



Stats & Trends

Ocean Energy Market Outlook 2025

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Methodology

The data of this report are based on information provided by ocean energy developers, publicly available specialist sources, third-party and national government websites. Deployment figures are extracted from the Ocean Energy Europe database. The methodology outlines the approach taken for key sections of the report and includes a definition of the parameters studied in the report.



Disclaimer

This publication contains information collected on a regular basis throughout the year and then verified with relevant members of the industry ahead of publication. Neither Ocean Energy Europe, nor its members, nor their related entities are, by means of this publication, rendering professional advice or services. Neither Ocean Energy Europe nor its members shall be responsible for any loss whatsoever sustained by any person who relies on this publication.

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Ocean energy scales towards industrialisation

16 farms supported by public funding will deploy **200 devices** by 2030 (196 MW). **Public grants and revenue-support schemes** were instrumental to unlock this pipeline. This public funding also created market visibility and fostered investor confidence.

Deployments will still need to increase to reach the **650 MW** national targets and commitments, including a 250 MW commercial call for tidal in France.

The **US and China showed strategic and financial commitment to ocean energy**. The US earmarked \$1bn for ocean energy in the last 7 years and China announced a 400 MW target by 2030.

EU and Member States retain a technological advantage but must continue their support to industrialise this new sector.

200 devices to be deployed

The pipeline of publicly funded deployments until 2030 grew to 200 devices, representing 196 MW of capacity added. The serial manufacture of devices will lower costs significantly and strengthen the European supply chain.

250 MW tidal call in France

France committed to launch a 250 MW commercial call for tidal by 2030. This call will create the largest ocean energy market in the EU.

10 MW wave farm awarded

CorPower Ocean won a €40m Innovation Fund grant for its VianaWave project in Portugal. The 10 MW farm is the largest wave farm ever and kick-starts a new phase in wave energy development.

€150m investment over 5 years

Private investors followed public signals and invested €150m into ocean energy in the last 5 years, with both venture capital and energy companies betting on the technology.

400 MW target in China

China doubled down on ocean energy, setting a 400 MW target for 2030. While still less technologically advanced than Europe, the country is committed to “large-scale utilisation of ocean energy” (5-year plan).

\$141m annual budget in US

For the second year in a row, the US allocated the record sum of \$141m to ocean energy in 2025. Despite political uncertainty on some renewables, the commitment to ocean energy remains.

Ocean energy pipeline keeps growing

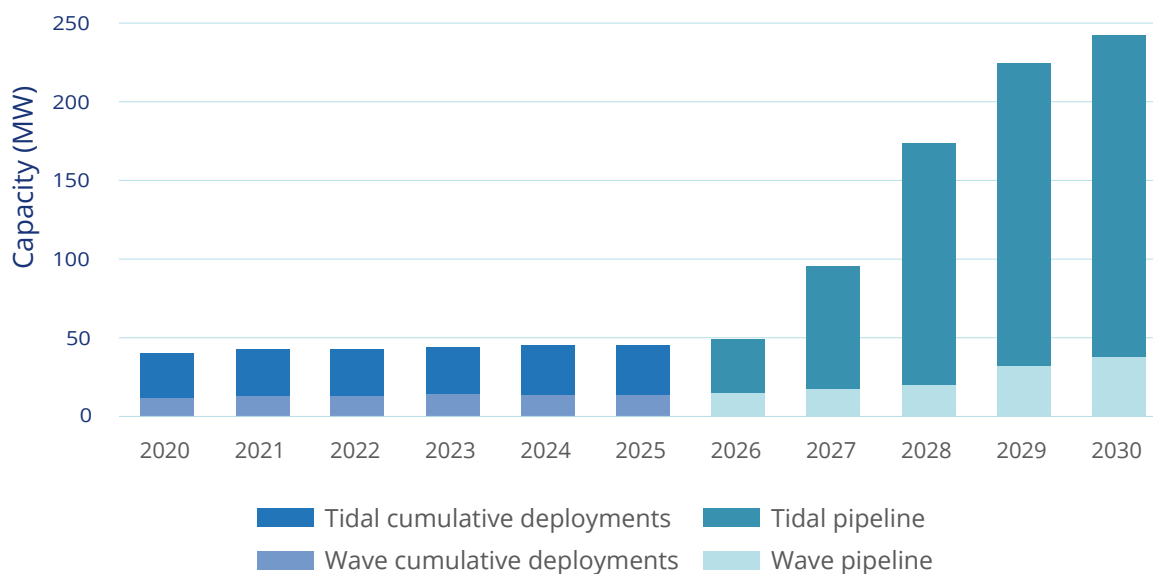


Figure 1: Ocean energy cumulative deployments and pipeline

Source: Ocean Energy Europe, UK and FR governments, Horizon Europe and Innovation Fund call results.

1. MARKET OUTLOOK EUROPE:

Farm pipeline drives Made-in-Europe manufacturing

The European ocean energy sector is moving towards industrialisation. More than 200 devices are set to be deployed by 2030 – 196 MW of new grid-connected generation capacity. Europe's ocean energy companies are starting the manufacturing of these farms. They move to serial production and use newly created, dedicated manufacturing facilities.

This pipeline includes only projects that have already secured public funding, which gives strong confidence in their timelines. It is the direct result of European grant funding and national revenue support that create market visibility and increase investor confidence. If the EU and national governments continue their support, Europe can become the first continent to commercialise ocean energy.

