



## Wind Blade Using Cost-Effective Advanced Lightweight Design

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The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under Grant Agreement no.309985



### Project Review Meeting

Consortium members took part in their second Review meeting which was hosted by Windrad in Bod Doberan in Germany on 9th and 10th February 2016.



Following presentations by the project partners who gave detailed updates as to the technical progress in their work packages, the Project Technical Advisor gave his feedback. His comments included the fact that the project was progressing well and that good work had been performed to-date with all work packages contributing towards the end of the project.

A partner's dinner was held on the first day of the meeting in Rostock.



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#### Wear & Tear on Wind Farms

Many new offshore wind farm projects are underway in the North Sea and Baltic Ocean. A common problem experienced by these wind farms is the occurrence of rust due to salty sea air. Offshore wind farms have a lifespan of at least 25 years during which time regular maintenance needs to be carried out but this presents numerous difficulties, one of which is the fact that the turbines are anchored in the seabed and cannot be towed to a dry dock for maintenance like a floating oil platform. Therefore, all work has to be carried out at sea, whatever the weather. This task is particularly difficult when it comes to renewing corrosion-resistant coatings.

#### For more info.....



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#### TNO validates new predictive model

As part of the WALiD project TNO has validated a new predictive model for the relationship between surface properties and erosion resistance. In addition, they have developed new thermoplastic blends for coating and are currently evaluating the material properties

A recent scientific paper published by TNO has received enthusiastic responses from the coating industry.



## Partner's Feature



Loiretech designs and manufactures tooling for large and complex thermoplastic or composite parts, including preforming, molding, trimming, assembling and inspection tools. Their main customers belong to commercial aerospace, automotive, defence industries.

With its three plants (2 in France and 1 in Canada), Loiretech has a large range of technologies to deliver the most efficient tooling.



The Loiretech industrial and environmental organization is ISO 9001 & ISO 14001 certified by TÜV Rheinland.

Research & Innovation is in the DNA of Loiretech, these activities enable them to offer the market the most suitable solutions.

### **Main tasks of LoireTech within WALiD**

Loiretech's tasks in WALiD are to develop innovative tooling technologies to manufacture a full scale blade according to all industrial manufacturing constraints. This will enable them to acquire significant experience in blade tooling manufacturing and new thermoplastic materials developed for the project as well as developing new materials and technologies in the field of wind energy.

### **ICT Fraunhofer to attend International Workshop and Conference**

A representative from ICT Fraunhofer will attend a workshop for the 'Wind Energy Sector - A European Challenge'. This event, which takes place in Barcelona on 12th-13th September 2016 will enable various European projects involved in Wind Energy to share experiences in addressing the challenges in this sector. During this two day event project members will present new innovations in the next generation of modern turbine blades.



## Windfarms Are Getting Bigger!



The Dogger Bank Creyke Beck Development is a joint development of two 1.2GW offshore wind farms in the North Sea.

Four additional wind farms are planned by 2020 which will each generate 1.2GW making Dogger Bank the largest offshore wind farm in the UK. This wind farm will comprise up to 400 wind turbines, two high-voltage direct current converter platforms, eight collector platforms, ten meteorological monitoring stations and four accommodation /helicopter platforms. Up to 1,900km of inter-array cables and around 640km of inter-platform cables will be installed offshore. HVDC cables will connect the converter platforms to the landfall site north of Ulrome.

The development partner for Dogger Bank formed in 2008 is Forewind <http://www.forewind.co.uk>, a consortium made up of RWE Innogy UK, SSE, Statkraft and Statoil, all leading international energy companies.

It is anticipated that Dogger Bank will generate 8TWh of renewable energy a year, enough to power approximately 1.8 million households per year. Other advantages are the creation of approximately 4,750 jobs over a period of 25 years, it will also assist the UK government in achieving its target of producing 20% of its energy from renewable sources by 2020 and reducing CO<sub>2</sub> emissions by four million tonnes a year.



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### Forthcoming Events



Windforce 2016 7th—9th June 2016 (Bremen, Germany).



World Congress and Exhibition on Wind Energy—16th-18th June 2016 (Berlin, Germany).



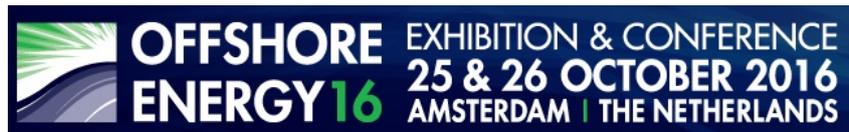
Global Offshore Wind 21st—22nd June 2016 (Manchester, UK)



EWEA 27th-30th September 2016 (Hamburg, Germany)

## WALiD Prepares for Offshore Energy 2016

Arrangements are now well under way to attend Offshore Energy 2016. This two day event which will take place on 25th and 26th October 2016 will be held at the Amsterdam RAI, Netherlands.



A booth has been booked for the WALiD project from where a number of demonstrators will be showcased together with project videos and literature. A presentation will also be given as part of the conference package.

This event, which attracts over 12,000 visitors will be an ideal platform to promote the technology developed in the project and will also be an opportunity for consortium members to discuss the results achieved.

Further updates on this event will be available on the project website.



### Project Partners:

Fraunhofer Institute for Chemical Technology (Germany), Smithers Rapra & Smithers Pira (UK), TNO (Netherlands), PPG (Netherlands), Norner (Norway), Comfil APS (Denmark), Loiretech (France), Coriolis Composites (France), NEN (Netherlands), WPS Windrad Power Systems (Germany)

### Key Facts:

**Project acronym:** WALiD

**Project Title:** Wind Blade Using Cost-Effective Advanced Composite Lightweight Design

**Project Duration:** 01.02.13—31.01.17

**Website:** [www.eu-walid.com](http://www.eu-walid.com)