	2.05	1.93	1.35	1.14	1.13	1.01				-11%	-40%
Energy consumption	(million litre)	0.08	0.07	0.07	0.06	0.06	0.07	0.06	0.09	0.09	0.09		45%	34%	0.47	0.57	0.53	0.49	0.22	0.20	0.16	0.15	*0.13*	0.12		-7%	-61%
Live weight of landings	(thousand tonne)	0.06	0.05	0.05	0.05	0.06	0.06	0.07	0.08	0.06	0.07		27%	46%	0.64	0.81	0.71	0.66	0.27	0.18	0.19	0.11	*0.09*	0.08		-40%	-77%
Value of landings	(million €)	0.39	0.47	0.49	0.50	0.52	0.51	0.61	0.74	0.68	0.71		22%	50%	1.94	1.90	1.64	1.64	0.97	0.67	0.67	0.53	*0.46*	0.42		-21%	-61%
Income from landings	(million €)	0.39	0.47	0.49	0.50	0.52	0.51	0.61	0.74	0.68	0.71		22%	50%	1.94	1.90	1.64	1.64	0.97	0.67	0.67	0.53	*0.46*	0.42		-21%	-61%
Other income	(million €)	0.19	0.26	0.86	0.94	0.38	0.74	0.85	0.40	0.39	0.39		-53%	-34%	0.52	0.23	0.49	0.56	0.58	0.69	0.61	0.36	*0.34*	0.30		-42%	-32%
Direct income subsidies	(million €)	0.03	-	-	0.04	0.07	0.01	-	0.19					724%	0.21	0.27	0.24	0.24	0.34	0.51	0.07	0.14				109%	-49%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-						-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	0.26	0.26	0.31	0.28	0.37	0.48	0.33	0.34	0.30	0.31		3%	3%	0.52	0.63	0.65	0.66	0.33	0.21	0.35	0.27	*0.25*	0.23		-22%	-43%
Unpaid labour value	(million €)	0.09	0.07	0.10	0.16	0.09	0.12	0.15	0.25	0.23	0.24		65%	128%	0.11	0.22	0.12	0.14	0.18	0.10	0.09	0.10	*0.10*	0.09		14%	-28%
Energy costs	(million €)	0.09	0.08	0.09	0.08	0.09	0.10	0.09	0.11	0.06	0.07		27%	24%	0.42	0.36	0.41	0.45	0.22	0.20	0.15	0.11	*0.08*	0.09		-24%	-64%
Repair & maintenance costs	(million €)	0.13	0.11	0.21	0.08	0.09	0.12	0.11	0.13	0.12	0.12		15%	4%	0.42	0.21	0.65	0.21	0.10	0.11	0.07	0.06	*0.06*	0.05		-8%	-75%
Other variable costs	(million €)	0.10	0.11	0.11	0.09	0.09	0.05	0.05	0.04	0.04	0.04		-9%	-49%	0.10	0.27	0.09	0.09	0.07	0.03	0.02	0.01	*0.01*	0.01		-30%	-88%
Other non-variable costs	(million €)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		119%	65%	0.01	0.04	0.02	0.01	0.01	0.00	0.00	0.00	*0.00*	0.00		-33%	-87%
Annual depreciation costs	(million €)	0.03	0.04	0.06	0.05	0.06	0.15	0.19	0.22	0.22	0.22		14%	165%	0.12	0.14	0.11	0.09	0.07	0.05	0.06	0.02	*0.02*	0.02		-59%	-74%
Rights costs	(million €)	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-	-	-			
Opportunity cost of capital	(million €)	- 0.01	0.03	0.02	0.03	0.04	0.06	0.04	0.04	0.02	- 0.00		-12%	20%	- 0.02	0.09	0.05	0.09	0.05	0.04	0.04	0.03	*0.02*	- 0.00		-14%	-33%
Tangible asset value (replacement)	(million €)	1.13	1.01	1.37	1.14	1.29	1.53	1.50	1.52	1.50	1.49		1%	18%	2.79	2.56	2.77	3.18	1.61	1.17	1.28	1.28	*1.18*	1.04		-1%	-42%
Fishing rights	(million €)	-	-	-	-	-	-	-	-						-	-	-	-	-	-	-	-					
Investments	(million €)	0.12	0.10	0.16	0.17	0.06	0.08	0.16	0.14				-8%	18%	0.10	0.05	0.15	0.04	0.15	0.07	0.05	0.02				-51%	-72%
Gross Value Added	(million €)	0.25	0.43	0.94	1.20	0.63	0.97	1.21	0.86	0.85	0.86		-29%	7%	1.50	1.25	0.96	1.44	1.16	1.01	1.05	0.70	*0.64*	0.57		-33%	-42%
GVA to revenue	(%)	42.85	58.97	69.48	82.91	69.89	77.65	83.16	75.33	79.02	78.61		-9%	9%	61.27	58.74	44.97	65.71	74.99	74.62	81.71	78.78	*80.82*	79.23		-4%	19%
Gross profit	(million €)	- 0.11	0.10	0.52	0.76	0.17	0.37	0.73	0.27	0.32	0.31		-63%	-26%	0.88	0.40	0.19	0.64	0.66	0.70	0.61	0.33	*0.30*	0.25		-46%	-44%
Gross profit margin	(%)	- 18.83	14.23	38.49	52.46	19.34	30.05	50.04	23.66	29.59	28.40		-53%	-11%	35.70	18.88	8.83	29.19	42.59	51.49	47.80	37.05	*37.69*	35.02		-22%	11%
Net profit	(million €)	- 0.13	0.03	0.44	0.68	0.07	0.16	0.49	0.01	0.08	0.10		-98%	-96%	0.78	0.17	0.03	0.46	0.54	0.61	0.52	0.27	*0.26*	0.24		-47%	-39%
Net profit margin	(%)	- 22.08	4.42	32.43	46.73	8.08	12.93	33.80	0.98	7.51	8.90		-97%	-94%	31.69	8.20	1.45	20.97	35.10	44.70	40.43	30.84	*33.06*	32.55		-24%	18%
Return on fixed tangible assets	(%)	- 12.04	6.64	33.63	62.04	8.56	14.34	35.76	3.22	6.69	6.47		-91%	-85%	27.08	10.27	2.81	17.31	36.56	55.69	43.26	23.91	*23.67*	22.54		-45%	-13%
GVA per FTE (labour productivity)	(thousand €)	5.15	9.56	19.21	28.84	14.32	19.19	20.24	13.08	13.45	13.31		5%	26%	51.38	33.49	29.56	40.81	61.92	41.00	51.64	39.26	*38.43*	37.29		26%	20%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.95 Slovenia: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
SVN A37 DFN0612 °	41	43	3,942	1,221	60	550	885	675	76.3	277	31.3	56	6.36	9.3	15.7	6.6	Weak	-74%	Deteriorated	43.6%
SVN A37 DTS1218 °	10	10	860	2,094	64	381	577	410	71.2	110	19.1	66	11.37	28.6	39.1	9.0	Reasonable	-56%	Deteriorated	28.4%
SVN A37 PS1218 °	2	7	225	274	48	146	309	288	93.0	218	70.5	208	67.12	9.5	39.5	80.9	High	11%	Improved	15.2%
SVN A37 DFN0006 °	35	23	3,679	751	23	195	260	187	72.0	- 6	- 2.3	- 45	- 17.38	8.4	8.1	- 28.7	Weak	10%	Improved	12.8%

Table 5.96 Slovenia: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
SVN A37 DFN0612 °	41	43	3,961	1,495	49	550	886	720.4	81.3	321.3	36.3	116.8	13.18	9.3	16.8	9.8	Reasonable	47.3%
SVN A37 DTS1218 °	9	9	918	1,897	64	405	582	445.2	76.6	126.5	21.7	96.9	16.67	33.8	47.2	11.9	Reasonable	31.1%
SVN A37 PS1218 °	2	7	90	569	23	51	214	197.7	92.4	173.3	81.0	166.1	77.63	3.3	27.1	63.9	High	11.4%
SVN A37 DFN0006 °	31	20	2,806	963	16	134	191	130.7	68.4	- 2.6	- 1.4	- 35.9	- 18.75	6.5	6.4	- 26.7	Weak	10.2%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.97 Slovenia: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Gilthead seabream	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.2	-	-	0.0	-	0.0	0.0	0.0	0.0	0.0	9.9	13.1	13.6	12.0	11.9	11.2	10.2	9.7	12.9	22%	15%
Common sole	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	14.9	16.5	15.2	15.0	13.5	12.7	15.7	18.7	17%	5%
European squid	0.1	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	10.6	12.5	12.6	11.9	13.2	11.9	12.7	12.9	10%	5%
European pilchard(=Sa	0.6	0.6	0.6	0.4	0.0	0.1	0.1	0.1	0.1	0.3	0.4	0.4	0.3	0.0	0.0	0.1	0.0	0.0	2.0	1.4	1.5	1.4	2.0	1.7	1.7	2.6	2.0	9%	20%
European seabass	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	-	0.0	-	-	-	-	-	-	-	9.7	13.8	16.5	16.0	17.1	16.4	16.2	15.8	14.5	5%	0%
Common pandora	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	6.7	8.0	7.7	7.9	7.3	8.5	8.0	6.8	7.3	3%	5%
Whiting	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	4.3	5.1	3.1	4.1	2.8	3.0	4.1	3.4	3.7	3%	5%
European anchovy	0.5	0.4	0.3	0.3	0.1	0.1	0.1	0.0	0.0	0.2	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	2.8	1.7	1.8	1.9	2.7	2.6	2.5	2.9	2.8	3%	5%
Common cuttlefish	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	5.4	6.8	5.6	6.0	6.3	6.7	6.9	6.8	7.1	2%	0%
Musky octopus	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	5.5	2.7	3.8	3.7	4.4	3.6	4.0	3.5	2%	5%
																												76%	66%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.21 Spain

Short description of the national fleet

Fleet capacity

In 2016, the Spanish fishing fleet consisted of 9 459 registered vessels, with a combined gross tonnage of 344 thousand tonnes, engine power of 803 thousand kW, and an average age of 31 years.

The Spanish fishing fleet has decreased significantly in number of vessels, engine power and gross tonnage over the last years in order to bring fishing capacity in balance with fishing opportunities. From 2008 till 2015, 3 656 vessels stopped their fishing activities and this decrease in fleet capacity is going to be maintained in the coming years.

In 2016, 1 105 vessels were inactive which represents 11.7% of the Spanish fleet (looking back to 2008, the restructuring of the Spanish fleet sector is evident, notably the decrease of inactive vessels: in 2008 25% of the Spanish fleet was inactive); almost 90% of these inactive vessels are small vessels, less than 12 meters in length.

Fleet structure

The Spanish fleet, with 9 459 vessels registered in 2016, is one of the biggest MS fleet, and the one that carries out fishing activities in more fishing zones.

More than 70% of the Spanish fleet are vessels under 12 meters in length and the activity of this type of vessel is carried out on trips that last less than one day. 19% of the Spanish fleet are vessels with a length 12 to 24 meters, and only 7.8% of the vessels are over 24 meters in length.

Even though the average vessel age is 31 years old, the oldest is the SSCF under 12 meters of length (33 years old). The fleet comprised in the range of 12-24 meter vessels is 19 years, and for those vessels that are over 24 meters, the average vessel age is 17 years. From 2012, the average vessel age shows an increase; the main reason is that there is very few inversion or replacement of the old vessels, due to the Spanish economical bad situation.

Around 99.6% of the 8 354 active vessels have carried out the **fishing activity on Spanish waters** (FAO 27.VIII, 27 IXa, 37.1, and the Canary Island waters 34.1.2), with a combined gross tonnage of 42% of the total of the Spanish GT, and 66.5% of the total engine power (kW).

The rest of the Spanish fleet is integrated by vessels that carry out their **fishing activities on EU waters** (1 424 of the active fleet, 8.75% of GT and 5.6% of the total kW); the main gear they are using are trawl nets, drift and/or fix netters, and bottom-set longline and **vessels on international fishing areas**, with a capacity of 48.9% GT and 27.88% out of the total kW, that carry out their activity under international agreement, Regional Fishery Bodies, or private licenses; these vessels are mainly demersal trawlers, tuna purse seiners, and surface longliners.

The classification presented in this report, shows distorted image for the Spanish fleet, as it fishes in very different fishing grounds. Also, as the data are aggregated at a Supra region level, this report is giving for the North Atlantic area the same profitability for NAFO drift and/or fix netters, CIEM drift and/or fix netters, or for the drift and/or fix netter vessels that fish in national waters, which have different target species, different fuel consumption, and therefore incomes, costs, profitability very different. So the economical results do not reflect the reality of the Spanish fleet, as the data are aggregated on big boxes and cover very different types of activities, this makes the analysis of the real economic situation very complex.

Also, it has to be taken into account that with the data uploaded to the Fleet Economic Data Call (based on 6 length section, main gears, and three supra regions) the fleet is reclassified as:

- Small-scale coastal fleet (SSCF) - includes all vessels under 12m using static gears.
- Large-scale fleet (LSF) - segment includes all vessels using towed gears, and vessels over 12 meters using static gears operating in EU fishing regions.
- And distant water fleet (DWF) - includes EU registered vessels over 24 meters operating in 'other fishing regions' including EU outermost regions.

With this definition of the fleet, 1 763 Spanish dredgers (towed gear which are under 12 meters in length) with coastal activity in Spanish waters should be classified as SSCF and instead of that, they are evaluated at the LSF group, which results as a distortion on the data analysis. Moreover, before 2013 this fleet was included by the Spanish authorities on the polyvalent gears group, and so they were evaluated as their natural group (SSCF).

Employment

The number of fishing enterprises reached 8.783 in 2016 If we look back to 2008 we can see that the small enterprises (with one vessel, and with two till five vessels) decreased, due to the decrease of the number of vessels, while the enterprises with 5 or more vessels are more stable. This trend will continue the following years, with a decrease of 196 enterprises in this year.

Total employment in the Spanish fishing fleet for 2015 was estimated at 32 059 jobs, corresponding to 30.015 FTEs, with an average wage per employee of €19 200 in 2015 and an average wage per FTE of €20 494 in 2015. We can see that the downward trend on the total employment continues; this trend started in 2010 with the economic crisis, and is (among other reasons) due to the reduction of the Spanish fleet capacity.

Effort

In 2015, the Spanish fleet spent around 1.08 million days at sea, (4% less than in 2014), and 1.03 million fishing days (decrease of 4%). This decrease is mainly due to the large-scale fleet. Some reasons can explain this situation: a reduction of the capacity and effort is being carried out in order to balance the fleet to the resources, the biological situation of several stocks, and the economic crisis are also influencing on this situation

The quantity of fuel consumed in 2015 was 709 million litres, which shows an increase of 11% from 2014. These increased may be due to the increase the average age of the fleet, mainly in SSCF, that may cause that the quantity of fuel needed is higher, and the strong increase for distant water fleet mainly due to a higher number of trips (several agreements that entry in force in 2015), with less duration (days at sea decrease), so the fuel consumption is higher due to the vessels enter or leave the landing port more times.

Production

During 2015 the weight and value of landings have fallen to 923.3 thousand tonnes and 1 885 million euros (1%, and 9%, respectively)

In terms of live weight and value of landings, the main species for the Spanish fleet are: highly migratory stocks (Yellowfin Tuna, swordfish, Big eye Tuna), landed by 33 tuna purse seiners that belong to the distant water fleet and small pelagic species (European pilchard and European anchovy) which are mainly fished by purse seiners of Spanish fisheries of north Atlantic and Mediterranean Spanish waters.

It is important to pay attention to the total amount of the weight of landings, more than 50% of which is landed by the DWF, representing only 1% of the total number of vessels in the Spanish fleet

Economic results for 2015 and recent trends

National fleet performance

On this point as explained before, it is important to clarify the improvement done during the last years by the Spanish authorities in order to segment the Spanish fleet on the most precise way possible, due to the complexity of the Spanish fleet in terms of the gears, but also on the regions where the fishing activity is carried out.

The economic performance of the Spanish fleet shows an economic downturn over previous years. Income from landings and value of landings decreased 2% and 9% respectively. Revenue estimated at €1 976 billion, decreased 2% on 2015.

Gross Value Added (GVA), gross profit and net profit for the Spanish fleet in 2015 were estimated at €970.4 million, €355.3 million and €217.5 million, respectively. These figures show a worse profitability of the sector (ROFTA). The main reasons are lower income, especially on the DWF, and an increase on the cost of investments and repair and maintenance cost (13%). The operational costs mainly fuel price keeps the declining trend (-13%).

On the other hand, unpaid labour value must be highlighted, as in 2015 had a decrease of 22% from 2014; the main reason is the professionalization of the sector, as the wages and salaries increase their values.

The tangible asset value of the Spanish fleet was estimated at €501.5 million, and investments amounted to €65 million in 2015, a 2% and 94% increase, respectably. The (depreciated) replacement value keeps with the downward trend for the LSF segment seen from 2011. For DWS indicators, TAV and investments shows an increase due to this fleet is more modernized and technically improved and younger (10 years of average age).

However, if the period 2008-2014 is analysed, several facts can be checked. First of all, the investments data has a high variability and no clear trend; second the increase on investment on 2015 does not seem to be realistic, as the information on 2015 compared to 2014 shows an increase of 94%, (€33.6 million to €65 million).

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 18%, showing a decrease (-18%) on profitability for 2015. On the same way net profit margin was estimated on 11%, as the capital cost decrease 7%. This, added to higher incomes and less operational costs, leads to an increase of net profit margin.

Labour productivity (GVA/FTE) keeps with the downward trend and is estimated on €32 thousand (13% lower than the year before).

Fuel efficiency (litter/tonne) breaks the downward trend started on 2013: 0.77 thousand litres per tonne, 12% more than the year before.

Performance by fishing activity

The Spanish fleet is highly diversified, not only on the number of catches species, but also on the gears and fishing areas. This diversity can be seen on the high number of segments that make it up, 59 fleet segments.

The SSCF represents 48% of the total fleet (4 129 active vessels in 2015), while 49% of the fleet (4 150 active vessels) belong to the large-scale fleet, and the remaining 3% are covered by the distant water fleet (222 active vessels).

Even though the SSCF has the higher number of vessels, the live weight of landings, and the incomes are higher for the vessels that belonging to the LSF segment (45%) and DWF (48%).

A common fact must be highlighted for all the segments and for the total fleet collectively: the decrease in energy costs, showing the same behaviour for all the segments and for the national total.

Small-scale coastal fleet

On 2015, 4 129 active vessels were covered by the fishing activity "small-scale coastal fleet" in accordance with the European definition. However, this classification differs from the Spanish classification that includes on this fishing activity the mobile gears of 12 meters (DTS, DRB, and PS). This type of vessels is covered under the EU classification on the activity "Large-scale Fleet", so the result is that the information that emanates from this report will show some distorted data with the reality of the Spanish small and the large-scale fleet. However, the analysis of this fleet is carried out according to the European definition, but using as the beginning of the period of reference 2011 (first year in which the Spanish classification included mobile gears belong 12 meters on the Large-scale fleet).

Economic data need to be treated with caution, as almost 50% of this fleet carried out their activity on partial time (less than 90 days/year).

In 2015, related to the average 2011-2014, the decrease on the number of vessel reaches the 4%, while the power related to the same period keeps stable; one of the reason is that a power control and verification is been carried out under the Spanish regulation, in order to adjust the registered data for all the Spanish fleet with the real power for each vessel.

This segment has suffered a decrease on total employed (10%) and FTE (9%) compared to the average 2011-2014; the fact that the FTE shows a most pronounced decrease than the total number of employed leads us to believe that most of the people contracted in this fleet are part time.

During 2015, the number of days at sea decrease respect to 2014, due to the policy on reduction of effort that is been carry out by the Spanish authorities.

Life Weight of landings decrease 9% if we compare the landings catches on 2014, we can also see a decrease referred to the period 2011-2014 (2%). Value of landings for SSCF remain constant with similar values than in 2014, while income from landings increase 20%, also an increase of 15% referred to the average of the period 2011-2014, one reason of this results may be the big reduction on the catches of stocks with small economic value.

Wages and salaries of crew decreased with €6 million less in 2015, also decreased the total employed of this fleet.

In terms of GVA, this is a segment economically profitable, €107.9 million. Moreover, as the salaries, and the Unpaid labour value have decrease, the Gross profit is positive and shows a better position referred to last year, due to the increase on the income and the decrease of costs the Gross profit and the net profit shows an increase improving the profitability of the segment for 2015.

The labour productivity as GVA grows on higher figures than FTE, productivity increase, leading to the same benefits with less FTE, keeping the growing trend that started on 2012.

Large-scale fleet

In 2015, 4 150 active vessels were included on the "Large-scale fleet" segment, according to the European definition (1 881 DRB vessels are included in this fishing activity). The decrease on the number of vessels, vessel tonnage, and engine power continues, although this reduction is less marked than on the average of the period 2011-2014.

With a decrease of 4% on the number of vessels, the number of days at sea decreased 5%, the incomes increase 1% referred to 2014, as the weight of landings, and the value of landings are also showing an increase in 2015.

An increase on salaries and employment compared to 2014, probably due to the professionalization of this fleet, with less people employed but with better salaries. This added to the high decrease on the energy costs (25%), leads to that even though the other costs have been increased, the result is a GVA positive, contributing to the total national GVA on 58% (€568.1 million). This higher contribution to the national GVA is due to several issues, one is the balance achieve by the Spanish fleet that carry out their fishing activities on EU waters and also due to the decrease of the GVA on the DWF segment.

The energy combustion has decreased, this segment is profitable, with an increase on the gross profit margin (43%) and an increase on the labour productivity of 5%, due to a higher GVA.

Distant water fleet

In 2015, 222 active vessels were included on the "distant water fleet" less than 3% of the total Spanish fleet, but with a contribution to the total weight of landings in more than 50%, almost half of the incomes, and a high participation on the National Gross Value Added, even though for 2015 the contribution to the national GVA is less than the year before.

The Days at sea, as seen on the SSCF and the LSF have been reduced 1% referred to 2014, and 13% referred to the averaged period 2008-2014. The fishing days have also been reduced (3%), However the number of fishing trips have increase, two are the main reasons for this increase on the fishing trips, first of all the implementation of several agreements with third countries that entry into force in 2015, on the other hand short trips are been carried out by this fleet. T this increase on the fishing trips could explain the increase on the fuel consumption (41%), as the energy consumption of the engines is higher when the vessel is leaving or arriving port.

In terms of landings, the live weight of landings, the value of landings, and the income from landings have been less than 2014, 2%, 25% and 9% respectively. One of the reasons is that while on 2014 the Patagonian squid was one of the top 20 species with a value of landings of €110.58 thousand (9 tonnes weight of landings), on 2015 this specie is not on the top 20, probably due to the biological cycle of this specie.

As opposed all the costs have increase (except for energy cost). O one of the reasons of the increase on the wages and salaries is the entry into force of REGULATION (EU) No 605/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 June 2013 amending Council Regulation (EC) No 1185/2003 on the removal of fins of sharks on board vessels, that involve a need of more people employed to carry out this activities, and so the total salaries increase. The other variable cost increased by 24%, probably due to the private certifications of the Spanish fleet, that in order to have more compromise with the resources are implementing, this situation, link to the decrease on the incomes has led to a decrease on the GVA and on the rest of indicators referred to 2014.

Gross profit, and net profit have decreased (55% and 73%) probably due to the reduction of the incomes of the segment DTS 24-40(46%) and so the value of landings (44%), if we analyse the reason, it seems that there has been a change of species target, whit less value than the previously years.

Outermost regions (Canarias)

The Spanish outermost region, Canary Islands (FAO 34.1.2) has a fleet with the following main characteristics: is the oldest Spanish fleet, with an average vessel age of 35 years; mainly small size of vessels, 488 vessels are below 12 meters in length, 62.5% of the active vessels carried out their fishing activity less than 90 days/year, these vessels carry out the polyvalent fishing activity (polyvalent gears, for more than one specie as target).

This fleet is not quota species dependent, and do not fish high risk species, in terms of stock status.

Only 5.6% of the total Canary Island fleet carry out the fishing activity outside Canary Waters. These 5.6% vessels are DTS and tuna hooks that fish on COPACE waters, under different agreements.

The income of this fleet has suffered an increase of 12% from the average of the period 2011-2014; the same trend can be seen on the GVA; the value of landings is 8% higher than the average of the period 2011-2014.

Related to last year, GVA and gross profit have decreased, mainly due to the decrease on the incomes, added to a high increase of the other costs. This situation leads to a negative gross profit, with low profitability.

On the other hand, labour productivity (GVA/FTE) breaks the increasing trend started in 2012, even though is higher than the average of the period 2011-2014.

The main problem for this fleet is the inactivity; fisheries are partial time and complementary activity. 20% of the Canary Island fleet is inactive so a plan for this fleet is being carried out.

Performance results of selected fleet segments

Distant Water Fleet

Purse seiners over 40m: 30 active vessels (freezer tuna seiners), (13.5% of the total DWF), that represents 47.7% of the total weight of landings of the DWF, 40% of revenue and 29% of GVA of DWF.

Starting with an income of €355 million, GVA of €98 million and €5 million in net profit. GVA to revenue (27.7%), Gross profit margin (11.7%), net profit margin (1.38%).

This fleet has worse results that 2014, several reasons can be highlighted: Decrease on the incomes of 12 million euros, increase on the operational costs of 30 million with an increase of 6 million on Wages and salaries of crew, so the profitability of this Purse seiners is not as good as it should be, taking into account that this fleet operate in international waters covered by Regional fishing organisations (Atlantic, Pacific and Indian), in the EEZ of third countries (under Sustainable Fisheries Partnership agreements), or in places where the vessels have private licences.

Surface longliner fleet

The management of this fishery is carried out by national regulation that covers the surface longline fleet for highly migratory species (mainly swordfish, tunas and pelagic sharks). A unified census of surface longline is developed. In this census the right to carry out the fishing activity is set down, for each vessel and fishery area, also the percentage of quota for those areas subject to TACs (South and North Atlantic swordfish) for each of the 7 areas in which this fishery is split:

Zone 1: Mediterranean

Zone 2: waters covered by the sovereignty or jurisdiction of Spain till 80 miles on Atlantic

Zone 3: Waters of the Atlantic Ocean north of latitude 5° N and outside sovereignty or jurisdiction of Spain till 80 miles of base lines.

Zone 4: Waters of the Atlantic Ocean south of latitude 5° N.

Zone 5: Waters of the Indian Ocean (IOTC)

Zone 6: Waters of the Pacific Ocean (IATTC)

Zone 7: Western & Central Pacific Ocean (WCPFC)

1. Surface longliner (Large-scale Fleet)

76 active vessels are part of this subgroup (69 of the Mediterranean, 52 North Atlantic), with a GVA of €31.2 million, 60% of this amount belongs to Surface LL North Atlantic 24-40m (€19 million) the same can be seen with Gross profit (€7.9

million) where half of it belongs to Surface LL North Atlantic 24-40m, and with Net profit (€4.6 million) where €3.3 million belongs to Surface LL North Atlantic 24-40m.

The results of the performance indicators in 2015 were: GVA to revenue (51.2%) and gross and net profit margins 13% and 7.7%, so this fleet segment is profitable.

2. Surface longliner (distant water fleet)

85 active vessels are part of this subgroup (69 vessels 24-40m, and 25 over 40m) represent 45 percent of the total DWF, but only 13% of the total weight of landings, 17% of revenue and 20.6% of GVA of the DWF, with a GVA of €60.6 million, net profit of €27.8 million, the labour productivity reaches 39 thousand € /FTE.

The results of the performance indicators in 2015 were: GVA to revenue (41.2%) and gross and net profit margins 25.1% and 18.9%, so this fleet segment is profitable.

If we split the two lengths that are part of this group (24-40 and over 40), the one with the largest number of vessels, people employed, and incomes is 24-40, the net profit is higher on this length (€8.2 million). We can appreciate that even though both are profitable, the subgroup 24-40 is more profitable (net profit margin 22%) than over 40 (net profit margin 13.7%).

Drivers affecting the economic performance trends

Markets and Trade

During 2015, the Spanish DWF fleet has continued under by fisheries agreements with Third Countries: through 2015, there were agreements with the following countries: Morocco the agreement restarted on 2014, and during 215 82 vessels have carried out their activities covered by this agreement, Mauritania, Cape Verde, Guinea Bissau, Côte d'Ivoire, São Tomé and Príncipe, Gabon, Mozambique, Comoros Islands, Madagascar, Seychelles, Kiribati and Mauritius islands. These agreements have allowed the Spanish fleet to carry out their fishing activities on many different places, and for different target species.

In 2015, 1 675 793 1tonnes of fishery products were imported into Spain (1 726 569 tonnes in 2016). The main origins of these products (69%) were: Morocco, China, Ecuador, Argentina and Peru.

In the EU framework, the main countries of origin of the imports were: Portugal, France, and the Netherlands.

On the other hand, the exports of Spanish products reached the total of 1 675 458 tonnes in 2015 (1 109 022 tonnes, in 2016), with a value of €3 398 million 2015 (€3 710.4 million in 2016), the main Spanish destination of the products was the EU market (61%). Italy, Portugal and France were the main destinations.

Management instruments, Regulation Policy

The fleet is managed through several management tools, such as fishing license, engine power limited, time at sea, TACs and quotas related to the area and fishing stock. Under national regulations there are managements plans set down; each plan covers species, gears allowed for the fisheries, additional prohibited days, and technical requirements (such as power, Vessel tonnage, length). In several cases the management or recovery plans have also a reduction objective that is funded by the European Maritime and Fisheries Fund (EMFF). As an example, on 2016 there were (among others) managements plans for hake and Norway lobster, specific management plan for LDLL fishing at Atlantic, Indian, and Pacific, management plan for bluefin tuna, or management plan on Bay of Cadiz affecting the Purse Seiners fleet.

The entry into force of REGULATION (EU) No 605/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 June 2013 amending Council Regulation (EC) No 1185/2003 on the removal of fins of sharks on board vessels has force that the surface Long Liners fleet increase the costs on board, as there is more people need to handle the fins, this increase can lead on worse profitability on this segment. Another issue must be taken into account, as this obligation is only compulsory to the European fleet, so this cost increase can lead on a worse position on the global market, as the third countries do not have to comply.

The recovery plan for Mediterranean swordfish (SWO) that will start in 2017, introduces a Total Allowable Catch (with gradually reduction over the years), control measures as the increase of the minimum size to protect juveniles are also included on this plan, this plan will affect not only to the longliner fleet, but also to some trawlers and netters that catch SWO on the Mediterranean waters.

TACs and quotas, Status of Key stocks

Total initial available quota for the Spanish Fleet in 2015 had increased in relevant species for the Spanish fleet, based on the scientific advice and the strict control of the fisheries, European hake quota (hake VIIIc,III,IV,XI, hake V,VII,XII,XIV, Hake VIIIabce) increased 3%, reaching 34 319 tonnes, anglerfishes increased 20%, anchovy 46.2% and blue whiting 30%.

The total quota for horse mackerel decreased 4%, even though the quota for horse mackerel IXa had an increase of the 70% reaching 15 394 tonnes, the quota for Atlantic mackerel decreased 15%.

The latest assessment for the main small pelagic stocks in Mediterranean waters indicated that they are exploited unsustainably. Spanish fleet operates mainly within four GSAs (excluding GSA2, which only supports a deep trawl fishery around Alboran Island).

The following species have been chosen taking into account the landing weight and landing value, these species are under quota, and they can be divided according their distribution to the ICES zone in different stocks by North and South.

Hake in division IIIa, sub areas IV, VI y VII and in division VIIIa,b,d (North stock). Biological indicators point to the good health of this stock.

Anglerfish in Divisions VIIb-k, and VIIIabd (North stock). The managing of both species of anglerfish is carried out by means of a joint TAC, which prevents the effective control of the exploitation rates for both species, impeding therefore the proper managing of them:

- **Black anglerfish (Lophius budegassa):** ICES advice highlights the good health of the stock.
- **White anglerfish (Lophius piscatorius):** In this case, the implementation of the precautionary approach is the justification to recommend a TAC decrease, which cannot be supported by the good evolution of the stock, as it has been presented.