TIDAL STREAM: Revenue support brings tidal pipeline to 140 devices across 11 farms

Tidal developers are gearing up to deploy 11 pre-commercial farms until 2030 – 140 devices and 172 MW of grid-connected capacity. This pipeline continues to grow year-on-year and will deliver new generation capacity mainly in France and the UK.

Revenue support mechanisms are the main driver behind that continued pipeline growth, primarily the UK Contracts for Difference (CfD) Auction Rounds (AR) and French feed-in tariffs for pilot farms.

In February 2026, the French government published its new energy programme, including commercial tenders for 250 MW of tidal farms. The capacity is to be allocated in a competitive call by 2030. The scheme is the next step in the government's strategy for tidal, following a feed-in tariff allocated to the FloWatt project and unlocking the deployment of an initial 17 MW.

The UK government continued their CfDs for the fourth year and allocated another 21 MW under the AR 7 to four developers. Inyanga, Orbital Marine Power and QED Naval extended their project pipeline while developer Tidal Technologies Ltd. got its first CfD award. This means a total of 128 devices are now slated to be deployed under CfDs to provide energy to the UK grid by 2030.

Grant funding remains the second essential tool to finance tidal stream projects. 50 MW of the current pipeline are supported by European grants. Two Innovation Fund grants for the FloWatt and NH1 projects support the first tidal farms in the EU with a total of €51m. Two Horizon Europe grants are supporting Orbital Marine Power's EURO-TIDES project and Nova Innovation's SEASTAR in the UK with a total of €40m.

The pipeline's increase shows that a well-structured mix of national revenue support and European grants remains the key to attract private investors, continue to grow the tidal pipeline, and accelerate industrialisation.

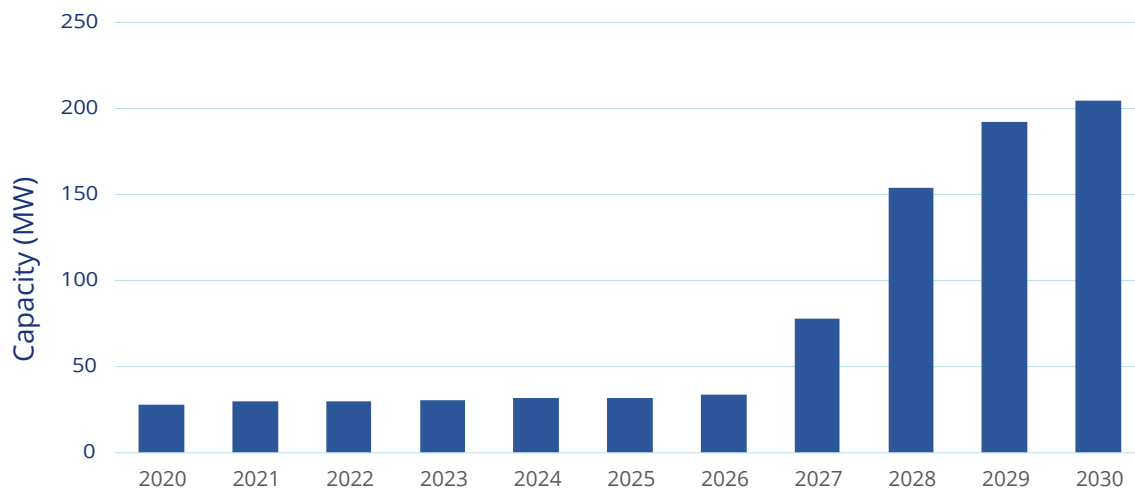


Figure 2: Cumulative tidal energy capacity and publicly funded pipeline

Source: Ocean Energy Europe

Pipeline drives European supply chain

The growing pipeline of increasingly standardised devices drives the expansion of the ocean energy supply chain in Europe. In 2025, SKF – the world's largest bearings manufacturer – committed a seven-figure investment to a dedicated assembly hall for tidal turbines in Hamburg. The facility will be assembling drivetrains for different tidal manufacturers, with a capacity of 25-30 drivetrains a year. The company is preparing to use this facility also for wave manufacturing in the future, showing the convergence of both supply chains.

Scheduled tidal projects have a 100% made in Europe supply chain, with a majority of components and services sourced locally. Developers prefer to task local shipyards with the manufacturing of their machines, as for HydroQuest and CMN in Cherbourg, Normandy. This is also reflected in investment decisions: e.g. the €8m investment into Orbital Marine Power in 2025, which was made partially to develop the local supply chain around their farm deployment in Scotland.

There are several reasons behind this drive: staying close to the resource to reduce logistics, using existing infrastructures and skills, and avoiding IP issues associated with outsourcing crucial components in a sector where Europe is a clear leader.

Steady generation proves technology reliability

Cumulative electricity production from existing farms and demonstration projects reached 127 GWh in 2025. MeyGen and Nova Innovation's pilot farms, as well as the demonstration devices of Orbital Marine Power (O2), Inyanga Marine Energy Group's D10 and Minesto's Dragon 12 provided the bulk of this energy generation.

Tidal turbines generated 16.2 GWh in 2025, enough to power 4,700 homes carbon-free for a year and slightly higher than previous years. The increase in electricity generation is due to some new turbines entering operations. Yet the steady year-on-year production from existing farms underscores the reliability of the technology. Optimisations in maintenance and operations strategies backed by years of operational data allow for stable and predictable generation.

