

## Entering the next phase

### Improved performance from 2023 onwards

All of Hexicon's projects are expected to pass milestones in 2023, making divestment of the entirety or parts of the ownership a possibility according to the company's strategy. The greatest values are currently in projects in South Korea, Italy, and Sweden.

Divestments will contribute positively from 2023 onwards. Hexicon believes that the company is now entering a new phase after having so far focused on building a diversified project portfolio in parallel with developing its TwinWind platform. In the next phase, divestments will be made, freeing up capital for investments needed to reach the ultimate goal of the business model: Profitable project development in parallel with licensing revenue from TwinWind technology.

### Positive reception of capital raising

Q3 was the most investment-heavy quarter to date, mainly related to the increased ownership of the sizeable MunmuBaram project and technical developments. These investments contributed to a decrease in net cash to MSEK 46. The company needs additional capital pending project divestments.

On November 29, Hexicon announced convertible loans totaling MSEK 82 to existing shareholders and new investors. The capital raising model was favorably received and the share price rose about 25% in the morning. The rally then gained further momentum when the company announced that Vestas had been chosen as the preferred supplier of turbines to MunmuBaram. Overall, the stock rose 52% during the day.

### Exciting 2023

The first significant divestments can clarify the great value of the project portfolio, which can help the market become aware of the diversified set of projects and prospects.

Important milestones await with, among other things, network connection agreements in MunmuBaram (indicatively in Q1), new rights to sea areas and network connection agreements in Italy (first half of the year) and applications in Sweden for three areas (the first in Q1). In addition, substantial progress is expected toward the first full-scale project for TwinWind, where the company has a guaranteed inflation-adjusted remuneration level for 15 years via this year's auction win.

The target price is maintained at SEK 4.

Note: A Swedish version of this report was published on December 13th.

## Hexicon

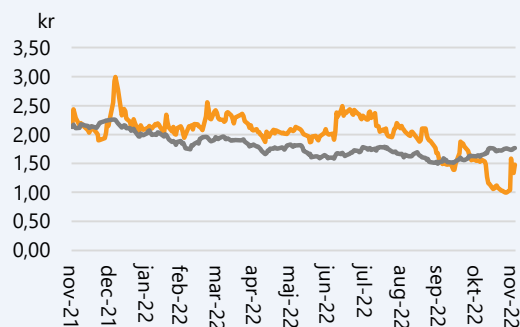
### Q3-update 2022

Date 21 december 2022  
Analyst Magnus Lindell

### Facts

Industry Wind Power  
Chairman of the Board Hans von Uthmann  
CEO Marcus Thor  
Year of Listing 2021  
Stock List Nasdaq First North  
Ticker HEXI  
Share price 1,48 SEK  
No. of shares, mln 363,8  
Market cap, MSEK 538  
Net debt, MSEK 36  
Enterprise value (EV) 574  
Web site www.hexicon.eu

### Share price development last year



Source: Börsdata

### Forecasts and key figures, MSEK

	2021	2022p	2023p	2024p
Net revenue	23	14	250	300
Gross profit	-46	-125	10	25
EBIT	-50	-165	-20	-10
Pre-tax profit	-51	-165	-22	-10
CF. After financing	-101	-271	-25	-25
Financing	283	60	0	0
Cash	290	93	68	43
Earnings per share	neg	neg	neg	neg
Dividends per share	-	-	-	-
Revenue growth		-39%	1686%	20%
Operating margin	neg	neg	-8%	neg
Net debt*	-288	3	-143	-118
P/E	-	-	-	-
EV/EBIT	-	-	-	-
EV/Sales		41,0	2,3	1,9

\*incl convertible loans

Source: The Company, Analysguiden

## Investment case

### Two business prongs on the emerging market

Hexicon's strategy is based on creating value by developing technology-independent projects for floating wind power, while developing the patented and pioneering technology "TwinWind". The project development already generates revenue, which should be possible to increase in 2023–2024. The technology solution is potentially the long-term value driver, with recurring license revenues from partners that manufacture the TwinWind platform. Hexicon applies a distinct partner strategy in both projects and technology. This, and the focus on early project phases, limits the capital requirement.

