Maritime transport



Maritime transport accounts for over 80% of global trade, and the EU is home to the world's largest shipping fleet. However, the European shipping industry is facing a challenge where ships are speeding towards their destination, only to arrive at a crowded port and receive instructions to either wait outside the harbour or anchor until port services and a berth are available. Most ports serve ships on a first-come first-served basis, leading to inefficiencies and negative environmental impacts. Moreover, this creates unbalanced port resource utilisation with high peaks leading to severe congestion and logiams that cause rippling effects across industries.

Improving the efficiency and safety of vessel operations arriving at and departing from ports will have a huge impact in the European maritime sector, translating in economic gains for the actors involved (e.g., port authorities, shipping companies, terminal owners, and operators, etc.) and environmental benefits for the society. It will also have a positive effect in job retention and creation as well as important micro-economic effects since they result into overall welfare and economies of scale.

Decreasing the waiting time of vessels in ports and port areas, accelerating their operations, and thus reducing their fuel consumption will reduce GHG emissions and have considerable benefits for the health and quality of life of near-port communities.





The shipping industry globally accounts for 3% of the world's greenhouse gas emissions yet is responsible for over 80% of the transportation of global trade.



The EU shipping industry directly employed 685,000 people and supported a contribution to GDP of nearly €54 billion during 2018.



Ships may spend 5-10% of their voyage time waiting to enter a port.



91% of European ports are located in or very close to urban areas, where about 40% of the EU's population lives.

RESOURCES

- Review of Maritime Transport 2023
- Reducing emissions from the shipping sector - European Commission
- Ambitious research project addresses significant climate issue within the shipping industry - SDU
- Oxford Economics The Economic Value of EU Shipping - Update 2020 -Report.pdf
- · Prevention of Pollution by Ships EMSA -**European Maritime Safety Agency**
- · Ocean shipping and shipbuilding -**OFCD**

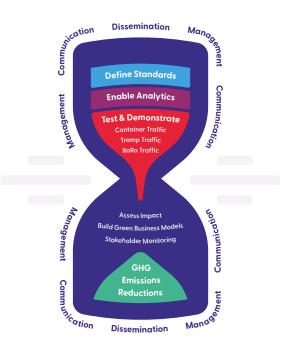
Project Overview

ABOUT

The MISSION project aims to digitalise important information on time stamps of operations and make them available in real time for stakeholders in the maritime sector to enhance maritime efficiency and safety and protect people's health by decreasing port traffic, associated costs and GHG emissions.

The project's outcome will not just be a new software system for the shipping industry, but an integration and extension of existing systems with just-in-time port call functionalities, so that stakeholders can communicate effectively with each other. With this, researchers expect that fuel consumption will be reduced by up to 23% on the overall voyage and port call including the shore side. MISSION will further bridge the gap between academia, research organisations, and the maritime industry.

missionproject.eu X in



PARTNERS











































































KEYWORDS

- Just-in-time (JIT)
- · (Maritime) Shipping
- · Port Call Optimisation
- · Port traffic orchestration
- · Environmental improvements
- · Maritime safety
- Digitalisation

FIGURES KEY

- 30 partners, 11 countries
- · 42 months, January 2024 June 2027
- 7.5 million euro

CORDIS: MARITIME JUST-IN-TIME OPTIMIZATION INTEROPERABLE PORT CALL AND VOYAGE **OPTIMIZATION TOOL** Proposal ID: 101138583



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