

Press Release

Nantes, June 24th, 2014

Kick-off meeting for the renewed FLOATGEN project, leading the way in European deep offshore wind energy with the first floating wind turbine demo in France.

Seven partners from four European countries gathered at Ecole Centrale de Nantes on June 24th to kick-off overhauled research project configuration on floating offshore wind energy, featuring a France premiere: the FLOATGEN demo project will see the deployment of a 2 MW floating turbine in the Atlantic Ocean, at SEM-REV test site located 12 nautical miles from the city of Le Croisic on the French Atlantic coast.

The objective of the FLOATGEN project is to demonstrate the technical and economic feasibility of floating-wind turbine, in order to expand the development potential of offshore wind farms into more windy and deeper waters that are not currently commercially viable and demonstrate potential in decrease of costs for electricity generation.

The project will also assess the performance of such combination of wind turbine and floating structure technology to get the knowledge to improve the performance of future up scaling projects of this technology.

Mauro Villanueva, Technology Development Director of GAMESA and coordinator of FLOATGEN, underlines *“The project has undergone several changes but is now ready to demonstrate the first 100% European technology wind floating demonstrator at 12 miles offshore the French Atlantic coast.”*

Originally launched in January 2013, FLOATGEN now welcomes Ecole Centrale de Nantes and its test site SEM-REV within the consortium. *“SEM-REV consists in a 1km² test site offshore zone including oceanographic monitoring instruments and an onshore research centre, a sub-sea high voltage export cable, a sub-sea connection system and an electrical substation connected to the national grid. At this moment, SEM-REV is fully operational in terms of authorizations which fit perfectly with FLOATGEN project planning.”* explains Christian Berhault, director of the SEM-REV Marine Energy Test Site

The consortium now features 7 partners led European consortium, industry led by the global wind turbine manufacturer, GAMESA, in close cooperation with the floating foundation supplier IDEOL, the contribution of UNIVERSITY OF STUTTGART and supported for monitoring, environmental and dissemination activities by FRAUNHOFER-IWES and RSK GROUP, and last but not least the Ecole Centrale de Nantes that operates the SEM-REV test site.

The 2 MW demonstrator will use IDEOL's Damping Pool[®] technology, a cost efficient patented ring-shaped surface floating platform. Its novel hydrodynamic properties make its performance exceptional compared to other floating platforms. Its patented moon pool concept acts as a damper to wave motion thanks to the oscillation of the water mass entrapped in such inner pool. These oscillations compensate for wave diffraction loads and thus reduce the induced motion on the turbine.

FLOATGEN is co-financed by the European Commission's 7th Framework Programme .

The project partners' representatives during the kick-off meeting



List of project partners

GAMESA is the consortium coordinator and has a sound track record of leading wind energy EC R&D projects in FP6 and FP7, such as the widely cited RELIAWIND and WINDTRUST. It also participates in several projects, playing in all cases a leading OEM Industry role.

With a track record stretching back 20 years and installation of over 29,000 MW in 43 countries, GAMESA is a world technology leader in the wind power industry. Its end-to-end value response encompasses wind turbine design, manufacture, installation and operations and management (19,800 MW).

GAMESA is also a global benchmark in the development, construction and sale of wind farms. To date, it has installed almost 6,000 MW and currently boasts a pipeline of 18,300 MW at varying stages of development in Europe, the Americas and Asia.

IDEOL, headquartered in La Ciota (France) is a company specialized in the engineering and installation of floating foundations for the offshore wind industry. Its fully integrated team of experts and specialty engineers coming from the renewables and offshore oil & gas industries, IDEOL has developed an innovative, relatively compact and particularly cost-competitive solution using its proprietary and patented « Damping Pool[®] » system.

The numerous benefits of IDEOL's design have the potential to transform the offshore wind industry given its strong impact on the economic viability of both floating and bottom-fixed offshore projects starting at depths of 35m. With projects in France and abroad, IDEOL aims at having additional demonstrator and pilot projects afloat on multiple continents by 2018.