### Interesting and diversified project portfolio

Hexicon has a project in South Korea, MunmuBaram, which has passed the initial phase. Based on relatively conservative assumptions from existing price references, Hexicon's share in 2024 could be worth over SEK 1 billion. The company also has large projects in Sweden and Italy. If we include projects in England, Scotland, South Korea and prospects in South Africa, Spain, Portugal, Greece, Ireland, and others, we can see an interesting and well-diversified portfolio. The company's establishment with a local organization in the USA opens up opportunities, not only on the project side but, above all, in the long term for TwinWind. The objective is to have ongoing revenues from Europe, Asia and the USA by 2025.

### The technology is still unproven

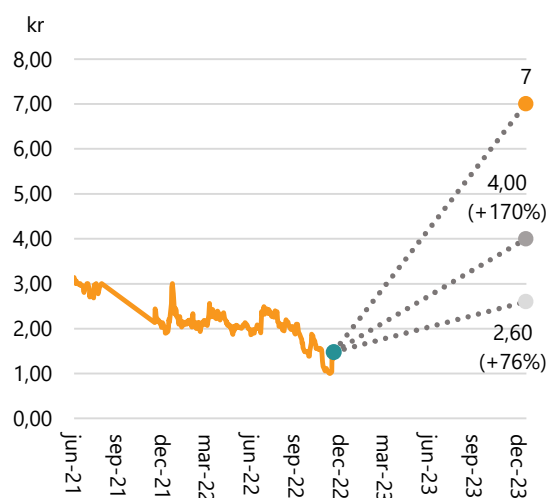
With a market that is expected to grow rapidly, and where highly capitalized players have already made commitments strengthening this, good technical solutions will have great opportunities. Hexicon is at the forefront with its two-turbine solution, though a few years behind other solutions. The technology will be proven in the UK TwinHub project. The 32 MW commercial project is planned to be operational in 2025.

### High potential, but also high risk

The strategy of a well-diversified project portfolio, that is often co-owned together with local and highly capitalized partners, has a good chance of creating value. Not all will develop according to plan, but those that do are expected to grow in value. The project activities allow for faster commercialization when the technology is proven. Together, this creates great opportunities for Hexicon, while the risk may be considered high.

## Tempting potential

The stock's upside/downside in three different scenarios



Source: Analysguiden, Börnsdata 221204

## Munmu Baram on a path towards MSEK 1000

Possibly high value if the project is developed according to plan

### MunmuBaram Floating Offshore Project

- Location : 65 km away from Ulsan City, Korea
- Project Area : ~ 240 km<sup>2</sup>
- Water Depth : 120 ~ 150m
- High Load Factor : ~ 40%
- Total Capacity : 1.3GW

Source: MunmuBaram.com, MunmuBaram Co., Ltd.

## Targets for 2025

	<b>Projects</b> Ongoing revenue generating operations in Europe, North America and Asia.
	<b>Technology</b> The TwinWind™ is verified and tested confirming its benefits.
	<b>Financial</b> EBITDA positive.

Source: The Company, ÅR 2021

## Twinhub

Hexicon won an auction in July 2022, which means the company now has a guaranteed inflation-adjusted remuneration level for 15 years for the TwinHub project, the first project with its own platform. The project's capacity of 32 MW entails two platforms with two 8 MW turbines each. If all goes well, the first could be launched by the end of 2024. Hexicon is pursuing this with construction partner Bechtel. The area is located in the southwest of England.

During the quarter, it became clear that Chinese Mingyang will supply the turbines with a rotor diameter of 180 meters. Hexicon has also partnered with London Marine Consultants (LMC) to design and plan the TwinHub project in the southwest of England. LMC specializes in marine engineering design and mooring systems and has extensive experience in off shore projects. LMC will also use a range of specialists in the work, such as Sowento, Ryder Geotechnical, DNV, and Proeon Systems, as the TwinHub project moves toward construction, installation, and commissioning.

Hexicon has decided to abandon plans for a pilot project in Norway. The advantage of the Norway project was primarily time-related, and planning began long before the auction win in England. The project has been delayed due to Norwegian authorities, and now all focus is on the TwinHub project. TwinHub has secured revenue, greater commercial probative value, can be replicated in scale in other projects, and is more likely to attract a co-founder. The company is negotiating with several potential partners, and a co-financing agreement would be an important milestone.

The project will be the first full-scale test of the validity of the patented TwinWind technology. The technology optimizes energy production in a given sea area by mounting two wind turbines on a floating foundation. The company also received a patent for the technology in the US in September and now holds patents in over 20 countries. The patent in the US is particularly positive as the Biden-Harris administration announced big ambitions of 30 gigawatts (GW) of offshore wind by 2030 and up to 110 GW by 2050.

