New European programme to fund open sea testing for ocean energy

14 July. Brussels. The €11m FORESEA project brings together Europe's leading ocean energy test facilities to help demonstration of tidal, wave and offshore wind energy technologies in real-sea conditions. The project is funded by the Interreg NWE (North-West Europe) programme, part of the ERDF (European Regional Development Fund).

Led by the European Marine Energy Centre (EMEC), the FORESEA (Funding Ocean Renewable Energy through Strategic European Action) project will provide funding support to ocean energy technology developers to access Europe's world-leading ocean energy test facilities:

- EMEC (Orkney Islands, UK)
- SmartBay (Galway, Ireland)
- SEM-REV (Nantes, France)
- Tidal Testing Centre (Den Oever, Netherlands)

The test centres will be supported by European industry group Ocean Energy Europe, based in Brussels.

The first call for applicants to apply for support packages is scheduled to be announced later this month.

Investors in the ocean energy sector want to see that technology has been proven to work in the sea and at scale before committing. However, the cost of pre-commercial demonstration of full scale ocean energy technology is high. This results in the so-called "valley-of-death" phenomenon and prevents products reaching the market.

To address this issue, FORESEA will offer a series of funding and business development support packages to TRL 5+ ocean energy technology developers seeking to test and demonstrate in

real-sea and grid-connected conditions, and leverage the further investment needed to take their product to market.

Commenting on the project launch, **Karmenu Vella, European Commissioner for the Environment, Maritime Affairs & Fisheries** said:

"This programme shows the added value of European cooperation. If we are to help ocean energy on a path towards commercialisation, countries as well as companies will have to work together to overcome joint challenges. The European Commission is encouraging this kind of cooperation, for example through the Ocean Energy Forum as well as programmes such as this one."

Welcoming the announcement, **Scotland's Minister for Business, Innovation and Energy, Mr Paul Wheelhouse**, said:

"Scotland is recognised as a world leader in wave and tidal energy with some of the leading technologies being developed and tested here.

"Today's announcement will allow technology developers to move towards commercial readiness at the world's leading ocean test facilities; the European Marine Energy Centre (EMEC) in Orkney as well as in Ireland, France and the Netherlands.

"The €11m FORESEA project is a tremendous achievement by EMEC and complements the innovative funding approaches for marine energy that the Scottish Government is already providing through Wave Energy Scotland, the Renewable Energy Investment Fund and our enterprise agencies. The Scottish Government is committed to developing a marine energy sector in Scotland and today's announcement is a tremendous boost to the sector."

Oliver Wragg, Commercial Director, at EMEC, said:

"Europe is currently leading the world in ocean energy development. The FORESEA programme will help cement this lead by stimulating a critical mass of technology development activity, bridging the gap between ocean renewables R&D and the marketplace, whilst neatly building on existing EU initiatives currently supporting wave and tidal energy technology development across Europe.

"The cost of pre-commercial testing and demonstration for ocean energy is high and investors are generally reluctant to invest until the technology has been proven in the sea at scale. FORESEA will provide financial assistance to Europe's most promising ocean energy innovators

and help them 'get metal wet', get their technologies tested in real-sea conditions and get private investment flowing into the sector.

"We're delighted to be leading this programme, and are looking forward to working with our partners in Ireland, France, the Netherlands and Belgium to help tidal, wave and wind energy developers prove their technologies in Europe's seas".

Rémi Gruet, CEO of Ocean Energy Europe said:

"We are very happy to support the FORESEA programme as it will help plot a route to market for a range of technologies in the ocean energy sector.

"The size of the prize for commercialising ocean energy is huge. In Europe alone, the industry plans to deploy 100GW of generation capacity by 2050, meeting 10% of Europe's electricity demand. Not only does this mean generating clean and secure renewable energy, it also means creating a new industrial sector based firmly in Europe.

"This year we are seeing pre-commercial ocean energy farms hit the water in Europe, ahead of anywhere else in the world. The industry and its partners need to continue to build on this momentum by bringing new technologies to market through research, demonstration and innovation activities. FORESEA provides an important piece of the puzzle for doing just that, and we will look forward to working with our colleagues at Europe's leading open sea test centres to make this programme a success."

