



CLEAN FUEL. ANYWHERE.

The Investment

RAISED SO FAR

£725k
Pre-seed

Grants and Accelerators



CURRENT ROUND

£5m
Seed*

£550k
to close

Target Close Q1 2024

Use of funds

40%
Team Growth

40%
R&D Spend

20%
Vessel Build
Preparation

REASONS TO INVEST

- ☒ SDG & ESG
- ☒ GREEN PREMIUM
- ☒ COP 28 TIMING
- ☒ TEAM
- ☒ POTENTIAL SCALE
- ☒ TECH

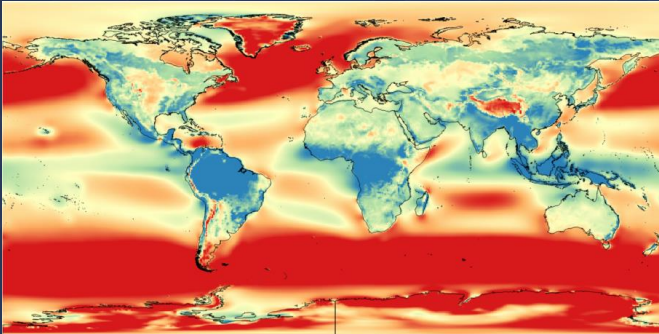


* Inclusive of the Pre-Seed raise.

CLEAN FUEL. ANYWHERE.

The Oceans are a vast stranded energy asset

Over 80% of the world's wind energy is trapped...




...over the 70% of the globe renewables can't reach

Many planet scale markets struggle for green energy...



...especially at the underserved fringes of the energy transition


DRIFT unlocks a vast new frontier of green energy



Huge quantities of
valuable, untapped
renewable energy



**Repurposing a millennia old technology to
create a platform for harnessing
uncontested, planet scale energy**



Underserved, hard to
reach markets looking for
a fast green transition

A NEW CLASS OF RENEWABLE ENERGY

Introducing the world's first net positive flotilla.

What is better than a net zero ship?

Simple. A net positive ship.

Flotillas of energy harvesting assets delivering clean fuels across the globe.

Wind Power

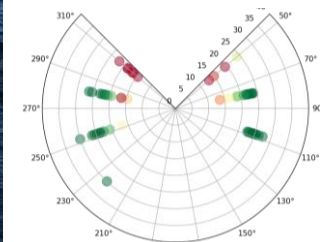
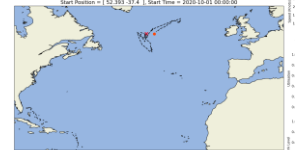
Autonomy

H₂ Storage

Powerplant













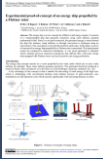

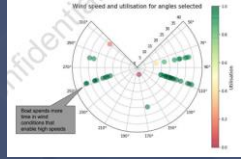

Turbines

Routing
Algorithm




























CLEAN FUEL. ANYWHERE.

Using a mosaic of commercially proven parts

Component	TRL (propulsive*)	# Suppliers Contacted	Performance Gains from R&D	Proof Points			
Sailboat	9	12	●●●●○				
Turbine	6 (9)	4	●●●●●				
Autonomy	7-9	2	●●●●○				
Routing	4	DRIFT	●●●●●				

* Propulsive score relates to the TRL for Hydrogen propelled ships. Since DRIFT is effectively the same physics in reverse we can draw a lot of knowledge and de-risking from h2 powertrain vessels.

To produce a new renewable pathway at <£60MWh

	Wind	Solar	Tidal	DRIFT	SCORE
Load Factor	23% – 40%	10% – 22%	20-35%	70-80%	
Independent of Grid	✗	✗	✗	✓	
LCoE (MWh)	£71 – £138	£20 – £63	£271	£40-75	
Commission	7-8 years	5-7 years	7 years	1 year	
Circular	    	    	    	    	

1. Renewables UK load Factors
2. Feed in tariff load factor analysis
3. Ocean Energy Council
4. Middle East Rates
5. Allocation round 4

6. Allocation round 5
7. Land Use for wind turbine
8. Solar Arce requirements
9. SeaBed mounting
10. Raw materials in Renewables

World's First

“DRIFT could in future form a tangible part of SailGP’s event and on-water clean energy strategy.”