## Investments in South Korea

Hexicon was one of the pioneers in floating wind technology projects in South Korea, together with local partner Coens, which has other operations focused on servicing the oil and gas sector. South Korea, like many countries, has ambitious targets for renewable energy, and is particularly positive about floating wind power far offshore. This is due to the fact that it in part offers many alternative locations, but also can coexist with other interests in a good way.

MunmuBaram is intended to be one of the world's largest floating wind parks, with a capacity of 1.3 GW that can supply around one million households with electricity. From 2018, it has been run as an increasingly large project, currently with around 40 employees from Shell, a dozen or so from Hexicon Korea, and 1.5 full-time from Hexicon. Hexicon's current CEO, Marcus Thor, was Project Manager until 2020, and since then it has been run with South Korean

## TwinWind

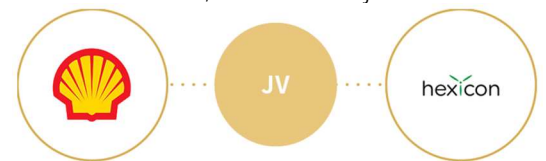
Patented floating platform with two turbines



Source: The Company

## MunmuBaram – very important

Hexicon now has 20%, Shell 80% in this joint venture



Source: MunmuBaram.com, MunmuBaram Co., Ltd.

management. The project is technology-independent, where Hexicon's own platform is only one of the options. This is important for the market value of the project. On November 29, it was announced that Vestas will deliver 84 turbines with a capacity of 15MW, subject to further project development. Vestas is one of the world's largest turbine suppliers and intends to lead offshore wind power.

Total investment is estimated to be around 50 billion. Hexicon will probably divest its share before hardware investments need to be made, while the strategy for the project's primary owner, Shell, is long-term. Shell is a strong partner, equally in terms of financial strength, extensive experience from oil/gas in deep water, and its strong relationships with shipyards in South Korea. Shell also has major ongoing projects for floating wind power in Scotland and Ireland.

A price level for electricity and production licenses are in place for MunmuBaram. Network connection agreements are expected by February 2023 and there is already a memorandum of understanding in place with the relevant authority. Previously, the final investment decision was expected by late 2024, but this has been changed to the first half of 2025. The reason for the change is that new considerations have had to be made for shipping and also changed possibilities for securing large suppliers, including shipbuilding capacity. The next step after the network connection agreement is to secure the key part of the supply chain and complete the environmental impact assessment, which is expected to take place in the second half of 2023.

It is on the basis of the above that one should view the high value that Analysguiden sees in this very large project. There are at present no price references for late-stage floating projects. The difference between floating and bottom-fixed in an early phase (for example, from the big Scotwind auction earlier this year) is 17%. A bottom-fixed late-stage reference that is comparable in size is SSE's divestment of 10% of the Doggerbank 1200 MW project a number of years ago for MUSD 90. If we apply that price level with a 17% discount, it means SEK 1.7 billion for Hexicon's 20% of MunmuBaram. There are a number of differences that will affect the price, but it should be noted that it is possible to add a substantial margin of safety and still end up well above Hexicon's market value. For the time being, Analysguiden assumes that the holding will be worth over one billion at the time of the final investment decision. Previous divestments are expected to take place at a lower level.

During Q3, Hexicon increased its shareholding in MunmuBaram to 20%. The investment amounted to approximately MSEK 75. In addition to MunmuBaram, the company also holds 30% in a 900 MW project on the east coast. This project is around 1.5 years behind MunmuBaram.

## Sweden

The new government has sent clear signals that it will prioritize new nuclear power. It is apparent from the Tidö Agreement that the parties want to stop the planned subsidy of network connection for offshore wind power, even though they have nothing against wind

power in general. The new policy direction will likely lead to slower progress. The Director General of Svenska Kraftnät noted in Ny Teknik on October 26 that she is waiting for clarification from the government. Clarity is undoubtedly needed as applications for a construction value of around SEK 400 billion are already awaiting government approval. The negative bulletins so far have had a bearish impact on both, for example, OX2 and Hexicon on the stock market.