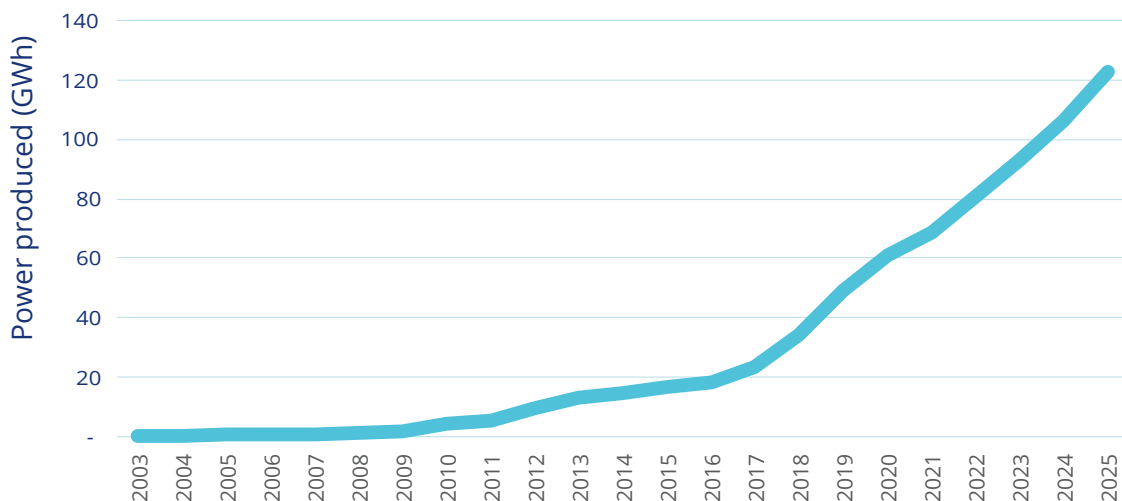


Figure 3: Cumulative power produced by tidal stream in Europe

Source: Ocean Energy Europe





WAVE: First farms under way, full-scale deployment continues

First wave farms in the world will be deployed in Europe

Wave energy technology has advanced significantly in recent years, with several developers now approaching farm-scale deployment. 5 publicly funded wave farms are due to hit the water by 2030, installing 66 devices for 24 MW.

Portugal and Scotland are leading the way. The biggest additions to the pipeline in 2025 were CorPower Ocean's 10 MW VianaWave project – the world's largest wave farm – and their PowerFarm EU project. The company will manufacture the devices for its Portuguese deployments in a dedicated facility, minimising logistics and creating local manufacturing jobs.

European grant funding is the clear driver behind the sustained growth of the wave pipeline. The VianaWave project was kick-started by an Innovation Fund grant of €40m in 2025. The Saoirse wave farm project had already been awarded an Innovation Fund grant in 2023. Two wave farms were also awarded Horizon Europe grants: PowerFarm EU in 2025 followed the ONDEP project that was allocated in 2024.

Those large grants have drawn investors into wave energy. Introducing national revenue support schemes needs to be the next step to complement grant funding for existing farm projects. Reliable revenue support schemes are a decisive factor for a country to gain market leadership in the wave industry. With this support wave can follow the example of tidal and take the next step towards industrialisation.

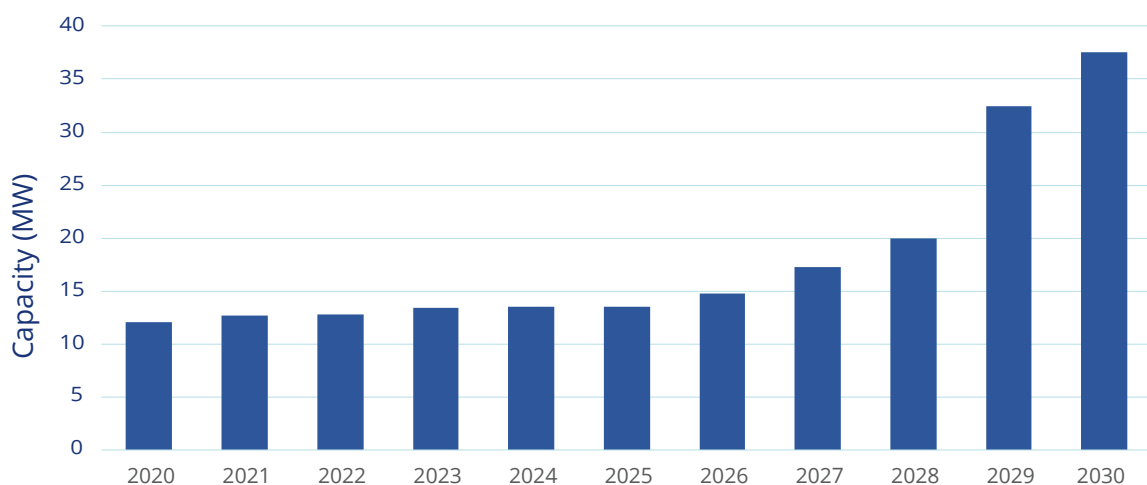


Figure 4: Cumulative wave energy capacity and publicly funded pipeline

Source: Ocean Energy Europe

Full-scale devices pave the way for more farms

Additional developers are getting ready for farm projects, with three developers planning to deploy full-scale devices in 2026. As part of the Horizon Europe funded WEDUSEA project, OceanEnergy Group is manufacturing and deploying a 1 MW device in Scotland. Supported by French national funding authority ADEME, both Seaturms and Wave-Op are preparing for their full-scale wave deployments in France.

This shows that even smaller grants are still key to enable developers to validate their designs at full-scale and ensure the continuation of a competitive wave ecosystem across Europe.