SAILGP™

**We have already made
our first hydrogen**

World's First Foiling
Energy Yacht



1st Green H₂ made
in Plymouth Sound



World's First Power-2-
Sail Takeoff



DRIFT serves planet scale niches

SUPERYACHT OWNERS



87% of a UHNWI emissions come from yachts¹

MARITIME REFUELING



3% of worldwide GHG, but could rise to 10-13%³

ISLAND NATIONS



80% powered by fossil fuels, commonly diesel²

Size

£4bn market

£170bn market⁶

£400bn market

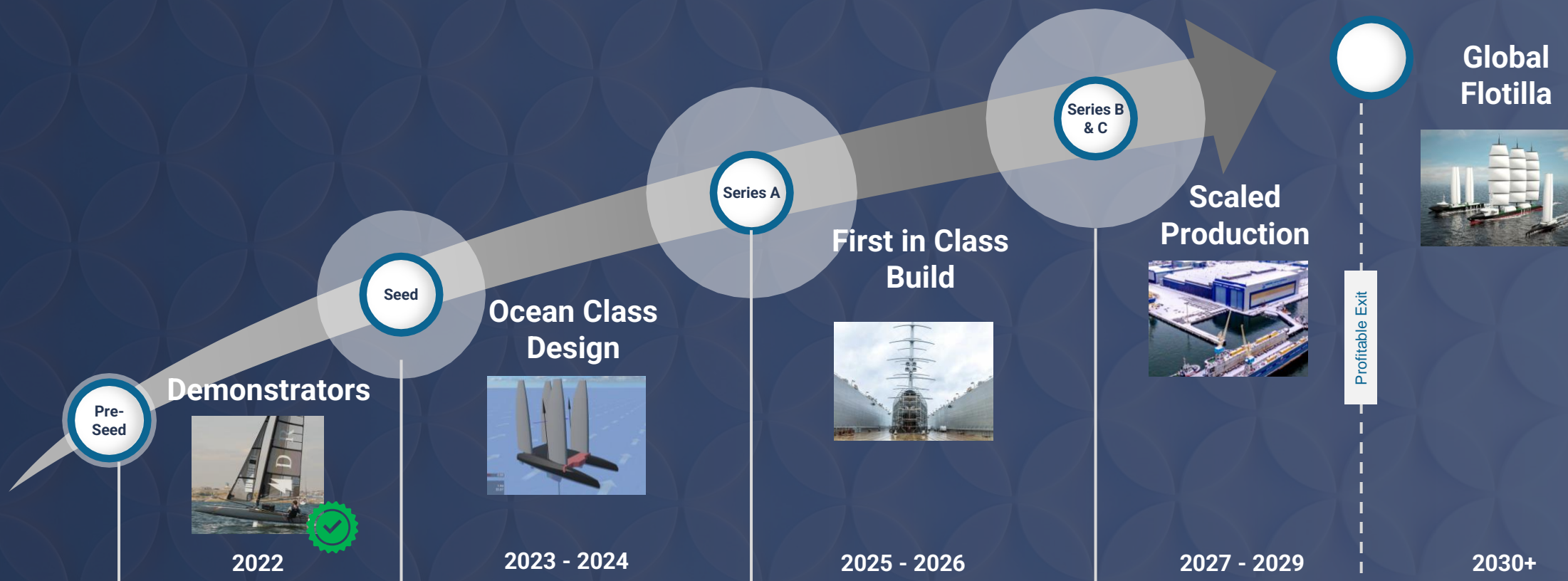
Traction

Dialog with multiple UHNWI Family Offices

Letter of Intent from UK Distributor

Talking to three Caribbean Islands

Steps to Planet Scale Supply



CLEAN FUEL. ANYWHERE.

Introducing the CREW



CEO and Founder

Ben Medland

17 years building businesses with the C-suite's of Fortune500 companies. MEng in Systems Engineering and is a Director of the Zero Emissions Ship Technology Association.



Head of Vessel Program

Neal Pawson

Chartered Engineer and a Member of the Royal Institute of Naval Architecture with 25 years of experience designing, building and running naval projects.