However, in an interview with Dagens Industri on October 18, OX2 announced that their plans are firm and have never been based on subsidies. In August, OX2 made an interesting deal that indicates a possible price trend for Hexicon's projects in Sweden. OX2 brought in Ingka Investment as a partner, including the agreed price level in connection with the final investment decision. Price trend: MSEK 610 in initial payment for 49% of total capacity of 9 GW and around MSEK 1 per MW for 49% of total capacity if construction goes ahead. The projects, like Hexicon's, are in an early phase but 6–10 months ahead, given that the main applications have already been submitted. The price trend indicates a value for Hexicon's project share of MSEK 172 when they reach the same point with their 1.5 GW share and an additional MSEK 2700 if/when they arrive at the final investment decision. The above is based on a 17% lower price for floating projects than OX2's bottom-fixed.

Hexicon has three floating wind power projects totaling 3 GW operated in a 50/50 joint venture with Aker Offshore Wind. The first project application is expected to be submitted to the government in Q1 2023, and in Q2, the remaining two will come. The goal is to reach a final investment decision in 2027. In addition, there is also an area in shallower water suitable for bottom-fixed wind power. However, this is later in time.

## Other project developments

Hexicon operates in Italy in a joint venture with a local partner. The company has applied for a network connection and a maritime concession for five parks off the coast of Italy. In October, two of them were awarded a preferential right to a maritime concession. The areas have possible capacities of 1200 and 1350 MW, respectively. Additional rights to water areas are expected in 2023.

Floating wind power is well suited in Italy, with its long coastline, deep waters, and a high need for renewable energy. The country aims to generate 55% of its total electricity production from renewable energy by 2030. The rapid process and otherwise positive signals are leading Hexicon to intensify its presence in the country. Italy, Sweden, and South Korea are the markets where the largest project revenues can be expected in the coming 3-year period.

In California, USA, the first auction of deep-water rights for floating wind power was held in early December. Interest was strong, and winning bids totaled around SEK 8 billion for the right to areas with a total capacity of 4.5 GW. This big auction represents a clear milestone for the global development of floating offshore wind technology. Further auctions are expected in 2023, in which Hexicon may participate in some form. Hexicon has a local organization with four people on site with relevant skills and networks. The plan is to

## Hexicons 3 projects for floating







Applications are planned for the first half of 2023



Source: Frejaoffshore.se

contribute the local organization and Hexicon's experience from other global projects in partnership with a highly capitalized player. The next possible milestone to look forward to is Hexicon announcing a partnership.

## Large and diversified project portfolio





	PROJECTS					
	 South Korea	 South Korea	 Scotland	 Sweden	 England	 Italy
Name	MunmuBaram	Pohang	Pentland Floating Wind Farm	Freja Offshore	TwinHub	AvenHexicon
Location	Ulsan	East coast	Dounreay	Multiple	Cornwall	Multiple
Estimated gross capacity	~1,300 MW	900 MW	100 MW	+3,000 MW	32 MW	~2,550 MW
Hexicon's stake	20%	30%	10%	50%	100%	50%
Site(s)	Secured	Secured	Secured	Identified	Secured	Secured
Partner(s)	Shell Overseas Investments B.V	Hexicon Korea	CIP	Mainstream Renewable Power	Bechtel	Avapa Energy
Target FID/COD	2025/2027	TBA	2024/2026	2027→/2029→	2023/2025	TBA

FID – Final investment decision

COD – Commercial operational date

**Gross projects: +7,500 MW**  
**Net projects: +3,000 MW**

Source: The Company, Q3-report 2022

	PROSPECTS			
	 South Africa	 Spain/Portugal	 Ireland	 Italy
Name	GenesisHexicon	WunderHexicon	TBA	AvenHexicon
Location	Richards Bay	Canary Islands, NW Portugal	West Ireland	Multiple
Estimated gross capacity	800 MW	TBA	2,000 MW	+3,000 MW
Hexicon's stake	50%	75%	100%	50%
Site(s)	Identified	Selection ongoing	Identified	Identified
Partner(s)	Genesis Eco-Energy	Wunder Sight Group	Killybegs Fishermen's Org.	Avapa Energy

**Gross projects: +5,500 MW**  
**Net projects: +3,500 MW**

Source: The Company, Q3-report 2022

## Financial position

Hexicon's investment level of MSEK 106 in Q3 was significantly higher compared to previous periods (MSEK 19 on average in the preceding three quarters). The large items were the increased ownership in MunmuBaram of around MSEK 75 and investments in TwinHub. The company sees that now is a good time to be proactive, which is exemplified, among other things, via new projects, increased ownership interests, and clear investments in new markets, such as the USA. That said, the company points out that the level of investment was exceptionally high in Q3 and that it now expects a lower level for a few quarters.

