

An international project will improve wind farm efficiency and profitability

AWESOME, financed in the European Commission's Horizon 2020 programme, gathers some of Europe's most prominent research centres, universities and businesses in the field of wind power with a view to enhancing knowledge on wind farm management and maintenance.

The aim of the project is to cater for the growing demand of knowledge and the lack of qualified workers in this sector, which is likely to create up to 50,000 jobs by 2030.

The AWESOME project – Advanced Wind Energy System Operation and Maintenance Experience – is a research collaborative project funded by the European Commission under the Horizon2020 with 2.8 million euros coordinated by the Research for Energy for Energy Resources and Consumption (CIRCE). The AWESOME project will tackle the current obstacles hindering smooth wind turbine operation and maintenance.

As Europe's wind power facilities are ageing, and new wind farms are mainly being set up offshore, it is increasingly important to operate and maintain these facilities correctly in order to ensure their optimal performance.

AWESOME will help to build on existing techniques and know-how to improve these tasks. According to reports by the European Technology Platform for Wind Energy, the sector could create up to 50,000 employment opportunities by 2030.

As it progresses, the project will develop new default maintenance planning and prevention strategies and will give rise to new know-how and experiences by training specialised professionals. To do so, AWESOME will select 11 researchers and guide them through their doctoral theses on topics linked to wind farm operation and maintenance.

AWESOME foresees a broad training and dissemination programme. It will also be laying the foundations of a knowledge network to promote research and training in the field of wind turbine performance, thus combating the shortage of specialised professionals.

The researchers selected will be supervised by distinguished players in the European wind power sector, belonging to the project partner's organizations. The full consortium comprises European universities, companies and associations from Denmark, Germany, Norway, Spain, and the UK: Technical University of Denmark, University of Oldenburg, Norwegian University of Science and Technology, Loughborough University, Technical University of Munich, University of Strathclyde, University of Castilla – La Mancha, Ramboll, and CIRCE, the project coordinator.

Launching the project

The project began on 21 January with a launch meeting that was held at CIRCE's main building on the University of Zaragoza's Rio Ebro Campus. The event was attended by 15 professionals from the consortium with the aim of defining the first guidelines and discussing details on how to proceed. Together, the consortium members will be working shoulder-to-shoulder for the next four years as the project unfolds. In addition to the goals set within the project itself, this collaboration is expected to encourage an exchange of know-how and pave the way for further projects.