Megrim (Lepidorhombus whiffiagonis) in Divisions IVa and VIa (Northern North Sea and West of Scotland) (North stock): Stock status is healthy

Megrim (Lepidorhombus whiffiagonis) in Divisions VIIb-k and VIIIabd (West and Southwest of Ireland and Gulf of Biscay) (North stock): Therefore, despite the lack of defined reference points, the evolution of the main biological parameters (fishing mortality and biomass) are positive.

Monkfish in divisions VIIb-k y VIIIa, b, d (North stock). The management of the two species of anglerfishes under a combined TAC prevents effective control of the single species and could lead to overexploitation of the two species. However, biomass has increased. In the case of *L. piscatorius* (white monkfish) the average stock in the period 2012-2013 is 60% higher than the previous years, while the abundance index suggests average levels of recruitment (maintained) since 2008 with a decline in 2013. In the case of *L. budegassa* (black monkfish) biomass has fluctuated but with the average value of the indicator from 2012 to 2013 at a 33% higher than the average for the preceding three years (2009-2011).

Mackerel (MAC-NEA) (*Scomber scombrus*) in Subareas I–VII & XIV and divisions VIIIa–e & IXa (North Atlantic). Stock biomass is considered to have been situated above Btrigger, Bpa and Blim in the last three years. Recruitment has a slight upward trend. So stock still maintained a very good productivity and that translates into good recruitments.

Monkfish in divisions VIIIc y IXa (South stock). Anglerfish species, *Lophius piscatorius* and *L. budegassa*, are caught together in bottom trawl and gillnet fisheries. These fisheries also catch hake, *Nephrops*, and megrim. The white anglerfish situated in recent years slightly below the Fmsy. In addition, it is observed a slight decrease of biomass for the last year, while recruitment points to a slight increase. By contrast, in the case of black monkfish, all parameters are favourable, resulting in a further decline of F placing it clearly below Fmsy, while increasing the biomass.

Hake in divisions VIIIc & IXa (South stock). In 2006, started to apply a recovery plan which main measure contemplate annual reductions of fishing effort of 10% for those fleets that generate a significant fishing mortality (F) on this population. Stock status is badly.

Megrim in divisions VIII c y IX a (South stock). The two species of megrims (*Lepidorhombus boscii* and *Lepidorhombus whiffiagonis*) have a joint recommendation of TAC. The approach is to give the advice based on the worst situation of each of the two species; the southern megrim stock is almost exclusively caught in mixed bottom-trawl fisheries targeting demersal fish, including four-spot megrim, southern hake, anglerfish, and *Nephrops*. Management measures aimed at reducing fishing mortality on any of these stocks should also reduce fishing pressure on megrim. Since 2000, the Spanish trawl fleet has changed its main target species, focusing more often on pelagic species such as horse mackerel, blue whiting, or mackerel, and normally not taking megrim in the catch.

Horse mackerel (*Trachurus trachurus*) in Division IXa (Atlantic Iberian Waters). Horse mackerel is caught in mixed fisheries. The advice for Southern horse mackerel applies to the southern stock of *T. trachurus* only. Fishing mortality (F) has been below FMSY over the whole time-series and the spawning–stock biomass (SSB) has been relatively stable, showing a recent increase resulting from the strong recruitments in 2011 and 2012. Recruitment (R) in 2013 is estimated to be close to the average of the entire time-series.

Horse mackerel (*Trachurus trachurus*) in Subarea VIII and Divisions IIa, IVa, Vb, VIa, and VIIa–c, e–k (Northeast Atlantic): The stock and the fishery are very dependent on occasional high recruitments. In recent years, SSB has been declining and is currently just above MSY Btrigger. Fishing mortality has been increasing since 2007, but remains just below FMSY. Recruitment has been low from 2002 onwards.

Anchovy in Subarea VIII (Bay of Biscay): Anchovy is targeted by trawlers and purse-seiners. The evaluation recently published by ICES shows abundance of historical biomass, having expanded the stocks to areas where it was not present since the 60's. The operating ratio is below average (catch / biomass) which is an example of the good situation of the stock. Due to management plan this stock of anchovy, the biomass is recovering.

Anchovy (*Engraulis encrasicolus*) in Division IXa (Atlantic Iberian Waters): Most of the fishery for this anchovy stock takes place in Subdivision IXa South. The fleets in the northern and western parts of Division IXa (targeting European Pilchard) occasionally target anchovy when abundant, which occurred in 1995, 2011 and 2014. Recent studies on genetics indicate that the stock inhabiting Division IXa South (Algarve and Cadiz) is different genetically from the one inhabiting the remaining parts of Division IXa (Zarraonaindia et al., 2012). This stock has a qualitative assessment because there is no reference points to reach an analytical assessment of the stock. The responsible for the biological evaluation of the stock, with the latest results obtained independent indices of the fishery (research surveys at sea will be presented: Pelacus spring, Ecocadiz Summer and Ecocádiz recruits in autumn, being the latter two that analyse the Gulf of Cadiz. There is a compromise to meet a benchmark in relation to establish reference points.

Sardine VIIIc –IXa (Atlantic Iberian waters): Recruitment has been very poor since 2005. Since 2009, fishing mortality has been above average, although it has declined in the last 2 years. These combined effects have led biomass to fall since 2005 and now move to record lows.

Operational costs (external factors)

Crew costs represent the key point of the operational costs (30% in2015), this item has been the most important operational cost during the last 7 years. Spanish regulation lay down the minimum crew in terms of safety. https://www.boe.es/diario_boe/txt.php?id=BOE-A-2013-13808

The energy costs keep the downtrend that started on 2012, but any oscillation on prices has a high impact on the profitability of the Spanish fleet, as the contribution to the profitability of the total Spanish fleet is mainly due to the DWF, with half of the total volume of landings.

The Investments carried out by the Spanish fleet in order not only to adapt the vessels to the regulations, but also to meet private certification requirements that are being demanded by the consumers.

Innovation and Development

In the field of technological development and innovation in the Spanish fishing sector, Spain has adopted the so-called Strategic Plan for Innovation and Technological Development in Fisheries and Aquaculture, covering the period from 2014 to 2020. Its main objective is to increase the competitiveness of Spanish fisheries and aquaculture sectors through innovation and technological development, optimizing resources in the context of the European Union and considering economic, social, and environmental and health requirements.

As regards fishing technologies, priorities and specific strategic objectives were established, highlighting priority. Among all of them, the following:

Innovation in more selective gear, in order to avoid non-target catches, reducing the environmental impact of fishing, capture reduction of sensitive species and by catch, promotion of energy audits, to promote energy savings, design of energy efficient fishing gear, automation of fishing practices, adaptation of fuel cells for marine use (fuel cells are an energy alternative that should be raised in the medium term).

Complementarily, it has been established other priorities in the field of marine resources:

Quantification of socioeconomic exploitation of fisheries and integration in all studies on the state of resources and exploitation models, conservation of marine and coastal ecosystems, study of profitability of the fleet, genetic characterization of biodiversity, determination of the impact of aquaculture on the marine environment, recovery of discards and new species.

Finally, there is an organization called the "Spanish Technology Platform of Fisheries and Aquaculture (PTEPA, in Spanish)", that helps coordinate actions and public and private investments in research, development and innovation.

Socioeconomic impact

The main challenge facing the Spanish fleet is Brexit, moreover, the consequences of the final negation should affect not only the fleet, but also de industry.

The implications of a possible decrease of activity on those waters could consider to be minor if we refer only to figures, interpreted in a wrong way as the number of vessels may appear to be few, the truth is that for the 80 vessels that are allowed to carry out their activities on UK waters, preliminary analysis are estimating that the loss of incomes could be over 25% of the total of incomes of this vessels, if we also consider the fleet that carry out the activity on distant waters under private licences on UK waters (Maldives) almost 50% of the economic value of the landings of this fleet could be affected.

In terms of trade of fish if we have a look to the average 2013-2016, from the total import fish products from EU countries to Spain, 7.6% of volume and 12% of value comes from UK, and on the other hand, from the total fish products exports from Spain to EU countries, 3% of volume, and 3.4% of value have as final destination UK, so not only for the Spanish fleet that carry out their fishing activities on UK waters, but also for the industry the Brexit is going to be a big challenge, and we will have to see the final results of the negotiation, in order to clarify the future.

Projections for 2016 and outlook

Preliminary results for 2016 suggest that the structural policy carried out to reduce the number of vessel will continue, not only on number of vessels but also in tonnage and power. Of the total 9 459 vessels, 8 354 were active during 2016, if you have a look to the inactive vessels, more than 90% of them were less than 12 meters of length.

In terms of Life weight of landings, the main species for the Spanish fleet in 2016 were big migratory fish (skipjack tuna, yellowfin tuna).

For demersal species hake is again the most important specie.

MODEL FORECAST

Preliminary results for 2016 forecast a 5% decrease in landed weight, matched with a 2% decrease in landed value. Projections suggest operating costs decrease, most notably energy costs which are estimated to decrease by 34% due to the continued low fuel prices. Together with a 2% reduction in labour costs and the reduction in capital costs, fostered further economic performance improvements in 2016: GVA (+11%), gross profit (+33%) and net profit (+61%).

Results indicate that the Spanish fleet operated at a profit in 2016: with an estimated net profit of €351 million and margin of 18%. Positive economic developments can also be seen in performance indicators GVA to revenue (+14%), gross profit margin (+36%) and GVA per FTE, estimated at €37 thousand in 2016 (+14%).

The 2016 gains continue into 2017 as increased landings (+2% compared to projected 2016 figures) are matched by a 6% increase in value. The 14% increase in energy costs due to expected higher fuel prices and fishing effort (days at sea, +4%) in 2017, is counteracted by a significant decrease in capital costs. The fleet remains profitable with gross and net profit margins of 25% and 19%, respectively. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Data issues

The economic data collection on the Spanish fleet is carried out by statistical sampling; such sampling does not differentiate the fleet according to the days of activity, so the sampling can include vessels with few days of activity. When these results are raised for the total of the fleet segment, the profitability of the segment can be influenced, obtaining worse results than the reality and vice versa.

In this regard, Spanish authorities are designing a new sampling plan, where the main variable will be the fishing days and the vessel tonnage, in order to bring over the statistical results to the fleet reality.

Table 5.98 Spain: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	13,115	11,501	11,209	10,900	10,544	10,167	9,921	9,686	*8,349*	*8,312*		-2%	-12%
Number of Inactive vessels_ms	(#)	3,312	1,818	854	1,784	1,606	1,372	1,228	1,185	*1,105*			-4%	-31%
Vessel tonnage	(thousand GT)	470.1	459.5	439.7	415.4	400.1	384.9	379.4	366.7				-3%	-13%
Engine power	(thousand kW)	1,067.9	1,027.3	983.2	937.7	903.6	873.9	867.0	842.1				-3%	-12%
Total employed	(person)	36,765	38,045	39,281	35,808	34,399	33,129	33,121	32,059	*30,519*	*30,937*		-3%	-10%
FTE	(#)	34,921	35,844	33,678	33,210	30,302	28,782	28,629	30,015	*29,214*	*31,728*		5%	-7%
Days at sea	(thousand day)	1,105.0	1,122.3	1,208.9	1,150.7	1,149.1	1,096.9	1,117.7	1,078.0	*1,054.0*	*1,091.7*		-4%	-5%
Fishing days	(thousand day)	1,049.9	1,068.0	1,153.6	1,100.0	1,102.3	1,049.0	1,073.4	1,030.8				-4%	-5%
Number of fishing trips	(thousand)	860.6	886.4	978.4	963.7	941.0	890.1	900.4	865.6				-4%	-6%
Energy consumption	(million litre)	674.9	745.9	719.2	653.3	683.3	695.4	641.1	709.3	*672.8*	*679.3*		11%	3%
Live weight of landings	(thousand tonne)	775.9	798.9	873.4	861.0	871.1	898.1	932.7	923.3	*877.2*	*898.9*		-1%	8%
Value of landings	(million €)	1,864.4	1,907.0	1,885.0	1,861.6	1,942.4	1,970.0	2,074.8	1,885.0	*1,838.8*	*1,951.0*		-9%	-2%
Income from landings	(million €)	1,526.3	1,988.2	1,868.1	2,036.0	1,920.9	1,884.7	1,997.6	1,952.2	*1,907.2*	*2,015.8*		-2%	3%
Other income	(million €)	-	-	16.8	45.5	0.1	12.7	23.3	24.3	*21.8*	*20.9*		5%	73%
Direct income subsidies	(million €)	60.9	68.1	34.6	30.9	22.8	11.4	12.3	13.9				14%	-60%
Income from leasing fishing rights	(million €)			0.6	0.1	0.8	6.6	14.3	6.7				-53%	49%
Wages and salaries of crew	(million €)	460.1	649.3	554.9	548.5	493.8	486.2	514.0	536.5	*526.7*	*576.8*		4%	1%
Unpaid labour value	(million €)	89.8	149.2	116.8	102.9	87.3	107.1	100.8	78.6	*77.6*	*79.4*		-22%	-27%
Energy costs	(million €)	411.2	375.7	378.0	448.4	433.1	409.3	345.7	300.7	*198.0*	*225.5*		-13%	-25%
Repair & maintenance costs	(million €)	118.0	153.3	141.5	163.6	122.2	127.7	121.0	137.1	*126.7*	*124.7*		13%	1%
Other variable costs	(million €)	303.8	405.5	384.8	423.9	341.2	362.5	367.6	433.7	*409.0*	*409.8*		18%	17%
Other non-variable costs	(million €)	107.4	169.3	130.7	134.9	133.4	119.0	126.9	134.6	*119.3*	*116.2*		6%	2%
Annual depreciation costs	(million €)	188.8	219.0	140.8	134.8	126.8	104.1	97.8	125.9	*113.5*	*109.9*		29%	-13%
Rights costs	(million €)			8.7	7.7	9.7	11.7	13.8	16.2				17%	57%
Opportunity cost of capital	(million €)	2.5	35.9	14.8	12.1	17.5	15.1	14.4	11.9	*7.5*	*- 1.2*		-17%	-26%
Tangible asset value (replacement)	(million €)	978.7	857.6	671.8	533.4	518.1	500.5	490.6	501.5	*433.4*	*421.2*		2%	-23%
Fishing rights	(million €)	-	-	71.5	64.5	56.2	114.5	221.5	197.8				-11%	162%
Investments	(million €)	105.1	29.2	47.2	34.2	23.1	87.1	33.6	65.4				94%	27%
Financial position	(%)	8.5	7.9	9.6	7.9	8.6	5.9	6.4	6.3				-2%	-20%
Gross Value Added	(million €)	585.8	884.4	849.9	910.7	891.2	879.0	1,059.6	970.4	*1,076.1*	*1,160.5*		-8%	12%
GVA to revenue	(%)	38.4	44.5	45.1	43.8	46.4	46.3	52.4	49.1	*55.8*	*57.0*		-6%	8%
Gross profit	(million €)	35.9	86.0	178.2	259.4	310.1	285.7	444.8	355.3	*471.8*	*504.2*		-20%	55%
Gross profit margin	(%)	2.4	4.3	9.5	12.5	16.1	15.1	22.0	18.0	*24.5*	*24.8*		-18%	54%
Net profit	(million €)	- 155.4	- 168.9	22.5	112.4	165.8	166.5	332.6	217.5	*350.8*	*395.5*		-35%	220%
Net profit margin	(%)	- 10.2	- 8.5	1.2	5.4	8.6	8.8	16.5	11.0	*18.2*	*19.4*		-33%	254%
GVA per FTE (labour productivity)	(thousand €)	16.8	24.7	25.2	27.4	29.4	30.5	37.0	32.3	*36.8*	*36.6*		-13%	18%
Return on fixed tangible assets	(%)	- 15.6	- 15.5	5.6	23.3	35.4	36.3	70.7	45.7	*82.7*	*93.6*		-35%	128%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

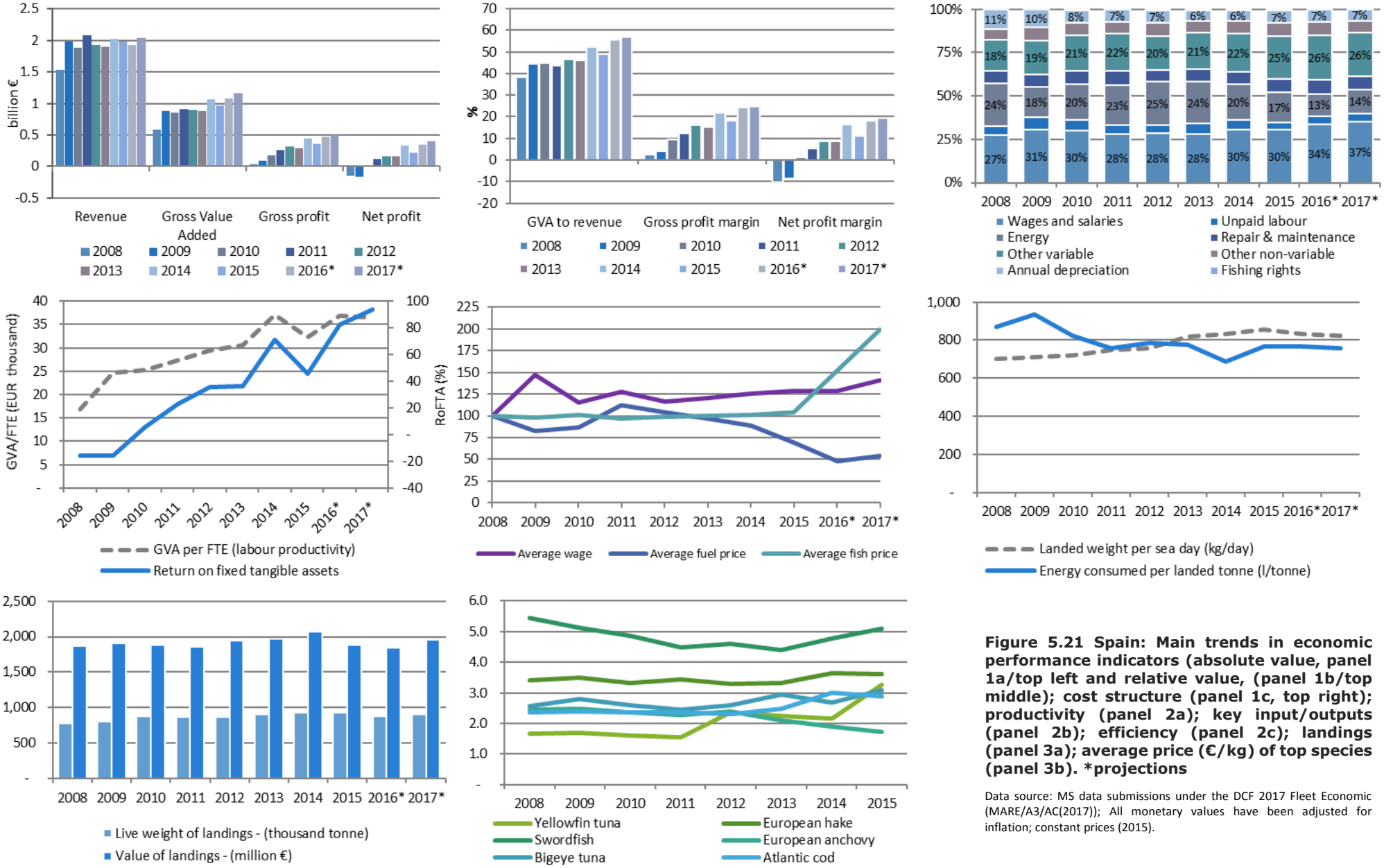


Figure 5.21 Spain: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.99 Spain: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	6,420	6,315	7,102	4,214	4,188	4,215	4,156	4,129	4,123	4,045		-1%	-21%
Vessel tonnage	(thousand GT)	14	14	15	13	12	12	11	11				0%	-12%
Engine power	(thousand kW)	139	135	147	115	109	110	110	111				0%	-10%
FTE	(#)	7,059	7,261	8,222	6,695	5,378	7,317	5,546	5,662	5,645	5,655		2%	-17%
Total employed	(person)	11,785	11,797	12,697	8,803	8,601	9,484	8,251	7,902	7,857	7,703		-4%	-23%
Days at sea	(thousand day)	515.1	532.2	624.3	393.1	392.2	391.1	406.7	402.0	399.2	399.3		-1%	-14%
Fishing days	(thousand day)	515.1	532.1	624.2	392.7	392.2	390.9	406.5	401.8				-1%	-14%
Number of fishing trips	(thousand)	504.2	521.6	613.6	391.2	383.3	381.1	392.7	380.8				-3%	-16%
Energy consumption	(million litre)	26.2	33.9	34.7	21.6	21.3	28.4	22.8	30.2	30.5	30.6		32%	12%
Live weight of landings	(thousand tonne)	25.9	25.3	28.1	25.5	28.5	26.0	29.6	26.9	26.2	26.6		-9%	0%
Value of landings	(million €)	129.9	128.2	137.9	112.2	100.9	94.7	104.4	104.4	105.9	106.8		0%	-10%
Income from landings	(million €)	121.1	195.6	198.0	129.5	113.2	158.8	126.2	151.2	152.4	153.8		20%	2%
Other income	(million €)	-	-	1.8	0.6	0.0	0.1	0.0	0.0	0.0	0.0		-8%	-98%
Direct income subsidies	(million €)	0.5	4.8	0.6	1.3	1.2	1.0	0.2	0.1				-65%	-94%
Income from leasing fishing rights	(million €)			-	-	-	-	-	0.6					
Wages and salaries of crew	(million €)	32.6	53.1	45.7	39.3	35.2	50.0	41.4	35.4	35.6	35.9		-14%	-17%
Unpaid labour value	(million €)	50.7	88.9	79.5	63.3	35.7	62.1	47.1	40.3	40.7	41.1		-14%	-34%
Energy costs	(million €)	15.5	19.6	25.9	16.2	14.5	17.7	12.6	12.4	10.6	11.6		-2%	-29%
Repair & maintenance costs	(million €)	8.5	16.3	13.7	6.0	7.0	10.7	6.1	8.4	8.2	8.1		38%	-14%
Other variable costs	(million €)	18.2	25.6	30.0	18.5	14.5	23.2	16.4	16.5	16.5	16.5		1%	-21%
Other non-variable costs	(million €)	3.2	6.1	6.8	7.9	4.4	7.4	4.4	6.0	5.9	5.8		38%	5%
Annual depreciation costs	(million €)	6.8	9.4	8.6	8.3	4.4	4.9	5.3	3.5	3.4	3.4		-33%	-48%
Rights costs	(million €)			-	0.0	0.0	0.1	0.0	0.1	-	-		1083%	155%
Opportunity cost of capital	(million €)	0.1	2.2	1.2	0.8	1.1	1.0	0.9	0.8	0.6	- 0.1		-14%	-23%
Tangible asset value (replacement)	(million €)	51.8	52.5	55.0	34.2	33.3	33.9	32.3	34.5	34.1	33.5		7%	-18%
Fishing rights	(million €)	-	-	-	-	-	44.5	25.0	7.4				-71%	-26%
Investments	(million €)	7.4	4.7	5.0	7.8	1.8	10.5	3.3	2.2				-33%	-62%
Gross Value Added	(million €)	75.7	128.1	123.5	81.4	72.7	99.9	86.7	107.9	111.1	111.8		24%	13%
GVA to revenue	(%)	62.5	65.5	61.8	62.6	64.3	62.9	68.7	71.4	72.9	72.7		4%	11%
Gross profit	(million €)	- 7.5	- 14.0	1.2	- 21.2	1.9	- 14.9	- 4.4	32.2	34.7	34.8		828%	482%
Gross profit margin	(%)	- 6.2	- 7.1	0.6	- 16.3	1.6	- 9.7	- 3.6	21.3	22.8	22.6		690%	467%
Net profit	(million €)	- 14.9	- 25.2	- 4.6	- 29.9	1.0	- 20.7	- 12.2	26.1	28.4	29.1		313%	271%
Net profit margin	(%)	- 12.7	- 13.2	- 2.4	- 24.9	1.1	- 14.0	- 10.7	19.5	21.0	21.3		282%	278%
Return on fixed tangible assets	(%)	- 30.4	- 45.5	- 7.2	- 92.7	7.1	- 66.3	- 38.3	87.1	94.9	96.7		327%	323%
GVA per FTE (labour productivity)	(thousand €)	10.7	17.6	15.0	12.2	13.5	13.7	15.6	19.1	19.7	19.8		15%	13%

		LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	3,089	3,101	2,956	4,622	4,486	4,340	4,307	4,150	4,018	4,058		-4%	8%
Vessel tonnage	(thousand GT)	268	263	237	203	190	185	178	172				-3%	-21%
Engine power	(thousand kW)	624	610	557	513	488	472	465	453				-3%	-15%
FTE	(#)	21,266	21,266	17,140	19,802	19,033	16,110	17,179	17,693	17,241	19,786		3%	-6%
Total employed	(person)	19,982	20,714	19,524	21,545	21,085	18,991	19,809	19,151	17,980	18,596		-3%	-5%
Days at sea	(thousand day)	514.0	516.5	504.8	680.0	684.9	640.5	647.3	613.0	594.9	632.0		-5%	2%
Fishing days	(thousand day)	469.9	473.0	460.7	639.7	647.6	600.9	610.7	574.7				-6%	3%
Number of fishing trips	(thousand)	344.5	355.9	357.0	565.3	553.2	505.9	505.5	482.5				-5%	6%
Energy consumption	(million litre)	439.4	439.3	388.4	366.3	373.5	378.3	350.0	301.9	296.1	315.5		-14%	-23%
Live weight of landings	(thousand tonne)	431.5	477.6	442.3	400.3	394.7	390.0	409.5	414.3	410.2	450.5		1%	-2%
Value of landings	(million €)	1,075.8	1,158.8	1,048.4	947.2	895.6	855.1	869.4	954.0	943.0	1,052.1		10%	-3%
Income from landings	(million €)	915.0	1,200.8	926.5	1,070.9	980.2	876.9	933.4	945.9	930.7	1,031.5		1%	-4%
Other income	(million €)	-	-	3.5	18.8	-	6.2	8.1	10.1	8.8	8.7		25%	93%
Direct income subsidies	(million €)	45.7	56.4	19.7	17.8	8.3	4.1	6.4	10.3				61%	-55%
Income from leasing fishing rights	(million €)			0.6	0.1	0.8	5.6	13.6	5.3				-61%	28%
Wages and salaries of crew	(million €)	327.7	466.3	349.8	358.2	323.7	300.5	348.3	351.2	347.7	396.4		1%	-1%
Unpaid labour value	(million €)	38.3	58.4	36.7	38.1	50.2	44.4	53.3	38.2	36.7	38.2		-28%	-16%
Energy costs	(million €)	257.9	216.8	187.6	251.4	234.3	212.0	176.9	133.4	107.3	123.6		-25%	-39%
Repair & maintenance costs	(million €)	76.4	92.1	76.9	97.9	56.8	56.1	62.9	72.4	65.8	65.1		15%	-2%
Other variable costs	(million €)	145.9	192.1	125.3	165.9	115.7	125.8	115.2	124.5	122.0	132.7		8%	-12%
Other non-variable costs	(million €)	59.7	100.2	63.8	65.7	56.8	55.1	59.9	57.6	48.1	47.5		-4%	-13%
Annual depreciation costs	(million €)	119.9	144.7	77.8	82.7	77.4	50.1	53.0	57.2	51.7	51.1		8%	-34%
Rights costs	(million €)			6.6	4.6	8.5	10.8	12.8	12.5	2.8	2.8		-2%	45%
Opportunity cost of capital	(million €)	1.6	21.3	8.3	6.5	9.0	8.0	6.8	5.2	3.6	- 0.6		-23%	-40%
Tangible asset value (replacement)	(million €)	613.8	508.3	377.4	287.6	266.7	266.3	233.4	221.5	205.7	203.4		-5%	-39%
Fishing rights	(million €)	-	-	60.7	64.5	56.2	61.0	177.8	180.7				2%	201%
Investments	(million €)	74.2	15.9	16.2	17.8	14.7	63.9	15.6	27.3				75%	-12%
Gross Value Added	(million €)	375.1	599.6	476.4	508.8	516.6	434.1	526.6	568.1	596.3	671.3		8%	16%
GVA to revenue	(%)	41.0	49.9	51.2	46.7	52.7	49.2	55.9	59.4	63.5	64.5		6%	20%
Gross profit	(million €)	9.1	74.9	89.7	111.9	142.7	89.2	125.0	178.8	211.9	236.7		43%	95%
Gross profit margin	(%)	1.0	6.2	9.6	10.3	14.6	10.1	13.3	18.7	22.6	22.8		41%	101%
Net profit	(million €)	- 112.6	- 91.0	8.7	22.2	50.1	30.5	63.9	115.6	157.3	186.5		81%	2960%
Net profit margin	(%)	- 12.3	- 7.6	1.0	2.1	5.3	3.5	6.9	12.2	16.8	18.0		75%	7412%
Return on fixed tangible assets	(%)	- 18.1	- 13.9	4.7	10.1	23.2	14.5	31.0	54.9	80.5	94.1		77%	646%
GVA per FTE (labour productivity)	(thousand €)	17.6	28.2	27.8	25.7	27.1	26.9	30.7	32.1	34.6	33.9		14%	20%