Cash flow from operating activities amounted to MSEK -29 in Q3 (MSEK -20 on average in the preceding three quarters). No project divestments took place while the organization has expanded and external costs have increased.

Overall, net cash decreased to MSEK 46 and cash and cash equivalents to MSEK 55. On November 29, Hexicon announced convertible loans totaling MSEK 82 to existing shareholders and new investors. The company has decided to accelerate the divestment of selected projects to enable new investments. The convertible loans mean that important milestones in ongoing projects can be achieved before the project rights are sold off.

The most important items for cash flow in the coming years are the announced capital raising, how the company solves the financing of the first complete TwinWind, income from the sale of project rights, and the capital requirement for the acquisition of new projects and the further development of existing projects.

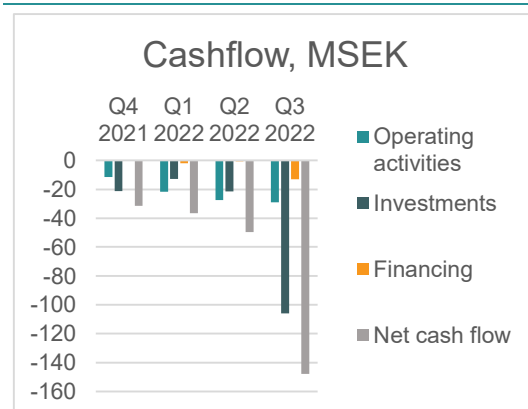
## Share performance

The share was listed in June 2021, following an oversubscribed issue, at a subscription price of SEK 3.00. The share has since mainly traded below SEK 3.00, with SEK 1.00 as the lowest closing price. The weak price development is mainly explained by the weak development of "speculative companies". During autumn, the new government's signals regarding offshore wind power have contributed negatively to both OX2 and Hexicon. Hexicon's extensive investments in Q3, which reduced its cash position significantly, have focused attention on the need for new capital, which puts pressure on most companies in the same situation in this market climate. The positive reception of the convertible loans was a long-awaited relief. The news about the collaboration with Vestas in MunmuBaram signaled that further steps are being taken in the company's most important project, further fueling the price increase on November 29.

Looking at peers, Norwegian BW Ideol is down 66% this year (221129), compared to Hexicon, which is down -26% at SEK 1.58.

## Large investments in Q3

A lower level is expected in the coming quarters



Source: Börndata

## Valuation

Significant divestments are expected from the project portfolio starting in 2023. Important milestones are expected to be achieved, enabling a value leap and opening up the possibility of reducing ownership or selling off entirely. The company's approach is to be involved in the early phases and this generally means that divestment will take place before a final investment decision. Many considerations come into play, meaning that each project's timing and extent are difficult to predict. In terms of valuation, Analysguiden has assumed that Pentland will be fully divested in connection with the investment decision and that partial divestments will take place in the other projects in either 2023 or 2024. Assumptions give a performance as shown in the table and a remaining project value of SEK 2.3 billion in 2025 with net capacity around 900 MW. The project evaluation only includes those that are expected to have reached the "Mid" or "Late" phase. The technology part is included at MSEK 500 (P/S 10 on expected licensing revenue in 2026). Discounted to current value and with a certain amount of net cash, this implies a target price of SEK 4. Analysguiden assumes that the recently announced convertible loans are converted into shares.

The higher part of the price range described in the initial analysis is used in a positive scenario. In a negative scenario, the technology part is set to zero, which gives a target price range of SEK 2.60–7.00 within 12 months. It is worth noting that the value of prospects and early-stage projects is not considered in any scenario but represents a safety margin to be weighed against the risk that any project is stopped altogether or that the price trend could be lower.

Another way of highlighting the currently low valuation is to only base it on the value of the projects that today have reached the "Mid" phase, and focus on the lowest part of the price range reported in the initial analysis. The value of the project portfolio will then be MSEK 634. This can be compared with a company value of MSEK 574 at a price of SEK 1.48, which does not include the technology part, projects in early phases, or all the project candidates found in several different markets.