Beyond grid-connected generation, smaller wave energy devices can also power autonomous platforms, e.g. for environmental monitoring or maritime surveillance, directly supporting Europe's ocean observation and maritime security objectives.



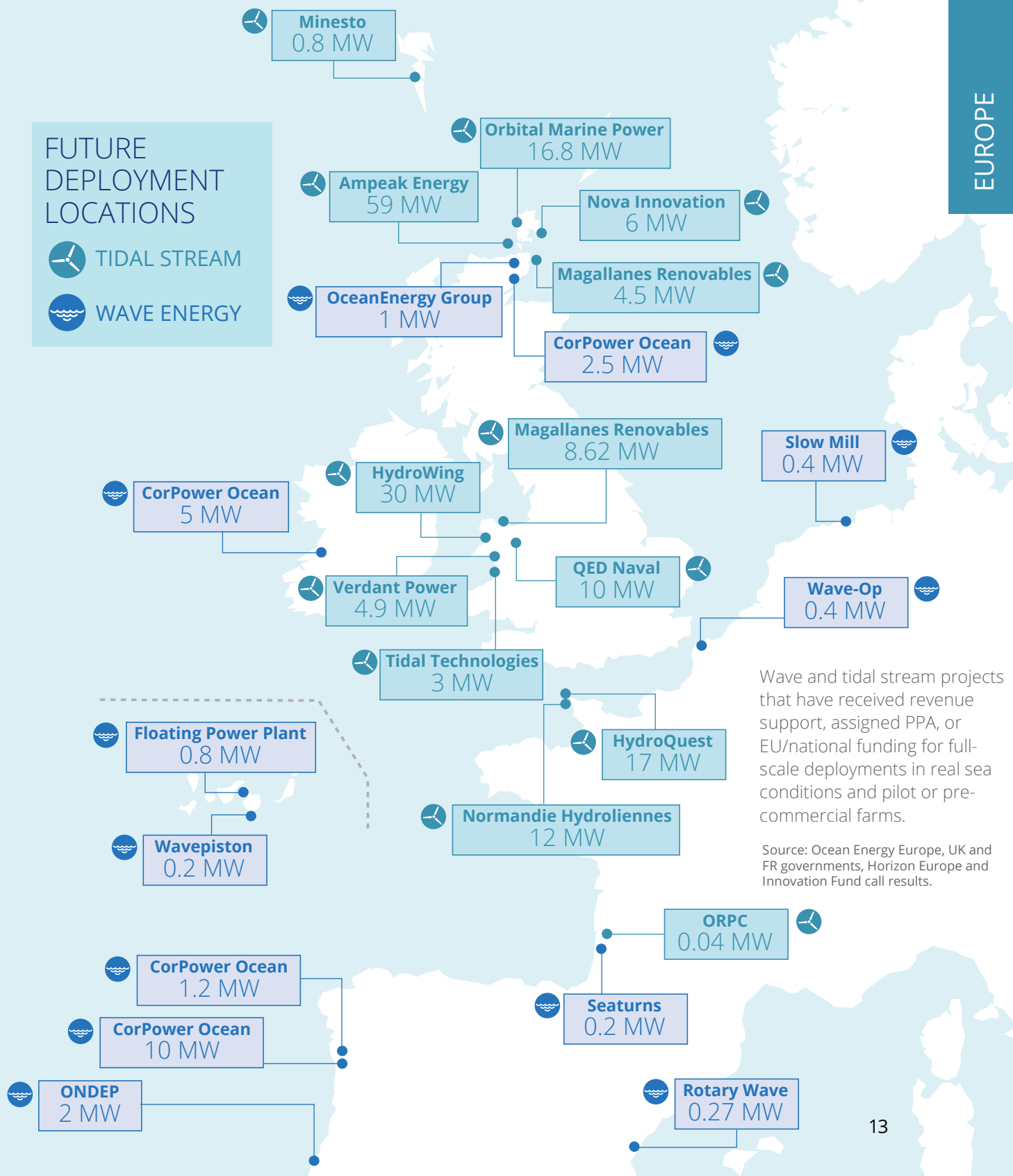
Photo: OceanEnergy Group

FUTURE
DEPLOYMENT
LOCATIONS

TIDAL STREAM



WAVE ENERGY



Wave and tidal stream projects that have received revenue support, assigned PPA, or EU/national funding for full-scale deployments in real sea conditions and pilot or pre-commercial farms.

Source: Ocean Energy Europe, UK and FR governments, Horizon Europe and Innovation Fund call results.

STATED POLICIES: National governments target 650 MW by 2030

France has reaffirmed its support to tidal energy by committing to auction 250 MW of tidal capacity by 2030 in its national energy strategy. The UK, which already awarded 143 MW of tidal CfDs is expected to support another 150 MW by 2030 as the programme continues. Portugal also included a 200 MW target in its National Energy and Climate Plan. Total national targets and commitments in Europe map out the development of 650 MW by 2030, excluding most of the current pipeline.

To turn these targets and awards into actual deployments, governments need to bridge the remaining policy or funding gaps, ideally in coordination with the sector. Some are already acting: the UK ocean energy sector created a joint Task Force with the government to identify policy priorities and develop an industrial roadmap.

