Shipping looks to wind to cut emissions and fuel costs with EU backing

Wind assisted propulsion can cut fuel use and emissions, but shipowners still need reliable data before investing at scale. With EU support, a new European initiative will help close that gap through full scale demonstrations, verified data and decision support tools.

AWESOME, the new EU project launched in Brussels today, will provide shipowners with verified performance data, practical tools and standardised methods for assessing wind assisted propulsion.

The aim is to reduce uncertainty, lower investment risk and accelerate the use of cost-effective emission reduction solutions in shipping.

Led by Kongsberg Maritime and supported by 14 partners across Europe, the Horizon Europe-funded project brings together industry and research to support the transition to low- and zero-emission shipping. AWESOME tackles technical, operational and regulatory barriers that still limit wider deployment of wind propulsion.

"*Wind assisted propulsion is one of the most attractive pathways to compliant, cost-effective shipping. We believe AWESOME represents a major step forward in scaling this technology*", says Kjerstin Kleyne Braaten, SVP Emerging Solutions at Kongsberg Maritime.

AWESOME will test how wind propulsion can be integrated with onboard systems, control and automation in real operating conditions. The work will support compliance with frameworks such as FuelEU Maritime and future IMO standards, while helping shipowners reduce fuel consumption before relying on more costly low carbon fuels.

Reducing risk and scaling solutions

For many shipowners, the main barrier is uncertainty about performance, payback time and operational impact.

The AWESOME partners will address this by delivering validated performance data and decision-support tools that make decisions easier to assess.

Full-scale demonstrations at sea

Two full-scale demonstrators will be central to the work: one retrofit and one newbuild. The retrofit case, one of Odfjell's chemical tankers, will show how wind propulsion can be integrated into existing vessels. The newbuild, *Neoliner Origin* from Neoline, will demonstrate how the technology can be optimised from the design stage. Neoliner Origin is a 136-meter ro-ro cargo vessel equipped with 3,000 m² of sail area, designed to reduce fossil-fuel-related emissions by up to 80% compared with a conventional vessel of similar size. It will demonstrate how wind-assisted propulsion can be optimised from the design stage onward.

"Wind-assisted propulsion is already delivering real results for Odfjell. Through projects like AWESOME, we are building on our long-term efforts to reduce emissions by turning operational experience into knowledge that can be scaled across the industry. We see considerable potential in wind, and initiatives

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like this are key to unlocking it by improving insight and reducing uncertainty," says Jan Opedal, Manager Projects at Odfjell.

Together, the vessels will provide robust real-world data across vessel types and operating conditions, helping the industry reduce risk and accelerate deployment at scale.

Supporting industry uptake and regulation

"*Europe is currently a global leader in wind assisted propulsion. AWESOME will help strengthen that position by pooling public and private resources, ensuring large scale deployment. The result can be lower emissions and more economically viable use of sustainable alternative fuels*", says Jaap Gebraad, Secretary General, Waterborne Technology Platform, which will be collaborating closely with this new initiative.

This new collaboration will also support wider industry uptake by improving how performance is measured, documented and recognised. In parallel, the project will generate knowledge relevant to crews, operators and future regulatory development.

About the project

AWESOME (Advanced Wind Energy System Optimisation & Monitoring for Efficiency) brings together 15 leading European partners spanning the full maritime value chain. This broad partnership supports an end-to-end approach, from design and simulation to onboard control, crew training, performance verification and market uptake. The project is supported by ~ 9 million Euro from Horizon Europe.

- Technology developers and system integrators:
  Kongsberg Maritime (NO) (Coordinator), Syroco (F), bound4blue (ES), Chantiers de l'Atlantique (F)
- Shipowners and operators:
  Odfjell SE (NO), NEOLine (F)
- Research partners:
  SINTEF Ocean (NO), SINTEF Digital (NO), NTUA (G), MARIN (NL)
- Design and engineering:
  MAURIC (F)od
- Classification and verification:
  DNV (NO & DE)
- Center for decarbonisation and dissemination:
  Maritime CleanTech (NO)

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