



European Commission



INNOVATION FUND

Deployment of net-zero and innovative technologies

SustainSea: Reducing maritime transport CO2 emissions using wind

The Innovation Fund is 100% funded by the EU Emissions Trading System

| Project Factsheet

The SustainSea project will deploy bound4blue's innovative rigid wind sail system in maritime transport. The system will use wind energy to reduce fuel use and GHG emissions in the sector. Within the project, the wind propulsion system developed by Bound 4 Blue will be integrated into five large cargo vessels operating, mainly, in EU waters. In accordance with the REPowerEU and EUGreenDeal, this will have a significant impact on reducing dependence on fossil fuels and external suppliers, whilst also creating positive environmental impact by reducing relative greenhouse gas (GHG) emissions by 91% compared to the reference scenario.

Pollution derived from maritime shipping activities has profound implications for air and water quality and marine biodiversity. Therefore, there is a clear need for new disruptive technologies to address these issues. The main objective of this project is to

COORDINATOR

BOUND 4 BLUE SL

LOCATION

Spain

CATEGORY

Renewable Energy (RES)

SECTOR

Wind energy

AMOUNT OF INNOVATION FUND GRANT

EUR 4,098,569

EXPECTED GHG EMISSIONS AVOIDANCE

46,789 tonnes CO2 equivalent

STARTING DATE

01 July, 2023

ENTRY INTO OPERATION DATE

31 December, 2025

FINANCIAL CLOSE DATE

31 October, 2024

carry out five large-scale installations of eSAIL® systems in different ship types. This will reduce GHG emissions by 14 037 tonnes CO₂ equivalent for the first three years of operation, increasing to 46 789 tonnes CO₂ equivalent over the first ten years. The main challenges are around: (i) scaling up the technology to larger sizes, while remaining fully functional; and, (ii) adapting the technology to cover the main market segments in the European shipping industry.

Over recent years, both the IMO (International Maritime Organization) and the EU developed a new regulatory framework on maritime pollution. These regulations are forcing ship owners and charterers to use less polluting fuels and move to emission saving technologies, with the global goal of reaching a high degree of decarbonisation of the shipping industry by 2050. This project is focused on energy efficiency of the European shipping industry, being fully aligned with the latest IMO regulations (such as the Sulphur Cap, EEDI/EEXI or

the CII (Carbon Intensity Indicator)) and with EU policies (such as FuelEU and the general framework of the EU Green Deal). The inclusion of maritime transport in the EU Emission Trading System further strengthens the importance of moving towards CO₂ abating processes and technologies in this sector.

In addition to generating employment for local suppliers, this project will support the EU regional economy, as it has the potential to generate a new value chain in the wind energy sector. As an example, the main suppliers for the structural parts of the sails are wind energy systems manufacturing companies from Spain.

This project will position bound4blue as a global leader of wind-assisted propulsion, which will result in the increased competitiveness of this sector in the EU, generating impacts in future job creation and enhance the European value chain.

| Participants

BOUND 4 BLUE SL

Spain