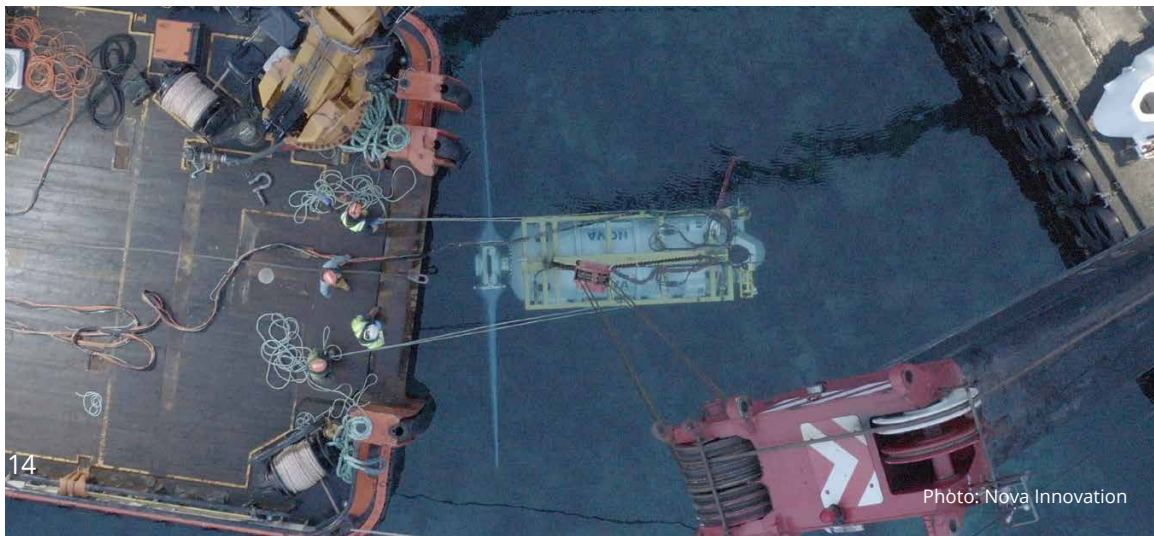
Coordinated action is also needed outside the UK to reach the EU's 1 GW target set in 2020. The pipeline of projects shows that technologies are ready for the next stage. Companies are developing projects and already attracting investors. Yet permitting issues or the lack of revenue support systems in some countries remain the main barriers to industrialisation.



Figure 5: National targets and revenue support mechanisms, in MW*

Source: Ocean Energy Europe

*UK figure assuming continuation of auction rounds for tidal at the current pace and excluding capacity already in the 'pipeline' figure



European companies exporting technology abroad

European companies are the market leaders in wave and tidal energy, both in terms of technology development and in terms of deployments. As other world regions start exploiting their significant ocean energy resources, European companies are already exporting their technology.

Last year, Proteus Marine Renewables deployed their megawatt scale AR1100 turbine in the Naru Strait in Japan. This is already the second deployment of the company in Japan, following a smaller 500 kW turbine in 2021 and showcasing the continued interest in the technology in Japan.

In 2025, Orbital Marine Power announced they received a license from Nova Scotia to deploy 12.5 MW of tidal turbines in the Bay of Fundy, the world's best tidal spot. The company already secured permits and a PPA for the first 3 turbines.

Ocean currents are another promising power source in many world regions, with Dutch company Equinox Ocean Turbines getting their scaled model ready for ocean testing.

Wave developers are looking to export their technology abroad, after successfully demonstrating it in Europe. Companies such as Seaturms or Wavepiston are in advanced negotiations to deploy wave farms in small island nations, where grids are particularly difficult to decarbonise.



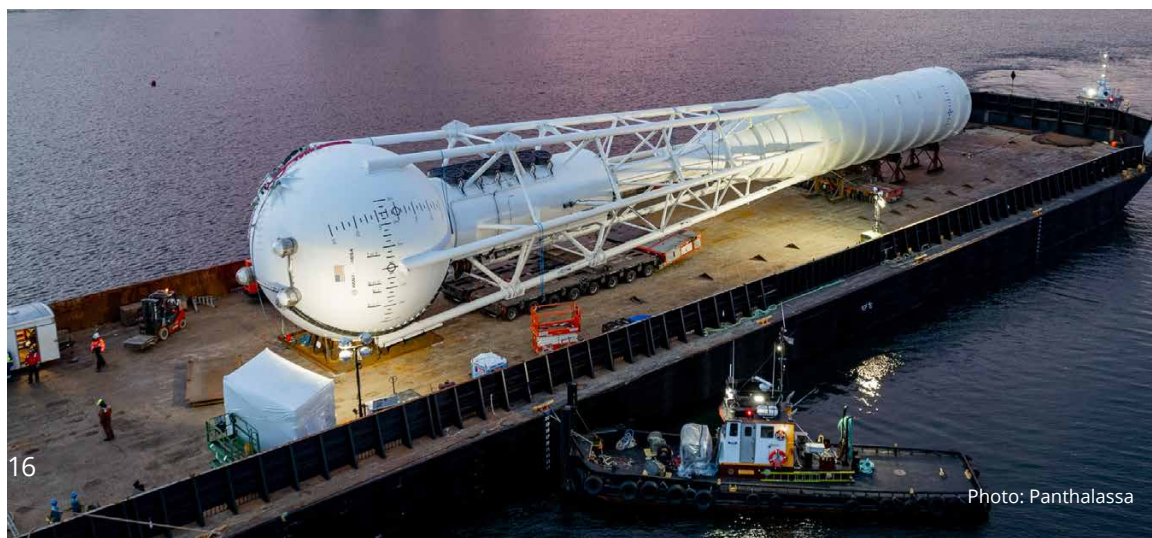
2. MARKET OUTLOOK GLOBAL: US and China press on with funding and policy support

\$141m yearly funding from US shows continued strong commitment to ocean energy

The US shows the strongest policy and financial support for ocean energy outside Europe. From the 2025 budget, \$141m was earmarked for ocean energy through the Hydropower and Hydrokinetic Office (H2O), the same sum as in 2024. While the change in administration has cast some questions on support for renewables in general, ocean energy is seen as an important tool to support energy dominance. 2024 grants had been blocked by the new administration but are now starting to be transferred to awarded companies. Support in both the US House of Representatives and Senate is still very strong.

