

Innovative circular materials and design methods for offshore Wind Farms of the future

MADE4WIND aims to develop and test innovative components' concepts for a 15MW offshore Floating Wind Turbine (FWT) consisting of new designs and manufacturing techniques for blades, substructure, and drivetrain

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PARTNERS



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� MADE4WIND

Coordinator SINTEF

Programme Horizon Europe

IN ONE CLICK

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Sector Renowable Energy Web

www.made4wind.eu

01 Challenge

The floating offshore wind (FOW) faces several challenges that lock their massive deployment, such as the need to improve the reliability of floating platforms, to facilitate their mass serial production, and to reduce their LCoE (higher capacity factors, reduced CAPEX and OPEX, lower insurance rate...). Current FOW platform designs need to become a fully commercial reality for wind farms with bigger WTs. On the other hand, many offshore wind farms (WF) will reach their end of life in the coming years, calling attention to the importance "circularity by design" to optimise (critical) raw material use.

02 Solution

MADE4WIND will develop and test innovative components concepts for a 15 MW FWT consisting of new designs and manufacturing techniques for blades, substructure, and drivetrain. These innovations will jointly allow future FWT to include new circular lightweighted materials, minimize the impact of sea habitats, increase operational availability, reduce maintenance needs and minimize LCoE; thus, unlocking the massive deployment of more than 15 MW floating WFs in Europe and worldwide.

03 Impacts

MADE4WIND will contribute to maximise the deployment of renewables and the use of electricity to fully decarbonise Europe's energy supply. In addition, European Green Deal aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.