Interreg North-West Europe
Co-funded by the European Union

Wind4Shipping

Wind propulsion technologies:
Enabling first movers to become a European industrial success story

Wind-propulsion technologies (WPT) are ready to deliver. Fully compatible and complementary to alternative green fuels, WPT enables an immediate and relatively low-capital intensive entry into green shipping, paving the way for a net zero shipping industry with future uptake of green and e-fuels. The global fleet of large commercial vessels equipped with WPT has reached 100, with around 130 more vessels on order, both for retrofits and newbuilds. The addressable market is exponential as current market estimations foresee around 10.000 (both retrofits and newbuilds) equipped ships by 2030 and 40.000 by 2050, corresponding to around 1/3 of the global fleet[1], while maintenance activities will further contribute to value generation.

The EU leads the emergence of the wind propulsion industry with ready-to-scale technologies and disruptive innovations at different Technology Readiness Levels, answering the double objective of creating jobs while emitting less CO_2. However, global competition is intensifying, particularly from emerging shipbuilding and maritime technology hubs in Asia, which are increasing their manufacturing capacities and state support, threatening the EU's first mover advantage. Following the recent initiatives to sustainably reindustrialize Europe and reduce its strategic dependencies, further targeted support is needed to ensure that the industry scales in Europe, with European technologies, contributing to creating value, jobs and sustainable industrial revival in EU's coastal territories.

Many legislative tools have been established in the past few years. The incentives created by the FuelEU Maritime and the extension of the EU Emissions Trading System (EU ETS) to the maritime sector are starting to pay off, contributing to creating a profitable business case. The recognition of WPT as strategic technologies in the Net Zero Industry Act sends a clear message but sets an important ambition: increasing the manufacturing capacity of WPT to deliver on the overall 40% domestic annual deployment needs by 2030.

Therefore, the **Interreg project Wind4Shipping partners strongly welcome the emphasis put on the wind propulsion sector in the EU industrial maritime strategy**, and are calling the EU to pursue this dynamic and use the window of opportunity opened by the Industrial Accelerator Act and the upcoming ETS revision to **design a supportive framework that will enable the industry to scale-up and deliver** :

1. The EU ETS and FuelEU Maritime have become the most impactful EU policies for shipping decarbonisation. **The upcoming revision of the EU ETS must preserve its ambition** and further encourage the development of clean technologies while FuelEU Maritime could be further improved to support the uptake of WPT.
2. A **more integrated and coherent design of EU's financial support, coupled with made-in-EU requirements**, would enable projects to thrive and the industry to scale-up, generating value and jobs on our territories.
3. The **establishment of a WPT working group within the foreseen EU Industrial Maritime Value Chains Alliance** is needed to further develop and scale-up an innovative, competitive and sustainable wind propulsion value chain in Europe.

[1] https://navistratanalytics.com/report_store/wind-assisted-propulsion-market/

Each of these three axes is described in further detail below.

Further support WPT through the EU ETS and FuelEU Maritime

The extension of the EU ETS to maritime transport combined with FuelEU Maritime have become one of the most impactful climate measures affecting the sector globally. The upcoming EU ETS revision must preserve its environmental integrity, notably by **maintaining the agreed phase-out trajectory of free allowances and avoiding any dilution of the carbon price signal**. A predictable and rising carbon price, combined with increased incentives in FuelEU Maritime, are essential to create a strong business case for wind propulsion systems, which deliver immediate fuel savings and emissions reductions across vessel types. Revenues generated under the ETS — including through innovation and modernization mechanisms — should be strategically channeled toward clean maritime technologies, with dedicated windows for WPT deployment and industrial manufacturing. By safeguarding ambition and reinforcing investment into zero-emission solutions, the EU can ensure that its legislative framework continues to stimulate first movers, prevents carbon lock-in in fossil-dependent assets, and consolidates Europe's leadership in sustainable maritime technologies. We therefore:

- **Strongly support the European Commission's commitment to dedicate 20 million EU ETS allowances until 2030 and the opening of a dedicated maritime call under the Innovation Fund in 2027** to support emissions reductions and advance innovation in the maritime sector;

- Call for the European Commission to **make it mandatory for Member States to channel revenues from the maritime ETS to maritime decarbonisation projects**.

- Call the European Commission to go a step further in the FuelEU Maritime regulation and **directly integrate wind propulsion in the GHG fuel intensity formula**.

Designing a more integrated and coherent EU financial support mechanisms

In line with the objectives of the European Commission's Industrial Maritime Strategy and the proposed Industrial Accelerator Act, the EU should design a coherent and targeted financial architecture to accelerate the scale-up of net-zero strategic technologies, including wind propulsion. The forthcoming European Competitiveness Fund and the reinforced use of blended finance provide a timely opportunity to combine targeted grants with guaranteed loans from the European Investment Bank to de-risk first-of-a-kind installations, expand serial manufacturing capacity and support port-side integration infrastructure. Given that wind propulsion systems generate predictable fuel savings (around 20.000tCO_2eq over a 20-year lifetime for a €1 million upfront investment) and achieve return on investment within around a decade — with payback periods further improving as fuel prices rise — they present a comparatively low-risk profile for public-backed financial instruments[2]. Therefore:

- Building on successful national schemes such as Germany's NamKü program[3], **EU grants should create demand-side incentives supporting fleet retrofits and early series production, while EIB-backed guarantees crowd in private capital** by reducing perceived risk for shipowners and technology providers.

[2] https://www.wind-ship.org/archived-site/wp-content/uploads/2023/01/MEPC-81-INF.39-White-paper-on-wind-propulsion-Comoros-France-Solomon-IWSA.pdf (p 55)
[3] https://www.namkue.de/

- Crucially, **this financial framework must be coupled with robust "made-in-EU" requirements** and a clear earmarking of wind propulsion within maritime decarbonisation funding windows to ensure that industrial acceleration translates into large-scale deployment across Europe.

Establishing an EU wind propulsion working group within the EU Industrial Maritime Value Chains Alliance

We strongly support the announcement of the creation of an EU Industrial Maritime Value Chains Alliance under the EU Industrial Maritime Strategy. In this context, **we call for the establishment of a dedicated wind propulsion working group within the Alliance** to ensure that this rapidly emerging technology is fully integrated into Europe's maritime industrial transition. Bringing together technology developers, shipyards, shipowners, component manufacturers, ports, financiers, research institutions and public authorities, such a working group is expected to play a key role in mapping the European wind propulsion value chain, identifying industrial bottlenecks and investment needs, and coordinating actions to accelerate manufacturing scale-up and deployment. It should also support the alignment of standards, certification procedures and regulatory frameworks, while facilitating cooperation across Member States and strengthening links between research, innovation, and industrial production. By structuring dialogue across the full ecosystem, the working group would help consolidate project pipelines, improve visibility for investors and support the mobilisation of both public and private financing instruments, including those foreseen under the proposed Industrial Accelerator Act. It shall further contribute to identifying skills needs, supporting workforce development, upskilling and reskilling and fostering cross-border industrial partnerships across the maritime supply chain.

We thank you for your consideration and are at your disposal to further exchange about what would enable the wind propulsion sector to become the next EU industrial success story.

Kind regards,

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[2] https://www.wind-ship.org/archived-site/wp-content/uploads/2023/01/MEPC-81-INF.39-White-paper-on-wind-propulsion-Comoros-France-Solomon-IWSA.pdf (p 55)
[3] https://www.namkue.de/