		DWF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	294	267	297	280	264	240	230	222	208	210		-3%	-17%
Vessel tonnage	(thousand GT)	177	173	179	169	174	163	164	162				-1%	-6%
Engine power	(thousand kW)	252	246	255	238	240	225	229	225				-2%	-7%
FTE	(#)	6,596	7,317	8,316	6,713	5,891	5,355	5,905	6,661	6,327	6,287		13%	1%
Total employed	(person)	4,905	5,534	7,060	5,460	4,713	4,654	5,061	5,007	4,682	4,638		-1%	-6%
Days at sea	(thousand day)	75.9	73.7	79.8	77.6	72.0	65.3	63.7	63.0	59.9	60.4		-1%	-13%
Fishing days	(thousand day)	64.9	62.9	68.7	67.6	62.6	57.1	56.1	54.3				-3%	-14%
Number of fishing trips	(thousand)	11.9	8.8	7.7	7.2	4.5	3.1	2.1	2.3				7%	-65%
Energy consumption	(million litre)	209.3	272.7	296.0	265.4	288.5	288.7	268.2	377.3	346.2	333.2		41%	40%
Live weight of landings	(thousand tonne)	318.5	296.0	403.0	435.0	447.8	482.2	493.6	482.1	440.8	421.8		-2%	17%
Value of landings	(million €)	658.7	620.1	698.7	799.4	945.9	1,020.2	1,100.9	826.5	789.9	792.0		-25%	-1%
Income from landings	(million €)	490.3	591.7	743.5	835.6	827.5	849.0	938.0	855.0	824.1	830.5		-9%	13%
Other income	(million €)	-	-	11.4	26.1	0.1	6.4	15.2	14.2	13.0	12.2		-6%	68%
Direct income subsidies	(million €)	14.6	6.9	14.3	11.7	13.3	6.4	5.7	3.6				-37%	-66%
Income from leasing fishing rights	(million €)			-	-	0.0	0.9	0.7	0.8				14%	134%
Wages and salaries of crew	(million €)	99.9	129.8	159.4	151.0	134.9	135.7	124.3	149.9	143.4	144.4		21%	12%
Unpaid labour value	(million €)	0.8	1.8	0.5	1.5	1.4	0.7	0.4	0.2	0.2	0.2		-60%	-84%
Energy costs	(million €)	137.8	139.3	164.6	180.8	184.3	179.6	156.3	154.9	80.0	90.2		-1%	-5%
Repair & maintenance costs	(million €)	33.1	44.9	50.9	59.7	58.4	60.8	52.0	56.3	52.7	51.5		8%	10%
Other variable costs	(million €)	139.8	187.8	229.4	239.4	210.9	213.5	236.0	292.7	270.4	260.6		24%	41%
Other non-variable costs	(million €)	44.6	63.0	60.1	61.4	72.2	56.5	62.7	71.0	65.2	62.9		13%	18%
Annual depreciation costs	(million €)	62.1	65.0	54.4	43.9	44.9	49.1	39.6	65.1	58.4	55.5		64%	27%
Rights costs	(million €)			2.1	3.1	1.2	0.8	1.0	3.6	3.4	3.3		250%	118%
Opportunity cost of capital	(million €)	0.8	11.8	5.1	4.3	6.4	5.2	5.7	5.1	3.4	- 0.5		-10%	-8%
Tangible asset value (replacement)	(million €)	291.4	280.6	230.1	187.7	190.8	172.3	193.9	216.5	193.6	184.2		12%	-2%
Fishing rights	(million €)	-	-	10.8	-	-	9.0	18.7	9.7				-48%	76%
Investments	(million €)	23.5	8.6	26.0	8.5	6.5	12.7	14.7	35.9				144%	150%
Gross Value Added	(million €)	135.0	156.7	250.0	320.5	301.8	345.0	446.3	294.4	368.8	377.4		-34%	5%
GVA to revenue	(%)	27.5	26.5	33.1	37.2	36.5	40.3	46.8	33.9	44.1	44.8		-28%	-4%
Gross profit	(million €)	34.3	25.1	90.0	168.0	165.5	208.6	321.5	144.3	225.2	232.8		-55%	0%
Gross profit margin	(%)	7.0	4.2	11.9	19.5	20.0	24.4	33.7	16.6	26.9	27.6		-51%	-4%
Net profit	(million €)	- 28.6	- 51.7	30.5	119.9	114.2	154.3	276.3	74.0	163.4	177.8		-73%	-16%
Net profit margin	(%)	- 5.8	- 8.7	4.0	13.9	13.8	18.0	29.0	8.5	19.5	21.1		-71%	-7%
Return on fixed tangible assets	(%)	- 9.5	- 14.2	15.5	66.1	63.2	92.5	145.4	36.6	86.1	96.2		-75%	-29%
GVA per FTE (labour productivity)	(thousand €)	20.5	21.4	30.1	47.7	51.2	64.4	75.6	44.2	58.3	60.0		17%	93%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.100 Spain: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)			
ESP OFR PS40XX	30	1,859	8,698	794	230,136	393,696	355,012	98,372	27.7	41,422	11.7	- 4,913	- 1.38	30.6	52.9	- 1	Weak	-110%	Deteriorated
ESP OFR DTS40XX	33	1,233	9,183	637	144,641	178,445	227,582	83,376	36.6	38,247	16.8	28,975	12.73	36.6	67.6	243	Reasonable	174%	Improved
ESP A27 DTS2440	126	1,532	31,133	955	64,690	123,295	136,089	67,163	49.4	19,635	14.4	11,404	8.38	31.0	43.8	33	Weak	278%	Improved
ESP OFR DTS2440	39	1,560	11,012	1,614	30,579	79,124	114,994	40,320	35.1	24,240	21.1	21,692	18.86	10.3	25.8	193	Reasonable	1954%	Improved
ESP A27 PGP2440 °	61	1,052	14,978	681	25,250	90,954	110,207	71,323	64.7	30,489	27.7	23,179	21.03	38.8	67.8	134	High	193%	Improved
ESP A27 DTS40XX °	18	504	4,161	472	41,850	115,590	106,137	68,051	64.1	43,456	40.9	35,566	33.51	48.8	135.0	456	High	71%	Improved
ESP OFR PGO2440 °	62	1,028	18,924	677	43,913	101,079	93,659	40,390	43.1	24,581	26.2	20,455	21.84	15.4	39.3	143	High	252%	Improved
ESP A37 DTS1824	307	1,486	63,996	3,244	12,880	98,996	75,115	38,513	51.3	11,064	14.7	3,407	4.54	18.5	25.9	16	Weak	171%	Improved
ESP A27 PS2440	91	1,509	17,281	236	60,105	85,260	74,425	50,346	67.6	11,106	14.9	7,133	9.58	26.0	33.4	60	Weak	148%	Improved
ESP A27 PMP0010	2,016	2,873	186,997	1,747	9,963	42,293	63,502	45,286	71.3	9,130	14.4	7,477	11.77	12.6	15.8	55	Reasonable	255%	Improved
ESP OFR PGO40XX	23	502	7,573	964	18,453	58,068	53,426	20,169	37.8	12,298	23.0	7,363	13.78	15.7	40.2	86	Reasonable		
ESP A37 DTS2440	135	835	28,947	4,674	5,987	45,378	49,377	24,213	49.0	7,214	14.6	2,336	4.73	20.4	29.0	15	Weak	143%	Improved
ESP A27 PS1824	93	1,144	16,615	169	44,070	46,132	48,202	31,665	65.7	7,055	14.6	3,561	7.39	21.5	27.7	39	Weak	5519%	Improved
ESP A37 PMP0612	1,032	1,235	112,612	812	5,686	29,714	47,982	34,658	72.2	17,110	35.7	15,422	32.14	14.2	28.1	152	High	486%	Improved
ESP A27 PGO2440	38	478	11,091	480	25,589	44,364	38,157	18,897	49.5	5,338	14.0	3,599	9.43	28.4	39.5	33	Weak	25%	Improved
ESP A27 DRB0010	1,751	1,496	168,790	1,102	3,980	28,130	37,410	31,237	83.5	8,745	23.4	8,219	21.97	15.0	20.9	143	High	266%	Improved
ESP A37 PS1824	89	1,003	19,855	255	21,536	32,379	30,041	20,783	69.2	3,265	10.9	2,373	7.90	17.5	20.7	29	Weak	46%	Improved
ESP A27 PS1218	122	759	16,326	183	26,073	26,890	24,851	17,169	69.1	5,233	21.1	3,702	14.90	15.7	22.6	77	Reasonable	56%	Improved
ESP A37 PS1218	90	687	18,550	227	15,056	21,632	23,096	15,207	65.8	3,044	13.2	2,517	10.90	17.7	22.1	80	Reasonable	-3%	Stable
ESP A37 DTS1218	152	463	28,542	2,588	3,926	19,505	21,687	12,831	59.2	4,416	20.4	2,485	11.46	18.2	27.7	33	Reasonable	474%	Improved
ESP OFR HOK2440 °	21	363	4,685	342	12,354	12,339	19,715	8,753	44.4	2,995	15.2	779	3.95	15.9	24.1	20	Weak	-45%	Deteriorated
ESP A27 DTS1824	81	434	15,050	1,732	8,750	23,276	18,537	8,084	43.6	1,930	10.4	627	3.38	14.2	18.6	17	Weak	535%	Improved
ESP A37 PS2440 °	25	203	4,196	334	5,974	18,850	16,617	12,364	74.4	5,211	31.4	3,265	19.65	35.3	61.0	67	Reasonable	259%	Improved
ESP A27 HOK1824 °	29	291	5,316	1,381	3,541	8,069	15,258	8,525	55.9	2,112	13.8	1,446	9.48	22.0	29.3	70	Weak		
ESP A27 DFN1824 °	36	342	7,754	771	4,431	13,214	12,427	7,027	56.5	800	6.4	- 59	- 0.47	18.2	20.6	1	Weak	-104%	Deteriorated
ESP A27 DRB1218	81	189	14,522	3,722	3,291	9,260	12,337	6,170	50.0	1,142	9.3	564	4.57	26.6	32.6	23	Weak	131%	Improved
ESP A27 DFN1218	152	592	25,913	468	5,705	16,577	11,885	7,007	59.0	- 361	- 3.0	- 1,422	- 11.96	12.4	11.8	- 21	Weak	-106%	Deteriorated

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)			
ESP A27 DTS1218 °	61	322	10,482	2,788	3,492	13,114	11,558	5,941	51.4	937	8.1	814	7.04	15.5	18.5	32	Weak		
ESP OFR PMP0010	492	484	35,089	612	2,663	7,978	11,055	8,302	75.1	1,323	12.0			14.4	17.2				
ESP A27 PMP1218 °	68	280	9,983	732	4,017	7,130	10,997	6,980	63.5	591	5.4	255	2.32	22.8	24.9	10	Weak	-86%	Deteriorated
ESP A27 HOK1218	75	288	12,687	606	4,482	10,164	9,581	5,809	60.6	2,424	25.3	1,596	16.66	11.8	20.2	42	Reasonable	5232%	Improved
ESP A37 PGO1824 °	24	229	4,516	959	1,757	9,723	8,773	4,976	56.7	1,457	16.6	545	6.21	15.3	21.7	28	Weak	43%	Improved
ESP A37 PMP1218	52	156	7,760	3,674	412	2,393	8,300	5,714	68.8	3,376	40.7	2,583	31.12	15.0	36.6	162	High		
ESP A27 PGO1824 °	14	122	2,618	781	2,787	5,317	8,232	4,456	54.1	1,643	20.0	1,181	14.34	23.0	36.4	100	Reasonable	635%	Improved
ESP OFR HOK1218	31	157	3,364	786	1,347	4,312	6,229	3,931	63.1	715	11.5	452	7.26	20.5	25.0	40	Weak	192%	Improved
ESP A37 PGO1218 °	45	170	6,763	1,238	1,328	7,921	5,853	2,901	49.6	- 507	- 8.7	- 650	- 11.11	20.1	17.1	- 31	Weak	-265%	Deteriorated
ESP A27 DFN1012 °	117	211	17,529	417	2,329	6,262	5,541	4,362	78.7	1,519	27.4	1,148	20.71	13.5	20.6	71	High	184%	Improved
ESP OFR PMP2440 °	14	116	2,949	713	1,979	3,796	4,887	2,989	61.2	488	10.0	- 342	- 6.99	21.5	25.7	- 19	Weak	76%	Improved
ESP A27 PMP1012	95	182	10,241	410	1,606	3,175	4,321	2,762	63.9	607	14.1	349	8.07	11.8	15.2	23	Weak		
ESP OFR HOK1012 °	42	124	3,246	675	1,264	3,187	3,894	2,557	65.7	147	3.8	113	2.91	19.5	20.7	24	Weak	-81%	Deteriorated
ESP A27 HOK1012 °	62	96	7,064	847	1,780	3,717	3,773	2,553	67.7	950	25.2	815	21.59	16.7	26.6	74	High	1247%	Improved
ESP A27 FPO1218	49	176	6,957	1,032	890	2,812	2,996	2,089	69.7	315	10.5	171	5.72	10.1	11.9	17	Weak		
ESP A37 FPO1218 °	20	72	3,073	2,203	288	2,422	2,934	1,952	66.5	435	14.8	288	9.83	21.1	27.2	28	Weak	140%	Improved
ESP A27 HOK2440	9	97	1,610	391	2,380	4,547	2,905	1,726	59.4	578	19.9			11.8	17.8				
ESP A37 DFN0612	45	118	6,646	2,272	319	1,829	2,734	1,865	68.2	662	24.2	568	20.78	10.2	15.9	100	High	243%	Improved
ESP A37 HOK0612	42	87	5,168	3,206	274	1,645	2,673	1,512	56.6	372	13.9			13.1	17.4				
ESP A37 PMP0006	111	77	7,716	289	294	1,688	2,340	1,933	82.6	256	10.9			21.7	25.0				
ESP A27 FPO1012	56	114	8,479	862	659	2,665	2,244	1,342	59.8	234	10.4	211	9.42	9.7	11.8	28	Weak		
ESP OFR PMP1218	17	76	2,336	564	819	1,719	2,115	- 2,640	- 124.8	- 4,315	- 204.0	- 4,711	- 222.69	22.0	- 34.6	- 750	Weak	-14011%	Deteriorated
ESP A37 HOK1218 °	23	41	2,784	3,421	225	1,339	1,977	921	46.6	134	6.8	49	2.46	19.2	22.5	6	Weak	108%	Improved
ESP A37 DTS0612	21	67	3,644	1,682	228	1,014	1,931	1,295	67.1	580	30.0	459	23.77	10.6	19.3	91	High		
ESP OFR PS1218 °	18	59	2,478	112	2,077	2,477	1,924	1,419	73.8	199	10.3			20.6	24.0				
ESP A27 PS1012 °	23	82	1,760	193	2,379	2,222	1,687	1,170	69.3	172	10.2	150	8.88	12.2	14.3	42	Weak	295%	Improved
ESP A37 DFN1218	40	114	6,551	2,291	387	2,483	1,603	354	22.1	- 666	- 41.5	- 1,161	- 72.38	8.9	3.1	- 95	Weak	-902%	Deteriorated
ESP A27 DRB1012	14	41	2,127	2,361	403	1,178	1,578	793	50.2	- 42	- 2.7	- 133	- 8.42	20.3	19.3	- 80	Weak	-149%	Deteriorated
ESP A37 DRB0612 °	33	47	3,407	2,330	199	944	1,402	870	62.1	76	5.4	47	3.38	17.0	18.6	18	Weak		
ESP A37 PS0612	20	72	3,501	128	1,529	2,501	1,356	797	58.7	194	14.3	181	13.35	8.4	11.1	74	Reasonable		
ESP OFR PMP1012	19	61	1,167	2,811	94	268	1,152	778	67.5	- 94	- 8.1			14.2	12.7				
ESP OFR FPO1218 °	16	24	1,599	559	197	514	248	110	44.5	- 415	- 167.3	- 438	- 176.38	22.1	4.6	- 94	Weak	-406%	Deteriorated

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.101 Spain: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)	
ESP OFR PS40XX	26	1,611	7,538	794	199,451	353,841	320,251	130,292	40.7	79,037	24.7	39,774	12.42	31.8	80.9	30	Reasonable
ESP OFR DTS40XX	30	1,121	8,348	637	131,492	168,226	214,357	99,240	46.3	56,368	26.3	48,008	22.40	38.2	88.5	440	High
ESP A27 DTS2440	107	1,541	31,311	990	62,807	123,999	135,938	76,286	56.1	28,487	21.0	21,694	15.96	31.0	49.5	71	Reasonable
ESP OFR DTS2440	40	1,600	11,294	1,614	31,363	84,152	122,819	54,958	44.7	37,753	30.7	35,212	28.67	10.8	34.4	304	High
ESP A27 PGP2440 °	56	1,082	15,409	648	27,290	93,560	113,350	76,250	67.3	34,247	30.2	27,638	24.38	38.8	70.4	173	High
ESP OFR PGO2440 °	64	1,062	19,534	677	45,330	108,205	100,027	48,050	48.0	31,134	31.1	26,969	26.96	15.9	45.3	181	High
ESP A27 DTS40XX °	17	469	3,866	450	40,750	106,790	98,063	64,254	65.5	41,532	42.4	34,127	34.80	48.5	137.1	463	High
ESP A37 DTS1824	301	1,457	62,745	3,244	12,628	100,657	76,310	43,141	56.5	15,143	19.8	7,786	10.20	19.2	29.6	34	Reasonable
ESP A27 PS2440	56	1,502	17,197	232	60,827	84,098	73,246	54,900	75.0	16,194	22.1	13,798	18.84	25.8	36.6	183	Reasonable
ESP A27 PMP0010	2,043	2,879	187,415	1,792	9,733	42,384	63,638	46,764	73.5	10,530	16.5	8,945	14.06	12.6	16.2	64	Reasonable
ESP OFR PGO40XX	23	502	7,573	964	18,453	60,217	55,366	24,174	43.7	15,988	28.9	11,109	20.06	16.3	48.2	128	High
ESP A37 DTS2440	130	804	27,875	4,674	5,765	45,316	49,132	26,962	54.9	9,964	20.3	5,381	10.95	21.1	33.5	31	Reasonable
ESP A27 PS1824	99	1,136	16,500	163	45,424	45,582	47,647	31,259	65.6	6,942	14.6	3,288	6.90	21.4	27.5	33	Weak
ESP A37 PMP0612	951	1,138	103,773	812	5,240	28,395	45,777	33,188	72.5	16,342	35.7	14,846	32.43	14.8	29.2	158	High
ESP A27 PGO2440	33	478	11,091	480	25,589	44,364	38,157	20,884	54.7	7,324	19.2	5,878	15.41	28.4	43.7	60	Reasonable
ESP A27 DRB0010	1,731	1,496	168,844	1,102	3,980	28,136	37,418	32,026	85.6	9,530	25.5	9,046	24.18	15.0	21.4	159	High
ESP A37 PS1824	86	969	19,186	255	20,810	32,446	30,218	20,831	68.9	3,313	11.0	2,505	8.29	18.1	21.5	31	Weak
ESP A27 PS1218	116	750	16,132	176	26,790	26,542	24,521	17,373	70.8	5,591	22.8	4,165	16.99	15.7	23.2	90	Reasonable
ESP OFR HOK2440 °	25	432	5,577	342	14,707	15,233	24,329	12,073	49.6	4,933	20.3	2,328	9.57	16.5	27.9	45	Reasonable
ESP A37 PS1218	85	649	17,519	227	14,220	21,185	22,514	15,448	68.6	3,528	15.7	3,050	13.55	18.4	23.8	102	Reasonable
ESP A37 DTS1218	147	448	27,603	2,588	3,797	19,561	21,815	12,633	57.9	4,134	18.9	2,315	10.61	19.0	28.2	32	Weak
ESP A27 DTS1824	74	430	14,903	1,753	8,559	23,037	18,346	9,513	51.9	3,422	18.7	2,258	12.31	14.2	22.1	57	Reasonable
ESP A37 PS2440 °	25	203	4,196	334	5,974	19,548	17,205	13,256	77.0	5,817	33.8	3,902	22.68	36.7	65.4	79	High
ESP A27 HOK1824 °	28	287	5,246	1,492	3,235	7,954	15,040	8,952	59.5	2,631	17.5	1,994	13.26	22.0	31.1	97	Reasonable
ESP A27 DRB1218	84	189	14,522	3,722	3,291	9,260	12,336	6,615	53.6	1,588	12.9	1,006	8.15	26.6	35.0	37	Weak
ESP A27 DTS1218 °	66	320	10,433	2,804	3,456	13,048	11,500	6,514	56.6	1,536	13.4	1,421	12.36	15.5	20.3	49	Weak
ESP A27 DFN1824 °	23	319	7,238	795	4,014	12,224	11,497	7,416	64.5	1,655	14.4	1,121	9.75	18.1	23.2	48	Weak
ESP A27 DFN1218	145	568	24,838	494	5,177	15,850	11,363	6,909	60.8	- 136	- 1.2	- 1,112	- 9.78	12.4	12.2	- 18	Reasonable
ESP OFR PMP0010	488	480	34,804	612	2,641	8,207	11,350	8,622	76.0	1,434	12.6			15.0	18.0		
ESP A27 PMP1218 °	47	283	10,075	784	3,786	7,194	11,096	7,840	70.7	1,394	12.6	1,175	10.59	22.8	27.7	56	Reasonable
ESP A27 HOK1218	74	275	12,136	649	4,005	9,691	9,136	5,747	62.9	2,520	27.6	1,728	18.92	11.7	20.9	45	Reasonable

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values. Not all fleet segments are shown

Table 5.102 Spain: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)								Live weight of landings (thousand tonne)								Average landed price (real) (€)								% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015	in value	in weight
Yellowfin tuna	134.5	115.2	136.2	148.0	241.8	221.0	195.3	302.3	81.1	68.0	84.7	95.7	103.1	98.6	90.1	92.8	1.7	1.7	1.6	1.6	2.4	2.2	2.2	3.3	16.0%	10.0%
European hake	146.3	161.4	130.4	99.3	96.3	100.3	125.0	138.9	42.8	46.3	39.2	29.0	29.2	30.2	34.4	38.4	3.4	3.5	3.3	3.4	3.3	3.3	3.6	3.6	7.4%	4.2%
Swordfish	130.2	130.1	126.0	114.0	133.6	134.2	105.7	136.5	23.9	25.3	26.0	25.4	29.0	30.5	22.2	26.8	5.4	5.1	4.9	4.5	4.6	4.4	4.8	5.1	7.2%	2.9%
European anchovy	17.0	35.0	46.7	61.5	57.1	75.9	81.6	86.9	7.0	14.1	19.7	27.0	24.0	36.1	42.6	50.5	2.4	2.5	2.4	2.3	2.4	2.1	1.9	1.7	4.6%	5.5%
Bigeye tuna	47.8	57.8	48.6	68.1	58.1	95.8	81.7	77.8	18.5	20.7	18.6	27.7	22.4	32.6	30.4	25.2	2.6	2.8	2.6	2.5	2.6	2.9	2.7	3.1	4.1%	2.7%
Atlantic cod	18.8	21.8	29.6	26.4	29.4	43.7	55.6	60.2	7.9	9.2	12.5	11.3	12.8	17.6	18.6	20.8	2.4	2.4	2.4	2.4	2.3	2.5	3.0	2.9	3.2%	2.3%
Blue shark	11.2	11.4	36.4	31.2	26.5	27.9	32.1	55.6	22.9	23.9	84.3	76.1	54.7	51.4	47.8	54.2	0.5	0.5	0.4	0.4	0.5	0.5	0.7	1.0	2.9%	5.9%
Albacore	61.9	49.2	65.5	38.8	51.8	40.0	37.0	50.9	13.1	9.5	13.4	9.0	14.5	11.1	11.7	14.8	4.7	5.2	4.9	4.3	3.6	3.6	3.2	3.5	2.7%	1.6%
European pilchard(=Sardine)	61.3	54.1	53.8	52.2	61.9	57.0	63.0	49.2	47.9	41.2	43.3	44.7	52.3	44.2	44.9	33.6	1.3	1.3	1.2	1.2	1.2	1.3	1.4	1.5	2.6%	3.6%
Deep-water rose shrimp	17.2	26.8	12.1	37.6	32.6	36.0	32.3	46.1	1.9	3.0	1.3	4.3	3.3	2.9	2.6	3.3	9.2	9.1	9.3	8.7	10.0	12.3	12.6	13.9	2.4%	0.4%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.22 Sweden

Short description of the national fleet

Fleet capacity

The national fleet capacity increased, with 32 vessels, 8 of which were inactive, in 2015, having a combined gross tonnage (GT) of 30.8 thousand tonnes and engine power of 167.9 thousand kilowatts (kW). The cause of the increase in 2015 is a change in definition to include all vessels active during the year in the statistics, not as before, just registered vessels by 1st of January. The general trend of the Swedish fleet is still that the number of vessels is decreasing. In 2016 the number of vessels were 1 255, which is well below even 2014 figures, despite introducing the new definition.

Fleet structure

The Swedish fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the Baltic Sea, Skagerrak, and Kattegat regions. The national fleet consisted of 11 fleet segments in 2008-2015 with a total of 1 298 vessels including 7 clustered active length classes and 4 un-clustered inactive length classes consisting of 1 002 and 296 vessels in 2015, respectively.

Employment

Employment in 2015, was estimated at 1 487 jobs, corresponding to 792 FTEs or an average of 0.79 FTE per active vessel. The level of employment decreased between 2008 and 2015, with total employed decreasing by 25% and the number of FTEs decreasing by 30% over the period. The major factors causing employment to decrease include the decreasing fleet size and less labour intensive vessels. Total employment decreased less than FTE indicating that the share of part-time fishers is increasing slightly in Sweden. In 2015 there were on average 0.53 FTE per employed. The average wage per employed and per FTE has increased heavily over the period 2008 to 2015, 111% and 127% respectively. This means average wages has increased well above the Swedish national average for all employees over the same period (slightly under 2% per year).

Effort

An estimated 73.4 thousand days were spent at sea during 2015, a slight decrease compared to 2014. The amount of energy consumed increased but the general trend since 2009 is that energy consumption is decreasing, 19%. The decrease is driven by fewer vessels, days at sea and increased fuel efficiency. The quantity of fuel consumed in 2015 totalled around 49.3 million litres.

Production

The total weight landed in 2015 was 203 thousand tonnes of seafood (197 thousand tonnes; 2016), with a landed value of €116 million (€124 million; 2016). The total weight and the value of landings vary over the period analysed due to quotas, prices and currency, especially the pelagic. In 2012 for example, the catch was exceptionally low due to low quotas.

The fleet targets both pelagic and demersal species, with herring remaining the dominant species, generating the highest landed value with €35 million (€45 million; 2016) and representing about 30% of the total landings value in 2015. Other important species in value for the Swedish fleet in 2015 were Norway lobster €16 million (€18 million; 2016), Northern prawn €15 million (€17 million; 2016), sprat €12 million (€14 million; 2016), and then cod €10 million (€9 million; 2016).

Economic results for 2015 and recent trends

National fleet performance

The Swedish national fleet went from a net loss to a net profit making position in 2015, due to higher profitability in the pelagic fishery. The pelagic fishery was already profitable in 2014 but in 2015 the profits were higher than the losses in the passive fishery, resulting in a positive result when summed up. The economic performance was driven by higher incomes and to some extent less costs, especially fuel costs, based on the fact that the pelagic fishery is the only fishery in Sweden that is managed with ITQ's. This positive trend is expected to be continued into 2016 and 2017, since landings and fish prices has increased, and as fuel prices remained low.

Revenue in 2015, estimated at €129 million, increased 15% due to an 8% increase in landings income and also other income (€13.4 million) increased by 251%. Total operating costs increased just 1% due to a decrease in labour costs (wages increased but unpaid labour decreased), energy, and other non-variable costs and only slightly increased in repair & maintenance and other variable costs. When including capital costs, total costs amounted to €114.2 million, deducted from total revenue, it generates a net profit of €15.1 million.

Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €67.9 million, €38.0 million and €15.1 million, respectively. GVA and gross profit increased 28% and 76%, respectively. Net losses in 2014 became in 2015 the highest profits seen in the period 2008-2015. These results indicate a good year, yet to be seen the profit are not evenly distributed.

The (depreciated) replacement value of the Swedish fleet was estimated at €139 million, an increase of 16%. Investments amounted to €6.9 million in 2015, a 61% decrease on 2014, but to a more normal level for the period 2008-2015.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 29.4%, indicating a relatively high operating efficiency of the sector. Net profit margin was estimated at 11.7%, compared to a -0.7% loss margin in 2014.

The Rate of Return on Fixed Tangible Assets (RoFTA) increased in comparison to previous years, and became 11%. An overall improved development trend can be seen since 2008, labour productivity (GVA/FTE) increased in 2015: GVA increased (26%) and the number of FTE also decreased (6%), indicating efficiency gains.

Fuel consumption per landed tonne has followed an overall decreasing trend since 2009, and is relatively low at 0.243 thousand litres per tonne landed in 2015. Landings in weight per unit of effort (in days at sea) has been relatively stable since 2008 at around 2 tonnes per day, but last years it has increased due to less demersal in relation to pelagic fishing, 2.762 tonnes/day in 2015 and 2.685 tonnes/day in 2016.

Performance by fishing activity

Small-scale coastal fleet

The number of small-scale vessels decreased from 819 in 2008 to 758 in 2015 (737 in 2016), a decrease of 10%, following the general trend of the Swedish fleet but a relatively lower yearly decrease compared to large-scale vessels. But from 2014 to 2015 the number of small-scale vessels actually increased due to that the definition of which vessels to include in the statistics changed from active vessels 1st January to all vessels active during the year. Despite, close to half of the decrease in number of vessel between 2008 and 2016 stems from vessels with main income from fishing European eel. The Swedish authorities, through different management actions, such as permits, have tried to diminish effort in the threatened European eel fishery. The number of vessel with main income (more than 50% in value) from cod, salmon, or Norwegian lobster fisheries have also decreased while vessel numbers increased slightly for main income originating from mixed fishery.

The numbers employed in the small-scale fisheries follows the same decreasing trend as the fleet in general over the period 2008-2015, with FTE decreasing more rapidly, indicating a larger portion of part-time fishers of the remaining. Vessel tonnage has decreased slightly but power has remained stable over the period. These figures indicate that the new vessels entering, despite lower numbers, have more engine power perhaps going for higher speed.

Overall, the SSCF is not profitable, generating a net loss of €6.8 million in 2015. Gross value added is positive but relatively low per FTE at €27.5 thousand. As tangible assets are, in most cases, probably paid off, these vessels can afford to continue to fish. Low GVA estimates signal that there are other reasons for fishing than just profit, such as part-time employment or a way of life. Additionally, increased seal populations along the Swedish coastline are heavily affecting both income, by taking and eating fish directly from the gears, and costs, by destroying gears as well as creating extra work.

But the outlook for the small-scale is positive due to the discard ban a new management system were introduced in 2017. Despite still missing transferability like a proper ITQ system the individual quotas now introduced with some transferability during the year (not permanent) is by performance a step forward.

Large-scale fleet

For the large-scale fleet, the number of vessels decreased from 329 in 2008 to 244 in 2015 (237 in 2016), a decrease of 28%. More than half of this decrease stems from vessels with main income from the Norwegian lobster fishery. The Swedish authorities have promoted fishing lobster with passive gears and as cod populations are in bad conditions, mixed fisheries with cod and lobster are no longer a profitable option. Vessels fishing for cod as main source of income have also decreased. Some of these vessels also fished pelagic species and after the introduction of fishing-rights in the pelagic fishery they sold their rights and left the fishery.

The numbers employed in the large-scale fisheries follows the same decreasing trend as the fleet in general, but with FTE decreasing less the numbers employed, indicating a decreasing portion of part-time fishers, meaning more fishers doing just fishing. Vessel tonnage and power has decreased heavily but seems to have stabilised the last two years in the period.

The weight and value of landings for the large-scale vessels from 2008 to 2016 is more dependent on the quotas than the same measure for the small-scale. The landings weight has decreased substantially over the period due to reduced quotas but last years increased to level close to the beginning of the period. The landing values follows but with more variation due to changes in fish prices. Despite, the large-scale fleet seems to perform fairly well but the variation is large. Vessels fishing pelagic species and those that fish in the north Baltic for vendance rom are performing very well while those fishing for cod, northern prawn and Norwegian lobster are performing poorly.

The large-scale fleet has increased their operational costs and capital costs, despite decreasing energy costs (lower fuel prices). The increase in landing incomes together with increase in other incomes accedes the higher costs resulting in higher net profits in 2015 compared to 2014. Overall, the large-scale fleet is profitable, generating a net profit of €21.9 million in 2015. Gross value added is relatively high per FTE at €122.6 thousand. Even higher net profits can be expected for 2016 and 2017 since landing values has increased due to better prices and currency.

Performance results of selected fleet segments

The Swedish fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the Baltic Sea, Skagerrak, and Kattegat regions. None of the four fleet segments using active gear made losses in 2015, while the three segments using passive gear all made losses.

It can further be observed that the vessels with active gears account for the main part of the landed value and the landed weight. During the time period 2008-15, the vessels with active gears annually accounted for 96-97% of the total catch measured in weight, and 85-89% of the total catch value. Thus, the vessels with passive gears only accounts for 2-4% of the total catch measured in weight, and 11-15% of the total catch value. A short description of the 2 most important segments in terms of total value of landings is provided below.

Demersal trawl seine 18-24m: In 2015, 41 vessels made up this clustered segment that uses different types of active fishing gear. It operates predominantly in the Baltic Sea, Skagerrak and Kattegat. The fleet segment targets a variety of species but in particular demersal species such as cod, lobster and prawn and pelagic species such as herring and sprat. In 2015, the total value of landings was €17.9 million and around 112 FTEs were employed in this fleet segment, contributing 15% and 14% of the total income from landings and FTEs in the Swedish fishing fleet, respectively. This fleet segment was profitable, with a reported net profit of around €4.5 million in 2015. There is a distinct difference in performance within the segment. The vessels in the segment fishing lobsters and vessels fishing pelagic species are profitable, while the vessels fishing for cod are making net loses. Around one fifth of the vessels are within the tradable fishing rights system for the pelagic species.

Demersal trawl seine 24-40m: There were 40 vessels in this clustered segment in 2015, which also contains vessels using polyvalent active gear (only), purse seiners and 16 pelagic trawlers (8 of the pelagic trawlers are over 40 m), This segment is operating in the Baltic Sea, Kattegat, Skagerrak, and North Sea. The fleet targets a variety of species, in particular pelagic species such as herring and sprat but also demersal species such as cod and prawn. In 2015, the total value of landings was almost €59.9 million and around 222 FTEs were employed in this fleet segment, contributing to 52% and 28% of the total income from landings and FTEs in the Swedish fishing fleet, respectively. This segment dominates the Swedish fishing fleet with 85% of the total landings in weight.

This fleet segment was profitable, with a reported gross profit of around €40.6 million and a net profit of €14.2 million in 2015. There is a distinct difference in performance within the segment. The profit is generated from vessels fishing mainly pelagic species, just above 60% of the vessels. Around 49% of the vessels in the segment are inside the "pelagic system" with tradable fishing rights and these are highly profitable. Vessels with more than 50% cod or prawn in landing value are making loses.

Drivers affecting the economic performance trends

Higher quotas for pelagic species and low fuel prices were the main driving forces behind the change from losses in 2014 to profits in 2015. The Swedish fleet's income is dominated by trawlers, both pelagic and demersal trawlers. As trawling is typically fuel intensive, fluctuations in fuel prices are therefore a key driver of the fleet's profitability. Together with increased landings value of pelagic species the result turned positive.

