

Press release

Predictive technology to further competitiveness in the wind power

- ▶▶ *IK4-TEKNIKER participates in Mainwind+, a project aimed at optimising wind farm maintenance processes*
- ▶▶ *Real-time monitoring solutions for components are to be developed to track their reliability and minimise errors*
- ▶▶ *It is expected that energy losses resulting from shutdowns will be reduced by 80%; major operating frequencies by 30% and 15% in terms of hours of supervision*

(Eibar, Basque Country. 16 October, 2017).- The wind power sector requires technologically advanced solutions to develop and optimise more reliable and efficient wind turbines, especially so in the case of offshore facilities. In this scenario, therefore, companies are currently looking for new monitoring and maintenance systems that will enable them to reduce the risk of failures and boost the competitiveness of energy produced by wind.

In order to make further progress in this field, the [IK4-TEKNIKER](http://www.tekniker.es) technology centre is currently involved in a project whose ultimate goal is to optimise wind farm maintenance processes.

This initiative has given continuity to a number of actions initiated in 2013 under the Mainwind project linked to the design of an innovative monitoring and predictive maintenance system for wind farm components and facilities.

During the initial stage that ended in in 2015, a number of monitoring technologies were designed in the form of on-line sensors, failure prognostic devices and risk evaluation systems to maximise operating performance levels for onshore and offshore wind farms and produce reliable components for a new generation of wind turbines.

Mainwind represented a qualitative leap especially with regard to offshore wind farms where monitoring and maintenance actions are influenced, among other factors, by weather conditions and the distance to a farm.

Currently, and within the framework of the project that kicked off in July last year and will end in December 2018, the aim is to take yet another step and offer specific solutions to manufacturers who, first and foremost, want to discover how components behave in real time to test their reliability and achieve cost reductions.

The challenge consists in making the most of the potential offered by information generated by components developed to date and in providing smart technologies in terms of sensors, communication, data storage and exploitation so that all the above can be built into the overall value chain of the wind power business. This will make it possible to predict how parts behave whilst in operation, to reduce failure risks and optimise spare part logistics.

Wind farm managers have estimated that by implementing technologies developed under Mainwind+ it will be possible to reduce power losses resulting from shutdowns by 80%, 30% in the case of major operating frequencies and up to 15% in terms of hours of supervision.

The project, with a budget of 5,56 million Euros, is being carried out under the [Hazitek](#) programme designed to support industrial research projects and experimental developments under the direction of the Department for Economic Development and Infrastructures of the Basque Government and has involved several Basque companies and technology centres.

Concerning IK4-TEKNIKER

With more than 35 years of experience in applied technology research that has been transferred to companies, IK4-TEKNIKER has achieved a high degree of specialisation in four major areas (Advanced Manufacturing, Surface Engineering, Product Engineering and ICTs). This means that its cutting edge know-how has been made available to customers to meet their requirements.

Further information

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