

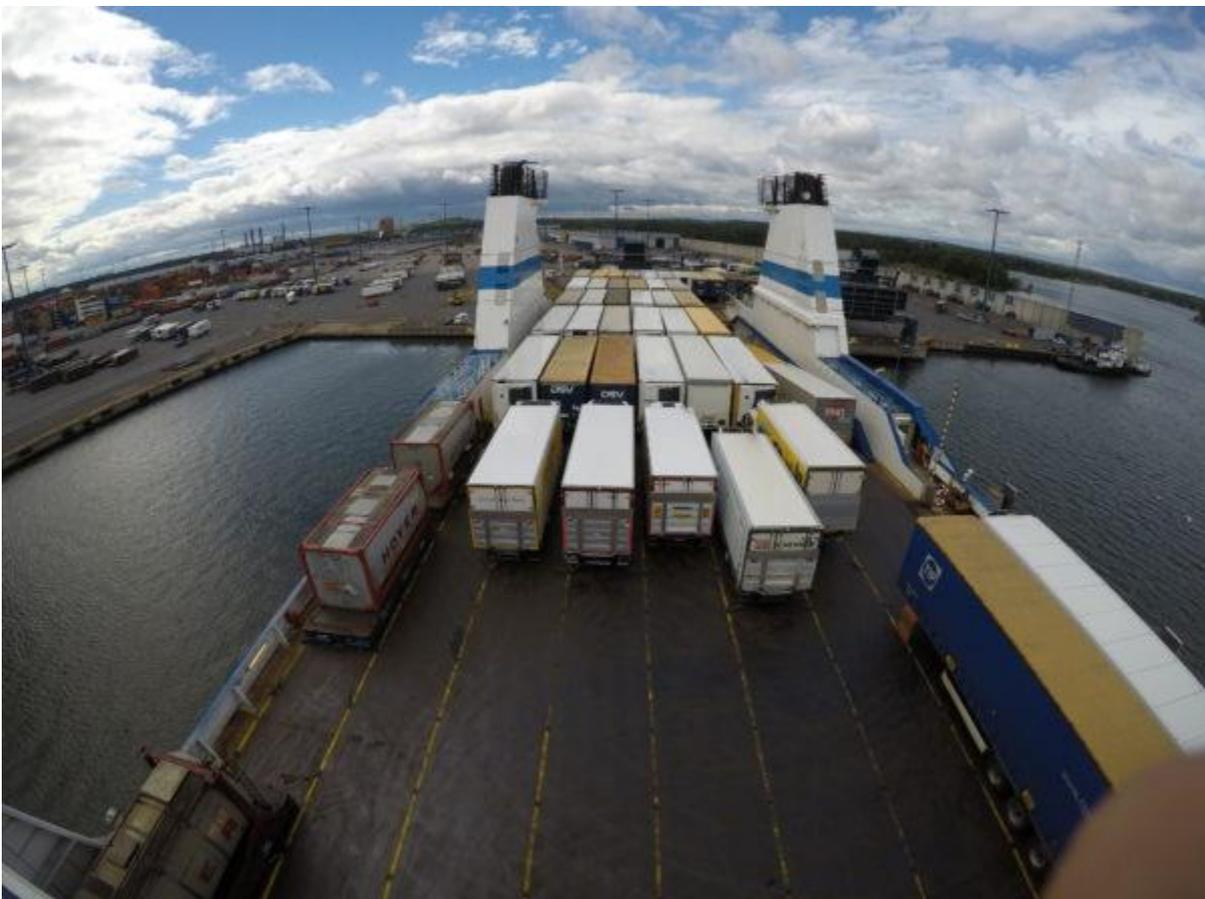
THE PORTS OF TURKU AND HELSINKI GET FASTER, SAFER AND GREENER

DIMECC's Sea for Value program's investments double as companies and universities boost the digitalization of two Finnish harbors.

DIMECC's Sea for Value program expands as the new SMARTER (Smart Terminals) project kicks off in March. The Sea for Value program creates capabilities for autonomous maritime transport.

SMARTER project focuses on digitizing harbor operations and its purpose is to provide easily reproducible solutions for passenger and freight terminals. Smart harbours are in central role in future transport chains. Harbour operations connect the maritime transport to other modes of transportation and enable efficient logistics chains. The project focuses on the whole logistics chain from truck traffic to the port area and from the loading dock to the fairway. About 90 percent of Finland's international trade travels by sea. As large markets are far away, it is worth taking full advantage of digitalisation in transport.

"SMARTER project raises the level of digitalization in the whole supply chain. Connecting various parts and data sharing, increases the automation, effectiveness, and environmental friendliness of the whole chain", says Jukka Merenluoto, Senior Ecosystem Lead of One Sea ecosystem.



View from the deck of Finnlines' ship to Vuosaari Harbor in Helsinki. Photo: Jukka Merenluoto

Smoothly to ports and efficiency within the port area

One of SMARTER's goals is to make the ship's port calls more efficient, which will reduce CO2 emissions. The turnaround time of a ship is shortened, for example, by providing accurate information on the ship's arrival time to all stakeholders. When this information is transmitted in real time to trucks arriving at the port, they can schedule their arrivals and routes correctly. This allows the cargo to be unloaded and loaded as efficiently as possible.

The program includes both the ports of Turku and Helsinki, to which traffic flows through the city.

"It is essential to our operations that traffic flows in the port can be managed smoothly and safely midst of other functions and structures of the city. Improving the efficiency of the use of the port area through digitalisation and automation is also important," says Erik Söderholm, CEO of the Port of Turku.

Finnlines is interested in optimizing loading to match the capacity of new vessels operating from Naantali to Kapellskär.

"Our focus in SMARTER project is to look for solutions on how we can make better use of the available port area so that loading and unloading of truck and passenger traffic is efficient. We strive to develop modern, digital solutions for efficient and flexible control of freight and passenger flows. Our aim is to improve customer experience as well as improved efficiency and sustainability for us and our customers," says Kimmo Kostia, Head of Group IT Hardware, Finnlines.

The aim is to control the movement of people and cargo in such a way that it works as well as possible from the point of view of both the port and the user. When the passenger flows are known, safety, such as safety clearances, can be rapidly improved even in exceptional circumstances.

"We are piloting a situational awareness system and video surveillance solution that will improve the operational efficiency and safety of freight and travel traffic in SMARTER project," says Jani Väre, Director, Innovations, Teleste.

Ready for autonomous maritime

DIMECC's Sea for Value program (S4V) takes steps towards autonomous maritime transport. It focuses on new types of services and data flows and builds capacity for advanced autonomous functions and navigation. The program aims for a wide societal influence by providing research-based recommendations on new business models, standardization, business, data usage and sharing. Its first project, Fairway initiated in 2020, focuses on smart fairway and remote piloting. The second project, SMARTER, links to this by

continuing the digital journey from the fairway to the direction of the port and hinterland transport. The S4V program is funded by industrial partners and Business Finland.

The industry partners in the DIMECC SMARTER project are Attracs, ADE, Awake.ai, Brighthouse Intelligence, Focusplan, Lingsoft, Nodeon, Teleste and Visy. The research is carried out by Åbo Akademi University, Novia, the University of Jyväskylä, Turku University of Applied Sciences and the University of Turku. Other partners are Finnlines, Fintraffic VTS and Tallink Silja, as well as Port of Helsinki, Port of Turku and Traficom.

Additional information

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