Policy and financial support focus on wave energy, as it is the more abundant resource in the US. As a major step, the PacWave wave test-site opened its 'PacWave South facility' in 2025 and put in place a PPA for up to 20 MW capacity by 2030. US wave company CalWave is preparing to deploy their devices under this PPA. Eco Wave Power also showcased their onshore wave energy converters in the Port of Los Angeles in 2025. Panthalassa deployed a first fully unmoored offshore wave device in 2024. They currently prepare the production and deployment of their next prototypes. The company recently closed a record \$140m VC funding round, showcasing the interest in this application of wave energy.

The US continues to develop tidal projects as well, chief among them the Tidal Energy Advancement project worth \$35m. ORPC and Proteus Marine Renewables as well as Orbital Marine Power have won a first stage award, with the decision for the final site and technology developers expected very soon.



China sets 400 MW ocean energy target for 2030

Although the Chinese ocean energy sector is less advanced than the European one in terms of technology readiness and deployment experience, the country is setting ambitious goals for the sector. After naming ocean energy as one of its energy priorities in its new Energy Law in 2024, the Chinese government specified their plans last year: six ministries published a set of 'Guiding Opinions' on ocean energy, setting a 400 MW ocean energy target by 2030, including a 100 MW tidal energy development. The first step towards it will be a 50 MW tidal project in Zhoushan, to be developed by technology developer LHD in collaboration with SPIC, one of the five large state-owned Chinese electricity generation companies. LHD has already deployed 3 devices at the site in the past which will serve as the technological basis.

The 'Guiding Opinions' also target the development and testing of MW-scale wave energy devices, building on designs already deployed and tested in China in the past, such as the 1 MW Nankun Hao pilot.



3. FINANCE:

Private investment follows public signals

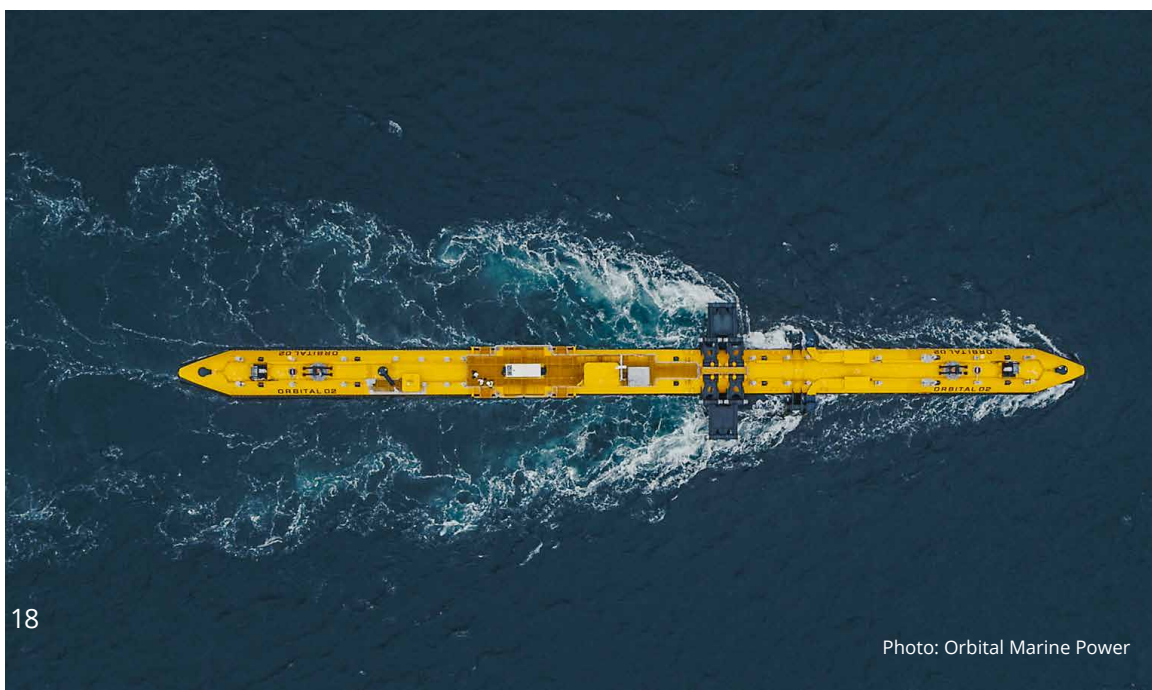
PUBLIC FUNDING: Grants and revenue support key to make projects bankable

Grant funding and revenue support are the two essential tools to bring ocean energy to market. Grants reduce the need for private capital and lower the overall cost of capital as a result. Revenue support ensures stable future cash flows for investors and creates a business case.

€92m EU grant funding allocated to ocean energy

The Innovation Fund and Horizon Europe remain the two largest grant providers for ocean energy. The largest grant allocated in 2025 was the €40m Innovation Fund grant for CorPower Ocean's VianaWave project in Portugal. The company follows tidal developers Proteus Marine Renewables and HydroQuest, who won Innovation Fund grants in 2024 for their French tidal farms. CorPower Ocean also won a €19m Horizon Europe grant for their PowerFarm EU project in Scotland, the second wave farm to be awarded after the ONDEP project in 2024. The European Innovation Council, which had previously supported Nova Innovation and Minesto, also awarded a €2.5m grant to CorPower Ocean, alongside a €15m equity pre-commitment.