Markets and Trade

A well-known market characteristic is that during the last decades, the consumption of frozen fish, seafood products (including dried and salted items), and prepared and preserved items has shown an increase while fresh fish has declined. The number of market places for landed fish has also decreased. In Sweden, the market places for fishers have been concentrated to the west coast of Sweden, resulting in logistical problems for selling and also distributing fresh fish to the rest of Sweden. This problem is especially evident for the small-scaled fishery. A new fish market, government funded, recently opened in Stockholm, on the east coast, not only to solve the structural problem but also to offer consumers environmental sustainable fresh fish.

Management instruments

The entry-exit scheme for vessel capacity in gross tonnes and kilowatts has resulted in a continued reduction in fleet capacity. The kilowatt day system, which was introduced as a result of the cod recovery plan for the North Sea, Skagerrak and Kattegat, has continued to provide an incentive for further structural change within cod fishing on the Swedish west coast as it restricts the vessels' fishing effort. Furthermore, the system of individual transferable fishing rights within the pelagic segment has had a major impact on the structural change within this segment.

A major challenge with regards to fleet management is the adjustment to the landing obligation, which is gradually introduced between 2015 and 2019. An obligation to land all catches of quota species requires a system to allocate fishing opportunities that as far as possible help facilitates this obligation and creates conditions for the Swedish fleet to comply with it. A system that is compatible with the landing obligation must for example consider the challenge of choke species and allow some flexibility so that it is possible to match catches and fishing opportunities. Therefore, a new system to allocate fishing opportunities was developed and proposed during 2016. From 1st January 2017, the new system replaced the previous system which was based on weekly or monthly catch limits in the North Sea in which the possibility to transfer fishing possibilities was lacking. The new system is based on yearly allocation of individual fishing opportunities. The fishing opportunities may, with some limitations, be transferred between individual fishers during the year.

During 2016, the prawn fishery was administrated through monthly rations. A possibility to temporarily redistribute the ration from one vessel to another vessel (under certain conditions) was introduced during 2015. The intention was to facilitate a more efficient capital use in the prawn fishery which in turn will imply higher profitability for individual fishing firms and thereby reduced incentives for illegal discards.

Status of Key Stocks, TACs and quotas

Most of the important stocks fished by the Swedish fleet are fished at MSY. Landings and total available quota for the fleet in 2015 increased compared to 2014 and has been kept high in 2016. The quota for herring and sprat, which is especially important for the Swedish fleet, increased in Skagerrak, Kattegat, and North Sea. In the Baltic Sea herring and sprat were managed at MSY level. Baltic herring fisheries were successful, resulting in that the quota was almost fully exploited.

The Baltic cod stock was depleted and overexploited for decades until the mid-2000s, when fishing mortality rapidly declined and biomass started to increase, as shown by stock assessments. These positive developments were partly assigned to effective management measures. In contrast to this optimistic view, the analytical stock assessment failed in 2014, leaving the present stock status unclear. A number of adverse developments such as low nutritional condition and disappearance of larger individuals indicate that the stock is in distress.

In 2015, the important quota for cod in the Baltic decreased significantly. Total available cod quota for the Swedish Baltic fleet in 2015 was 11.9 thousand tonnes and 2.5 thousand tonnes in eastern and western stocks, respectively (in 2014; 17.0 and 2.7 thousand tonnes, respectively). And, small sized and with bad conditioned cods, the fishery performed economically poorly. The Eastern Baltic cod TAC is in line with the precautionary approach, but due to a missing biological advice no MSY level can be defined.

Innovation and Development

Towards the end of 2009, Sweden introduced a tradable fishing right system for pelagic quotas. Pelagic vessels both in the system and not are clustered together with other vessels, mostly in the demersal trawl/seine 18-24m and 24-40m segments. The reason, in addition to confidentiality issues, is that many of the pelagic vessels also fish cod and vice-versa. A clear positive economic effect of the pelagic system can be seen. The first transactions took place in early 2010 and the first effects of these transactions became visible in late 2010 in terms of profitability for the pelagic fisheries. But the effect of the new system can be better seen in the profitability of 2012 and forward, once capacity had been removed. However, decreases in quotas for pelagic species (most importantly for herring and sprat) and increases in fuel prices have had a chilling effect on the expected profitability the first years after introduction. Now the situation is different, higher quotas and better prices, and the pelagic fleet is performing very well. There have also been investments in new vessels (replacement); these investments cannot be seen clearly in the statistics, just that the new capital gives an increased capital cost when new vessels are introduced.

The increasing seal population around the Swedish coastline has caused a growing conflict between seals and inshore fisheries. Seals damage the fisher's catch and fishing gear which causes significant economic losses to the fishing industry. In some areas it is even impossible to conduct a profitable fishery. The development of seal-safe fishing gear is at present the only long lasting and sustainable solution to the conflict. The fishing gear also needs to catch fish effectively, be easy to handle by the fishers and cause low environmental impact. The development can be carried out by improving traditional fixed gear, such as push-up traps for salmon and by developing new alternatives to the net fisheries, such as cod pots.

Also in the shrimp and lobster fishery research for new and more sustainable fishing techniques is on-going. In general, transition towards the implementation of these new techniques in the sector is slow as fishers are hesitant due to high investments, the uncertainty of the impact of the techniques and the possible market effects.

Projections for 2016, 2017 and outlook

Preliminary results for 2016 and 2017 suggest a 3-8% decrease in landed weight, matched by a 7-8% increase in value, respectively. Projections suggest that decreases in all costs due to decreasing effort, but on salaries. This leads to a decrease in operating costs, together with a reduction in capital costs, will make 2016 and 2017 to be better years than 2015: GVA (+20% and +10%, respectively), gross profit (+33%, and 6%, respectively) and net profit (+97%, and 19%, respectively). Positive economic developments can also be seen in performance indicators GVA to revenue, GVA per FTE and gross and net profit margins. In addition, Swedish profit margins are among the highest in the EU with gross profit margins reaching 29% and net profit margins reach 12% in 2015, and projections shows an increase to 37% and 22% in 2016, respectively.

The general trend since the beginning of the 2000s is a decrease in Swedish fleet capacity, i.e. in the number of vessels that also reflects reduction of total engine power and gross tonnage. This is partly due to management efforts directed at decreasing fleet size in order to bring it in balance with the resources. But that is not the whole truth since a part of the decrease is due to the fact that many fishers have left the sector since they can no longer make a living from fishing. Some of the fishers operating inside the pelagic fishing rights system sold their rights and left the sector while others just left the sector without being compensated. The profitability of the diminishing Swedish fleet is increasing perhaps not as fast as expected due to decreasing quotas. The analysis of economic performance shows that all Swedish segments with vessels using active gear are making positive net profits. The segments with vessels using passive gear are all making net losses. These segments are heavily affected by increasing populations of seals in recent years.

There is also a crew recruitment problem as jobs on board fishing vessels is not a particularly attractive way of making a living for younger people due to the low wages and relatively poor working conditions compared to other land-based jobs. This poor recruitment is reflected in the increasing average age of Swedish fishers. This coupled with a decreasing fleet size is expected to continue for some time but will lead to a better economic performance in the long run.

A crucial problem is seen in the context of Brexit, depending on the outcome of the negotiations between the UK and the EU. The pelagic fleet substantially depends on catch opportunities in British waters, in value around 10%, mainly for sandeels, herring, and mackerel. The demersal fleet is today not affected, but could indirectly be affected if fishing by other member states in UK-economic zone today is moved into SE-economic zone.

Data issues

There are no major data issues in the Swedish DCF data. Most of the Swedish data comes from registers, only cost data is collected separately. Sweden uses mandatory questionnaires for data on costs (combined with tax declarations from registers). Previously, Sweden used probability sampling when sending out the questionnaires. Since 2012, questionnaires requesting 2011 data are sent to all vessels (census). Instead of getting 60% response from a 50% sample, Sweden now gets more than 85% response from a census sample, i.e. the number of data points has increased threefold. An important issue is clustering. With a small and diminishing fleet, Sweden is forced to cluster all of the economic data and also report cluster definitions. At the same time Sweden is recommended to report un-clustered transversal data on capacity, landings etc. Previously Sweden used different clusters for different years but has now worked around this problem, back-calculating all data, and is now using the same clusters for the whole DCF period. This makes it easier to follow trends and since the sampling is done in census, it's easy to re-cluster for analytical reasons.

This year Sweden changed definition for the fleet from including vessels in the fleet by 1 January to include all vessels active during the year. The change has created an increased fleet in 2015 but since the fleet is rapidly decreasing in size the effect is hardly noticeable already in 2016.

Table 5.103 Sweden: National fleet statistics and economic performance results. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	1,507	1,471	1,415	1,359	1,322	1,299	1,266	1,298	*974*	*962*		3%	-6%
Number of Inactive vessels_ms	(#)	359	339	351	328	303	315	288	296	*281*			3%	-9%
Vessel tonnage	(thousand GT)	43.0	41.7	38.6	32.9	29.5	30.5	29.0	30.8				6%	-12%
Engine power	(thousand kW)	211.8	207.9	196.4	178.1	169.1	170.7	163.9	167.9				2%	-9%
Total employed	(person)	1,980	1,758	1,765	1,679	1,663	1,577	1,568	1,487	*1,437*	*1,414*		-5%	-13%
FTE	(#)	1,133	1,019	990	974	942	886	845	792	*790*	*774*		-6%	-18%
Days at sea	(thousand day)	102.7	96.6	85.1	83.7	78.9	77.7	77.7	73.4	*73.5*	*69.6*		-6%	-15%
Fishing days	(thousand day)	102.7	96.6	85.1	83.7	78.9	77.7	77.7	73.4				-6%	-15%
Number of fishing trips	(thousand)	87.7	82.9	73.6	72.5	70.3	69.9	71.2	67.6				-5%	-10%
Energy consumption	(million litre)	41.4	62.2	54.1	40.9	47.4	48.1	41.1	49.3	*48.4*	*49.7*		20%	3%
Live weight of landings	(thousand tonne)	213.2	199.3	204.4	173.3	136.5	177.6	166.1	202.7	*197.3*	*181.4*		22%	12%
Value of landings	(million €)	120.4	101.7	113.0	125.6	122.4	126.4	106.7	116.0	*123.8*	*134.2*		9%	-1%
Income from landings	(million €)	120.4	101.7	113.0	125.6	122.4	126.4	106.7	116.0	*123.8*	*134.2*		9%	-1%
Other income	(million €)	5.2	18.1	39.1	8.8	5.7	17.4	5.3	13.4	*12.6*	*11.5*		151%	-6%
Direct income subsidies	(million €)	1.8	-	-	-	-	-	-	-					-100%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	11.8	11.1	14.2	12.6	16.3	19.1	17.3	18.6	*20.0*	*21.8*		8%	27%
Unpaid labour value	(million €)	18.4	15.1	14.8	16.7	14.4	14.5	15.2	11.3	*10.9*	*14.3*		-26%	-28%
Energy costs	(million €)	28.1	26.2	29.3	28.7	34.2	32.0	24.5	22.6	*17.4*	*20.3*		-8%	-22%
Repair & maintenance costs	(million €)	21.9	24.6	23.8	21.4	20.6	21.6	16.5	20.8	*19.8*	*18.2*		26%	-3%
Other variable costs	(million €)	6.0	7.0	9.0	12.7	10.1	8.8	8.8	10.1	*10.0*	*10.2*		15%	14%
Other non-variable costs	(million €)	8.4	10.2	10.1	9.6	9.4	9.9	8.4	7.9	*7.6*	*7.1*		-5%	-16%
Annual depreciation costs	(million €)	36.0	31.7	28.6	29.3	22.4	25.1	20.4	22.8	*21.6*	*19.6*		12%	-17%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	1.0	2.2	1.6	2.0	0.9	2.5	1.8	0.0	- *0.7*	- *1.2*		-98%	-98%
Tangible asset value (replacement)	(million €)	174.8	167.8	163.6	167.7	129.5	148.0	119.7	138.5	*121.9*	*110.0*		16%	-9%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	13.6	4.7	8.4	5.4	7.3	5.9	17.7	6.9				-61%	-24%
Financial position	(%)	62.0	63.4	87.7	72.9	102.4	105.8	109.6	98.8				-10%	15%
Gross Value Added	(million €)	61.3	51.8	79.9	62.1	53.8	71.5	53.9	67.9	*81.6*	*89.9*		26%	9%
GVA to revenue	(%)	48.8	43.2	52.5	46.2	42.0	49.7	48.1	52.5	*59.8*	*61.7*		9%	11%
Gross profit	(million €)	31.1	25.6	50.9	32.8	23.1	38.0	21.4	38.0	*50.7*	*53.8*		78%	19%
Gross profit margin	(%)	24.7	21.3	33.5	24.4	18.0	26.4	19.1	29.4	*37.2*	*36.9*		54%	23%
Net profit	(million €)	- 5.9	- 8.4	20.7	1.5	- 0.2	10.3	- 0.8	15.1	*29.8*	*35.3*		1906%	519%
Net profit margin	(%)	- 4.7	- 7.0	13.6	1.1	- 0.2	7.2	- 0.7	11.7	*21.8*	*24.3*		1664%	787%
GVA per FTE (labour productivity)	(thousand €)	54.1	50.8	80.8	63.8	57.1	80.7	63.8	85.8	*103.3*	*116.1*		35%	33%
Return on fixed tangible assets	(%)	- 2.8	- 3.7	13.6	2.1	0.5	8.7	0.8	10.9	*23.9*	*31.1*		1234%	299%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

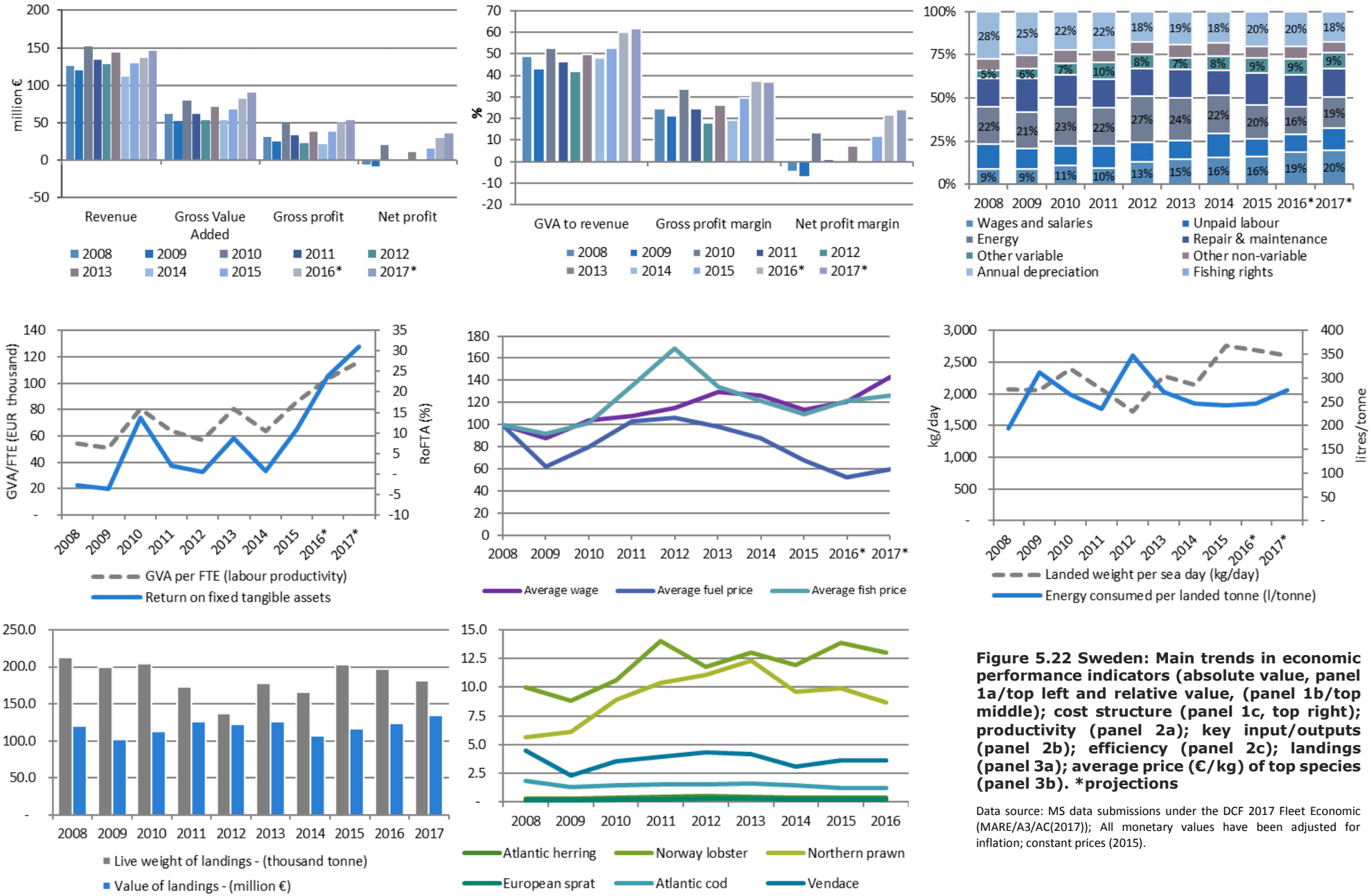


Figure 5.22 Sweden: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.104 Sweden: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	819	818	776	754	754	729	731	758	737	730		4%	-1%
Vessel tonnage	(thousand GT)	3.8	3.8	3.6	3.5	3.6	3.5	3.3	3.3				0%	-6%
Engine power	(thousand kW)	54	54	52	52	53	53	52	52				1%	-1%
FTE	(#)	470	383	384	367	340	321	332	307	307	279		-8%	-17%
Total employed	(person)	1,073	929	951	925	920	902	914	891	866	858		-3%	-6%
Days at sea	(thousand day)	66.5	63.4	56.2	53.6	49.3	48.1	50.4	48.0	47.8	43.6		-5%	-13%
Fishing days	(thousand day)	66.5	63.4	56.2	53.6	49.3	48.1	50.4	48.0				-5%	-13%
Number of fishing trips	(thousand)	66.4	62.5	55.4	52.9	48.6	47.6	49.8	47.9				-4%	-12%
Energy consumption	(million litre)	3.2	4.4	4.2	4.9	4.3	3.8	4.0	4.4	4.5	4.1		12%	7%
Live weight of landings	(thousand tonne)	6.6	6.6	5.4	5.1	5.2	4.5	4.7	4.4	4.4	4.3		-5%	-18%
Value of landings	(million €)	17.2	14.2	14.0	14.7	16.0	14.9	14.3	15.0	14.9	19.5		5%	0%
Income from landings	(million €)	17.2	14.2	14.0	14.7	16.0	14.9	14.3	15.0	14.9	19.5		5%	0%
Other income	(million €)	4.0	2.7	2.9	6.0	3.1	2.7	1.9	2.9	2.8	2.7		53%	-12%
Direct income subsidies	(million €)	1.0	-	-	-	-	-	-	-					-100%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	0.4	0.6	0.8	0.9	1.1	1.1	1.3	1.2	1.2	1.6		-6%	38%
Unpaid labour value	(million €)	10.4	8.0	8.9	9.1	8.8	8.8	9.7	8.9	8.6	11.0		-8%	-3%
Energy costs	(million €)	2.4	2.2	2.7	3.5	3.3	2.8	2.7	2.6	2.1	2.2		-4%	-6%
Repair & maintenance costs	(million €)	3.8	3.1	2.9	3.3	3.2	3.3	2.9	3.1	3.0	2.9		5%	-4%
Other variable costs	(million €)	1.2	1.3	1.3	2.0	1.9	1.6	1.3	1.6	1.7	1.5		23%	8%
Other non-variable costs	(million €)	1.6	1.9	2.1	2.4	2.1	2.1	2.2	2.1	2.0	2.0		-6%	1%
Annual depreciation costs	(million €)	8.5	7.8	5.2	4.9	3.4	3.8	3.7	5.1	5.0	4.8		38%	-4%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	0.2	0.5	0.3	0.3	0.1	0.3	0.3	0.0	-0.1	-0.2		-97%	-97%
Tangible asset value (replacement)	(million €)	40.8	39.5	25.9	25.6	18.4	20.3	19.4	25.3	24.5	23.6		30%	-7%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	0.6	1.2	1.4	1.5	1.6	1.5	1.2	1.3				6%	2%
Gross Value Added	(million €)	12.1	8.3	7.9	9.4	8.5	7.7	7.0	8.4	8.9	13.7		21%	-3%
GVA to revenue	(%)	57.2	49.5	46.5	45.5	44.6	44.0	43.0	47.2	50.4	61.8		10%	0%
Gross profit	(million €)	1.3	-0.3	-1.8	-0.6	-1.3	-2.2	-4.0	-1.6	-0.8	1.1		59%	-29%
Gross profit margin	(%)	6.1	-1.8	-10.9	-2.7	-6.9	-12.5	-24.6	-9.2	-4.8	5.0		63%	-21%
Net profit	(million €)	-7.5	-8.6	-7.3	-5.8	-4.9	-6.4	-8.0	-6.8	-5.7	-3.4		15%	2%
Net profit margin	(%)	-35.3	-51.0	-42.8	-27.9	-25.6	-36.2	-49.2	-37.9	-32.1	-15.4		23%	1%
Return on fixed tangible assets	(%)	-17.8	-20.4	-27.1	-21.4	-25.8	-29.6	-39.7	-26.8	-23.8	-15.6		32%	-3%
GVA per FTE (labour productivity)	(thousand €)	25.8	21.8	20.6	25.7	25.0	24.1	21.1	27.5	29.1	49.2		-13%	-12%

		LSF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	2016*	2017*			
Total number of vessels	(#)	329	314	288	277	265	255	247	244	237	231		-1%	-14%
Vessel tonnage	(thousand GT)	33.7	32.4	29.5	26.6	24.8	25.4	23.6	24.8				5%	-12%
Engine power	(thousand kW)	129	125	113	105	98	98	92	95				2%	-13%
FTE	(#)	663	636	606	606	602	565	513	485	483	494		-6%	-19%
Total employed	(person)	907	829	813	754	743	675	655	596	572	556		-9%	-22%
Days at sea	(thousand day)	36.3	33.2	28.9	30.1	29.6	29.6	27.3	25.3	25.6	26.0		-7%	-17%
Fishing days	(thousand day)	36.3	33.2	28.9	30.1	29.6	29.6	27.3	25.3				-7%	-17%
Number of fishing trips	(thousand)	21.3	20.3	18.2	19.6	21.7	22.4	21.4	19.7				-8%	-5%
Energy consumption	(million litre)	38.1	57.8	49.9	36.0	43.1	44.3	37.1	44.9	43.9	45.6		21%	3%
Live weight of landings	(thousand tonne)	206.6	192.7	199.0	168.2	131.3	173.1	161.4	198.2	192.8	177.1		23%	13%
Value of landings	(million €)	103.2	87.5	99.0	110.9	106.4	111.6	92.3	101.0	108.9	114.7		9%	-1%
Income from landings	(million €)	103.2	87.5	99.0	110.9	106.4	111.6	92.3	101.0	108.9	114.7		9%	-1%
Other income	(million €)	1.2	15.4	36.2	2.8	2.6	14.7	3.4	10.5	9.8	8.7		205%	-4%
Direct income subsidies	(million €)	0.8	-	-	-	-	-	-	-					-100%
Income from leasing fishing rights	(million €)	-	-	-	-	-	-	-	-					
Wages and salaries of crew	(million €)	11.4	10.5	13.4	11.7	15.3	18.0	16.0	17.4	18.7	20.2		9%	27%
Unpaid labour value	(million €)	8.0	7.1	5.8	7.6	5.7	5.7	5.6	2.4	2.4	3.3		-57%	-63%
Energy costs	(million €)	25.7	24.0	26.6	25.1	30.9	29.2	21.7	19.9	15.3	18.1		-8%	-24%
Repair & maintenance costs	(million €)	18.1	21.6	20.9	18.1	17.4	18.3	13.5	17.7	16.8	15.4		31%	-3%
Other variable costs	(million €)	4.7	5.7	7.6	10.7	8.2	7.2	7.5	8.5	8.4	8.7		14%	15%
Other non-variable costs	(million €)	6.7	8.3	8.0	7.1	7.3	7.8	6.1	5.8	5.6	5.2		-5%	-21%
Annual depreciation costs	(million €)	27.5	23.9	23.5	24.4	19.0	21.3	16.7	17.7	16.6	14.8		6%	-21%
Rights costs	(million €)	-	-	-	-	-	-	-	-					
Opportunity cost of capital	(million €)	0.7	1.5	1.2	1.6	0.7	2.1	1.4	0.0	-0.6	-0.9		-98%	-98%
Tangible asset value (replacement)	(million €)	120.4	116.3	128.2	132.8	105.8	121.0	93.7	104.0	97.4	86.5		11%	-11%
Fishing rights	(million €)	-	-	-	-	-	-	-	-					
Investments	(million €)	13.1	3.5	7.0	4.0	5.8	4.4	16.5	5.6				-66%	-28%
Gross Value Added	(million €)	49.2	43.4	72.0	52.7	45.3	63.8	46.9	59.5	72.6	76.1		27%	12%
GVA to revenue	(%)	47.1	42.2	53.3	46.3	41.6	50.5	49.0	53.4	61.2	61.7		9%	13%
Gross profit	(million €)	29.8	25.8	52.8	33.3	24.4	40.2	25.4	39.7	51.5	52.7		56%	20%
Gross profit margin	(%)	28.5	25.1	39.0	29.3	22.4	31.8	26.5	35.6	43.4	42.7		34%	23%
Net profit	(million €)	1.6	0.4	28.0	7.4	4.7	16.8	7.3	21.9	35.5	38.8		202%	132%
Net profit margin	(%)	1.5	0.4	20.7	6.5	4.3	13.3	7.6	19.7	29.9	31.4		159%	154%
Return on fixed tangible assets	(%)	1.9	1.7	22.8	6.7	5.1	15.6	9.3	21.1	35.8	43.8		128%	134%
GVA per FTE (labour productivity)	(thousand €)	74.1	68.2	118.9	86.8	75.3	112.9	91.4	122.6	150.3	154.0		-19%	2%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015)

Table 5.105 Sweden: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	€	(thousand €)	(%)				
SWE A27 DTS2440 °	40	222	6,736	182	172,240	59,941	68,035	37,099	54.5	27,621	40.6	14,219	20.90	42.8	167.4	17.5	High	110%	Improved	53%
SWE A27 DTS1824 °	41	112	6,175	382	15,542	17,944	19,090	9,734	51.0	5,874	30.8	4,466	23.39	34.4	86.7	60.1	High	165%	Improved	15%
SWE A27 DTS1218 °	71	87	6,523	731	6,737	15,071	15,292	7,631	49.9	3,684	24.1	2,142	14.00	45.4	87.7	26.3	Reasonable	339%	Improved	12%
SWE A27 DFN0010 °	624	242	39,637	1,082	2,440	9,060	11,228	5,115	45.6	- 2,856	- 25.4	- 6,186	- 55.09	32.9	21.1	- 37.8	Weak	-8%	Deteriorated	9%
SWE A27 DTS1012 °	78	51	4,609	718	3,288	7,246	8,222	4,554	55.4	2,444	29.7	1,239	15.07	41.1	88.7	19.5	Reasonable	213%	Improved	6%
SWE A27 DFN1012 °	134	65	8,388	897	1,992	5,930	6,688	3,334	49.8	1,211	18.1	- 609	- 9.11	32.9	51.7	- 6.8	Weak	48%	Improved	5%
SWE A27 DFN1218 °	14	13	1,300	604	426	769	816	452	55.4	30	3.7	- 145	- 17.72	32.9	35.3	- 16.8	Weak	-619%	Deteriorated	1%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.106 Sweden: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	€	(thousand €)	(%)		
SWE A27 DTS2440 °	37	212	6,443	179	167,993	67,132	74,618	48,114	64.5	37,500	50.3	25,568	34.26	50.1	227.0	33	High	55%
SWE A27 DTS1824 °	39	113	6,218	414	14,429	18,419	19,510	11,074	56.8	7,112	36.5	5,816	29.81	35.0	97.9	82	High	14%
SWE A27 DTS1218 °	73	93	6,994	743	7,106	16,073	16,301	8,866	54.4	4,656	28.6	3,122	19.15	45.1	95.0	37	Reasonable	12%
SWE A27 DFN0010 °	609	237	38,824	1,201	2,154	8,546	10,662	5,062	47.5	- 2,457	- 23.0	- 5,608	- 52.60	31.7	21.3	- 36	Weak	8%
SWE A27 DTS1012 °	75	52	4,660	827	2,885	6,486	7,424	4,078	54.9	2,190	29.5	1,069	14.40	36.4	78.6	17	Reasonable	5%
SWE A27 DFN1012 °	128	69	9,021	837	2,296	6,329	7,054	3,872	54.9	1,607	22.8	- 79	- 1.12	32.7	55.8	- 2	Weak	5%
SWE A27 DFN1218 °	13	13	1,315	674	386	785	829	502	60.5	71	8.6	- 86	- 10.42	33.2	38.7	- 11	Weak	1%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.107 Sweden: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Atlantic herring	30.5	23.2	24.3	28.1	33.1	37.9	30.0	35.2	45.2	91.0	76.0	70.1	58.6	60.7	77.9	77.1	97.0	117.2	0.3	0.3	0.4	0.5	0.6	0.5	0.4	0.4	0.4	30%	48%
Norway lobster	14.8	11.6	13.1	13.2	15.8	14.6	15.0	15.7	17.8	1.5	1.3	1.2	0.9	1.4	1.1	1.3	1.1	1.4	10.0	8.8	10.6	14.0	11.8	13.0	11.9	13.8	13.0	14%	1%
Northern prawn	13.2	13.7	14.4	17.0	15.7	13.6	12.2	15.0	16.8	2.3	2.3	1.6	1.6	1.4	1.1	1.3	1.5	1.9	5.6	6.1	8.9	10.4	11.1	12.3	9.6	9.9	8.7	13%	1%
European sprat	14.2	12.2	16.0	14.9	13.4	17.4	13.0	12.0	14.1	83.9	80.1	77.8	56.9	45.9	52.9	49.5	51.1	56.0	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	10%	25%
Atlantic cod	22.8	17.1	17.9	20.9	20.0	12.4	10.4	10.0	9.1	12.5	13.1	12.2	13.4	13.3	7.9	6.9	8.0	7.4	1.8	1.3	1.5	1.6	1.5	1.6	1.5	1.2	1.2	9%	4%
Vendace	2.7	2.0	3.6	4.5	5.5	6.1	5.6	6.7	6.0	0.6	0.8	1.0	1.1	1.3	1.5	1.8	1.9	1.6	4.5	2.3	3.6	4.0	4.4	4.2	3.1	3.6	3.7	6%	1%
Sandeels(=Sandlances	1.9	1.8	8.5	7.3	1.1	8.1	3.5	6.6	1.2	12.3	12.5	33.1	32.4	3.9	27.5	19.1	33.4	4.3	0.2	0.1	0.3	0.2	0.3	0.3	0.2	0.2	0.3	6%	17%
Atlantic mackerel	6.0	6.9	3.7	6.5	5.0	3.5	4.6	3.3	3.0	3.6	7.4	3.4	3.5	4.4	2.9	4.5	4.0	3.8	1.6	0.9	1.1	1.8	1.1	1.2	1.0	0.8	0.8	3%	2%
Saithe(=Pollock)	1.5	1.6	2.1	2.1	2.0	1.8	1.8	1.6	1.8	1.6	1.4	1.6	1.3	1.3	1.4	1.3	1.2	1.2	1.0	1.2	1.4	1.6	1.6	1.3	1.4	1.4	1.5	1%	1%
Witch flounder	1.4	0.7	0.7	0.6	0.8	0.8	1.0	1.2	0.9	0.3	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	5.2	4.8	5.3	5.5	5.2	4.6	3.8	4.0	4.1	1%	0%
																												93%	98%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

5.23 United Kingdom

Short description of the national fleet

Fleet capacity

In 2015, the UK fishing fleet consisted of 6 420 registered vessels of which 1 844 were inactive. The fleet had a combined gross tonnage (GT) of 200 thousand tonnes and engine power of 805 thousand kilowatts (Kw). Estimates for 2016 show the size of the overall fleet was largely static but with a slight increase in the number of active vessels.

