PRESS-RELEASE

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THE MAREWIND RESEARCH PROJECT IN PURSUIT OF MORE ECONOMIC AND SUSTAINABLE OFFSHORE WIND SECTOR

A team of business, technological and scientific experts from 7 EU countries joined forces together to contribute to the European Union's climate targets by improving the wind energy sector. MAREWIND project will develop durable materials and recyclable solutions for the offshore wind industry, while extending the service life of the wind facilities and creating new job opportunities.

On 13-14 January 2021, with a 2-day online kick-off meeting, the MAREWIND project was officially launched and the implementation work has begun. The project has been granted €6,706,969 from the European Union's Horizon 2020 research and innovation programme to enhance materials durability, recyclability, and reduce maintenance in offshore structures. During the next 4 years, the project will work towards achieving 5 ambitious targets focused on:

1. enhancing corrosion protection systems and durability,
2. effective and durable antifouling solutions without using biocides,
3. erosion protection and mechanical reinforcement of wind blades,
4. predictive modelling and monitoring, and
5. increasing recyclability.

Nowadays, the wind turbine blade leading-edge erosion affects the annual energy production by 4-20 %. That equates to a loss between €152-760 million a year across the overall European offshore wind sector. Moreover, the maintenance of the materials is very expensive and accounts for around 25% of the offshore wind farms' cost. In addition to that, at the end of the wind turbines' service life, the generated waste in need of recycling can increase up to 800,000 tonnes per year in Europe by 2050.

The project has received funding from the European Union's Horizon 2020 research and innovation program under Grant Agreement N° 952960.

MAREWIND solutions will pave the way for the next generation offshore wind generators and facilities that aim to solve the technological, economical, business, and societal challenges we are now facing. In addition, it will strengthen the leading role of Europe in the global offshore wind market with current 22,072 MW of installed cumulative capacity, followed by Asian and North America markets.

The project is expected to highly impact the EU offshore wind industry, which is projected to have the largest contribution to the renewable energy targets for 2030. The MAREWIND outcomes will have the following impact:

- maintaining/improving performance.
- optimized material costs and improve durability.
- boost standardization of wind offshore energy technologies,
- significant reduction of life cycle costs.
- cost reduction for offshore energy production of about 40% levelized cost of energy.
- reduction on environmental impact by 35%.
- reducing CO2 emission and fuel dependency: 3,5 ktoe in short term and 13,6 at mid-long term.
- creating economic growth and new jobs in Europe by strengthening the European industrial technology base.

The project is run by a consortium of 16 partners from 7 European countries, representing leading business, technological and research organizations, and institutions across Europe. The project coordinator Lurederra Technology Centre (Spain), will oversee the project's implementation plan of 9 work packages. The involved partners cover the whole value chain of offshore wind sector and therefore will validate prototypes, results and costs along the project under accelerated testing and in the real environment.

CONTACT:

Coordinator:

Marta Mateo, Lurederra
marta.mateo@lurederra.es

Christina Salazar, Lurederra
Cristina.salazar@lurederra.es

Find out more on:

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