

PRESS RELEASE
Marine Renewable Energies – FORESEA European Programme
Two new technologies to be tested on SEM-REV in 2017

16 December 2016

On 8th November, the European programme FORESEA, which supports Marine Renewable Energy projects, approved applications from Geps Techno and Pytheas Technology to test their technology on the SEM-REV offshore test site. One-of-its-kind in Europe, SEM-REV receives most of its funding from the Pays de la Loire region and is operated by Centrale Nantes and the CNRS. With these two new projects and the hosting of FLOATGEN floating wind turbine, the SEM-REV offshore test site has got off to an impressive start.

Offshore testing is essential to measure the performance of marine energy technologies (wind, tidal and wave energy), but it remains very expensive. The FORESEA European project provides a concrete response to this need for corporate financing, by meeting up to 60% of the cost of offshore testing. FORESEA has been **designed for developers who want to test MRE technologies, subsystems, components, engineering solutions or products.**



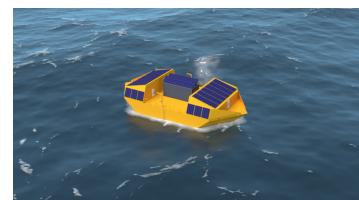
The Pays de la Loire region is one of the best sites in Europe for marine renewable energy testing. It is therefore quite natural that SEM-REV participate in FORESEA alongside other European sites, with an international dimension, on the Atlantic coast: EMEC in Scotland, Smart Bay in Ireland, and the Tidal Testing Center in the Netherlands.

Bruno Retailleau, President of the Pays de la Loire Region and of the Atlantic Arc Commission, Conference of Peripheral Maritime Regions of Europe, welcomes the success of SEM-REV: "*The Pays de la Loire Region supports the MRE sector through investment in test infrastructure that is unique in Europe, such as the SEM-REV test site. The FORESEA project demonstrates that Europe is encouraging these local dynamics by mobilizing funding for research and innovation and by helping new products get to market. Congratulations to the Centrale Nantes teams, who receive recognition on a pan-European scale, for flying the colours of Pays de la Loire research!*"

According to **Christian Berhault**, Director of the SEM-REV test site, "*FORESEA and the selected test projects demonstrate the attractiveness of the SEM-REV site. Today, more than ever, the Centrale Nantes test site is the cornerstone of the MRE sector in Pays de la Loire and a decisive asset for the industrial development of MREs.*"

A few details about the two projects selected:

- **Geps Techno**, a company based in the Pays de la Loire, will test the wave-power prototype for the IHES project (18m x 10m x 7m high) as early as 2017. It aims to validate the performance of energy recovery system by stabilizing the platform through offshore testing of an independent platform. As well as demonstrating the technology under operational conditions, the IHES project will enable the development of design tools, including digital models that will optimize the products of tomorrow. Innovation is present throughout the programme: hybrid energy storage (batteries and supercapacitors), controlled stabilization, regulation without mechanical sensor etc.



Jean-Luc Longeroche, CEO, Geps Techno: "*FORESEA is a unique opportunity for Geps Techno: by meeting the costs of the SEM-REV test platform, FORESEA allows us to accelerate the deployment of our offshore technology with an acceptable budget for an SME, whilst we continue to benefit from the regional industrial fabric of the Pays de la Loire, associated with our projects since the creation of Geps Techno*".

- **Pytheas Technology:** the PywEC project aims to develop an innovative generator dedicated to marine renewable energies (adapted to slow and variable movements) and to test it on the first French wave-power system installed on the SEM-REV offshore test site.

Rémi PASCUAL, Operations Director, Pytheas Technology: "The FORESEA programme allows us to test our generator at sea, on the SEM-REV site, where many of our partners are located. This test phase under real operational conditions is a necessary step in the development of our technology and will allow us to specify the pre-commercial demonstrator at the end of the project."

SEM-REV is the **first offshore test site for multi-technology marine renewable energies (MRE)** (mainly wave energy and wind turbines) in the world. It is **connected to the electricity grid and in possession of all the necessary administrative authorizations**. Operated jointly by Centrale Nantes and the CNRS, SEM-REV has equipment at sea and on land to develop full-scale demonstrators and prototypes under operational conditions.

The scientific objectives of the SEM-REV test site in the MRE field are as follows:

- Evaluate and improve prototype performance
- Develop components and subsystems
- Analyse the interaction with the electricity network
- Define and implement protocols for environmental impact analysis

SEM-REV will also support initial and ongoing training on MREs, in particular for installation, maintenance and dismantling operations.

Launched in 2007 within the framework of the CPER 2007-2013 (pluriannual French state/regional infrastructure planning and investment programme), this visionary project, whose overall budget should reach around €20 million, is currently funded to the tune of €17 million by several partners, foremost among them the Pays de la Loire region (€9.9m), the State (€3.2m - including €1.75m as part of the national Investment for the Future Programme) and the Loire-Atlantique (€1.25m). €2.5 million in European funding (ERDF) has also been sought.

The Agence Régionale - Pays de la Loire Territoires d'Innovation* is a partner of Centrale Nantes in the FORESEA project. As such, the Agency is tasked with identifying technology developers (complete systems, subsystems, components, logistical solutions, own products, etc.), and helping them to find partners in the local supply chain for the test phase on SEM-REV, and to secure finance for marketing and distribution.

FORESEA opened the second call for applications on 8th November

FORESEA opened its second call for applications on 8 November. As for the first, it will provide support for companies that need to test low-carbon energies under real conditions on the following sites:

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

The call for applications published by the project consortium is open to applicants wishing to test their technology before October 2018. Priority will be given to technologies that can be installed on test sites in 2017. This second call will particularly favour technological component testing. The submission deadline is 28 February 2017 at 17:00.

Full details available here: <http://www.nweurope.eu/media/1462/foresea-call-text-second-call-for-applications.pdf>

Technology developers located in the Pays de la Loire who are interested in this call for applications, are invited to first contact the Marine Renewable Energy Department of the Agence Régionale Pays de la Loire or Centrale Nantes:

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* Agence Régionale - Pays de la Loire Territoires d'Innovation – its role is to contribute to the operational implementation of economic development policy in the region by reinforcing the innovation, attractiveness and internationalisation of the region and its industry.

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