Apart from reducing capital needs and lowering capital costs, grants provide a “seal of approval” for private investors, as winning a grant always implies passing strict technical and financial evaluations.



France commits to 250 MW commercial tender for tidal

In early 2026, France published its long-awaited multiannual energy programme 'Programmation Pluriannuelle de l'Energie'. It includes a commercial tender for 250 MW of tidal capacity at the Raz Blanchard, with contracts to be awarded by 2030. This follows a feed-in tariff awarded to the FloWatt project in the Raz Blanchard and will massively expand the capacity at the site. Once implemented, this will be the second large-scale revenue support scheme for tidal stream in Europe.

For the fourth year since 2022, the UK had an earmarked budget for tidal CfD auctions. An additional 21 MW were awarded to four developers. This brings the total capacity contracted under CfDs to 143 MW, representing 128 devices. This ringfenced budget for tidal is crucial to guarantee that innovative technologies are financed. Competition with more established technologies such as wind or solar would not yield any tidal project awards.

Ocean energy farms are project-financed and require revenue support to be bankable. CfDs or feed-in tariffs ensure a fixed income per kWh delivered, providing guaranteed future cash flows and creating a business case for investors. The UK CfDs immediately brought about a tidal pipeline. The upcoming call in France will have the same effect. Multi-annual schemes also provide great market visibility. This reassures investors that the deployments scale up and technology costs will go down, making the sector worth investing into for the long term.



PRIVATE FINANCE: Investments reach €150m since 2021

In 2025, private investment into wave and tidal remained at the same level as in 2024. In total, €150m of private investments have flowed into the sector in the last five years. This shows that the market signal sent by large public grants and revenue support schemes directly brings private money into the sector.

The largest single new investment this year – an €8m investment into Orbital Marine Power – followed their announcement of winning a PPA for their Canadian project. Additional investors also joined CorPower Ocean, after the company won two additional European grants. In 2024 the company had already raised €32m from private investors upon winning an Innovation Fund grant the same year.

The pattern is clear and well known from innovative sectors that have scaled up in the past, such as wind or solar: private investments are unlocked by public funding awards.

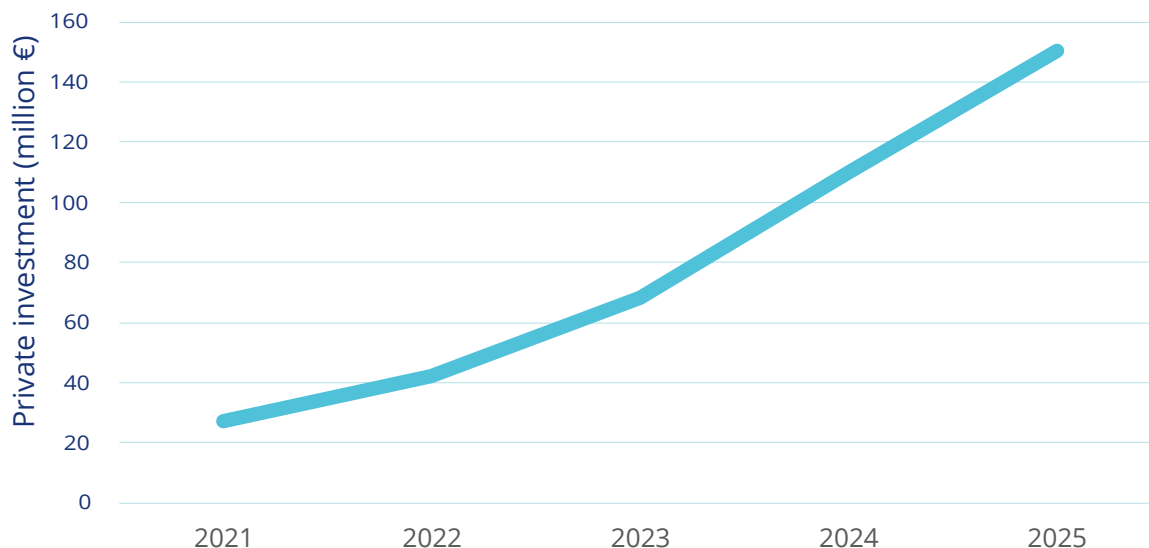


Figure 6: Cumulative reported investment in ocean energy since 2021

Source: Ocean Energy Europe

Venture capital interest grows

As the scale-up potential of ocean energy becomes clear, wave and tidal companies increasingly attract interest from energy companies seeking to widen their portfolios, and institutional investors seeing it as a venture opportunity.

In 2024, CorPower Ocean's €32m funding round was led by venture capital (VC) investors such as Nordic Ninja and SEB Greentech VC. In 2025, the VC arms of two established energy companies – Tokyo Gas and GTT – joined CorPower Ocean's funders. Orbital Marine Power also attracted VC funding from UK venture fund PXN Ventures who joined Scottish Enterprise as shareholder.

New players entering the market also benefit from venture capital to speed up their development, as shown by Caudal Energy announcing the close of a €1.4m venture round in 2025.