Fleet structure

The UK fleet can be divided into a small coastal fleet (69% of the active fleet in 2015) made up of vessels under 12m in length using passive gears and large-scale fleet (31% of the active fleet in 2015) made up of vessels greater than 12m in length using passive gears and vessels of any length using active gears.

Of the active fleet 1700 vessels (37%) had annual landings with a value of less than £10 000. These vessels are termed as 'low activity' in UK-specific analysis and over 97% of these vessels are from the small coastal fleet.

Employment

Total employment in 2015 was estimated at 12 107 jobs, corresponding to 8 135 FTEs or 1.27 FTE per vessel. The SSCF represented 47% of total jobs but only 26% of FTEs, a large number of vessels in this fleet operate on a part-time basis.

Many UK fishers are paid as a share of what is landed and hence crew share is strongly linked with fishing income; therefore, crew shares across segments reflect the variability in fishing income.

Effort

An estimated 431 thousand days were spent at sea in 2015, a 1% increase on the previous year. At the same time energy consumption decreased by 2%. This coupled with static vessel numbers indicates a rise in fleet efficiency.

The reduction in energy costs was as a result of the increasing fuel efficiency of newer engine types and a significant decrease in fuel price first seen in the second half of 2014 but continuing into 2015. Energy costs in 2015 fell almost 25% compared to the previous year.

Vessels operate mainly in the North Sea, West of Scotland, English Channel and Western Approaches.

Production

Between 2014 and 2015, production decreased 7% to 709 thousand tonnes of seafood with a landed value of €1.068 billion, a 0.4% decrease on 2014.

The UK fleet is extremely diverse with a wide variety of fleets targeting different species. In terms of landings value, demersal species represented 38% of total landings by the fleet in 2015 with shellfish species representing 35% and pelagic species representing 27%. In terms of the weight, pelagic species represented 55% of total landings. Having benefitted from increased quotas for key species in 2014, pelagic landings have decreased by 11% compared to 2014 yet were over 30% higher than landings in 2013.

In 2015 the dominant species was Atlantic mackerel generating the highest landings value (€220 million) and landed weight (248 thousand tonnes), representing 21% of the total value of landings and 35% of the total weight of landings by the UK fleet. Norway lobster generated the second highest landings value (€114 million), representing 11% of the total value of landings but only 4% of the weight.

Economic results for 2015 and recent trends

National fleet performance

The UK national fleet remained in a profit making position in 2015 although it was less profitable than 2014. This fall in operating profit can be attributed to the fall in landings and increased costs and is despite a significant decrease in energy costs. In 2016 the fleet is expected to remain profitable with increases in profitability driven by strong prices across a number of important species groups.

In 2015, revenue, estimated at €1.114 billion, decreased 1% due to landings income remaining static whilst other income (€46 million) decreased 4%. When including income from fishing rights, total income amounted to €1.125 billion.

Total operating costs increased by 6% despite the continued fall in energy costs. This is mainly driven by the large-scale fleet with operating costs for the small coastal fleet remaining stable at around €130 million. When including capital costs, total costs amounted to €963 million generating a net profit of €188 million.

Gross Value Added (GVA), gross profit and net profit in 2015 were estimated at €567 million, €278 million and €188 million, respectively. GVA decreased 3%, gross profit and net profit decreased 13% and 23%, respectively. These results indicate the economic situation has worsened compared to 2014 yet compare favourably to years previous to that.

The (depreciated) replacement value of the UK fleet was estimated at €797 million and investments amounted to €102 million, a 22% increase on 2014.

Overall, the cost structure has remained relatively constant over the years even with variations in landings and fuel price influencing crew and energy costs respectively.

Resource productivity and efficiency indicators

The gross profit margin in 2015 was 25%, indicating a high operating efficiency of the sector. Net profit margin was estimated at 17%.

The Rate of Return on Fixed Tangible Assets (RoFTA) was 25%, a decrease since 2014 and the lowest RoFTA since 2010.

GVA decreased by 3% whilst the number of FTE increased by 5% ensuring that labour productivity (GVA/FTE) decreased slightly in 2015. Despite this there is an overall improved development trend since 2008 indicating efficiency gains within the fleet.

Fuel consumption per landed tonne was relatively high at 393 litres per tonne. This indicator has followed an overall decreasing trend since 2008 with 2015 the first year to show an increase on the previous year.

Landings in weight per unit of effort (in days at sea) has followed an increasing trend since 2008 but in 2015 decreased by 7% as landings fell whilst days at sea remained static.

Performance by fishing activity

Small-scale coastal fleet

In 2015, there were 3 156 active vessels belonging to the 'small-scale coastal fleet' (vessels under 12m using passive gears). Like the UK fleet as a whole, estimates suggest the fleet remained profitable in 2015.

Weight of landings for the SSCF fell by 12% but the value of landings increased by 3% due to a strong price achieved by a number of key species.

Costs increased roughly in line with effort (days at sea) and FTE jobs as decreases in energy costs were matched by increases in other costs. GVA, gross profit and net profit in 2015 were estimated at €70 million, €20 million and €6.3 million, respectively. GVA increased 16%, gross profit remained stable and net profit decreased 20%.

In the past couple of years, vessels included in the small coastal fleet have benefitted from a reallocation of quota from the over 10m sector to the under 10m sector and the introduction of marine conservation zones in England, Wales and Northern Ireland and marine protected areas in Scotland.

Large-scale fleet

In 2015, there were 1 420 vessels belonging to the 'large-scale fleet' (all vessels using active gears and vessels over 12m using passive gears). The fleet remained profitable overall although gross profit decreased by 14% as the weight of landings and value of landings decreased by 6% and 1% respectively and costs increased by 5%.

Energy costs decreased by 24% but this was negated by significant increases in other costs such as wages and salaries of crew, repair and maintenance costs and other variable costs. Total costs excluding rights costs were estimated to be €783 million.

GVA decreased by 4% to €497 million while gross profit decreased by 14% and net profit by 22% to €258 million and €183 million respectively.

The large-scale fleet is extremely diverse and it needs to be taken into account that profitability can be driven by a relatively small number of larger vessels targeting pelagic and certain demersal species. Two thirds of the different DCF segments actually recorded an improved net profit margin in 2015 compared to 2014.

Performance results of selected fleet segments

The UK fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the Bering Sea, North Sea, West of Scotland and English Channel and Western Approaches. These overlapping areas of interest make it difficult to provide a simple explanation of fleet structures across the UK. For example, the Scottish fleet has moved toward higher capacity vessels that can cover large sea areas and catch several hundred tonnes of fish per trip whilst a greater proportion of the English fleet is engaged in inshore areas remaining economically viable by catching smaller quantities of more valuable fish.

Pelagic trawlers (>40m)

This fleet is made up of 28 large-scale trawlers, responsible for more than half of the total weight of fish landed by the UK fishing fleet in 2015. This volume of fish equated to more than 35% of the total value of landings with the segment making

a net profit of €77 million in 2015. Whilst this segment has been consistently profitable, in 2015 economic performance declined compared to the previous year with much lower landings linked to quota reductions.

These vessels generally operate out of Scottish ports and target pelagic species in the North Sea and West of Scotland. Mackerel and herring are the two main species landed by the UK fleet, accounting for 88% by weight and 93% by value of total pelagic landings in 2015. Mackerel is by far the most expensive pelagic fish and prices were at a record high in 2011 but have since fallen. The average price of herring has also fallen as volume of landings has increased.

More than half of the pelagic species caught by the UK fishing fleet are landed abroad with Norway and the Netherlands the main locations.

Pot and traps (<10m)

This fleet is a main employer for the UK fishing fleet with 1 190 FTEs generated in 2015. There are 1 739 vessels in the segment although around 730 of these vessels would be termed as low activity (annual landings less than £10 000).

Excluding the lower activity vessels, whelks account for the majority of the weight of landings however higher priced lobster species are more important to the fleet in terms of value. Lobsters had the highest average price of all species landed by the UK fleet in 2015.

The fleet as a whole made a net loss in 2015 however if you once more exclude the low activity vessels from consideration then the fleet remained profitable. For these higher activity vessels, landings weight and fishing income decreased by 8% and 7% respectively whilst net profit decreased by 6%. Net profit margin remained stable at around 11%.

Demersal trawlers and seiners

This segment represented 18% (821 vessels) of the total UK fishing fleet in 2015. It landed 24% (167 thousand tonnes) of the total weight and 37% (€398 million) of the total value of landings of the UK fishing fleet. Of particular importance are the 171 vessels between 18 and 24 m and the 86 vessels between 24 and 40 m with net profits of €16.7 million and €39.5 million respectively in 2015. Together these two segments generate 25% of total UK fleet FTEs and €144 million in GVA.

The fleet targets a variety of species but in particular the demersal species, such as monkfish, cod, haddock and whiting, and the shellfish species, Norway lobster. The fleet received higher prices for a number of key species in 2015 yet profitability declined as total costs rose.

There are however differences in the economic performance of vessels in this fleet operating in different areas of UK waters. For example, *Nephrops* trawlers operating mainly in Area VIIA saw profitability increase in 2015 whilst those operating in the West of Scotland and the North Sea tended to see profits decrease.

Drivers affecting the economic performance trends

Similar to 2014, the fleet benefitted from higher average fish prices for a number of prominent species and significantly lower energy costs thanks to a decline in the price of marine grade diesel that began in 2014 and continued through the year. However, the fleet did not have the same access to additional quota for key pelagic species and therefore overall profitability decreased compared to 2014.

It should be noted that profitability in 2015 was still strong relative to the rest of the time series and that net profit was 17% higher than any other year in the time series excluding 2014 and that it was 37% higher than 2013.

There were, however, some fleets that saw a reduction in profitability as fishing opportunities reduced due to deterioration in the stock status. With a fleet as diverse as the UK fishing fleet it is difficult to define main drivers of economic performance as different factors will have varying levels of impact on different fleets.

Markets and Trade (including fish price)

Generally, shellfish and demersal species are the most valuable, reaching average prices approximately three times higher than those of pelagic species. The overall average price per tonne landed for the UK fleet increased by 7% in 2015 however price decreases for key pelagic species prevented this having a significant impact on fleet profitability.

Atlantic mackerel is a key species for the UK fishing fleet representing 21% of total landings by value and 35% by weight therefore the average price per tonne received for the species will significantly impact on overall fleet performance. In 2015 the average landed price (real) fell 9% from €979 per tonne to €888 per tonne which when combined with a 14% decrease in the weight of landings meant the value of landings of Atlantic mackerel fell by over €60 million.

Eight of the top ten species landed by the UK fleet by value actually saw the average price per tonne increase in 2015 compared to 2014 (by over 30% in the case of herring). However, lower landings by weight and lower prices for other species, in particular Atlantic mackerel, meant that these higher prices did not drive increased profitability for the UK fishing fleet in 2015.

Management instruments and regulation (policy)

The fleet is managed mainly through TACs and quotas, together with a range of input controls. The highest profile regulation is the landing obligation which is being phased in over a number of years.

There was no obvious economic impact of the landing obligation observed in the first two years of implementation (2015-2016). In general, the pelagic fishery was not expected to be affected too much, as in most of the cases fish is not sorted

at sea and usually landed directly to processing plants where sorting takes place. Due to the phasing of the landing obligation in demersal fisheries there hasn't been any major issues recorded yet but this may change when it starts to include the main potential choke stocks.

Restrictions on effort have been set in certain areas with the introduction of a number of marine conservation zones in England, Wales and Northern Ireland and marine protected areas in Scotland. In addition, sole and cod recovery zones as well as limitations to activity in the Western Waters have been in place since the early years of the 21st century.

Stock status, TACs and quotas

Total initial available quota for the UK fleet in 2015 was 859 thousand tonnes.

In 2014 the large increase in quota for Atlantic mackerel was the main driver of increased economic performance and in 2015 the subsequent decrease in quota was a key driver for overall fleet performance. The total decrease in live weight landings for the entire fleet from 2014 to 2015 was 50 000 tonnes, landings of Atlantic mackerel alone decreased by 40 000 tonnes largely as a result of this quota decrease. It should be noted that despite this decrease the 2015 quota for Atlantic mackerel was still considerably higher than in 2013 and that total live weight of landings for the species were 50% higher.

Key demersal species Atlantic cod and haddock both saw quota increases of over 50% yet total live weight of landings remained largely static.

Operating costs (external factors)

For a huge percentage of the UK fleet fuel costs are perceived to be one of the key drivers for economic performance. From mid-2014 there has been a significant decline in the price of marine grade diesel with the average price in 2015 estimated at 35 pence per litre, a 30% decrease from 2014. Despite a 1% increase in effort the total energy costs for the UK fleet decreased 24% to €135 million.

Despite energy costs falling, total operating costs increased by 6% as wages and salaries of crew increased 10% (even as the value of landings remained static) and repair and maintenance costs and other variable costs increased by 13% and 19% respectively.

Reduced energy costs helped the UK fleet maintain strong profitability in 2015 despite the challenge of rising costs.

Innovation and Development

With the landing obligation being phased in, the need for innovation and development of new types of gear technology has become more important than ever before. From mesh panels to strategically placed lights, there are various different methods for reducing bycatch being trialled and it is clear that there won't be a simple 'one size fits all' solution. Investing in innovation would appear to be necessary for the continued survival of the industry but achieving these improvements must be balanced with the economic realities of the situation with many vessel owners unable to access the required capital. If the gear has not been approved by the government, it can be a lengthy process and depending on the scale of alterations could incur significant costs.

Participants in the recent Seafish strategic intentions survey expressed an inability to make long-term plans due to a climate of uncertainty linked to changes in regulation amongst other things. This focus on day-to-day operations, whilst necessary for the survival of a large number of vessels, can hinder innovation and development.

Social impact

The increase in average price per tonne has impacted on the activities of processing companies in the UK. With perceived increased competition between companies for raw materials many have acted to secure their supply by either strengthening relationships with vessel owners to outright purchasing fishing vessels. This can be a mutually beneficial relationship as it both secures supply for the processor and provides security for the fishers when they come to sell their catch.

Projections for 2016 and outlook

MODEL FORECAST

Preliminary results for 2016 forecast a 1% decrease in landed weight, with a 4% increase in landed value. Projections suggest operating costs decrease, most notably energy costs which are estimated to decrease by 20% due to the continued low fuel prices. Together with a reduction in capital costs (due to lower interest rate), fostered further economic performance improvements in 2016: GVA (+13%), gross profit (+22%) and net profit (+38%).

Results indicate that the UK fleet operated at a profit in 2016: with an estimated net profit margin of 22% and gross profit margin of 29%. Positive economic developments can also be seen in performance indicators GVA to revenue (+9%) and GVA per FTE, estimated at €78 thousand in 2016 (+11%).

The 2016 gains are maintained in 2017 as increased landings (+5% compared to projected 2016 figures) are counteracted by low prices, resulting in just a 2% increase in value. With fuel costs also increasing in 2017 (+12%), the fleet remains profitable with gross and net profit margins of 28% and 23%, respectively. However, the net indicators may be somewhat biased by negative estimated opportunity costs.

Data issues

No major issues detected. In 2017 some changes were made to segmentation in order to provide a more relevant picture of fleet performance and the methodology used to estimate data on capital values was updated. As a result of these changes values and figures may differ from previous reports.

The reader should note that UK fleet revenues and costs do not include trade in quota. Quota trades take two forms; transfer in perpetuity and transfers for a defined period, usually one year – generally called leasing. There are two components within each of these. First, there is windfall accruing to those enjoying the initial allocation of the resource in 1999 and secondly the normal capital gain or loss arising on the transfer of the asset. Only the latter should be included in the accounts used in this report. However, it is impossible to identify the contribution of each component, but as the proportion of the total value is declining with each transfer of the original allocation, the problem will disappear as time goes by. Initially, however, the windfall component will be by far the greater proportion and hence for the time being omission of transfers limits any distortion of the fleet profitability figures.

Table 5.108 United Kingdom: National fleet statistics and economic performance results by fishing activity. *projections

		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**	Trend 2008-2017	Δ2015 to 2014	Δ2015 to avg. 08-14
Total number of vessels	(#)	6,973	6,780	6,715	6,595	6,543	6,502	6,436	6,420	*4,607*	4,589		0%	-3%
Number of Inactive vessels_ms	(#)	2,074	1,942	1,941	1,797	1,781	1,872	1,871	1,844	*1,769*			-1%	-3%
Vessel tonnage	(thousand GT)	220.9	213.1	220.9	209.1	204.0	204.0	203.3	200.3				-1%	-5%
Engine power	(thousand kW)	891.9	860.8	866.6	836.3	818.2	818.3	815.0	805.4				-1%	-5%
Total employed	(person)	12,614	12,212	12,703	12,405	12,445	12,235	11,845	12,107	*12,125*	12,060		2%	-2%
FTE	(#)	8,720	9,573	9,222	8,995	8,604	7,689	7,737	8,135	*8,248*	8,155		5%	-6%
Days at sea	(thousand day)	456.2	433.3	429.2	420.0	411.6	401.3	428.2	431.3	*425.9*	420.1		1%	1%
Fishing days	(thousand day)	377.5	348.4	343.2	337.3	337.2	323.4	325.1	304.0				-6%	-11%
Number of fishing trips	(thousand)	201.6	231.3	229.5	230.8	231.3	227.0	226.5	219.2				-3%	-3%
Energy consumption	(million litre)	319.7	310.3	308.8	283.8	280.9	268.0	283.0	278.7	*280.9*	292.5		-2%	-5%
Live weight of landings	(thousand tonne)	575.0	582.8	608.4	603.7	634.4	628.5	758.9	708.8	*698.6*	736.6		-7%	13%
Value of landings	(million €)	932.7	880.3	938.7	1,026.8	1,010.6	887.8	1,072.1	1,067.9	*1,114.5*	1,132.9		0%	11%
Income from landings	(million €)	951.5	872.7	938.1	1,021.1	990.9	887.0	1,072.2	1,068.0	*1,114.6*	1,132.9		0%	11%
Other income	(million €)	32.1	25.5	29.1	26.6	41.4	41.3	47.6	45.7	*44.3*	43.2		-4%	31%
Direct income subsidies	(million €)	-	-	-	-	-	-	-	-					
Income from leasing fishing rights	(million €)	0.7	4.5	5.1	1.8	4.0	3.6	6.0	11.0				83%	198%
Wages and salaries of crew	(million €)	245.6	226.0	216.4	227.6	232.9	201.8	254.5	278.8	*291.0*	295.3		10%	22%
Unpaid labour value	(million €)	14.9	13.8	12.4	12.3	12.7	10.0	11.6	10.8	*11.4*	10.8		-7%	-14%
Energy costs	(million €)	214.6	142.2	163.0	191.7	203.8	176.7	177.0	135.2	*107.6*	120.6		-24%	-25%
Repair & maintenance costs	(million €)	95.7	91.7	89.6	92.9	87.3	76.2	109.4	124.1	*123.0*	118.9		13%	35%
Other variable costs	(million €)	169.1	157.9	151.3	173.5	167.1	152.6	177.9	212.4	*213.3*	223.1		19%	29%
Other non-variable costs	(million €)	88.1	83.1	130.6	126.4	114.1	109.8	70.8	74.9	*74.1*	72.7		6%	-27%
Annual depreciation costs	(million €)	74.3	68.8	67.8	71.2	66.4	66.6	71.4	75.4	*75.2*	73.2		5%	8%
Rights costs	(million €)	31.0	38.0	30.5	35.8	35.1	41.4	35.3	52.1				48%	48%
Opportunity cost of capital	(million €)	6.1	6.9	0.4	- 8.8	- 5.1	- 2.7	4.0	13.9	*3.8*	- 9.3		248%	13230%
Tangible asset value (replacement)	(million €)	700.0	607.2	640.4	565.0	496.5	486.4	632.2	797.1	*739.1*	712.5		26%	35%
Fishing rights	(million €)	1,041.8	1,044.5	1,041.9	1,224.9	1,395.2	1,030.6	1,334.2	1,802.0				35%	55%
Investments	(million €)	52.8	73.8	106.3	49.8	59.4	100.0	83.8	102.1				22%	36%
Financial position	(%)	53.6	56.9	47.9	41.8	46.6	28.8	27.7	28.1				1%	-35%
Gross Value Added	(million €)	416.2	423.3	432.6	463.2	460.0	413.0	584.7	567.1	*640.9*	640.7		-3%	24%
GVA to revenue	(%)	42.3	47.1	44.7	44.2	44.6	44.5	52.2	50.9	*55.3*	54.5		-2%	12%
Gross profit	(million €)	155.6	183.5	203.8	223.3	214.4	201.2	318.6	277.5	*338.5*	334.7		-13%	29%
Gross profit margin	(%)	15.8	20.4	21.1	21.3	20.8	21.7	28.4	24.9	*29.2*	28.5		-12%	17%
Net profit	(million €)	75.2	107.8	135.7	160.9	153.2	137.3	243.1	188.2	*259.5*	270.8		-23%	30%
Net profit margin	(%)	7.6	12.0	14.0	15.4	14.8	14.8	21.7	16.9	*22.4*	23.0		-22%	18%
GVA per FTE (labour productivity)	(thousand €)	47.7	44.2	46.9	51.5	53.5	53.7	75.6	69.7	*77.7*	78.6		-8%	31%
Return on fixed tangible assets	(%)	11.6	18.9	21.2	26.9	29.8	27.7	39.1	25.4	*35.6*	36.7		-35%	1%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).
Number of vessels in 2016 and 2017 include active vessels only.

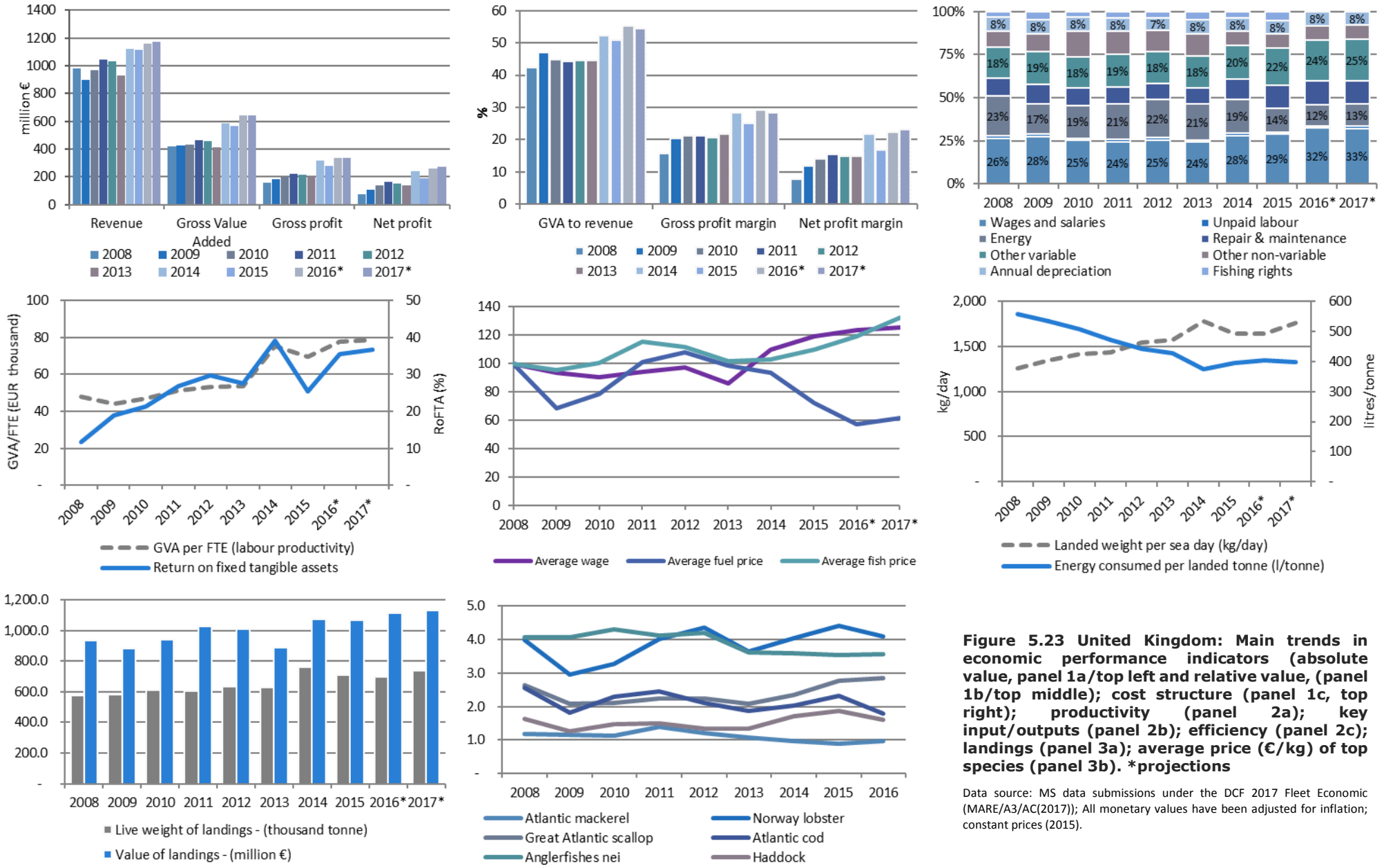


Figure 5.23 United Kingdom: Main trends in economic performance indicators (absolute value, panel 1a/top left and relative value, (panel 1b/top middle); cost structure (panel 1c, top right); productivity (panel 2a); key input/outputs (panel 2b); efficiency (panel 2c); landings (panel 3a); average price (€/kg) of top species (panel 3b). *projections

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.109 United Kingdom: National fleet statistics and economic performance results by fishing activity. *projections

		SCF										Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14	LSF									Trend 2008-2017	Δ2015 to 2014	Δ2015to avg. 08-14
		2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**				2008	2009	2010	2011	2012	2013	2014	2015	*2016**	*2017**			
Total number of vessels	(#)	3,271	3,256	3,277	3,338	3,320	3,205	3,149	3,156	*3,227*	*3,177*		0%	-3%	1,628	1,582	1,497	1,460	1,442	1,425	1,416	1,420	*1,380*	*1,412*		0%	-5%
Vessel tonnage	(thousand GT)	13.6	13.3	13.3	13.5	13.2	13.0	13.5	13.0				-4%	-2%	185.0	179.7	190.9	176.9	177.3	172.4	170.2	169.6				0%	-5%
Engine power	(thousand kW)	195	195	194	200	198	198	196	194				-1%	-1%	554	533	547	516	513	505	499	495				-1%	-5%
FTE	(#)	1,816	2,014	2,045	2,063	1,839	1,794	2,036	2,089	*2,023*	*1,986*		3%	7%	6,904	7,559	7,177	6,933	6,764	5,895	5,701	6,046	*6,225*	*6,170*		6%	-10%
Total employed	(person)	5,372	5,567	5,927	5,998	5,688	5,863	5,737	5,732	*5,884*	*5,768*		0%	0%	7,242	6,645	6,776	6,407	6,757	6,372	6,108	6,375	*6,242*	*6,292*		4%	-4%
Days at sea	(thousand day)	239.5	221.1	224.8	228.2	221.3	215.4	238.8	244.5	*233.9*	*229.7*		2%	8%	216.7	212.3	204.4	191.7	190.3	185.9	189.4	186.7	*192.0*	*190.4*		-1%	-6%
Fishing days	(thousand day)	183.5	158.1	159.8	166.1	169.6	160.8	163.3	147.3				-10%	-11%	194.1	190.2	183.5	171.2	167.6	162.6	161.8	156.7				-3%	-11%
Number of fishing trips	(thousand)	99.3	127.1	131.0	135.2	134.4	128.9	131.7	125.8				-4%	-1%	102.3	104.3	98.4	95.6	96.9	98.2	94.8	93.4				-2%	-5%
Energy consumption	(million litre)	29.5	27.3	28.4	27.4	30.7	27.3	31.9	32.3	*31.2*	*30.7*		1%	12%	290.2	283.0	280.4	256.4	250.2	240.6	251.1	246.4	*249.6*	*261.8*		-2%	-7%
Live weight of landings	(thousand tonne)	40.1	39.2	42.7	44.6	48.9	50.7	50.3	44.3	*49.6*	*44.3*		-12%	-2%	534.9	543.7	565.7	559.2	585.5	577.7	708.5	664.5	*648.9*	*692.3*		-6%	14%
Value of landings	(million €)	133.7	110.3	119.5	123.4	128.1	116.3	129.2	132.8	*142.0*	*131.9*		3%	8%	799.0	769.9	819.2	903.4	882.5	771.6	943.0	935.1	*972.5*	*1,001.0*		-1%	11%
Income from landings	(million €)	134.1	109.1	118.0	119.6	129.1	115.4	129.2	132.8	*142.0*	*131.9*		3%	9%	817.5	763.6	820.1	901.5	861.9	771.6	943.0	935.2	*972.5*	*1,001.0*		-1%	11%
Other income	(million €)	6.8	3.2	4.2	4.5	6.0	5.5	6.8	4.1	*4.3*	*4.3*		-40%	-22%	25.3	22.3	24.9	22.1	35.4	35.8	40.8	41.6	*40.0*	*38.9*		2%	41%
Direct income subsidies	(million €)	-	-	-	-	-	-	-	-						-	-	-	-	-	-	-	-					
Income from leasing fishing rights	(million €)	-	0.2	0.1	0.0	0.0	0.0	0.1	0.3				475%	449%	0.7	4.3	5.1	1.8	4.0	3.6	5.9	10.6				79%	194%
Wages and salaries of crew	(million €)	43.4	31.2	34.0	31.0	35.0	32.9	37.6	40.8	*43.7*	*40.5*		9%	16%	202.2	194.8	182.4	196.5	197.9	169.0	216.9	238.0	*247.3*	*254.8*		10%	23%
Unpaid labour value	(million €)	13.0	11.8	10.6	10.8	11.1	8.8	10.3	9.1	*9.7*	*9.0*		-12%	-17%	2.0	2.0	1.8	1.4	1.6	1.2	1.3	1.7	*1.7*	*1.7*		31%	6%
Energy costs	(million €)	19.8	12.5	15.0	18.5	22.3	18.0	20.0	15.7	*12.0*	*12.7*		-22%	-13%	194.8	129.7	148.0	173.2	181.5	158.7	157.0	119.5	*95.7*	*107.9*		-24%	-27%
Repair & maintenance costs	(million €)	11.3	7.5	9.0	10.5	10.2	8.2	9.2	10.2	*10.6*	*10.6*		11%	9%	84.4	84.2	80.6	82.4	77.1	68.0	100.3	113.8	*112.4*	*108.3*		14%	38%
Other variable costs	(million €)	20.3	19.1	20.0	27.2	27.6	25.8	27.6	28.2	*27.5*	*27.0*		2%	18%	148.7	138.8	131.2	146.3	139.5	126.7	150.2	184.2	*185.7*	*196.2*		23%	31%
Other non-variable costs	(million €)	12.4	11.0	14.0	10.0	12.4	10.8	11.5	13.2	*13.6*	*13.7*		15%	12%	75.7	72.1	116.6	116.4	101.7	99.0	59.3	61.7	*60.5*	*59.1*		4%	-33%
Annual depreciation costs	(million €)	11.1	9.9	7.9	8.1	10.6	10.6	11.3	11.8	*12.2*	*12.2*		4%	18%	63.2	58.9	59.9	63.1	55.8	56.0	60.1	63.6	*63.0*	*61.0*		6%	7%
Rights costs	(million €)	0.1	0.0	1.2	0.6	0.1	0.5	0.1	0.2				73%	-33%	30.9	38.0	29.2	35.2	35.0	40.9	35.1	51.9				48%	48%
Opportunity cost of capital	(million €)	0.8	0.9	0.0	- 1.2	- 0.8	- 0.5	0.6	1.6	*0.5*	- *1.3*		187%	5620%	4.7	5.4	0.3	- 6.8	- 3.8	- 2.0	3.2	11.4	*3.3*	- *8.1*		260%	8530%
Tangible asset value (replacement)	(million €)	92.6	80.1	81.2	77.1	79.6	93.1	90.4	93.8	*96.7*	*97.3*		4%	11%	540.3	471.5	509.6	436.8	367.4	359.5	500.1	652.5	*642.4*	*615.2*		30%	43%
Fishing rights	(million €)	99.4	93.6	92.1	100.8	87.2	74.4	97.3	108.1				11%	17%	865.9	884.1	887.1	1,061.4	1,230.9	901.7	1,170.3	1,561.0				33%	56%
Investments	(million €)	1.1	11.7	15.9	8.3	16.7	25.1	16.1	9.5				-41%	-30%	51.7	62.1	90.5	41.5	42.6	74.9	67.7	92.6				37%	50%
Gross Value Added	(million €)	77.0	62.3	64.1	57.9	62.5	58.0	67.7	69.6	*82.6*	*72.3*		3%	8%	339.1	361.0	368.5	405.3	397.5	355.0	517.1	497.5	*558.2*	*568.5*		-4%	27%
GVA to revenue	(%)	54.7	55.4	52.5	46.6	46.3	48.0	49.8	50.8	*56.5*	*53.0*		2%	1%	40.2	45.9	43.6	43.9	44.3	44.0	52.6	50.9	*55.1*	*54.7*		-3%	13%
Gross profit	(million €)	20.7	19.2	19.5	16.0	16.4	16.4	19.8	19.7	*29.2*	*22.7*		0%	8%	134.9	164.3	184.4	207.3	198.0	184.8	298.8	257.8	*309.3*	*312.0*		-14%	31%
Gross profit margin	(%)	14.7	17.1	15.9	12.9	12.2	13.6	14.5	14.4	*20.0*	*16.7*		-1%	0%	16.0	20.9	21.8	22.4	22.1	22.9	30.4	26.4	*30.5*	*30.0*		-13%	18%
Net profit	(million €)	8.8	8.4	11.5	9.1	6.7	6.3	7.9	6.3	*16.5*	*11.7*		-20%	-25%	67.0	100.0	124.2	151.0	146.0	130.8	235.5	182.8	*243.0*	*259.1*		-22%	34%
Net profit margin	(%)	6.2	7.5	9.4	7.3	4.9	5.2	5.8	4.6	*11.3*	*8.6*		-20%	-31%	8.0	12.7	14.7	16.4	16.3	16.2	23.9	18.7	*24.0*	*24.9*		-22%	21%
Return on fixed tangible assets	(%)	10.4	11.7	14.3	10.3	7.4	6.2	9.3	8.5	*17.6*	*10.7*		-9%	-15%	13.3	22.3	24.4	33.0	38.7	35.8	47.7	29.8	*38.3*	*40.8*		-38%	-3%
GVA per FTE (labour productivity)	(thousand €)	42.4	30.9	31.4	28.1	34.0	32.3	33.2	33.3	*40.9*	*36.4*		3%	0%	49.1	47.8	51.3	58.5	58.8	60.2	90.7	82.3	*89.7*	*92.1*		51%	67%

