



Priority 2: Eco-innovation: Stimulating the green economy

## DecomTools Eco-innovative concepts for the end of offshore wind energy farms lifecycle

Most wind turbines are designed and certified for a 20–25 year service life. After this period, they have to be decommissioned or the accredited operational lifetime has to be extended, often accompanied by repowering (partial refurbishment).

While processes for decommissioning/repowering onshore wind parks are well known, the experience with offshore ones is limited. So far only Ytre Stengrund (Sweden) and Vindeby (Denmark) have been dismantled, plus 2 single near-shore turbines, namely Windfloat 1 (Portugal) and Hooksiel (Germany) and 4 turbines at the Lely farm (Holland).

AN OVERALL SUSTAINABLE APPROACH TO THE OFFSHORE WIND FARMS' END OF LIFECYCLE IS MISSING. THIS PROJECT SHALL CLOSE THIS GAP BY DEVISING AND DEVELOPING ECO-INNOVATIVE CONCEPTS THAT

- REDUCE THE DECOMMISSIONING'S COSTS BY 20% AND ENVIRONMENTAL FOOTPRINT BY 25% (MEASURED IN CO2 EQUIVALENTS);
- INCREASE THE KNOW-HOW AND EXPERTISE OF NSR INVOLVED STAKEHOLDERS.

Research will be validated by demonstration pilots and working tools in the areas of logistics, safety, ship design and up-/re-cycling Innovative and already available technologies will be combined to tackle some of the major aspects of the decommissioning challenge, incl. the optimization of existing (port) off/onshore infrastructure. Transnational working and multidisciplinary cross sector competences will improve framework conditions for innovation and technology transfer in this specific niche area and help the sector become achieve a higher eco-balance.

Total budget 4.719.156 €

ERDF contribution 2.270.796 €

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