

PROJECT CONSORTIUM AND CONTACT

The **LEANWIND** project (SCP2-GA-2013-614020) receives funding under the Seventh Framework Programme of the European Union.

The project activities will be guided by feedback from an external Industry Advisory Board, consisting of high-level representatives from a certification body, a public authority, wind turbine manufacturers, developers and utilities.

COORDINATOR



PARTNERS



Logistic Efficiencies and Naval Architecture

for Wind Installations with Novel Developments



CONTACT

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Results, event calendar and all related news can be found on:
www.leanwind.eu



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Project overview

LEANWIND and Europe 2020 targets

LEANWIND will help achieve the 2020 European renewable energy targets by supporting the implementation of the European Wind Initiative which identifies innovative logistics, including transport and erection techniques, as crucial for a successful 2020 strategy.

Launched in December 2013, LEANWIND is an ambitious project that aims to improve efficiency and provide cost reductions in offshore wind energy production through complete wind farm lifecycle analysis and consideration of an integrated supply chain. In particular, this project focuses on developing innovative technical solutions and procedures to optimise offshore wind farm installation, operation and maintenance (O&M) as well as decommissioning, and to address the associated transport, logistics and equipment needs.

The project counts on the close and enthusiastic cooperation of 31 partners representing the geographical areas with the greatest offshore wind activity, ranging from multinational industry stakeholders, via innovative SME's, to Universities and research centres. Academic expertise has been combined with practical industry know-how to ensure relevant results for future wind sector developments.

Lean principles



The 'Lean principles' were first developed by Toyota in order to optimise the processes used by manufacturing industries. Bearers of a great success, they have subsequently been adopted by many industries in order to remove wasteful stages in the production process.

LEANWIND represents the first attempt to apply these principles to the offshore wind energy industry. Efficiencies will be found at each critical project stage from deployment and installation logistics to optimising O&M strategies. The project pays particular attention to the training and safety of workers, which is essential to improving efficiency. To optimise processes across the life cycle, innovations will be addressed at three levels: the procedural/technological, the tactical/operational and the overall strategic planning perspective.

Tactical

Project stage specific
Project stage assessment models - economic, logistic, O&M strategy, substructure selection, GIS-T transport tool.

Strategic

i.e. Project life cycle
Project life cycle assessment models - economic and logistic.

Procedural/Technological

E.g. Vessel designs, access technologies, condition monitoring systems, remote presence technologies, substructure adaptation for installation.

Methodology and procedural level optimisation

The outcomes of these stages are integrated and tested, providing inputs to develop full life cycle logistics and economic models. These models are combined and used to further validate project innovations and propose optimal efficient and cost-effective development strategies for the offshore wind sector.