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.110 United Kingdom: National fleet statistics and economic performance results by fleet segment, 2015

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2015)	Net profit margin %Δ 2015 - average (2008-14)	Economic development trend	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)				
GBR A27 TM40XX °	28	55	2,069	120	380,912	277,443	278,750	168,523	60.5	101,798	36.5	76,563	27.47	1,216.7	3,073.0	27.3	High	6%	Improved	25.0%
GBR A27 DTS2440	86	909	17,602	604	72,135	165,040	173,475	89,239	51.4	49,493	28.5	39,488	22.76	43.7	98.1	63.4	High	77%	Improved	15.6%
GBR A27 DTS1824	171	1,087	28,260	859	42,426	108,375	113,965	54,507	47.8	27,744	24.3	16,741	14.69	24.6	50.1	20.3	Reasonable	40%	Improved	10.2%
GBR A27 FPO0010	1,739	1,190	168,193	813	25,453	77,200	79,323	39,123	49.3	8,076	10.2	- 42	- 0.05	26.1	32.9	1.7	Weak	-101%	Deteriorated	7.1%
GBR A27 DTS1218 °	208	818	29,495	967	17,590	54,466	55,962	25,208	45.0	11,156	19.9	6,900	12.33	17.2	30.8	29.7	Reasonable	13%	Improved	5.0%
GBR A27 DTS40XX °	10	137	2,008	583	26,513	44,747	53,784	20,073	37.3	8,841	16.4	7,055	13.12	81.7	146.0	15.9	Reasonable	-7%	Deteriorated	4.8%
GBR A27 TBB2440 °	33	365	6,767	1,551	16,783	45,659	50,581	19,442	38.4	6,992	13.8	2,886	5.70	34.1	53.3	28.6	Weak	303%	Improved	4.5%
GBR A27 FPO1218	81	358	12,709	503	15,246	32,872	34,715	17,665	50.9	7,736	22.3	5,104	14.70	27.8	49.4	52.8	Reasonable	68%	Improved	3.1%
GBR A27 DRB1218	114	312	13,992	550	17,153	31,497	32,909	15,342	46.6	7,782	23.6	4,751	14.44	24.2	49.2	25.7	Reasonable	9%	Improved	3.0%
GBR A27 HOK2440 °	13	263	3,143	596	8,301	30,983	31,127	14,619	47.0	5,042	16.2	2,837	9.11	36.4	55.6	41.3	Weak	161%	Improved	2.8%
GBR A27 DRB2440 °	31	307	6,307	645	13,266	28,614	29,076	14,115	48.5	5,696	19.6	3,900	13.41	27.4	45.9	51.7	Reasonable	-20%	Deteriorated	2.6%
GBR A27 FPO1012	166	378	25,115	394	9,574	26,836	27,463	16,896	61.5	9,401	34.2	7,095	25.84	19.8	44.7	52.4	High	48%	Improved	2.5%
GBR A27 DFN2440 °	16	272	3,590	405	5,324	16,656	19,167	10,769	56.2	5,644	29.4	4,057	21.17	18.8	39.6	54.0	High	64%	Improved	1.7%
GBR A27 DRB1824	25	160	4,660	513	10,645	17,395	17,672	8,441	47.8	3,340	18.9	2,094	11.85	31.9	52.7	17.5	Reasonable	-25%	Deteriorated	1.6%
GBR A27 TBB1824	18	132	4,334	1,169	4,758	15,971	17,165	8,313	48.4	3,592	20.9	2,786	16.23	35.8	63.0	33.3	Reasonable	167%	Improved	1.5%
GBR A27 FPO1824 °	14	155	3,442	330	7,824	15,604	16,479	8,902	54.0	4,189	25.4	2,860	17.36	30.4	57.4	32.7	Reasonable	29%	Improved	1.5%
GBR A27 DTS0010	257	290	21,362	865	4,794	15,233	15,351	6,643	43.3	1,536	10.0	562	3.66	17.6	22.9	6.1	Weak	-51%	Deteriorated	1.4%
GBR A27 DFN0010	622	175	23,803	676	4,016	12,753	13,074	5,891	45.1	618	4.7	- 793	- 6.06	30.2	33.7	- 4.4	Weak	-195%	Deteriorated	1.2%
GBR A27 DTS1012	89	164	9,523	974	3,387	10,746	11,026	4,812	43.6	2,200	20.0	1,466	13.30	15.9	29.3	24.7	Reasonable	11%	Improved	1.0%
GBR A27 HOK0010	527	216	21,387	1,256	2,274	8,312	8,527	3,725	43.7	125	1.5	- 714	- 8.38	16.7	17.3	- 6.0	Weak	-36%	Deteriorated	0.8%
GBR A27 DRB0010	105	76	6,934	764	3,299	7,488	7,975	3,460	43.4	1,417	17.8	575	7.21	26.7	45.3	12.2	Weak	136%	Improved	0.7%
GBR A27 DRB1012	32	52	3,362	676	2,628	6,612	7,015	3,293	46.9	1,906	27.2	1,205	17.18	26.5	62.9	59.0	Reasonable	74%	Improved	0.6%
GBR A27 DFN1012 °	15	75	1,864	303	2,349	4,923	5,664	3,143	55.5	1,627	28.7	1,126	19.89	20.2	41.9	28.7	Reasonable	84%	Improved	0.5%
GBR A27 MGP1218 °	37	58	3,188	222	8,263	4,913	5,454	2,110	38.7	1,018	18.7	684	12.54	18.8	36.4	63.0	Reasonable	54%	Improved	0.5%
GBR A27 TBB1218	10	38	1,372	1,549	816	2,313	2,457	927	37.7	363	14.8	219	8.91	14.8	24.3	40.6	Weak	151%	Improved	0.2%
GBR A27 MGP0010 °	30	27	2,122	317	2,272	2,061	2,201	914	41.5	266	12.1	72	3.27	24.5	34.5	9.4	Weak	-50%	Deteriorated	0.2%
GBR A27 HOK1012 °	17	34	1,534	3,768	306	1,554	1,561	290	18.6	- 192	- 12.3	- 301	- 19.30	14.0	8.4	- 76.2	Weak	4%	Stable	0.1%
GBR A27 PGP0010 °	70	22	2,623	1,078	362	1,188	1,262	506	40.1	36	2.9	- 73	- 5.78	21.5	23.2	- 4.0	Weak	-292%	Deteriorated	0.1%
GBR A27 TBB0010 °	12	10	499	1,461	163	454	473	172	36.3	22	4.7	- 3	- 0.65	15.6	17.9	- 1.5	Weak	95%	Improved	0.0%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

Table 5.111 United Kingdom: National fleet statistics and economic performance results by fleet segment, 2016*

	Total number of vessels	FTE	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue	Gross Value Added	GVA to revenue	Gross profit	Gross profit margin	Net profit	Net profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Profitability (2016)	As a % of total revenue
	(#)	(#)	(day)	(litre/tonne)	(tonne)	(thousand €)	(thousand €)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(%)	(thousand €)	(thousand €)	(%)		
GBR A27 TM40XX °	28	51	1,906	119	354,753	289,352	290,659	189,170	65.1	119,582	41.1	97,999	33.72	1,377.2	3,743.7	33	High	25.1%
GBR A27 DTS2440	87	931	18,025	559	79,795	177,428	185,963	104,581	56.2	61,850	33.3	52,520	28.24	45.9	112.3	82	High	16.0%
GBR A27 DTS1824	167	1,130	29,364	877	43,203	118,013	123,473	66,789	54.1	37,646	30.5	27,975	22.66	25.8	59.1	32	High	10.7%
GBR A27 FPO0010	1,802	1,116	157,722	702	27,669	85,047	87,247	50,077	57.4	15,875	18.2	8,118	9.30	30.7	44.9	16	Weak	7.5%
GBR A27 DTS1218 °	201	880	31,713	869	21,056	58,430	59,876	30,016	50.1	14,941	25.0	11,120	18.57	17.1	34.1	47	Reasonable	5.2%
GBR A27 TBB2440 °	33	382	7,091	1,582	17,249	52,115	57,037	27,698	48.6	13,487	23.6	9,512	16.68	37.2	72.4	89	Reasonable	4.9%
GBR A27 DTS40XX °	9	141	2,053	578	27,302	38,934	47,068	15,061	32.0	5,289	11.2	4,230	8.99	69.5	107.2	10	Weak	4.1%
GBR A27 DRB1218	110	346	15,502	653	16,015	34,300	35,662	18,210	51.1	9,977	28.0	7,286	20.43	23.8	52.7	39	High	3.1%
GBR A27 FPO1218	80	381	13,525	492	16,602	33,063	34,883	18,034	51.7	8,047	23.1	5,568	15.96	26.2	47.4	57	Reasonable	3.0%
GBR A27 HOK2440 °	14	274	3,273	562	9,161	29,518	29,671	12,864	43.4	3,740	12.6	1,459	4.92	33.3	47.0	19	Weak	2.6%
GBR A27 FPO1012	177	397	26,425	353	11,253	28,356	29,025	18,267	62.9	10,347	35.7	8,071	27.81	19.9	46.0	55	High	2.5%
GBR A27 DRB2440 °	30	293	6,004	609	13,361	26,008	26,455	12,937	48.9	5,286	20.0	3,640	13.76	26.1	44.2	49	Reasonable	2.3%
GBR A27 DFN2440 °	14	247	3,257	390	5,016	16,518	18,715	11,397	60.9	6,314	33.7	5,009	26.76	20.6	46.2	74	High	1.6%
GBR A27 DRB1824	24	163	4,738	584	9,514	18,399	18,665	10,074	54.0	4,678	25.1	3,638	19.49	33.1	61.9	29	Reasonable	1.6%
GBR A27 TBB1824	17	129	4,247	1,282	4,253	16,415	17,543	9,485	54.1	4,633	26.4	3,974	22.65	37.5	73.4	48	High	1.5%
GBR A27 FPO1824 °	15	156	3,470	319	8,157	15,969	16,906	9,350	55.3	4,527	26.8	3,225	19.08	30.9	59.9	33	Reasonable	1.5%
GBR A27 DTS0010	237	282	20,772	775	5,201	15,817	15,925	8,036	50.5	2,733	17.2	1,981	12.44	18.8	28.5	17	Reasonable	1.4%
GBR A27 DFN0010	589	176	23,981	654	4,186	11,521	11,826	5,035	42.6	272	2.3	- 914	- 7.73	27.1	28.6	- 7	Weak	1.0%
GBR A27 DTS1012	85	174	10,059	870	4,004	10,691	10,959	5,018	45.8	2,419	22.1	1,793	16.36	15.0	28.9	30	Reasonable	0.9%
GBR A27 HOK0010	527	189	18,790	932	2,693	8,806	9,020	4,894	54.3	1,080	12.0	353	3.91	20.1	25.8	4	Weak	0.8%
GBR A27 DRB0010	113	79	7,134	974	2,662	6,723	7,248	2,797	38.6	962	13.3	128	1.77	23.3	35.6	3	Weak	0.6%
GBR A27 DRB1012	31	61	3,895	994	2,069	5,855	6,246	2,390	38.3	1,163	18.6	508	8.14	20.2	39.4	25	Weak	0.5%
GBR A27 DFN1012 °	16	75	1,856	251	2,818	4,743	5,534	3,030	54.7	1,570	28.4	1,090	19.69	19.5	40.5	25	Reasonable	0.5%
GBR A27 TBB1218	24	69	2,482	2,087	1,096	3,964	4,309	1,669	38.7	703	16.3	373	8.65	14.0	24.1	28	Weak	0.4%
GBR A27 MGP1218 °	14	30	1,639	123	7,657	2,827	3,032	1,531	50.5	903	29.8	781	25.77	21.1	51.4	185	High	0.3%
GBR A27 PGP0010 °	96	26	3,171	803	587	1,760	1,862	958	51.5	262	14.1	133	7.17	26.4	36.3	8	Weak	0.2%
GBR A27 HOK1012 °	20	43	1,907	3,413	419	1,777	1,784	363	20.4	- 187	- 10.5	- 310	- 17.39	12.9	8.5	- 68	Weak	0.2%
GBR A27 TBB0010 °	31	18	934	1,233	362	1,390	1,439	878	61.0	420	29.2	358	24.86	25.5	49.0	144	High	0.1%
GBR A27 MGP0010 °	16	12	968	732	448	764	839	254	30.2	13	1.6	- 84	- 10.02	19.9	21.0	- 16	Weak	0.1%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015). * projected values

Table 5.112 United Kingdom: Landed value, weight and average price of principal species

	Value of landings (real) (thousand €)									Live weight of landings (thousand tonne)									Average landed price (real) (€)									% over total (2015)	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016	in value	in weight
Atlantic mackerel	152.0	198.5	180.9	253.2	203.2	174.9	281.8	220.2	213.3	128.0	172.3	160.7	182.2	168.8	163.8	288.0	248.0	217.6	1.2	1.2	1.1	1.4	1.2	1.1	1.0	0.9	1.0	21%	35%
Norway lobster	173.7	127.0	126.6	138.9	143.0	104.1	123.5	114.4	128.7	43.6	43.0	38.7	34.5	32.8	28.5	30.5	25.9	31.4	4.0	3.0	3.3	4.0	4.4	3.7	4.0	4.4	4.1	11%	4%
Great Atlantic scallop	58.7	57.7	65.4	67.2	77.0	65.3	67.2	79.0	80.6	22.3	27.6	30.9	30.1	34.4	31.2	28.5	28.4	28.2	2.6	2.1	2.1	2.2	2.2	2.1	2.4	2.8	2.9	7%	4%
Atlantic cod	49.6	41.3	59.1	57.1	56.2	55.4	62.2	67.5	59.4	19.3	22.5	25.8	23.2	26.5	29.6	30.7	28.9	33.0	2.6	1.8	2.3	2.5	2.1	1.9	2.0	2.3	1.8	6%	4%
Anglerfishes nei	63.0	61.4	61.9	62.6	56.6	49.4	56.9	64.2	72.2	15.4	15.1	14.4	15.2	13.5	13.6	15.9	18.2	20.3	4.1	4.1	4.3	4.1	4.2	3.6	3.6	3.5	3.6	6%	2%
Haddock	54.0	46.2	49.7	45.1	47.6	53.4	62.7	62.1	54.3	33.1	36.3	33.6	29.8	35.2	39.8	36.4	33.3	34.0	1.6	1.3	1.5	1.5	1.4	1.3	1.7	1.9	1.6	6%	5%
Edible crab	41.0	32.8	38.6	41.0	45.2	45.8	55.3	54.1	56.6	22.8	22.6	24.8	26.8	28.4	29.3	33.2	29.8	33.4	1.8	1.5	1.6	1.5	1.6	1.6	1.7	1.8	1.7	5%	5%
Atlantic herring	27.6	29.6	29.0	36.3	50.6	39.8	35.7	45.4	64.3	67.1	67.1	66.9	61.6	90.4	93.8	97.7	93.7	92.3	0.4	0.4	0.4	0.6	0.6	0.4	0.4	0.5	0.7	4%	14%
European lobster	46.0	35.0	35.4	40.5	40.2	36.1	41.9	44.8	48.4	2.7	2.8	2.8	3.2	3.2	3.0	3.4	3.1	3.3	17.1	12.5	12.9	12.6	12.7	12.1	12.3	14.3	14.8	4%	0%
European hake	15.9	20.0	16.4	18.1	22.7	27.3	32.2	40.4	41.1	6.1	7.9	6.9	8.0	8.4	9.0	11.3	12.7	14.3	2.6	2.5	2.4	2.3	2.7	3.0	2.9	3.2	2.9	4%	2%
																												74%	76%

Data source: MS data submissions under the DCF 2017 Fleet Economic (MARE/A3/AC(2017)); All monetary values have been adjusted for inflation; constant prices (2015).

6 AER REPORT METHODOLOGY

Background

The data used to compile the various analyses contained within the report were collected under the Data Collection Framework (DCF), cf. Council regulation (European Commission (EC) No 199/2008 of 25th February 2008).

The 2017 data call for economic data on the EU fishing fleet for EU Member States was the ninth data call requested under the DCF. This year's fishing fleet economic data call was issued by DG MARE on the 31 January 2017 with a one-month deadline (28 February 2017).

The 2017 data call requested transversal and economic data for the years 2008 to 2015/2016. Capacity data were requested up to and including 2016, while employment and economic parameters were requested up to and including 2015.

Days at sea, fishing days, landings in value and weight were requested up to and including 2016, as well as, income from landings (all non-mandatory) to allow for economic performance projections to be estimated at fleet segment and national level for 2016.

The table below outlines all the DCF economic and transversal variables to be submitted for the years 2008-2015/16, along with their uploading acronyms and corresponding aggregation levels. All the various definitions for variables, aggregation levels, gear types, length classes, DCF supra regions, FAO sub regions, species, sampling strategies and precision levels can be found by navigating through the data collection website.

See https://datacollection.jrc.ec.europa.eu

DCF Variables Requested

Table 6.1 2015 DCF Fleet economic data call contents for years 2008-2015/16

Variable group	Variable	Years	Aggregation level
Fishing Enterprises	Enterprises consisting of 1 vessel	2008 - 2016	Yearly, by 1) National totals
	Enterprises consisting of 2-5 vessels	2008 - 2016	
	Enterprises consisting of > 5 vessels	2008 - 2016	
Employment	Number of engaged crew	2008 - 2015	Yearly, by 1) Fleet segment, Supra-region, 2) National totals
	FTE national	2008 - 2015	
	FTE harmonised	2008 - 2015	
Income	Income from landings	2008 – 2016*	Yearly, by 1) Fleet segment, Supra-region, 2) National totals
	Income from fishing rights	2008 - 2015	
	Direct subsidies	2008 - 2015	
	Other income	2008 - 2015	
Costs	Crew wages	2008 - 2015	Yearly, by 1) Fleet segment, Supra-region, 2) National totals
	Value of unpaid labour	2008 - 2015	
	Energy costs	2008 - 2015	
	Repair and maintenance costs	2008 - 2015	
	Other variable costs	2008 - 2015	
	Other non-variable costs	2008 - 2015	
	Rights costs	2008 - 2015	
	Annual depreciation costs	2008 - 2015	
Capital and Investments	Vessel replacement value	2008 – 2015	Yearly, by 1) Fleet segment, Supra-region, 2) National totals
	Value of fishing rights	2008 - 2015	
	In-year investments	2008 - 2015	
	Financial position	2008 - 2015	
	Vessel historical value**	2008 - 2015	
Capacity	Number of vessels	2008 - 2016	Yearly, by 1) Fleet segment, Supra-region, 2) National totals
	Mean length overall	2008 - 2016	
	Total GT	2008 - 2016	
	Total kW	2008 - 2016	
	Mean age	2008 - 2016	
	Number of vessels by region	2008-2015	Yearly, by 1) Fleet segment, Supra-region, Region (level 2)

Variable group	Variable	Years	Aggregation level
Effort	Fishing days	2008 – 2016*	Yearly, by 1) National Totals, 2) Fleet segment, Supra-region, FAO Area level 4 (Baltic), GFCM-GSA (Mediterranean & Black Sea), FAO Area level 3 (All other regions), and 3) (2) + gear type
	kW fishing days	2008 – 2015	
	GT fishing days	2008 – 2015	
	Hours at sea***	2008 – 2015	Yearly, by 1) Fleet segment, Supra-region, FAO Area level 4 (Baltic), GFCM-GSA (Mediterranean & Black Sea), FAO Area level 3 (All other regions)
	GT hours at sea***	2008 – 2015	
	kW hours at sea***	2008 – 2015	
	Days at sea	2008 – 2016*	Yearly, by 1) Fleet segment, Supra-region, FAO Area level 4 (Baltic), GFCM-GSA (Mediterranean & Black Sea), FAO Area level 3 (All other regions) 2) National Totals
	Number of trips	2008 – 2015	Yearly, by 1) Fleet segment, Supra-region, 2) National totals
	Energy Consumption	2008 - 2015	
	Maximum days at sea ***	2008-2015	Yearly, by 1) Fleet segment, Supra-region
Landings	Weight of landings per species	2008 – 2016*	Yearly, by 1) Fleet segment, Supra-region, FAO Area level 4 (Baltic), GFCM-GSA (Mediterranean & Black Sea), FAO Area level 3 (All other regions), and gear type 2) National Totals
	Value of landings per species	2008 – 2016*	
Recreational Catches	Weight of catch	2008-2016	Yearly, by Region (level 2)

* 2016 data not mandatory but requested from MS wherever possible in order to estimate economic projections for 2016. These data, if provided, are flagged as preliminary in the 2017 Annual Fleet Economic Report and corresponding data tables.

** Optional

***Non-mandatory under the DCF

Concepts, Terms and Definitions

Revenue

Revenue – the value of production (sale of landed seafood products) and income generated from the use of the vessel in other, non-commercial fishing activities, such as recreational fishing, transport, tourism, oil rig duty, research, etc., may also include insurance payment for gear damage/loss /vessel. Income from direct subsidies and fishing rights are excluded.

Gross Value Added (GVA)

Gross Value Added - net output of a sector after deducting intermediate inputs from all outputs. It is a measure of the contribution to GDP made by an individual producer, industry or sector. The Gross Value Added indicator calculated in this report is similar, but does not fully correspond to the Value added at factor cost of the Structural Business Statistics.

GVA to Revenue

Gross value added to revenue ratio - indicates the share of revenue that contributes to the economy through factors of production (returns to labour and returns to capital). Indicator is calculated as the ratio between gross value added and revenue and expressed as a percentage.

Gross profit

Gross profit – the normal profit after accounting for operating costs, excluding capital costs. Also referred to as gross cash flow, i.e. the flow of cash into and out of a sector or firm over a period of time.

Gross profit margin (%)

Gross profit margin - a measure of profitability that can be used to analyse how efficiently a sector is using its inputs to generate profit. Calculated as the ratio between gross profit and revenue. Expressed as a percentage.

Gross profit margin indicates the normal profitability of a firm and is of most interest to fishers as it represents the share of income they are left with at the end of the year. For managers, it may be used as an indication of the viability of an industry in terms of its commercial profitability by measuring the share of cash coming in and out of an industry. A high gross profit margin indicates that the sector has a low-cost operating model; reflects efficiency in turning inputs into outputs. A low percentage value can indicate a low margin of safety, i.e. a higher risk that declines in production or increases in costs may result in a net loss, or negative profit margin.

Net profit

Net profit is the difference between revenue and explicit costs and opportunity costs. Explicit costs include all operational costs, such as wages, energy, repair and other variable and non-variable costs. Net profit differs from gross profit in that it includes depreciation and opportunity costs of capital. It measures the efficiency of a producer in society's view by evaluating the total costs of inputs (excluding natural resource costs) in comparison to outputs or revenue.

Economic profit is the primary indicator of economic performance and is often used as a proxy of resource rent in fisheries. Economic profits emerge as the excess of revenue over the opportunity cost of producing the good. Also referred to as supernormal or abnormal profits. Abnormal profits in a sector is an incentive for other firms to enter the industry (if they can). Zero or a negative profit margin may indicate high competition in the sector and can be used as one of the indicators of overcapacity.

Net profit margin (%)

Economic profit margin - a measure of profitability after all costs have been accounted for, and reflects the percentage of revenue that a sector retains as profit. It measures the relative performance of the sector compared to other activities in the economy and provides an indication of the sector's operating efficiency as it captures the amount of surplus generated per unit of production.

Labour productivity (GVA/FTE):

Labour productivity - defined as output per unit of labour. Calculated as Gross Value Added (measure of output) by full-time equivalent (FTE) employment (unit of labour input). Labour productivity can be used as a measure of economic growth, competitiveness, and living standards within a sector. An increase in labour productivity indicates that a unit of input labour is producing more output or that the same amount of output is being produced with fewer units of labour. Labour productivity may also provide an indicator of worker's wellbeing or living standards, assuming that increases in productivity are matched by wage increases.

Capital productivity

Capital productivity - the return of the investment divided by the cost of the investment, also referred to as ROI (Rate on Investment). It measures profits in relation to capital invested, i.e. indicates how profitable a sector is relative to its total assets. The higher the return, the more efficient the sector is in utilising its asset base.

As data on intangible assets (e.g. fishing rights, natural resource) are not always available in fisheries, the Return on Fixed Tangible Assets (ROFTA) is used as an approximation of ROI.

Economic performance indicator calculations

From the data submitted by Member States, indicators were calculated in order to assess the economic performance of fleet segments, national fleets, regional fleets and the EU fleet as a whole.

In order to account for inflation over the given time-period, all nominal values (i.e., the actual price in a given year) were converted to real values before estimating indictors.

For this conversion from nominal to real values, a Consumer Price Index (CPI) 'deflator' for each MS was applied to nominal values. Annual CPI data from taken from Eurostat's time-series of harmonised CPI http://epp.eurostat.ec.europa.eu/portal/page/portal/hicp/data/database (Table 6.2).

$$Real\ value_{\ i} = \frac{Nominal\ value_i}{\frac{CPI_i}{CPI_{2015}}}$$

where i represents the year for which the nominal value is converted into 2015 real value

All values in this report are therefore given in real 2015 EUR, rather than nominal EUR.

Table 6.2 Harmonised index of consumer prices (HICP) by EU Member State, 2008-2016

	2008	2009	2010	2011	2012	2013	2014	2015	2016
BEL	90.00	89.99	92.09	95.18	97.68	98.90	99.38	100.00	101.77
BGR	91.55	93.81	96.66	99.94	102.33	102.72	101.08	100.00	98.68
DNK	91.20	92.10	94.10	96.60	98.90	99.40	99.80	100.00	100.00
DEU	91.90	92.10	93.20	95.50	97.50	99.10	99.90	100.00	100.40
EST	85.45	85.62	87.96	92.43	96.33	99.46	99.93	100.00	100.80
IRL	99.50	97.80	96.20	97.40	99.20	99.70	100.00	100.00	99.80
GRC	93.55	94.81	99.27	102.36	103.42	102.54	101.11	100.00	100.02
ESP	92.41	92.19	94.08	96.94	99.31	100.83	100.63	100.00	99.66
FRA	92.34	92.44	94.05	96.20	98.33	99.31	99.91	100.00	100.31
HRV	89.56	91.56	92.55	94.59	97.76	100.04	100.26	100.00	99.37
ITA	90.40	91.10	92.60	95.30	98.40	99.70	99.90	100.00	99.90
CYP	92.55	92.71	95.09	98.40	101.45	101.84	101.57	100.00	98.78
LVA	91.14	94.11	92.96	96.88	99.09	99.11	99.79	100.00	100.10
LTU	87.69	91.34	92.43	96.24	99.28	100.44	100.68	100.00	100.68
MLT	88.33	89.95	91.79	94.10	97.13	98.08	98.84	100.00	100.90
NLD	90.32	91.20	92.05	94.32	96.99	99.47	99.79	100.00	100.11
POL	86.80	90.30	92.70	96.30	99.80	100.60	100.70	100.00	99.80
PRT	92.78	91.95	93.22	96.54	99.22	99.65	99.50	100.00	100.64
ROU	78.33	82.70	87.73	92.84	95.98	99.04	100.41	100.00	98.93
SVN	91.13	91.92	93.85	95.81	98.50	100.39	100.76	100.00	99.85
FIN	87.89	89.32	90.83	93.85	96.81	98.96	100.16	100.00	100.39
SWE	92.83	94.63	96.43	97.75	98.66	99.10	99.30	100.00	101.14
GBR	84.70	86.60	89.40	93.40	96.10	98.50	100.00	100.00	100.70

HICP (2015 = 100) - annual data (average index and rate of change) Source: Eurostat[26]

[26] Starting with the release of January 2016 data, the reference year of the HICP changed to 2015=100. The change of reference year caused revisions to a number of previously published inflation rates because of rounding effects. Thus, inflation rates for European and country aggregates calculated from the 2015=100 series can differ from the rates calculated from the 2005=100 series.

For economic performance calculations relating to the years 2008-2016, the following formulas were used:

Total Income:

Total Revenue = Income from landings + income from fishing rights + other income + direct subsidies

Revenue:

Revenue = Income from landings + other income

Gross Value Added (GVA):

GVA = Income from landings + other income – energy costs – repair costs – other variable costs – non variable costs

Net Value Added (NVA):

NVA = Income from landings + other income – energy costs – repair costs – other variable costs – non variable costs – depreciation cost – opportunity cost of capital

Gross Profit (GRP):

GRP = Income from landings + other income – crew costs – unpaid labour - energy costs – repair and maintenance costs – other variable costs – non variable costs

Net Profit/Loss:

Net Profit = Income from landings + other income – crew costs – unpaid labour - energy costs – repair costs – other variable costs – non variable costs – depreciation cost – opportunity cost of capital

Where opportunity cost of capital = fixed tangible asset value * real interest

Where real interest (r) = [(1 + i)/ (1 + π)] -1.

Where i is the nominal interest rate of the Member State in the year concerned and π is the inflation rate of the Member State in the year concerned. See Table 6.3.

Rate of Return on Fixed Tangible Assets (RoFTA):

RoFTA = (net profit + opportunity cost of capital) / tangible asset value (vessel depreciated replacement value)

Rate of Return on Investment (RoI):

RoI = (net profit + opportunity cost of capital) / capital asset value

Where net profit is calculated as:

Net Profit = Income from landings + other income + income from fishing rights – crew costs – unpaid labour - energy costs – repair costs – other variable costs – non variable costs – fishing rights costs – depreciation cost – opportunity cost of capital

And capital asset value as:

Capital asset value = vessel depreciated replacement value + estimated value of fishing rights

Break-even revenue (BER):

BER = (Fixed costs + opportunity costs of capital +depreciation) / (1-(crew costs + unpaid labour + energy costs + repair and maintenance costs + other variable costs)/Revenue)

Revenue to Break-even Revenue Ratio (CR/BER):

CR/BER = revenue / break-even revenue = Income from landings + other income / BER

CR/BER gives an indication of the short-term profitability of the fleet/fleet segment (or over/under capitalised): if the ratio is greater than 1, then enough cash flow is generated to cover fixed costs (economically viable in the short term). If the ratio is less than 1, insufficient cash flow is generated to cover fixed costs (indicating that the segment is economically unviable in the short to mid-term).