Head of Vessel Design

Mike Mackay

Naval architect with over 7 years of experience working on major offshore maritime projects both in the private and defence sectors.



Corporate Investment

Nigel Robinson

Over 20 years of experience as a corporate and investment banker in global infrastructure and green energy sectors. Bringing deal and fund-raising expertise for DRIFTs Seed and Series A rounds



CLEAN FUEL. ANYWHERE.

Experienced advisors & ambassadors



Global Energy Expert

Chris Johnson

A former member of Shell's New Energies Leadership Team, leading all major transactions covering renewable power, power trading, retail power, e-mobility and hydrogen. Over 25 years working on some of Shell's largest (multi-billion dollar), growth transactions particularly in power, natural gas / LNG, trading and biofuels. Chris has also held interim roles as CEO and CIO of a hydrogen private equity fund.



Maritime Operations

Susan Thomson

Susan Thomson MNM, AFNI, MSc is a Chartered Master Mariner and Marine Technologist with more than 20 years' of operational and commercial experience in the maritime sector. She currently holds a position in Trading Operations at a leading oil & gas company. Susan is an ex-tanker captain and brings a wealth of practical experience from operating maritime vessels across the globe.



Hydrogen Engineer

Richard Boocock

A senior Hydrogen specialist with a global career of over 30 years with Air Products. Specializing in gas plant engineering with experience in designing & commissioning multiple hydrogen plants. Latterly focusing on the development of digital twin operations and analytics to improve plant efficiencies. In addition to the Advisory Board, he is also taking on part-time responsibilities for 'Head of Hydrogen Plant' until resource is found.



Sustainability

Justin Keeble

Managing Director for Global Sustainability at Google Cloud, Justin has been at the forefront of driving sustainable practices and leveraging digital technologies for growth, profitability, and sustainability. His deep understanding of topics like energy transition, circular value chains, and distributed energy will be invaluable as we continue to pioneer green hydrogen solutions.



Americas Cup Designer

Dan Bernasconi

America's Cup yacht designer, specializing in hydrodynamic design and performance optimisation. He is currently the Technical Director of Team New Zealand and a Founding Director of SumToZero, a specialist yacht design consultancy. Bernasconi has worked in both Formula One and the America's Cup as a race engineer for Team New Zealand, winning back-to-back trophies in 2017 and 2021.



CLEAN FUEL. ANYWHERE.

The 'Why DRIFT' Logic

What does the green H₂ economy need?

- 8x renewable energy supply
- 8000x electrolysis capacity
- >\$250bn in distribution network

What is constraining current solutions?

- Grid constraints
- 'Low hanging fruit' locations are diminishing
- Low load factors

Why is DRIFT a better option?

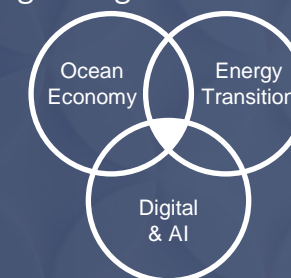
- Standalone integrated assets
- 3x more energy efficient
- More power, more of the time, in more places, more quickly

Can DRIFT be economically viable?

- Current UK H₂ supply sold out
- Competitive vs. onshore UK production & middle east plants
- DRIFT estimates £3-10 per kg... delivered!

Is the opportunity big enough?

- A multi \$bn opportunity at the intersection of 3 growing markets:



Traction

COP 28 WINNERS. TRUE GREEN. OCEAN KIND.



Robb Report



Forbes



5

BBC

CATAPULT
Energy Systems



1. DRIFT demonstrating at SailGP Plymouth 2022
2. '6 Ocean Startups to Watch' Deutsche Bank 2023
3. DRIFT with Rt Hon Chris Skidmore MP – Author of UK Net Zero Strategy
4. DRIFT presenting at Boat International Superyacht Design Festival 2023
5. Partnership with The International SeaKeepers Society
6. Excellence in Technology' award from the International Superyacht Society 2023

CLEAN FUEL. ANYWHERE.

DRIFT
Oceans of Energy



APPENDIX

CLEAN FUEL. ANYWHERE.

DRIFT - A new renewable energy platform

We are taking existing technology...