Ends

For further information and photos, contact:

Rob Flynn, Communications Manager, Ocean Energy Europe
Tel: +32 2400 1040
Email: r.flynn@oceanenergyeurope.eu

Lisa MacKenzie, Marketing & Communications Officer, EMEC
Tel: +44 (0)1856 852207
Email: lisa.mackenzie@emec.org.uk

Editors notes:

About FORESEA

The FORESEA project helps small and medium-sized enterprises (SMEs) test ocean energy technology in real sea conditions and prove power can be economically generated from the ocean, by providing free access to North-West Europe's world-leading network of test centres.

It is funded by the Interreg North West Europe programme, part of the European Regional Development Fund (ERDF).

About EMEC (European Marine Energy Centre)

Established in 2003, EMEC is the world's leading facility for testing wave and tidal energy converters in real sea conditions. The centre offers independent, accredited grid-connected test berths for full-scale prototypes, as well as test sites in less challenging conditions for use by smaller scale technologies, supply chain companies, and equipment manufacturers.

To date, more marine energy converters have been deployed in Orkney, Scotland, than at any other single site in the world: EMEC has hosted 16 wave and tidal energy clients (with 25 marine energy devices) spanning 9 countries.

With over 12 years of unprecedented experience, EMEC also offers performance assessments, Environmental Technology Verification (ETV), a range of research and consultancy services, and has facilitated the development of international standards for marine energy.

www.emec.org.uk

SmartBay

SmartBay supports the testing and validation of novel marine and maritime sensors and equipment, and of ocean energy conversion devices, at the ¼ scale Smartbay Test Site in Galway Bay. This site is part of Ireland's infrastructure to support research and development in the marine renewable energy sector allowing a developer to progress the TRL scale; facilities include a fully licensed ocean test site, featuring surface platforms, wireless communications to shore and a sub-sea cabled observatory and node, along with a set of services available ashore from marine operations support to maritime engineering.

Users can access the site, availing of the facilities and of Smartbay's cyber environment, to test and validate marine ICT, ocean energy devices and innovative solutions for the marine and related sectors.

http://www.smartbay.ie/

SEM-REV

The SEM-REV is a fully consented and grid connected open sea test facility for marine renewable technologies. SEM-REV is part of the experimental facilities of Ecole Centrale Nantes and has been developed, through public financial support, to validate & to optimize both Wave Energy Converters and Floating Wind Turbine in real open sea conditions.

Operations are supervised from the land station in Le Croisic – west coast of France - by a dedicated team with all the required equipment to ensure operability, security and safety of data acquisition, energy converter control and survey.

Environmental monitoring is operational since 2009, the connection HUB was installed in the summer 2015 and thus the site is now 100% operational.

http://www.semrev.fr/en/

Tidal Testing Centre (TTC)

The Dutch Tidal Testing Centre (TTC) located in the North of Holland at Den Oever provides excellent opportunities for tidal stream testing at intermediate scale. In cooperation with partners the centre offers testing in a two ducted channels, open water tow tests with a barge and at a dedicated offshore floating site. Next year a low head facility comprising three ducted channels of different size will become operational.

Besides these services, TTC is involved in several funded research projects both in national and international consortia.

http://www.tidaltesting.nl/

Ocean Energy Europe

Ocean Energy Europe is the largest network of ocean energy professionals in the world. 105 organisations, including Europe's leading utilities, industrialists and research institutes, trust Ocean Energy Europe with the promotion of ocean energy; acting as the main link between Europe's ocean energy industry and the EU institutions (European Commission, European Parliament, EIB etc) and EU Member States.

Ocean Energy Europe employs a dedicated team of renewable energy lobby and communications professionals with the skills needed to position ocean energy as a key

technology for the EU to meet its strategic objectives and generate funding opportunities for the sector.

http://www.oceanenergy-europe.eu/

Interreg North-West Europe

The Interreg North-West Europe Programme fosters transnational cooperation to make the Northwestern Europe a key economic player and an attractive place to work and live, with high levels of innovation, sustainability and cohesion. Here you can find information about our funding opportunities and the positive change our projects have brought to the territory and its people.

http://www.nweurope.eu/