Table 6.3 Inflation and nominal LT interest rates by EU Member State 2008-2016

	Inflation									Interest rate								
MS	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016
BEL	4.5	0	2.3	3.4	2.6	1.2	0.5	0.6	1.8	4.42	3.90	3.46	4.23	3.00	2.41	1.71	0.84	0.48
BGR	12	2.5	3	3.4	2.4	0.4	-1.6	-1.1	-1.3	5.38	7.22	6.01	5.36	4.50	3.47	3.35	2.49	2.27
CYP	4.4	0.2	2.6	3.5	3.1	0.4	-0.3	-1.5	-1.2	4.60	4.60	4.60	5.79	7.00	6.50	6.00	4.54	3.77
DEU	2.8	0.2	1.2	2.5	2.1	1.6	0.8	0.1	0.4	3.98	3.22	2.74	2.61	1.50	1.57	1.16	0.50	0.09
DNK	3.6	1.1	2.2	2.7	2.4	0.5	0.3	0.2	0.0	4.29	3.59	2.93	2.73	1.40	1.75	1.33	0.69	0.32
ESP	4.1	-0.2	2	3.1	2.4	1.5	-0.2	-0.6	-0.3	4.37	3.98	4.25	5.44	5.85	4.56	2.72	1.73	1.39
EST	10.6	0.2	2.7	5.1	4.2	3.2	0.5	0.1	0.8	8.16	7.98	5.97	:	:				0.37
FIN	3.9	1.6	1.7	3.3	3.2	2.2	1.2	-0.2	0.4	4.29	3.74	3.01	3.01	1.89	1.86	1.45	0.72	0.00
FRA	3.2	0.1	1.7	2.3	2.2	1	0.6	0.1	0.3	4.23	3.65	3.12	3.32	2.54	2.20	1.67	0.84	0.47
GBR	3.6	2.2	3.3	4.5	2.8	2.6	1.5	0.0	0.7	4.50	3.36	3.36	2.87	1.74	2.03	2.14	1.78	1.22
GRC	4.2	1.3	4.7	3.1	1	-0.9	-1.4	-1.1	0.0	4.80	5.17	9.09	15.75	22.50	10.05	6.93	9.67	8.36
HRV	5.8	2.2	1.1	2.2	3.4	2.3	0.2	-0.3	-0.6	6.04	7.83	6.29	6.54	6.13	4.68	4.05	3.55	3.49
IRE	3.1	-1.7	-1.6	1.2	1.9	0.5	0.3	0.0	-0.2	4.53	5.23	5.74	9.60	6.17	3.79	2.37	1.18	0.74
ITA	3.5	0.8	1.6	2.9	3.3	1.3	0.2	0.1	-0.1	4.68	4.31	4.04	5.42	5.49	4.32	2.89	1.71	1.49
LTU	11.1	4.2	1.2	4.1	3.2	1.2	0.2	-0.7	0.7	5.61	14.00	5.57	5.16	4.83	3.83	2.79	1.38	0.90
LVA	15.3	3.3	-1.2	4.2	2.3	0.0	0.7	0.2	0.1	6.43	12.36	10.34	5.91	4.57	3.34	2.51	0.96	0.53
MLT	4.7	1.8	2	2.5	3.2	1	0.8	1.2	0.9	4.81	4.54	4.19	4.49	4.13	3.36	2.61	1.49	0.89
NLD	2.2	1	0.9	2.5	2.8	2.6	0.3	0.2	0.1	4.23	3.69	2.99	2.99	1.93	1.96	1.45	0.69	0.29
POL	4.2	4	2.7	3.9	3.7	0.8	0.1	-0.7	-0.2	6.07	6.12	5.78	5.97	5.00	4.03	3.52	2.70	3.04
PRT	2.7	-0.9	1.4	3.6	2.8	0.4	-0.2	0.5	0.6	4.52	4.21	5.40	10.24	10.55	6.29	3.75	2.42	3.17
ROU	7.9	5.6	6.1	5.8	3.4	3.2	1.4	-0.4	-1.1	7.70	9.69	7.34	7.29	6.68	5.41	4.48	3.47	3.32
SVN	5.5	0.9	2.1	2.1	2.8	1.9	0.4	-0.8	-0.2	4.61	4.38	3.83	4.97	5.81	5.81	3.27	1.71	1.15
SWE	3.3	1.9	1.9	1.4	0.9	0.4	0.2	0.7	1.1	3.89	3.25	2.89	2.61	1.59	2.12	1.72	0.72	0.54

Annual average rate of change (%) HICP - Inflation rate – Source: Eurostat

http://epp.eurostat.ec.europa.eu/portal/page/portal/hicp/data/main_tables

Harmonised long-term interest rates for convergence assessment purposes - Source: ECB

http://www.ecb.int/stats/money/long/html/index.en.html

Economic Performance Indicator Classifications

Development trend

The development trend, calculated as the change between 2015 and the average value 2008-2014, for the economic performance indicators analysed, such as GVA, gross profit, net profit and GVA/FTE were classified as High, Reasonable or Weak according to the criteria in Table 6.4.

Table 6.4 Development trend classification

Development - change 2015/2008-2014 average	
>5%	Improved
-5% - 5%	Stable
< -5%	Deterioration

Based on: Pavel, AER 2005

Profitability

Profitability, as net profit (or net profit as a % of income, where income includes income from the sale of fish and other non-fishing income and excludes direct income subsidies and income from fishing rights) was classified as *High*, *Reasonable* or *Weak* according to the criteria in Table 6.5.

Table 6.5 Profitability classification

Profitability: Net profit margin in 2015		
>10%	High	Profitability is good and segment is generating a good amount of resource rent
0-10%	Reasonable	Segment is profitable generating some resource rents
<0%	Weak	The segment is making losses; economic overcapacity

Disaggregation of economic data

Fleet economic data cannot be collected at higher resolution than defined in the DCF. Only landings (value and weight) and effort data (days at sea, fishing days, etc.) are provided by Member States at the sub-region level by fleet segment. Therefore, the correlation with transversal data is the only viable way for disaggregating economic data at the sea basin level (Baltic Sea, North Sea, NE Atlantic, Mediterranean & Black Sea and Other Fishing Regions).

Several assumptions can be made based on correlations between transversal and economic data, which were previously examined during the PGECON workshop in Hamburg 2012. However, these analyses are still preliminary and considered as work in progress. PCEGON (2013) strongly recommended a study on the disaggregation that delivers a comprehensive analysis of different approaches and methods, while also addressing the availability of individual data which varies by MS.

This year, an effort based approach was used to disaggregate economic data. Seeing that the methodology is still to be validated, this exploratory exercise set out to estimate the economic performance indicators at the sea basin level by MS and fleet segment.

For this exercise, transversal and economic data by fleet segment were disaggregated based on either the number of active vessels in a region, value of landings or effort (days at sea), as:

(1) Number of vessels in region (N_{Reg}) – used to estimate fleet capacity, non-variable costs and capital costs (annual depreciation and opportunity costs of capital)
(2) Value of landings (VaL) – used to allocate income from landings;
(3) Effort in days at sea (DAS) – used to allocate all variable costs, including labour, energy, repair & maintenance, and fuel consumption. DAS was also used to estimate the number of vessels when N_{Reg} was not available.

The number of vessels operating in each region (N_{Reg}) was again requested in the 2016 data call. However, not all Member States were able to provide this information.

In cases where N_{Reg} was not available, the estimated number of vessels in the region (N_{Reg*}) was calculated based on DAS and using the total number of vessels (N_{tot}), as:

$$N_{\mathrm{Re}g^*} = \frac{DAS_{\mathrm{Re}g}}{\sum DAS_{\mathrm{Re}g}} \times N_{Tot}$$

When available, the number of vessels operating in a given region (N_{Reg}) was used to disaggregate other capacity variables (GT and kW), as:

Gross tonnage (GT): $GT_{reg} = \frac{N_{\mathrm{Re}g}}{\sum N_{\mathrm{Re}g}} \times GT_{Tot}$, if N_{Reg} is missing, $GT_{reg} = \frac{GT_{Tot}}{N_{Tot}} \times N_{\mathrm{Re}g^*}$

Engine power (kW): $kW_{\mathrm{Re}g} = \frac{N_{\mathrm{Re}g}}{\sum N_{\mathrm{Re}g}} \times kW_{Tot}$, if N_{Reg} is missing, $kW_{reg} = \frac{kW_{Tot}}{N_{Tot}} \times N_{\mathrm{Re}g^*}$

The number of vessels in the region was also used to disaggregate employment, *other income* (OInc), *non-variable costs* and capital costs (*opportunity cost of capital* and *annual depreciation*), as:

Total employed (JOB): $JOB_{reg} = \frac{N_{\mathrm{Re}g}}{\sum N_{\mathrm{Re}g}} \times JOB_{Tot}$

If N_{Reg} is missing, $JOB_{\mathrm{Re}g}(OInc) = \frac{N_{\mathrm{Re}g^*}}{N_{Tot}} \times JOB_{tot}$

Other income as: $Other\ \ Income_{\mathrm{Re}g}(OInc) = \frac{N_{\mathrm{Re}g}}{\sum N_{\mathrm{Re}g}} \times OInc_{tot}$

If N_{Reg} is missing, $Other\ \ Income_{\mathrm{Re}g}(OInc) = \frac{N_{\mathrm{Re}g^*}}{N_{Tot}} \times OInc_{tot}$

Opportunity cost of capital as:

$$Opportunity\ \ Cost\ \ of\ \ Capital\ _{\mathrm{Re}g}(OPC) = \frac{N_{\mathrm{Re}g}}{\sum N_{\mathrm{Re}g}} \times OPC_{tot}$$

If N_{Reg} is missing,

$$Opportunity\ Cost\ of\ Capital_{\mathrm{Re}g}(OPC) = \frac{N_{\mathrm{Re}g^*}}{N_{Tot}} \times OPC_{tot}$$

Annual Depreciation costs as:

$$Annual\ \ Depreciation\ Costs_{\mathrm{Re}g}(DEP) = \frac{N_{\mathrm{Re}g}}{\sum N_{\mathrm{Re}g}} \times DEP_{tot}$$

If N_{Reg} is missing,

$$Annual\ \ Depreciation\ Costs_{\mathrm{Re}g}(DEP) = \frac{N_{\mathrm{Re}g^*}}{N_{Tot}} \times DEP_{tot}$$

Income from Landings was disaggregated based on the value of landings (VaL) in the region and the total value of landings for the fleet segment multiplied by Income:

Income from landings:

$$Landings\ \ Income\ _{\mathrm{Re}g}(LInc) = \frac{VAL_{\mathrm{Re}g}}{\sum VAL_{\mathrm{Re}g}} \times LInc_{Tot}$$

If N_{Reg} is missing,

$$Landings\ \ Income\ _{\mathrm{Re}g}(LInc) = \frac{VAL_{\mathrm{Re}g}}{VAL_{Tot}} \times LInc_{Tot}$$

Crew wage (CW), unpaid labour, fuel costs (FC), repair & maintenance (REP) and other variables costs (VAR) were allocated based on effort (DAS) as:

Crew wages:

$$CW_{reg} = \frac{DAS_{\mathrm{Re}g}}{\sum DAS_{\mathrm{Re}g}} \times CW_{Tot}$$

Unpaid labour costs:

$$ULab_{reg} = \frac{DAS_{\mathrm{Re}g}}{\sum DAS_{\mathrm{Re}g}} \times ULab_{Tot}$$

Fuel costs:

$$FC_{reg} = \frac{DAS_{\mathrm{Re}g}}{\sum DAS_{\mathrm{Re}g}} \times FC_{Tot}$$

Repair costs:

$$REP_{reg} = \frac{DAS_{\mathrm{Re}g}}{\sum DAS_{\mathrm{Re}g}} \times REP_{Tot}$$

Other variable costs:

$$VAR_{reg} = \frac{DAS_{\mathrm{Re}g}}{\sum DAS_{\mathrm{Re}g}} \times VAR_{Tot}$$

This method was also used to disaggregate fuel consumption.

Fuel consumption:

$$FCon_{reg} = \frac{DAS_{\mathrm{Re}g}}{\sum DAS_{\mathrm{Re}g}} \times FCon_{Tot}$$

Full Time Equivalent (FTE): $$FTE_{reg} = \frac{DAS_{Reg}}{\sum DAS_{Reg}} \times FTE_{Tot}$$

Data Limitations

Complete estimates were not possible due to fleet segments with incomplete or missing data sets submitted by MS (i.e. number of vessels by region, landings and efforts variables by sub-region).

Fleet segments for which days at sea or landings in value were not available at the sub-region level, could not be completely disaggregated. Information on these MS fleet segments is provided, when either the days at sea or landings values that were available, occurred on only one region. In all other cases, only incomplete results could be provided. This affects the entire Spanish fleet as days at sea were not available, although fishing days were and used as a proxy to days at sea. Greece is excluded due to missing DCF data on effort and landings, as well as income. Additional information to fill gaps is provided where possible.

Nowcasting economic variables

Context and background

EU Member States (MS) submitted economic and transversal (e.g. number of vessels, days at sea) data up to 2015 for the generation of the 2017 Annual Economic Report on the EU Fishing Fleet (AER), while some MS also provided transversal data for 2016. This timing and coverage has been the standard proceeding for the past several years, where submitted economic data has a two-year time lag and transversal data has a one or two-year time lag in relation to the publication date of the Annual Economic Report.

This data lag occurs because data is collected, processed and quality checked at the MS level before submission to the DCF. To have data for a particular year, for example 2015, it is necessary to wait until the end of the year (e.g. 2016) to collect it.

In order to properly inform the management of EU fisheries, the most recent information on the EU fishing fleet is required. For this requirement the lag in data processing thus presents a major challenge. To address this issue, estimates of the economic performance of the EU fishing fleet for t+1 and t+2 using 'nowcasting' techniques. This approach has been used in several editions of the AER.

The following section details the methodology used to produce the nowcasts for the 2017 AER. Much of this approach follows standard practice in nowcasting by integrating known data that has a proven relationship with the dependent variables that are being reported. For this section, 't' refers to 2015, 't+1' to 2016, and 't+2' to 2017. This typology allows the equations to take a more familiar format.

To further develop the methodology used in previous editions of the AER, different transversal variables (e.g. number of vessels, days at sea, and value of landings) were investigated by a modelling sub-group for their explanatory power of other, generally 'economic', variables that are used indicated in the report (e.g. employment, income and cost items). Where no 2016 or 2017 data were reported by MS, those explanatory variables that provided the most robust estimates were used to generate nowcasts.

For most variables, the same nowcasting methodology was used for the North-East Atlantic (A27), the Mediterranean and Black Sea (A37) and Other Fishing Regions (OFR). However, for some variables (landings weight, energy cost, other variable costs, FTE employment) different relationships were used for the A27 fleet segments to those in A37 and OFR. The reason for this divergence in methodology is that total allowable catches (TACs), a key driver for fishing behaviour in the North-East Atlantic, are reported for both t+1 and t+2. This extra information, as well as biomass estimates for t+1 for many North-East Atlantic species, are used to improve the nowcasting capacities for the North-East Atlantic. Where there was no significant difference in explanatory power between variables in the difference regions, a consistent methodology was used.

In the following section, the nowcasting relationships apply across all regions and fleet segments unless otherwise indicated. The nowcasts for A37 and OFR fleet segments were completed by the JRC directly through the DCF database, whereas the nowcasts for A27 fleet segments were completed using the BEMEF model during the AER working group meetings. This report marks the first year that the nowcasting methodology used in the different regions has been joined-up.

Nowcasting methodology

In the general case, a variable "A" in year t+1 is estimated by the same variable "A" in year t and the change variable "B" between year t and t+1, when we know the value in year t+1. Thus, the following equation is used:

$$A_{t+1} = A_t \frac{B_{t+1}}{B_t} \qquad \text{(eq. 1)}$$

Nowcasting relations

Other income

$$Other_income_{t+1} = Other_income_t \frac{Number_vessels_{t+1}}{Number_vessels_t} \qquad \text{(eq. 2)}$$

The number of vessels for 2016 and 2017 is based on the change in the *number of vessels* from one year to the other, obtained from the evolution of active vessel in the EU Fleet register. The ratio $Number_vessels_{2016}/Number_vessels_{2015}$ by country, vessel length, supra region and geo-indicator is reported in Table 6.6; while the ratio $Number_vessels_{2017}/Number_vessels_{2016}$ is reported in Table 6.7.

Repair (and maintenance) costs

$$\text{Re}\,pair_\cos ts_{t+1} = \text{Re}\,pair_\cos ts_t \frac{Number_vessels_{t+1}}{Number_vessels_t} \quad \text{(eq. 3)}$$

Other variable costs (A37 and OFR fleet segments)

$$Other_\text{var}iable_\cos ts_{t+1} = Other_\text{var}iable_\cos ts_t \frac{Number_vessels_{t+1}}{Number_vessels_t} \quad \text{(eq. 4a)}$$

Other variable costs (A27 fleet segments)

$$Other_\text{var}iable_\cos ts_{t+1} = Other_\text{var}iable_\cos ts_t \times Activity_coefficien\,t_{t+1} \quad \text{(eq. 4b)}$$

Activity coefficient (A27 fleet segments)

$$Activity_coefficien\,t_{t+1} = \sum \left(Landings_t \times \text{Pr}\,ice_{t+1} \times \theta\right) \left(\frac{TAC_{t+1}}{TAC_t}\right)^{\chi} \left(\frac{SSB_{t+1}}{SSB_t}\right)^{\gamma} \quad \text{(eq. 5)}$$

Where θ represents a fleet segment effort driver for the TACs that influence fishing activity.

Where χ represents an activity-landing flexibility rate (1/catch-effort coefficient)

Where γ represents an activity-stock flexibility rate (stock-catch coefficient/catch-effort coefficient)

Effort drivers were defined by an equal weighting of percentage catch composition and quota uptake and confirmed or adjusted by Member State experts. Stock-catch coefficients are set at 0.8 for demersal species and 0.2 for pelagic species. Catch-effort coefficients are set at 1 as a default parameter. Sustainable stock biomass (SSB) data comes from ICES stock assessments.

Non-variable costs

$$Non_\text{var}iable_\cos ts_{t+1} = Non_\text{var}iable_\cos ts_t \frac{Number_vessels_{t+1}}{Number_vessels_t} \quad \text{(eq. 6)}$$

Depreciation

$$Depreciation_{t+1} = Depreciation_t \frac{Number_vessels_{t+1}}{Number_vessels_t} \quad \text{(eq. 7)}$$

Assets value

$$Assets_value_{t+1} = Assets_value_t \frac{Number_vessels_{t+1}}{Number_vessels_t} \quad \text{(eq. 8)}$$

Landings income

$$Landings_income_{t+1} = Landings_income_t \frac{Landings_weight_{t+1}}{Landings_weight_t} \times \frac{Fish_price_{t+1}}{Fish_price_t} \quad \text{(eq. 9)}$$

Landings weight (A37 and OFR fleet segments)

$$Landings_weight_{t+1} = Landings_weight_t \frac{Number_vessels_{t+1}}{Number_vessels_t} \quad \text{(eq. 10a)}$$

Landings weight (A27 fleet segments)

$$Landings_weight_{t+1} = TAC_{t+1} \times \text{Re}lative_stability \times Quota_swaps_t \times Uptake_t + 0.2\left(\frac{Sea_days_{t+1}}{Sea_days_t}\right) Non_TAC_Landings_t \quad \text{(eq. 10b)}$$

For A37 and OFR fleet segments, the percentage change in fish prices is obtained from the Consumer Price Index on fish and seafood products reported by Eurostat. Table X.3 reports the ratio $Fish_price_{2016}$/ $Fish_price_{2015}$ by country and $Fish_price_{2017}$/ $Fish_price_{2016}$. For A27 fleet segments, the percentage change in fish prices is obtained at the species level for TAC species using data on first sale prices from EUMOFA. Relative stability is calculated from the previous year's quota allocations and quota swaps and quota uptakes are calculated from FIDES.

Energy costs (A37 and OFR fleet segments)

$$Energy_costs_{t+1} = Energy_costs_t \frac{Energy_consumption_{t+1}}{energy_consumption_t} \times \frac{Fuel_price_{t+1}}{Fuel_price_t} \quad \text{(eq. 11)}$$

$$Energy_consumption_{t+1} = Energy_consumption_t \frac{Number_vessels_{t+1}}{Number_vessels_t} \quad \text{(eq. 12a)}$$

Fuel prices are obtained from EUMOFA website. The ratio $Fuel_price_{2016}$/ $Fuel_price_{2015}$ and $Fuel_price_{2017}$/ $Fuel_price_{2016}$ by country are reported in Table 6.8.

Energy costs (A27 fleet segments)

$$Energy_consumption_{t+1} = Energy_consumption_t \times Activity_coefficient_{t+1} \quad \text{(eq. 12b)}$$

Fuel prices are obtained from EUMOFA website. The ratio $Fuel_price_{2016}$/ $Fuel_price_{2015}$ and $Fuel_price_{2017}$/ $Fuel_price_{2016}$ by country are reported in Table 6.9.

Crew costs

$$(Crew_wages_{t+1} + Unpaid_labour_{t+1}) = (Crew_wages_t + Unpaid_labour_t)\frac{Landings_value_{t+1}}{Landings_value_t}$$

(eq. 13)

$$Landings_value_{t+1} = Landings_value_t \frac{Landings_weight_{t+1}}{Landings_weight_t} \times \frac{Fish_price_{t+1}}{Fish_price_t} \quad \text{(eq. 14)}$$

Opportunity cost of capital

$$\text{Opportunity cost of capital} = \text{Assets_value x real_interest} \quad \text{(eq. 15)}$$

Where,

$$real_interest = \frac{(1+i)}{(1+\pi)} - 1 \quad \text{(eq. 16)}$$

Where i represents the (nominal) interest rate and ɲ for the inflation.

The inflation by country are obtained from the general Consumer Price Index reported by Eurostat. The nominal interest rates by country are obtained from the European Central Bank. Nominal interest rates are reported in Table 6.10; while inflation rates are reported in Table 6.11.

Employment

$$Employment_{t+1} = Employment_t \frac{Number_vessels_{t+1}}{Number_vessels_t} \quad \text{(eq. 17)}$$

FTE (A37 and OFR fleet segments)

$$FTE_{t+1} = FTE_t \frac{Number_vessels_{t+1}}{Number_vessels_t} \quad \text{(eq. 18a)}$$

FTE (A27 fleet segments)

$$FTE_{t+1} = FTE_t \times Activity_coefficient_{t+1} \quad \text{(eq. 18b)}$$

Investment

$$Investment_{t+1} = Investment_t \frac{Number_vessels_{t+1}}{Number_vessels_t} \quad \text{(eq. 19)}$$

Estimation of uncertainty

To further develop the nowcast results, an estimate of uncertainty is provided to accommodate the issue of 'false precision'. To estimate uncertainty error for variable A in year t (eA_t) for each fleet segment (f), a similar approach was

used to measuring the strength of relationships between variables. As before, 't' refers to 2015 in the 2017 AER exercise. Uncertainty is measures through the 'error margin'.

$$eA_{ft} = A_{ft-1}\frac{B_{ft}}{B_{ft-1}} \qquad \text{(eq. 20)}$$

Where,

$$eA_t = \sum eA_{ft} \qquad \text{(eq. 21)}$$

Standard deviation for each variable in 2015 was estimated by comparing the error between variable A in year t (At) and the estimated variable A in year t (eA_t) estimated for each fleet as follows.

$$Variance_t = \sum_{f=1}^{n}(eA_{ft} - A_{ft})^2 \qquad \text{(eq. 22)}$$

$$S\tan dard_deviation_t = \sqrt{Variance_t} = \sqrt{\sum_{f=1}^{n}(eA_{ft} - A_{ft})^2} \qquad \text{(eq. 23)}$$

The estimation of variable A for 2016 (year t+1) follows the general criteria

$$A_{ft+1} = A_{ft}\frac{B_{ft+1}}{B_{ft}} \qquad \text{(eq. 24)}$$

Where,

$$A_{t+1} = \sum A_{ft+1} \qquad \text{(eq. 25)}$$

The standard deviation in 2015 is used to obtain the error margin so that can be computed the upper and lower boundaries of the 2016 estimation with a 95% confidence[27]:

$$Error_m\arg in_t = 1.96\frac{s\tan dard_deviation_t}{\sqrt{n}} \qquad \text{(eq. 26)}$$

$$Error_m\arg in_{t+1} = Error_m\arg in_t\frac{A_{t+1}}{A_t} \qquad \text{(eq. 27)}$$

$$A^{+}_{t+1} = A_{t+1} + (error_m\arg in_{t+1}) \qquad \text{(eq. 28)}$$

$$A^{-}_{t+1} = A_{t+1} - (error_m\arg in_{t+1}) \qquad \text{(eq. 29)}$$

Similarly, in order to estimate the variables for 2017 (y+2), variable A in year t+2 is estimated using the following the general criteria

[2727] Instead of the 1.96 factor, for a 90% confidence interval it is used 1.645.

$$A_{ft+2} = A_{ft+1} \frac{B_{ft+2}}{B_{ft+1}} \qquad \text{(eq. 30)}$$

Where,

$$A_{t+2} = \sum A_{ft+2} \qquad \text{(eq. 31)}$$

The estimation error in 2015 is used, but accounting also for the potential 2016 estimation error, in order to obtain the upper and lower boundaries of the prediction interval for the 2017 estimation.

$$A^{+}_{t+2} = A_{t+2}((1+\frac{error_margin_{t+1}}{A_{t+1}}) \times (1+\frac{error_margin_{t+1}}{A_{t+1}} \frac{A_{t+2}}{A_{t+1}})) \qquad \text{(eq. 32)}$$

$$A^{-}_{t+2} = A_{t+2} - A^{+}_{t+2} + A_{t+2} \qquad \text{(eq. 33)}$$

Estimation and prediction intervals for indicators[28]

The (central values of) GVA, Gross profit and Net profit for 2016 (t+1) and 2017 (t+2) are calculated with the estimated values following the common formulas:

Gross value added (GVA)

GVA = Landings Income + Other Income – energy costs – Repair and maintenance costs – Other variable costs – Non-variable costs (eq. 34)

Gross profit

Gross profit is equal to the GVA minus the labour costs:

Gross profit = GVA – crew costs – unpaid labour (eq. 35)

So,

Gross profit = Landings Income + Other Income – crew costs – unpaid labour – energy costs – Repair and maintenance costs – Other variable costs – Non-variable costs (eq. 36)

Net profit

Net profit is equal to the gross profit minus the capital costs:

Net profit = Gross profit – Depreciation – Opportunity cost of capital (eq. 37)

So:

Net profit = Landings Income + Other Income – crew costs – unpaid labour – energy costs – Repair and maintenance costs – Other variable costs – Non-variable costs – Depreciation – Opportunity cost of capital (eq. 38)

[28] not included but planned for future reports

The (central values of) GVA, Gross profit and Net profit for 2016 (t+1) and 2017 (t+2) are estimated according to these formulas. While the prediction interval for 2016 (t+1) is obtained as the weighted average of the confidence interval (i.e. error margin, estimated as in equation 14) of all variables, as follows:

$$Error_margin(ind_{t+1}) = \frac{(Ind_{t+1})(((\text{Error_margin}(\text{A}_{t+1})) + (\text{Error_margin}(\text{B}_{t+1})) + ... + (\text{Error_margin}(\text{N}_{t+1})))}{(\text{A}_{t+1} + \text{B}_{t+1} + ... + \text{N}_{t+1})}$$

(eq. 39)

Where stands Ind_{t+1} for the indicator (i.e., GVA, gross profit or net profit) and $(\text{A}_{t+1} + \text{B}_{t+1} + ... + \text{N}_{t+1})$ for all variables that are used in the calculation of the indicator (e.g. Landings Income + Other Income + energy costs + Repair and maintenance costs + Other variable costs + Non-variable costs; for the calculation of GVA)

$$Ind^{+}_{t+1} = Ind_{t+1} + (error_margin(ind_{t+1})) \qquad \text{(eq. 40)}$$

$$Ind^{-}_{t+1} = Ind_{t+1} - (error_margin(ind_{t+1})) \qquad \text{(eq. 41)}$$

Instead, the prediction interval for 2017 (t+2) is obtained as follows:

$$Ind^{+}_{t+2} = Ind_{t+2}(1 + \partial_{t+2}) \qquad \text{(eq. 42)}$$

$$Ind^{-}_{t+2} = Ind_{t+2}(1 - \partial_{t+2}) \qquad \text{(eq. 43)}$$

Where ∂ is defined as:

$$\partial_{t+2} = \frac{(A_{t+2}(1 + \frac{error_margin_{t+1}}{A_{t+1}}) \times (1 + \frac{error_margin_{t+1}}{A_{t+1}} \frac{A_{t+2}}{A_{t+1}}) + B_{t+2}(1 + \frac{error_margin_{t+1}}{B_{t+1}}) \times}{(\text{A}_{t+2} + \text{B}_{t+2} + ... + \text{N}_{t+2})}$$

$$\times (1 + \frac{error_margin_{t+1}}{B_{t+1}} \frac{B_{t+2}}{B_{t+1}}) + ... + (N_{t+2}(1 + \frac{error_margin_{t+1}}{N_{t+1}}) \times (1 + \frac{error_margin_{t+1}}{N_{t+1}} \frac{N_{t+2}}{N_{t+1}})$$

(eq. 44)

Similarly, equations 37 to 42 should be used when estimating the prediction interval for the sum of different variables, for example for estimating EU or regional totals based on national totals.

Previous formulas fully developed:

eq. 39:

$$Error_margin(ind_{t+1}) = \frac{(Ind_{t+1})}{(A_{t+1} + B_{t+1} + ... + N_{t+1})}(((Error_margin(A_{t+1})) + (Error_margin(B_{t+1})) + ... + (Error_margin(N_{t+1})))$$

eq. 44:

$$\partial_{t+2} = \frac{(A_{t+2}(1 + \frac{error_margin_{t+1}}{A_{t+1}}) \times (1 + \frac{error_margin_{t+1}}{A_{t+1}} \frac{A_{t+2}}{A_{t+1}}) + B_{t+2}(1 + \frac{error_margin_{t+1}}{B_{t+1}}) \times (1 + \frac{error_margin_{t+1}}{B_{t+1}} \frac{B_{t+2}}{B_{t+1}}) + ... + (N_{t+2}(1 + \frac{error_margin_{t+1}}{N_{t+1}}) \times (1 + \frac{error_margin_{t+1}}{N_{t+1}} \frac{N_{t+2}}{N_{t+1}})}{(A_{t+2} + B_{t+2} + ... + N_{t+2})}$$

Changes to nowcasting methodology from the 2016 AER

As a result of analysing the explanatory power between variables during the AER working group meetings, some changes were made to the nowcasting methodology used in previous editions of the AER as some economic variables were found to have stronger relations than previously hypothesised. These variables include: crew cost for all fleet segments, and energy cost and other variable costs for A37 and OFR fleet segments. The analysis of explanatory power between variables also resulted in a change in the length of the base period from three years to one year. This higher level of accuracy from a one-year base period is likely due to the gradual and steady improvement in the quality of data reporting by MS.

Several additional changes were made to the BEMEF methodology for this edition of the AER. Whereas the BEMEF methodology for the 2016 AER contained estimates of additional costs and revenues from the landing obligation and quota top-ups based on initial trials, this was dropped from the methodology for this report. Reported data shows little economic impact from the landing obligation thus far and so there is little reason to complicate the estimations. TACs before top-ups were used in BEMEF as many Member States are not allocating quota through top-ups through the standard mechanisms of quota allocation but instead using the top-up quota for specific purposes. The fish prices used in BEMEF, while still from EUMOFA, have changed from import/export prices to price of first sale as more data is now available at this stage in the supply chain. The source of fuel prices was changed from the EIA to EUMOFA so as to better align the sources used for the different regions. Lastly, non-TAC landings were changed from a constant amount to a weak correlation (see previous section) with days-at-sea.

