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“Sister project” MISSION

With similar objectives, close collaboration is key to achieving common goals.



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DYnamic NAvigation and Port Call Optimisation in Real Time

About the project

To ensure a sustainable transition towards net zero emissions from shipping by 2050, energy-efficient operation at sea and port is essential. This calls for coordinated actions between ports and ships to enable just-in-time arrival and minimise waste of fuel, time and resources.

After a successful project kick-off in March earlier this year, DYNAPORT will over a 4-year period develop new optimisation and coordination tools for ports and ships to enable voyage and port call optimisation. The tools will be built on information sharing through internationally accepted protocol standards and communication systems to ensure the uptake of DYNAPORT's solutions internationally.

The proof of viability of DYNAPORT's solutions will be demonstrated in real-life cases. The results will be consolidated in an integrated system for simulation and impact assessment.



Lessons from ports

Extensive efforts have been made to gather insights from various ports, including visits to the Port of Sines and the Port of Aalborg. These visits have facilitated the exchange of knowledge and the development of guidelines and strategies for optimising the port call process. Looking ahead, the focus will remain on deepening the understanding of current port call processes through additional port visits and continued workshops.

These efforts aim to refine and finalise the blueprint for optimised port call processes, integrating findings into a comprehensive simulation model. This model will help quantify the benefits of reduced waiting times, lower energy consumption, and improved efficiency.

Results from interviews conducted by the International Task Force on Port Call Optimization (ITPCO) with various ports and solution providers have been shared with us and will be integrated with findings from our internal efforts described above.



DYNAPORT in the media

Read the article “*EU-prosjekt skal strømlinjeforme havneanløp*» at [TU.no](https://www.tu.no) [here](#).

DYNAPORT was featured in Teknisk Ukeblad, Norway's premier technology magazine, in March. Reaching 200.000 readers per issue, including 178.000 technologists and 44.500 leaders in the technical sector, this publication offers the project widespread visibility within the industry in Norway and in the Nordics.

Getting DYNAPORT featured in news outlets and popular science publications is more than just a highlight—it's a key part of DYNAPORT's outreach strategy. These articles help sharing the project's vision and results with a wider audience beyond the scientific community.

Charting our course

The Port of Rotterdam hosted DYNAPORT for two internal workshops in May. They marked the start for the work on a specification of a standardised maritime ICT reference architecture (MIRA) for ports and ships, as well as a technical solution for cooperative and collaborative planning and decision-making between ship systems and shore systems.

In parallel, work is underway on solutions for voyage optimisation, complementing our efforts on port call optimisation. In this respect, DYNAPORT is developing and testing decision support tools that optimise route and speed, taking into account vessel performance and weather conditions. These tools are designed to unlock significant cost, carbon, resource, and time efficiencies in vessel operations, both at sea and in port.

Additionally, DYNAPORT will propose solutions on how to tackle contractual and organisational barriers for enhanced efficiency. With valuable input from shipowners and other key industry representatives, these efforts are crucial in realising the full potential of efficient sea passages and port calls.



Global coordination with other initiatives

Partners from the project participated in the Port Call Optimisation Conference in Rotterdam in June. The background was an identified need for a detailed discussion about a common vision on port call optimisation across different initiatives globally and what the unique selling point is of each initiative that supports this vision.

Challenges and action points for 2025 were identified, with DYNAPORT committed to contributing. Actions include drafting a high-level paper that offers a clear methodology for aligning capacity requirements between ports and nautical services, and the development of a demonstrator for the IMO FAL 49, focusing on improving data compatibility.



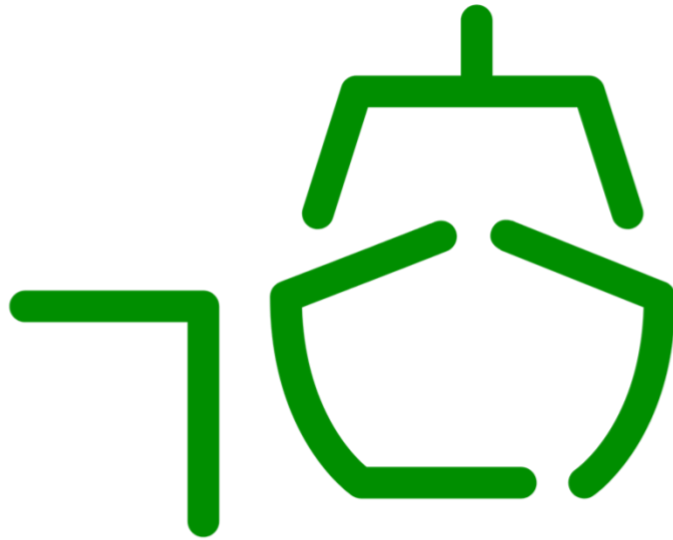
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Collaboration with “sister project” MISSION

MISSION and DYNAPORT are "sister projects" from the same EU call, "HORIZON-CL5-2023-D5-01", meaning that the overall objectives are well aligned. By awarding substantial funding to the two projects, the European Union recognises how advancing port call and voyage optimisation, and the improvement of operational efficiency, can contribute to reduce emissions from shipping. Through coordinated efforts, the aim is to leverage synergies in key technical areas, ensuring that both projects build upon compatible frameworks and standards.

Working together, DYNAPORT and MISSION will focus on pre-competitive issues, including common process models for port-call and ship-port interaction, standard protocols and ICT architecture, common performance and impact assessment framework. The purpose of this collaboration is to ensure a common ground for successful implementation of voyage and port call optimization solutions across the industry. The two projects will also align on stakeholder dialog and policy recommendations.

The two projects' consortia will meet in Trondheim in October, in conjunction with the joint conference for the International Maritime and Port Technology and Development Conference (MTEC) and the 6th International Conference on Maritime Autonomous Surface Ship (ICMASS) 2024. The objective of the meeting is to gather key representatives of the shipping and port community to jointly explore challenges, possible solutions and best-practices towards the realisation of just-in time arrival.



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