The University of Stuttgart USTUTT educates 24.000 students and belongs to the leading technical Universities in Germany. It boasts a long tradition in wind energy research. Today, Stuttgart Wind Energy

(SWE) at the Institute of Aircraft Design, the Institute of Aerodynamics and Gas Dynamics (IAG) and some other groups jointly conduct wind energy research. The number of staff currently working on wind energy topics within these institutes is approx. 35, with the number steadily increasing. The SWE was endowed in January 2004 by a private-public partnership of Karl Schlecht. It is the wind energy chair with the longest tradition in this sector in Germany and is currently involved in 6 Bachelor and 8 Master Courses related to Renewable energies and specifically Wind Energy. The SWE's research activities focus on composite structures, load monitoring and the operation of wind turbines as well as structural dynamics and control especially for offshore applications.

[The Fraunhofer-Gesellschaft](#) is a non-profit research organization operating 60 institutes in Germany. With 17 000 staff for 1,6 billion Euros turn-over, it is Europe's biggest applied research organization. The Fraunhofer-Institute for Wind Energy and Energy System Technology (IWES) arose in 2009 from the Fraunhofer Center for Wind Energy and Offshore Technology CWMT in Bremerhaven and the Institute for Solar Energy Supply Technology ISET in Kassel. It is Germany's main research centre for wind energy. Its research activities cover the complete spectrum of topics in wind energy research and in energy system technology for all renewable energies. This includes rotor blade technology with destructive and non-destructive testing facilities from coupons to full length MW-scale rotor blades, offshore siting with measurement and analysis tools to support decision-making and design of large-scale offshore wind parks, grid integration, covering both transmission systems in the wind park and to the shore as well as grid management tools for offshore and onshore renewable energy integration and control systems, using individual blade pitching for tower oscillation damping.

[RSK](#) is a fully integrated, environmental, health, safety and engineering services company employing over 750 technical staff in offices across the UK and worldwide. The company has a turnover in excess of £60m and is consistently within the top ten environmental consultancies as determined by client responses to the ENDS Report. RSK's key clients include energy giants such as National Grid, BP, Shell and Exxon, property developers, manufacturers such as GlaxoSmithKline, United Technologies, BASF and Kimberley Clark, major water companies such as United Utilities, Scottish Water and South West Water; government agencies and authorities and transport, companies such as Network Rail. RSK provides independent environmental consultancy and technical services in the areas of the environment, health and safety, engineering and sustainability management to industrial, financial and public-sector clients in the UK and Europe, Northern Africa and Russia. Its global experience, international offices, and local network ensures that projects are completed on time, and help to minimize regulatory delays, achieve cost savings and develop good relationships with local stakeholders.

[ZABALA](#) Innovation Consulting, S.A. (Spain) is an independent international consulting firm founded in 1986 in Pamplona (Spain). Nowadays is at the forefront of the integrated management of innovation, improving competitiveness and offers advice on grants, subsidies and tax deductions for projects and business activities. Applications approved and tax deductions for clients have turned ZABALA in leader in management of innovation. In addition, ZABALA has long experience in European energy projects, interact and dissemination activities, and in particular in the leadership of Smartgrids Platform, or the Smart Cities Stakeholder Platform. Both initiatives are supported by the European Commission.

Its main clients are companies, research organizations and government agencies in the field of RTD and innovation. During its 25 years of experience, ZABALA has assisted more than 1000 industrial firms on the planning, management at national and international level. ZABALA maintains profound knowledge and understanding on the field of energy -among others- through its collaborations with clients from the sectors in the day to day management of European innovation projects and its participation in a number of studies in this sector.

ECOLE CENTRALE DE NANTES is one of the top French Schools of engineering which delivers Engineering Master training programme, masters degrees and PhDs. Centrale Nantes builds on multiple and strong industrial and institutional partnerships to roll out an academic and applied research to the highest European and world standard. Taking advantage of its dynamic geographical territory, Centrale Nantes offers specialized programs in renewable marine energies, based on ocean engineering, hydrodynamics, energy engineering but also civil engineering or computational structural mechanics. ECOLE CENTRALE DE NANTES leads the project management and realization of SEM-REV. The wave energy test site program is registered as the French Project contract "Etat Région 2001-2013". ECOLE CENTRALE DE NANTES and CNRS are actively committed to the development of marine energy devices through the research laboratory in Hydrodynamics, Energy and Atmospheric Environment (LHEEA). As such, Centrale Nantes plays an important role in the evolution of new energy production systems.