Table 6.6 Variation in the number of vessels from 2015 to 2016 (Vessels 2016 / Vessels 2015)

Country	SupraReg	GeoInd	VL0006	VL010	VL612	VL1012	VL1218	VL1824	VL2440	VL40XX
BEL	ATL					0.00	1.00	0.97	0.97	
BGR	MED		1.00		1.00		1.07	0.94	1.00	
CYP	MED		0.91		0.82		1.09	0.67	0.88	
DEU	ATL			0.96		0.98	0.97	1.01	1.00	1.06
DNK	ATL			0.98		0.97	0.93	0.94	0.88	1.00
ESP	ATL			0.98		0.96	0.97	0.95	0.93	0.92
ESP	OFR			0.97		1.00	1.00	1.00	0.97	1.00
ESP	MED		0.92		0.98		0.98	0.98	0.98	1.00
EST	ATL			1.02		1.00	1.00	0.83	1.05	1.00
FIN	ATL			0.85		0.85	0.88	0.93	1.00	1.00
FRA	ATL			0.98		0.99	0.98	0.98	1.01	1.00
FRA	OFR			0.90		0.90	0.90	0.85	0.00	1.00
FRA	MED		1.01		1.01		0.94	0.97	0.98	1.00
GBR	ATL			1.03		0.99	0.99	0.98	0.98	0.94
GRC	MED		0.98		0.99		0.98	0.95	0.88	1.00
HRV	MED		1.03		1.00		1.00	0.93	0.97	1.00
IRL	ATL			1.00		1.00	1.01	0.93	0.98	0.89
ITA	MED		0.99		1.00		0.99	0.98	0.93	1.00
LTU	ATL			1.09		1.00	1.00	1.33	1.00	1.22
LVA	ATL			0.98		0.90	0.92	1.00	1.00	1.22
MLT	MED		0.99		1.00		0.88	1.03	0.89	
NLD	ATL			1.01		1.00	1.00	1.00	0.99	0.97
POL	ATL			1.00		1.03	0.99	1.02	1.00	1.00
PRT	ATL			1.01		1.02	0.94	1.04	0.98	0.94
PRT		AZO		0.90		0.86	0.91	0.50	0.80	
PRT		MAD		0.97		1.00	1.00	1.00	1.33	
ROU	MED		0.83		0.93		1.18	1.00	1.50	
SVN	MED		0.98		0.98		1.00			
SWE	ATL			0.98		0.98	0.99	0.95	0.91	1.00

Source: Number of active vessels reported in the EU Fleet register at the first of January.

Table 6.7 Variation in the number of vessels from 2016 to 2017 (Vessels 2017 / Vessels 2016)

Country	SupraReg	GeoInd	VL0006	VL010	VL612	VL1012	VL1218	VL1824	VL2440	VL40XX
BEL	ATL						0.67	0.91	1.00	
BGR	MED		1.00		1.00		1.07	0.94	1.00	
CYP	MED		1.04		1.04		1.08	1.50	1.00	
DEU	ATL			0.98		0.99	0.99	1.00	1.00	1.00
DNK	ATL			0.97		0.88	0.94	0.92	1.00	1.00
ESP	ATL			0.99		1.00	0.98	1.01	0.99	0.99
ESP	OFR			0.98		0.98	1.00	1.00	1.06	0.93
ESP	MED		0.92		0.98		0.99	1.00	0.99	1.00
EST	ATL			1.01		1.00	1.00	1.00	1.00	1.00
FIN	ATL			1.15		1.00	1.03	0.93	0.95	1.50
FRA	ATL			0.99		0.99	0.97	0.97	1.03	1.00
FRA	OFR			1.00		1.05	1.00	0.93		1.00
FRA	MED		0.97		0.99		0.97	1.03	0.98	0.88
GBR	ATL			1.01		1.01	1.01	0.97	0.98	0.94
GRC	MED		0.98		0.99		1.00	1.00	1.00	1.00
HRV	MED		1.53		0.69		0.93	0.96	1.00	0.00
IRL	ATL			0.98		1.01	1.01	1.02	1.03	1.00
ITA	MED		0.99		1.00		1.00	1.00	1.00	1.00
LTU	ATL			0.99		1.00	1.00	1.00	1.00	1.00
LVA	ATL			1.00		1.00	1.00	1.00	0.88	1.09
MLT	MED		0.91		0.91		0.90	1.00	1.00	
NLD	ATL			1.03		1.06	1.07	0.98	0.99	1.02
POL	ATL			0.99		0.95	0.74	1.00	1.00	1.25
PRT	ATL			0.93		0.95	0.96	1.00	1.00	1.07
PRT		AZO		0.94		0.94	0.85	1.00	1.20	
PRT		MAD		1.79		1.25	0.78	0.67	0.13	
ROU	MED		1.30		1.01		1.00	1.00	1.00	
SVN	MED		1.02		1.03		0.92			
SWE	ATL			0.97		0.95	0.96	1.00	0.87	0.91

Source: Number of active vessels reported in the EU Fleet register at the first of January.

Table 6.8 Variation in the fish and seafood price from 2015 to 2016 (e.g. Prices 2016 / Prices 2015) and from 2016 to 2017

	2016/2015	2017/2016
Belgium	1.08	1.02
Bulgaria	1.00	0.99
Croatia	1.03	1.00
Cyprus	1.02	1.02
Denmark	1.02	1.06
Estonia	1.06	1.09
Finland	1.08	1.12
France	1.04	1.05
Germany	1.03	1.04
Greece	1.01	1.00
Ireland	1.00	1.01
Italy	1.03	1.02
Latvia	1.03	1.09
Lithuania	1.04	1.04
Malta	1.04	1.04
Netherlands	1.03	1.09
Poland	1.04	1.04
Portugal	1.01	1.02
Romania	0.97	1.01
Slovenia	1.00	1.05
Spain	1.04	1.04
Sweden	1.05	1.04
United Kingdom	0.98	1.11
Total average	1.03	1.04

Source: Fish and seafood prices from Eurostat's Consumer Price index

Note: For A27 fleet segments, first sale prices by species and country are used from EUMOFA. The resulting is too large to include as a supplementary table.

Table 6.9 Change in fuel prices from 2015 to 2016 (e.g. Prices 2016 / Prices 2015) and from 2016 to 2017

	2016/2015	2017/2016
BEL	0.81	1.21
BGR*	0.80	1.13
CYP	0.76	1.04
DEU	0.78	1.14
DNK	0.80	1.15
ESP	0.79	1.07
EST	0.78	1.15
FIN	0.80	1.11
FRA	0.84	1.11
GBR	0.80	1.10
GRC*	0.80	1.13
HRV	0.80	1.13
IRL	0.84	1.10
ITA	0.81	1.14
LTU	0.78	1.16
LVA	0.78	1.16
MLT	0.80	1.17
NLD	0.81	1.21
POL	0.79	1.17
PRT	0.80	1.12
ROU*	0.80	1.13
SVN	0.80	1.09
SWE	0.79	1.16
EU average	0.80	1.13

*Fuel price data not reported for that country, so EU average is used instead.
Source: Fuel prices from the EUMOFA website

Table 6.10 Inflation (%)

	2016	2017
Belgium	1.77	2.0
Bulgaria	-1.32	0.8
Croatia	-0.63	1.7
Cyprus	-1.22	1.2
Denmark	0	1.4
Estonia	0.8	2.8
Finland	0.39	1.5
France	0.31	1.5
Germany	0.4	1.9
Greece	0.02	1.3
Ireland	-0.2	0.9
Italy	-0.1	1.4
Latvia	0.1	1.9
Lithuania	0.68	2.1
Malta	0.9	1.6
Netherlands	0.11	1.4
Poland	-0.2	2.0
Portugal	0.64	1.3
Romania	-1.07	1.6
Slovenia	-0.15	1.1
Spain	-0.34	1.9
Sweden	1.14	1.7
United Kingdom	0.7	2.5

Source: Harmonised Indices of Consumer Prices (HICP) from Eurostat (Available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=prc_hicp_mmor&lang=en) 2017 estimates from: European Commission. 2017. European Economic Forecast - Winter 2017. EUROPEAN ECONOMY Institutional Paper 048. Directorate-General for Economic and Financial Affairs. https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/winter-2017-economic-forecast_en#economic-forecast-by-country

Table 6.11 Nominal interest rate evolution for the period 2015-17 (%)

	2015	2016	2017
Belgium	0.84	0.48	0.80
Bulgaria	2.49	2.27	1.75
Croatia	3.55	3.49	2.85
Cyprus	4.54	3.77	3.28
Denmark	0.69	0.32	0.42
Estonia	1.17	0.72	0.62
Finland	0.72	0.37	0.48
France	0.84	0.47	0.92
Germany	0.50	0.09	0.28
Greece	9.67	8.36	6.86
Ireland	1.18	0.74	0.97
Italy	1.71	1.49	2.24
Latvia	0.96	0.53	0.92
Lithuania	1.38	0.90	0.31
Malta	1.49	0.89	1.37
Netherlands	0.69	0.29	0.51
Poland	2.70	3.04	3.58
Portugal	2.42	3.17	3.81
Romania	3.47	3.32	3.85
Slovenia	1.71	1.15	0.99
Spain	1.74	1.39	1.61
Sweden	0.72	0.54	0.63
United Kingdom	1.79	1.22	1.16

Source: European Central Bank. Harmonised long-term interest rates. Percentages per annum; period averages; secondary market yields of government bonds with maturities of close to ten years.

7 DCF DATA COVERAGE AND QUALITY

Data quality and coverage checking procedures – AER Exercise

Quality and Coverage checking procedures on the data submitted under the 2017 fleet economic data call

Although the quality and coverage of the fleet economic data reported under the Data Collection Framework (DCF) are a responsibility of the EU Member States, JRC has undertaken quality and coverage checking procedures on the data submitted, some carried out during the data uploading phase and some afterwards. The quality and coverage of the data has also been checked by national fisheries experts during the STECF EWG 17-01 meeting on the 2017 Annual Economic Report of the EU fishing fleet which took place in Dublin, during the week 3 to 7 April 2017.

Fleet data submitted under the 2017 fleet economic data and to be used for the present report have been checked in four subsequent steps. This section provides a synthetic description of each of them. More information of the quality and coverage checking procedures undertaken on DCF fleet data are available in the JRC technical report available at:

http://datacollection.jrc.ec.europa.eu/

Step 1- Data checks before and during uploading procedure to the JRC/DCF database

Several data checks are already embedded in the excel templates which the Member States are required to use for uploading data on their national fleets. In specific cells of these files, the data entry is restricted to certain records (e.g. acceptable codes, value types and ranges) through an embedded Data Validation Tool (DVTool). This tool consists in a set of macros developed in Visual Basic for Applications (VBA) which allow the MS to detect possible errors in the data before submission.

Furthermore, during the data uploading procedure, a number of automatic syntactic checks are carried out on the data before it is accepted by the DCF database hosted by JRC. Syntactic checks are carried out without any specific knowledge of what the data contains or its meaning. They tell if the data is present or not and in the correct format. These checks automatically reject data that do not confirm to specific restrictions, such as ensuring textual data is validated against defined parameters lists (e.g. Species types and FAO code). In addition, numeric data are checked to make sure they contain numbers and not strings. Member States receive immediate feedback when attempting to upload their data submissions.

Step 2 - Results of the data quality checks/analyses are assessed by JRC experts

Once the datasets with the fleet data are successfully uploaded by the Member States, JRC produces different analyses on the data submitted in order to facilitate the assessment of its quality and coverage. Some of these analyses are presented in interactive online dashboards created using the software Tableau. The same software is also used for analyses not specifically related to data quality, i.e. analyses on the structure and economic performance of the EU Fleets and overviews of the uploading status of DCF fleet data.

All the analyses performed by JRC in Tableau are available in interactive online dashboards, which are refreshed every morning and are accessible (only after authentication), on the following link:

https://datacollection.jrc.ec.europa.eu/da/fleet/data-and-quality

Besides developing the checks and analyses, JRC experts actively participate in the analysis of their results. All quality issues (e.g. inconsistencies, outliers and missing data) concerning the data submitted, identified through the analyses performed in Tableau or with manual checks are listed by JRC in excel files, one for each MS, including the most relevant information concerning the problems identified (e.g. description of the problem, structural and economic indicators affected and assessed impact on the analyses of the Annual Economic Report), together with comments and actions recommended by JRC to solve the issues.

Step 3 – National correspondents receive a list of data transmission issues and may resubmit revised data

The excel files listing the data quality issues (and including JRC experts' comments and opinions on the action to undertake) are sent to the national correspondents (each national correspondent receives information only about the country he/she represents).

MS are requested to consider the potential anomalies listed in the excel file, amend and re-submit the data as necessary. They are also requested to go over the quality analyses performed in order to detect additional (if any) problems and add them to the list. Finally, they are asked to provide feedback (i.e. whether or not the problem has been resolved, which actions have been taken and possible comments) in designated columns of the excel file.

Step 4 – The quality and coverage of the data have been checked by the STECF Expert Working Groups

In addition to being analysed by JRC's experts, the quality and coverage of fleet data submitted under the DCF is also checked by national fisheries experts during the STECF EWGs meetings. Data submitted under the 2017 fleet economic data call has been checked during the EWG meeting 17-01 which took place during the week 3 – 7 April 2017.

Data for each country are analysed by two experts. At the beginning of the meeting, the experts received the excel files with the list of data transmission issues of the MS assigned to them, which also included for each specific issue comments by JRC and feedback sent by the MS. MS have been contacted whenever an inconsistency was found and the expert attending the meeting could not solve it by resubmitting data. Furthermore, all experts have been given access to the tableau dashboards. This has allowed them to visualise changes in the data whenever the MS have uploaded revised data during the meeting or submitted new templates.

The comments provided by the experts are added in designated columns of the excel files and used to decide on the exclusion of part of the data submitted from the analyses of the AERs, due to data coverage or quality issues.

Data issues

In terms of the completeness of the Member States data submissions, most countries submitted the majority of the parameters requested under the call. Overall, there has been an improvement in the data quality and coverage compared to previous years. In many cases missing data relates to fleet segments with low vessel numbers for which data is hard to obtain.

In terms of data quality, inevitably some 'abnormal' estimates for various parameters were detected by the JRC or the EWG and in most cases rectified by the Member States. However, some quality issues remain outstanding.

Incomplete time series data due to either the non-submission of data, questionable data and/or new MS additions, make trend analysis at the EU level impossible without excluding the MS fleets that are incomplete. These discrepancies make an evaluation of the overall economic performance of the EU fishing fleet in 2015 impossible (Greece was excluded).

Under the DCF, Member States provide transversal and economic data on their fleets at the national level and by fleet segments (combination of main fishing technology and vessel length group at the supra-region level). For this report, national level datasets were used for the EU and Member State level analyses while data submitted at the fleet segment level were used to analyse performance by fleet segment and fishing activity. While in theory both national level and fleet segment datasets submitted by MS should equate, this is not always the case and some discrepancies exist between the two. These discrepancies are mainly due to missing/incomplete datasets at the fleet segment level or the non-submission of data due to confidentiality issues.

Due to these and other data related issues, a complete overview of the EU fishing fleet for all reference years was not possible.

Fleets for MS that were unable to deliver all the required and reliable data had to be excluded from the analyses at the EU and Regional levels.

To mitigate data deficiencies, a status quo of the EU fleet in 2015 was provided considering only Member State fleets for which reliable data were provided while trend analyses included only the MS that provided the necessary data over the entire period (2008-2015/16). The National Chapters present all the DCF data provided by MS (some questionable data has been highlighted).

All MS were included in the EU overview analyses for 2015, with the exception of Greece, which needed to be excluded from all economic analyses.

Submission from France and Spain continue to be incomplete, especially for the period 2008-2010 and some minor data quality issues remain for several other Member States.

For confidentiality reasons, Member States may aggregate fleet segments into clusters to provide sensitive economic data. In several cases, clustering may not be enough to guarantee confidentiality, and hence, parts of MS fleets are not completely covered, these include MS such as Germany and Lithuania. Other MS, such as Estonia and Latvia, simply do not provide any data on part of their fleet (high sea fleet).

When fleet segments are clustered to provide economic data, one result may be that some MS fleet segments appear to be missing but these have just been grouped together with other segments, becoming part of a cluster.

Another result may be the clustering of fleet segments with different characteristics, such as different vessel length groups or fishing gears, which could bias results when assessing by type of fishing gear or activity, such as small-scale versus large-scale fleet. For example, a fleet segment that would otherwise be considered as small-scale (i.e. vessel under 12 m using non-towed gears) may be clustered into a large-scale fleet segment (i.e. vessel under 12m using towed gears), and vice-versa. Hence, results at the fishing activity level should be considered as only indicative of each fishing type. Furthermore, although clustering of fleet segment should be applied consistently, as far as possible, over the period, this is not always the case, making time-series hard to follow.

Member State specific data issues and developments

Although the coverage and quality of the data submitted by Member States has improved significantly over the years, some ending data issues remain. These include, but may not be limited to, the following:

Belgium: No major data transmission issues to report. FTE values for 2015 appear overestimated and should be checked before the 2018 data call. The small size of the national fleet creates some problems in reporting sensitive economic data. Yet, Belgium has made some significant efforts in establishing a consistent clustering scheme over the time series. Capital value (*Tangible asset value (replacement*)) for inactive vessels missing for all years.

Bulgaria: Significant effort has been made by Bulgaria over the last two years to improve on the data quality and coverage. Yet, several issues remain in the DCF dataset, including missing variables, such as other income, wages and salaries, unpaid labour, annual depreciation, investments, financial position, etc., for several fleet segments in 2013 (e.g. DFN 1218, FPO 0006, PGP VL0612, PS VL0006, TM VL2440, etc.). In addition, there are significant differences between the figures provided for fleet capacity in the DCF and what is reported in the EU fleet register.

Croatia: No major data transmission issues to report. As a new Member State, Croatia submits data from 2012 onwards. It would be very useful if Croatia could provide preliminary (landings and effort) data for y-1, in future data-calls.

Cyprus: Capital value not reported for all inactive fleet segments and years. Significant amount of missing data (such as, employment, effort, landings, income, expenditure and capital value) for PGO 0006 and PGO 0612 in 2009 to 2012 and for PS 1824 in 2012. The landings values for several species are provided for national totals but are missing at fleet segment level in 2014, e.g. Lagocephalus spp., Oceanic puffer, puffers nei and silver-cheeked toadfish.

Denmark: No major data transmission issues to report. However, DCF datasets requested (capacity, fishing enterprises and recreational fishing) for the latest year (i.e. year 2016 for the 2017 call) continue not to be provided. Capital value (tangible

assets replacement value) for inactive vessels not provided for all years. Some effort variables (days at sea and fishing days) requested at both FS and FAO levels were not provided at FS level for the years 2008 to 2011.

Estonia: No major data transmission issues to report. Capital value for the inactive group 2440 missing in 2008. For confidentiality reasons, Estonia only provides DCF data for its Baltic Sea fleet, i.e. no data is provided for the distant water fleet; this impacts on the AER as a complete coverage of the EU fleet is not possible.

Finland: No major data transmission issues to report. Economic data for the fleet segment DFN 1218 missing in 2012. This may be due to confidentiality reasons as there were only 4 vessels. However, there were also only 4 vessels reported in 2011 and all the economic data requested were provided.

France: A significant amount of missing data for essential parts of the data call, such as effort, landings and capital costs in 2008 and 2009 at Fleet Segment level, and capital costs at MS level for 2008 to 2010. Capital and investment for 2008 and 2009 (FS levels); landings at FAO level 2008 and 2009 and effort data 2010 and 2011 at MS level, effort-gear for 2010, 2011 and 2012 (FS level), recreational catches for 2012, 2013, 2014 and 2016. Annual depreciation costs at MS level in 2010 missing. Investments missing at MS level, in 2008, 2009 and 2013. In the 2017 data call, France made strides to improve the coverage of the data submitted, by providing data on its outermost region fleet (OFR), yet data on available for a limited time-series (2014 and 2015) and many economic variables are still missing. See Data coverage report in Annex for more details by fleet segment, variable and year.

Germany: No major data transmission issues to report. Capital value for the inactive group 2440 missing in 2008. For confidentiality reasons, Germany only provides partial data on its distant water fleet. This year, in addition to weight of landings, data on the value of landings were also provided. Yet other important variables, such as days at sea and employment continue to be omitted for the pelagic trawler segment. This impacts on the AER as a complete coverage of the EU fleet is not possible. Additionally, datasets provided at the national total level are not consistent, affecting the estimation of indicators at this level.

Greece: most variables missing for the entire time series; partial and questionable economic data available only for 2014 and 2015. Greece provides capacity data for the entire time series. However, most transversal data is provided for 2014 and 2015 only (partial effort data at FS level is also provided for 2013) and economic data from 2012 onwards. Both the transversal and economic datasets are significantly incomplete, not only regarding the variables but do not relate to the entire year (e.g. income may cover only 3 months of activity in 2015). Due to these data issues, the Greek fleet cannot be included in any of the AER aggregated analyses. At the national level, data is not representative of the entire fleet and/or year.

Ireland: Improvements were made but there is still a significant amount of missing data (transversal and economic data) for the under 10 m segments and in particular for 2008 and 2009.

Italy: No major data transmission issues to report. Some effort data (fishing days and number of fishing trips) missing for the OFR DTS 40XX segment for all years reported. Due to confidentiality reasons, Italy only provides partial data on its distant water pelagic trawler fleet. This impacts on the AER as only incomplete coverage of the EU fleet is possible.

Latvia: No major data transmission issues to report. For confidentiality reasons, Latvia does not provide any DCF data on its distant water fleet; this impacts on the AER as a complete coverage of the EU fleet is not possible.

Lithuania: No major data transmission issues to report. Capital value for the inactive group 1824 missing in 2010-2012 and for 40XX in 2012.

Malta: No major data transmission issues to report. Some missing economic data, mainly energy consumption, energy costs and expenditure, for several fleet segments with low number of vessels, such as PGP 1218, PGP 1824, PMP 2440, PS2440, etc.. Malta could consider the use of clusters to report sensitive economic data in future calls.

Netherlands: No major data transmission issues to report. 'Other variable costs' missing for DTS0010 in 2010, 2013 and 2015.

Poland: No major data transmission issues to report. Both Wages and unpaid labour costs missing for PG 0010 in 2008. Due to confidentiality reasons, Poland only provides partial data on its distant water fleets. This impacts on the AER as a complete coverage of the EU fleet is not possible. Additionally, datasets provided at the national total level are not consistent, affecting the estimation of indicators at this level.

Portugal: No major data transmission issues to report. Significant improvements have been made in the coverage and quality of the data submitted over the last few years; fleet segment data is also provided by region (mainland, Azores and Madeira). Economic data not provided for OFR HOK 1824 P2 (Madeira) in 2015 and for MGP1012 in 2008 – 2011 and 2015, due to confidentiality issues (low vessel numbers).

Romania: No major data transmission issues to report.

Slovenia: No major data transmission issues to report. Capital value for inactive vessels 1218 and 1824 missing in 2008; other non-variable costs missing for TM 2440 in 2009 and 2011-2012. Transversal and economic data not provided for TM 2440 in 2012 due to confidentiality reasons (only one active vessel).

Spain: Significant amount of missing data for essential parts of the data call for most fleet segments and for most of the time period, such as effort at FAO level and annual depreciation. See Data transmission report in Annex for more details by fleet segment, variable and year.

Sweden: No major data transmission issues to report.

United Kingdom: No major data transmission issues to report.

8 LIST OF PARTICIPANTS EWG 17-01 AND 17-06

List of Participants and contact details of EWGS-17-01 and 17-06

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9 LIST OF ANNEXES

Electronic annexes are published on the meeting's web site on:

http://stecf.jrc.ec.europa.eu/web/stecf/

10 LIST OF BACKGROUND DOCUMENTS

Background documents are published on the EWG-17-01 meeting's web site on:

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1701

Background documents are published on the EWG-17-06 meeting's web site on:

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1706

List of background documents:

EWG-17-01 and 17-06 – Doc 1 - Declarations of invited and JRC experts (see also section 8 of this report – List of participants)

ANNEXES

Annex 1 – Data transmission issues

https://datacollection.jrc.ec.europa.eu/coverage

Annex 2 – Forecast intervals (upper and lower limits)

https://stecf.jrc.ec.europa.eu/dd/fleet

Annex 3 – Technical and Economic indicators for Balance fleet capacity-fishing opportunities

| | % of inactive vessels | | | | | | % of inactive GT | | | | | | % of inactive kW | | | | | | Vessel utilisation ratio (max seadays) | | | | | | Vessel utilisation ratio 220 | | | | | | Current revenue to Break-even revenue | | | | | | Net profit margin | | | | | | Return on fixed tangible assets | | | | | | Return on Investment | | | | | | VUR | Trend | VUR220 | Trend | CR/BER | Trend | RoFTA | Trend | RoI | Trend | NPm | Trend |
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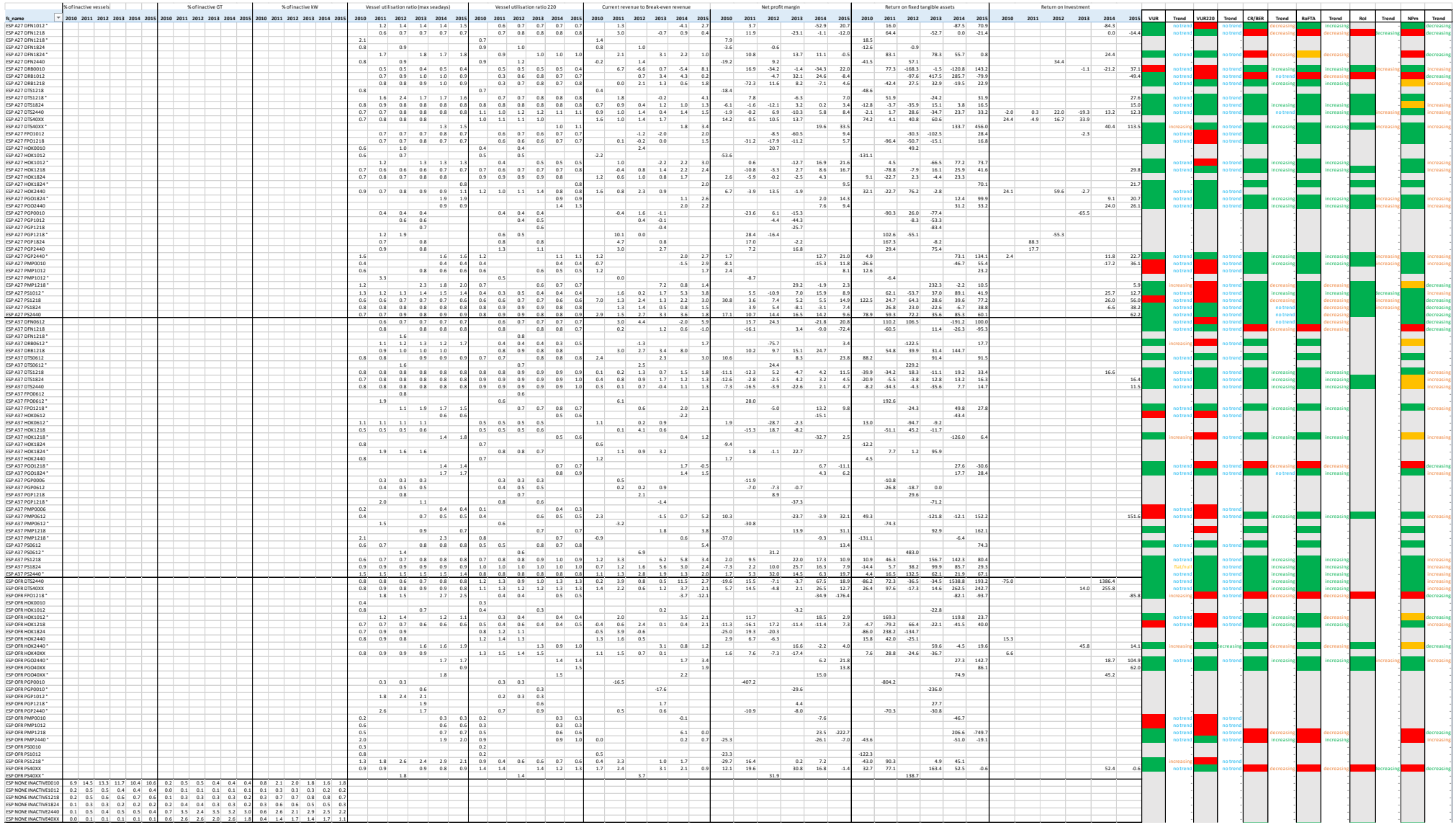

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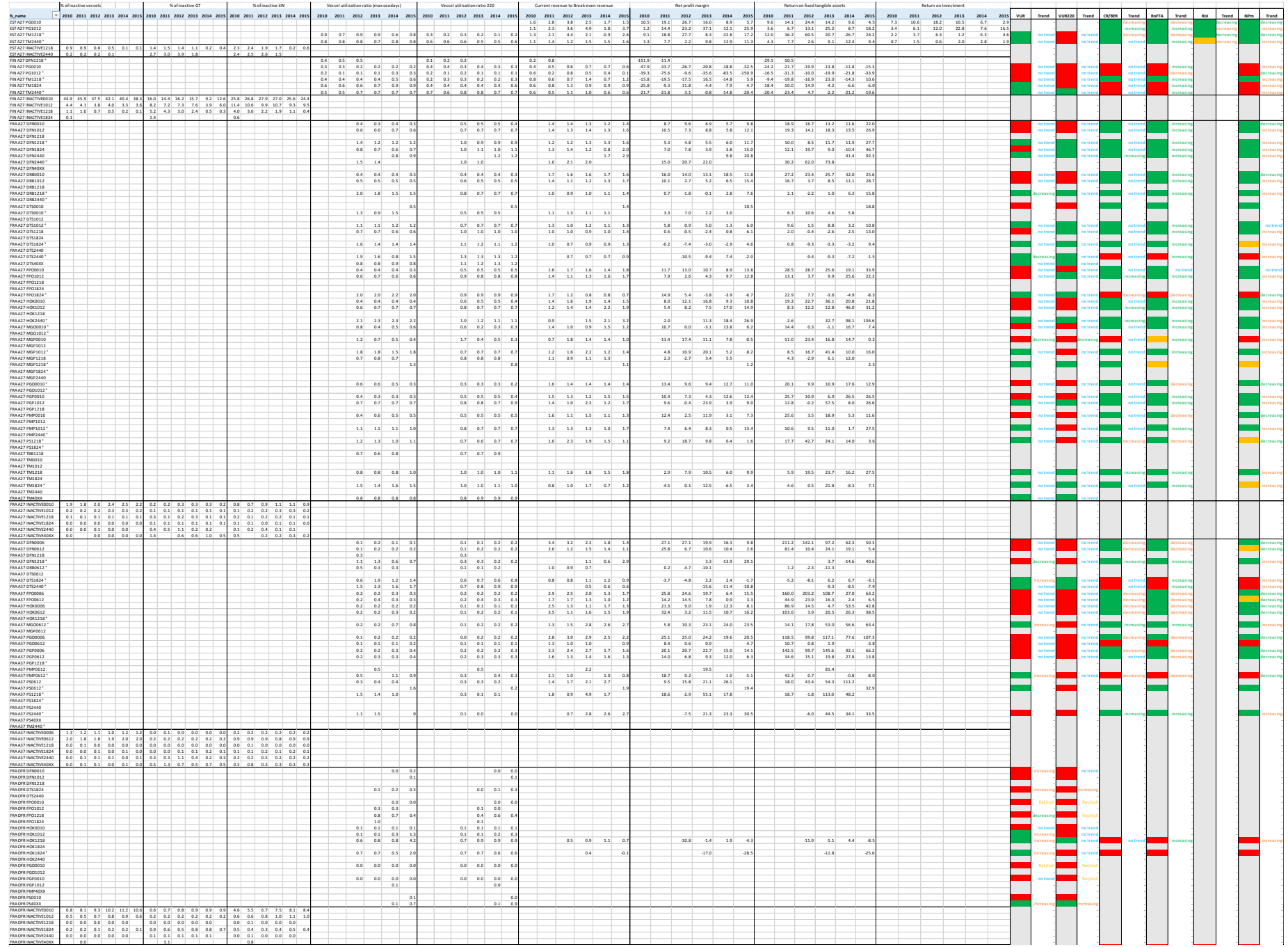

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