## Today's project portfolio

Project november 2022	Country	Status	Capacity (MW)	Hexicon's share	Net capacity (MW)	Value low (MSEK)*	Value high (MSEK)*
Munmu Baram	South Korea	Mid	1300	20%	260	546	1365
Pentland	Scotland	Mid	100	10%	10	21	53
Twinhub	England	Mid	32	100%	32	67	168
Freja Offshore	Sweden	Early	3000	50%	1500	284	3150
Pohang	South Korea	Early	900	30%	270	51	567
2 stycken	Italy	Early	2550	50%	1275	241	2678
Prospekt	Several	Prospekt	4000	50%	3500	?	?
<b>Total "Mid-Late"</b>						<b>634</b>	<b>1586</b>
Total "Early"						576	

\*Value low refers to the lowest level in the price range that exists based on previous transactions. The price range that Analysguiden uses is for precautionary reasons lower than what Hexicon presented in connection with the Q3 report 2021.

## Exciting divestments from 2023

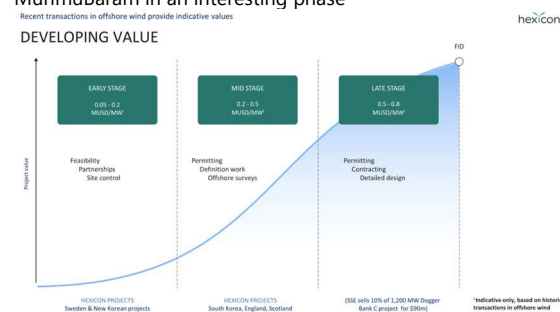
Income from projects is gradually increasing

	2021	2022p	2023p	2024p
Net revenue	23	14	250	300
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EBIT	-50	-165	-20	-10
Pre-tax profit	-51	-165	-22	-10
CF. After financing	-101	-271	-25	-25
Financing	283	60	0	0
Cash	290	93	68	43

Source: Analysguiden

## Possible value development in projects

MunmuBaram in an interesting phase



Source: Hexicon Q3-report 2021



## Risks

Hexicon is a high-risk investment with great potential. The company's two business prongs reduce the risk compared to if it had been, for example, purely a technology company. The projects have value regardless of whether the technology succeeds and vice versa. However, examples of significant risks are market, price, technology, and financing.

The market for floating offshore technology has bright prospects, but is at an early stage. It is still not certain if this energy source will be sufficiently competitive. The market risk can be considered to have decreased somewhat in the past year. One example is the significant interest in the Scottish auction regarding rights to areas of water where highly capitalized players eventually shared 15 GW of potential capacity for floating technology, for a price of around SEK 5 billion. The Swedish government has clarified that offshore wind power is an important component in climate transition by commissioning the Swedish Power Plant Network (Affärsverket Svenska Kraftnät) to secure the infrastructure. The South Korean market, which is important to Hexicon, has granted new rights. Another market risk is that local resistance sometimes puts a stop to projects, even if the risk far offshore is lower than for bottom-fixed and onshore wind power.

The price level for the various stages of the projects is starting to settle somewhat, with gradually increasing references. The price level will be affected by many factors, including subsidy systems, and may appear lower than Analysguiden has assumed.

The company's technical solution, TwinWind, is, due to its turbines, a different solution than those that have already been launched. Hexicon is convinced that the solution is very competitive. It is patented, theoretically tested from many perspectives, and has been feasibility verified by DNV. Worley is contracted to handle the development of the first full-scale version. However, there is still a lot to be done before it can be proven.

The company's current cash position, including the MSEK 82 from the convertible loan, means that project divestments in the first half of 2023 to finance investments in the technology part and new projects. It cannot be ruled out that additional capital raising will be required, even if Analysguiden does not have this in the forecast for 2023 or 2024. However, the timing of divestments and the capital market's interest in financing not yet profitable companies is a factor of uncertainty.

Hexicon's major ownership in what is intended to be one of the world's largest parks with floating technology, MunmuBaram, currently accounts for a significant part of Analysguiden's valuation. In the event of unexpected stops or delays, this would significantly affect the price target.

**Are the market forecasts too bright?**

**The price level in areas intended for floating wind power is still uncertain**

**TwinWind is in an early phase**

**Additional capital requirements?**

**MunmuBaram is important for the valuation**

## Previous updates

### **Initial coverage report – 28 April 2022**

<https://www.aktiespararna.se/analysguiden/nyheter/initial-coverage-report-hexicon-great-potential-offshore-wind-technology>

### **Q1 update – 23 May 2022**

<https://www.aktiespararna.se/analysguiden/nyheter/analysis-hexicon-value-project-portfolio-increases>

### **Q2 update – 31 August 2022**

<https://www.aktiespararna.se/analysguiden/nyheter/analysis-hexicon-milestone-reached-q2>

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### Analyst:

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