Photo: Seaturns

4. NEWS

Sector highlights 2025

PROTEUS MARINE RENEWABLES

Second deployment of tidal turbine in Japan



Photo: Proteus Marine Renewables

Tidal technology developer Proteus Marine Renewables deployed a 1.1 MW turbine in the Naru Strait in Japan. This is an example of European technology leaders already exporting ocean energy technology globally. This is the second time the company deploys a turbine in this tidal hotspot and reaffirms its relationship with regional energy company Kyuden Mirai Energy. The deployment was financed by the Japanese Ministry of the Environment through a competitive call.

MINESTO

Microgrid project shows tidal baseline potential



Photo: Minesto

As part of its developments in the Faroe Islands, Minesto is leading the €4.7m ETRIC project, which integrates Minesto's tidal kite with an electricity storage solution. The project showcases the viability of predictable tidal generation in combination with battery storage, which can support carbon-free 24/7 microgrids. Minesto has already deployed two devices in the Faroe Islands and is planning a farm development in the coming years.

CORPOWER OCEAN

Largest wave farm to date

With the support of an Innovation Fund award of €40m, CorPower Ocean will deploy its 10 MW VianaWave project close to Viana do Castelo in Portugal. It represents the largest wave farm allocated to date. CorPower Ocean will draw on synergies with its other Portuguese projects, using a dedicated assembly facility by the port for the manufacture of the devices. This project is also supported by the company's Series B funding, which closed in 2025 with the participation of strategic energy investors Tokyo Gas and GTT.



WAVE-OP

Onshore wave solution approaches commercial readiness

Wave-Op began the construction of its full-scale onshore wave demonstrator in Boulogne-sur-Mer. The devices are placed on a breakwater, protecting the infrastructure while generating electricity. The system is modular and can be extended to cover the whole breakwater. While smaller than the offshore market, onshore wave devices can contribute to decarbonising ports and feed electricity into the local grid. The device is developed by Wave-Op, a joint venture between construction major Groupe Legendre and tech developer GEPS Techno.



A year in ocean energy

January

Wales introduces strategic resource areas for tidal stream as a category in its marine spatial planning.

The DESALIFE project kicks off in Gran Canaria, under which tech developer **Ocean Oasis** will deliver a wave powered desalination device.

February

Proteus Marine Renewables deploys a 1.1 MW turbine in Japan's Naru Strait, the second deployment of the company in Japan.

The **EIC Accelerator** backs **CorPower Ocean** with a €17.5m package of grant and pre-commitment for equity investment to advance their tech.

March

The €10m **SHINES Project** is launched, under which **Inyanga**, **ORPC** and **SeaCurrent** will deploy tidal devices.

Slow Mill validates its wave demonstrator in the North Sea, producing energy for the first time.

April

The world's largest tidal farm, **MeyGen** delivers the highest output of its 8-year operation, showing the reliability of the tech and steady operational optimisation.

Tidal start-up **Caudal Energy** (formerly Porpoise Power) announces a €1.4m capital raise from venture capital funds.

May

Havkraft completes a successful sea-trial of its scaled prototype in Norway.

Wave developer **Carnegie** and bearings manufacturer **SKF** sign a long-term partnership for SKF to provide components.

June

The UK launches a **Marine Energy Task Force** in which industry leaders will deliver a strategic roadmap for the roll-out of ocean energy in the UK.

Wave-Op, a joint venture of Groupe Legendre and **GEPS Techno**, starts construction on its breakwater wave energy device in Boulogne-sur-Mer.

The ETRIC project starts, under which **Minesto** will deploy an upgraded Dragon tidal kite together with a storage solution.

July

The **European Commission** names Ocean Energy as a key technology for reaching EU renewable targets.

CorPower Ocean wins an Innovation Fund award for their VianaWave project and energy investors Tokyo Gas and GTT join the company's funding round.

Inyanga secures a €4.3m investment from a group including the British Business Bank and angel investors.

August

Horizon Europe awards €4m to the COIN project, under which a consortium around **Carnegie**, **POLITO** and **WavEc** will optimise wave energy converter efficiency and improve subsea infrastructure.

The **US TEAMER programme** announces 18 new marine energy projects to support, for a total of €2.3m.

September

Eco Wave Power installs their onshore wave energy system in the Port of Los Angeles to showcase its potential.

Wave energy developer **Carnegie** raises €1.3m through share offering.

A new study by CorPower Ocean shows how wave energy can **lower electricity prices in a 24/7 renewable system**.

October

Seaturns begins the offshore testing campaign for its full-scale wave energy device, to be deployed in 2026.

The Marine Renewable Energy Collaborative in Massachusetts receives a \$2m grant to expand and upgrade its tidal and wave test-site.

November

Orbital Marine Power receives a 12.5 MW license for tidal energy in Nova Scotia along with an authorisation for the first 3 turbines.

PacWave test-site in Oregon, USA signs a PPA with local utility to take off up to 20 MW.

December

The **PowerFarm EU** project is announced, a Horizon Europe project led by **CorPower Ocean** which will fund part of a 5 MW wave farm to be deployed in Scotland.

Orbital Marine Power secures an €8m venture capital investment on the back of its publicly supported projects in the UK and Canada.

Want to go into more detail?

Did you know that Ocean Energy Europe members can request information from our 'Kit-in-the-Water' database about projects deployed around the world?

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About Ocean Energy Europe

Ocean Energy Europe (OEE) is the voice of the ocean energy industry. Over 120 organisations, including Europe's leading utilities, industrialists and research institutes, trust OEE to represent the interests of the sector, making it the largest network of ocean energy professionals in the world.

Working in close relationship with its members, OEE possesses the data, knowledge and legitimacy to deliver strategic analyses of the sector's development and needs.

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