Black Pearl launched in 2016 reportedly regenerates over **400kW whilst sailing**



Energy Observer has regenerated hydrogen whilst **sailing over 10,000km**

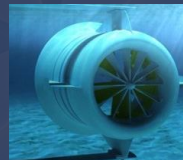


MF Hydra is a ferry operating in Norway fuelled by liquid H₂ via **a 200kW fuel cell**

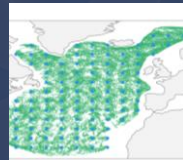


Yara Birkland is an autonomous & electric container vessel with **6.8 MWh of battery**

...maximising the performance for a planet scale mission...



Bespoke turbine geometry optimised of open-flow, low drag **MW class regeneration**



A new proprietary A.I routing software that achieves **70-80% Load Factors**

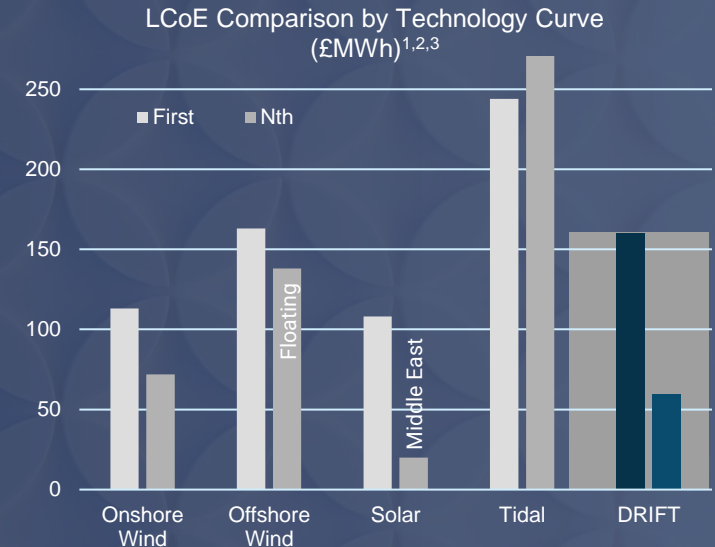


Uses the same marine grade & class approved technologies only with **the chemistry in reverse**



New form of mobile electrical energy platform that operates with **no grid connection**


















...to produce a new renewable pathway at <£60 MWh LCoE



- **FOAK parity with Offshore wind in 2012**
- **Nth vessel parity with Offshore in 2028**
- **Better than Tidal and Floating Wind**

1. First = 2012 Allocation Round 1 CFD Strike Prices adjusted to 2023 money (Tidal = AR4)
 2. Current = 2023 Allocation Round 5 CFD Strike Price adjusted to 2023 money (Offshore = AR4)
 3. Nth = Floating Wing AR5 Strike Price, Middle East [data source](#), DRIFT = 2029/2030 Ships

DRIFT is a new renewable class... and a good one

	Wind	Solar	Tidal	DRIFT (nth)	SCORE
Load Factor	23% – 40% ¹ On-Off	10% – 22% ² UK-ME	20-35% ³ UK Open Flow	70-80% N.Atlantic	
Grid Free					
LCoE (MWh)	£71 – £138 ⁴ On-Floating	£20 ⁵ ME – £63 ⁶ UK	£271	£60-75	
Commission	7-8 years	5-7 years	7 years	1 year	
Land (Acres/MW)	~1.5	6-8	<1	0	
Mass (kg/MW)					
Circular					

1. Renewables UK load Factors
2. Feed in tariff load factor analysis
3. Ocean Energy Council
4. Middle East Rates
5. Allocation round 4

6. Allocation round 5
7. Land Use for wind turbine
8. Solar Arce requirements
9. SeaBed mounting
10. Raw materials in Renewables

On = onshore
Off = Offshore
ME = Middle East

Common Questions

Retrofitting

Why not retrofit existing ships?

Not enough suitable donor vessels.

- Over 24m there are very few series-built boats, mostly handfuls of a type
- Difficult route to scale
- Retrofit requires similar effort as clean page design
- Compromise to the performance of the asset
- Though we reserve right to do one if the opportunity arises

Mobility

Why be mobile, why not simply anchor up?

