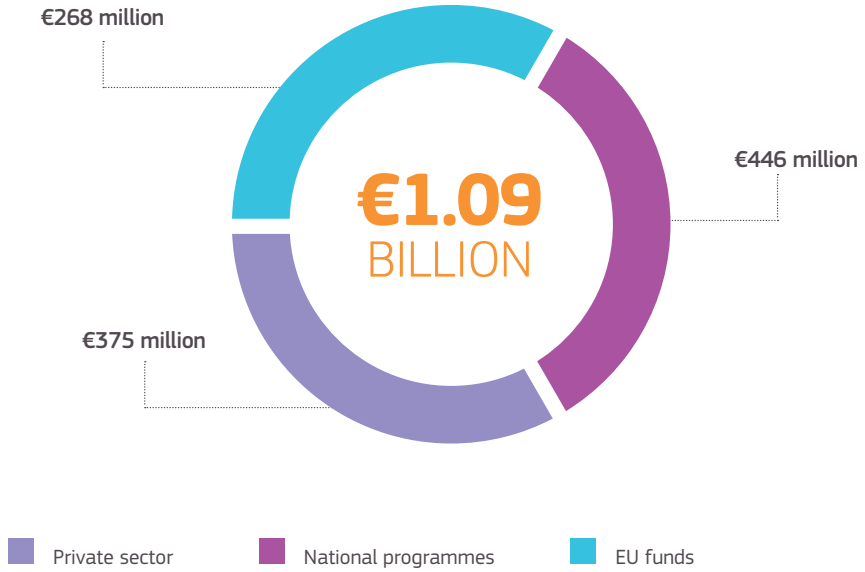
European Commission

OFFSHORE WIND ENERGY IP

European wind power generation is set to grow from 169 GW in 2017 (of which 15.8 GW is offshore) to 240-445 GW by 2030, supplying up to 30% of power demand. This Implementation Plan (IP) focuses on research and innovation activities on high turbine reliability, performance, cost-effective installation, operation and maintenance, and floating offshore – to exploit the 80% of resource potential that is in waters deeper than 60 metres.

OVERALL INVESTMENT TO BE MOBILISED FOR OFFSHORE WIND ENERGY FOR 2018-2030



EXAMPLES OF R&I ACTIVITIES

DIGITAL TRANSFORMATION IN WIND ENERGY SYSTEM O&M

This type of project focuses on processing large quantities of data from sensors. 'Big data' analytics could revolutionise predictive maintenance and promises to increase energy yield, efficiency of operation and maintenance, and decrease cost.

Budget: €10 million
2018-2022

DEVELOPMENT AND DEMONSTRATION OF LARGE TURBINES

Large turbines produce more energy and harvest wind at lower speeds, but development is expensive. The IP focuses on demonstrating the viability of >10 MW turbines (2018-2022) and >15 MW (2021-2025), requiring design innovation, together with component and fullscale testing.

Budget: €350 million
2018-2025

Who's involved ?

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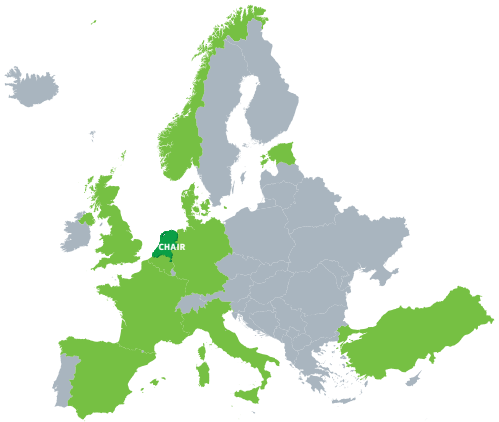
COUNTRIES

Belgium, Denmark, Estonia, France, Germany, Italy, Netherlands (Chair), Norway, Spain, Turkey, and UK.



STAKEHOLDERS
European Energy Research Alliance – Joint Programme on Wind Energy (representing 52 organisations), and European Energy Research Alliance – Joint Programme on Ocean Energy (representing 10 organisations) and European Technology and Innovation Platform on Wind (Co-Chair, representing 26 organisations).