Load Factor doubles v.s. similar fixed asset

- Anchor the ship in a tidal stream would more than halve the Load Factor
- Mobility enables flexibility in operations – like a green LNG carrier
- Lowers the risk of being hit by bad conditions

Shape

Why choose a catamaran hull form?

Most righting moment for lowest drag

- Sail power is limited by a ships righting moment and drag
- Catamarans provide more righting moment and lower waterline drag
- DRIFT commissioned research with BMT Naval Engineering firm pointed to catamaran solution and better stability

Size

Why not build at container ship scale?

Power, Drag and Cost ratios are different

- Sail power is a function of sail area – Square rule
- Ship cost is a function of a ships-built volume – Cube rule
- Hence 2x the boat size, 4x the power available, but >4X the cost
- Further research required to explore the optimum relationship between these factors

Peril

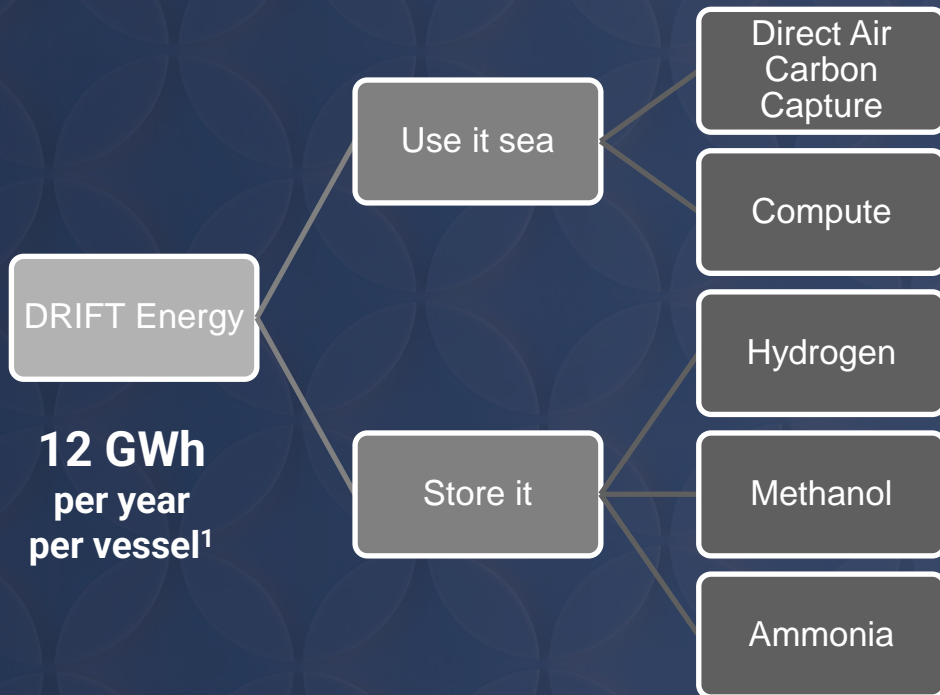
What about hurricanes and icebergs?

Routing algorithm avoids bad conditions

- Primary role of routing A.I. is to avoid high risk conditions (wind, waves, traffic, objects)
- Ship will be built to Ocean going 'Class approved' standards
- 60 trillion tonne-miles are travelled each year by >50,000 merchant ships¹
- Merchant shipping is safer than car, bus & rail transport²

1. [TheConversation.com](#) (2019 data from IMO)
 2. [US National Safety Council report 2007-2021](#) and Human Factors and Safety Culture in Maritime Safety (Berg 2013)

With options to serve multiple growing markets



Can we win on price?	Is the market big enough?	Can we access it?	Priority of focus

1. DRIFT MVY 2029/2030 Nth vessel performance.
2. Using 0.8Mwh ~ 2MWh per tonne of CO2 sequestered
3. DRIFT Analysis
4. Using 11 MWh per tonne e-Methanol + 1.27 MWh per tonne of CO2.
5. ~8MWh/tonne ammonia



CONTACT OUR ENGINEERING STUDIO

[INFO@DRIFT.ENERGY](mailto:info@drift.energy)



CLEAN FUEL. ANYWHERE.