

European multidisciplinary consortium receives EU funding to increase navigational safety

- **The OCEAN project is focused on enhancing operator awareness in navigation, to reduce the frequency of severe accidents like collision and grounding, to mitigate ship-strike risks to marine mammals, and to mitigate the risk presented by floating obstacles to ships.**
- **The OCEAN project will contribute to an improved understanding of accident root causes, and will strive to reduce the resulting human, environmental and economic losses through socio-technical innovations supporting ship navigators.**
- **The OCEAN consortium, coordinated by Western Norway University of Applied Sciences, includes 13 partner organizations across 7 different European countries from the industry, academia, NGOs and end users**
- **The project was awarded funding by Horizon Europe and launched in October 2022, and it is due to run until 2025.**

Around 3.000 maritime incidents occur every year in the European maritime fleet. 28% of these accidents are categorised as severe or very severe accidents, resulting in the loss of life onboard, pollution, fire, collisions or grounding. Navigational accidents are dominant in these statistics according to the European Maritime Safety Agency, be it for cargo, passenger or service ships.

The OCEAN project ambition is to contribute to the mitigation of navigational accidents by supporting the navigators to do an even better job than they do presently. The OCEAN consortium will address the most pertinent factors that may contribute to events becoming accidents: training, technical, human or organisational factors, operational constraints, processes and procedures, commercial pressures, and will recommend improvements and amendments to regulations, standards and bridge equipment design approaches.

OCEAN seeks to enhance navigational awareness “on the spot” and to improve the performance of evasive manoeuvring to avoid collision with near-field threats. The project will deliver and demonstrate several human centred innovations. For example, the 4D Situation Awareness Display which will be developed in the OCEAN project will improve the visualisation of navigational hazards, integrating current bridge information systems with marine mammal and lost floating containers detection and tracking capacity specifically developed by the project.

Going further, the project will design and implement a European navigational hazard data infrastructure to feed multi-source observations and hazard predictions relating to floating containers and large aggregations of marine mammals into the existing distributed maritime warning infrastructure. OCEAN seeks to transfer this data ecosystem to relevant European organisations for deployment and maintenance.

Co-funded by Horizon Europe, the European Union’s research and innovation programme, the consortium of 13 members represents 7 European countries, Norway, Greece, Spain, Denmark, Portugal, Ireland and UK, all located on major European coastal regions. Members include a coastal administration, a ship operator, maritime safety and transport researchers, marine mammal ecology and conservation experts, companies specialised in maritime information systems and sensors, a professional organisation, a risk and safety management organisation, as well as data infrastructure, data fusion and satellite imaging specialists. UK participants are supported by UK Research and Innovation Grant Number 10038659 (Lloyd’s Register) and Grant Number 10052942 (The Nautical Institute).

The project launched in October 2022 and is scheduled to run for three years.



**Co-funded by
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About Horizon Europe

Horizon Europe is the [EU's funding programme for research and innovation](#) with a budget of €95.5 billion over the period 2021-2027. The program facilitates collaboration and strengthens the impact of research and innovation in terms of knowledge, technologies and jobs, while tackling global challenges such as climate change.

About Western Norway University of Applied Sciences

Western Norway University of Applied Sciences (HVL) is one of the largest educational institutions in the country, with about 17,000 students. HVL stretches over 5 campuses and 400km on the western coast of Norway. The university offers a broad range of academic programmes at Bachelor's, Master's and PhD levels.

OCEAN Consortium

Høgskulen på Vestlandet (Norway) <https://www.hvl.no/en/> (Coordinator)

Kystverket (Norway) <https://www.kystverket.no/>

National Technical University of Athens (Greece) <https://www.ntua.gr/en/>

Centre Internacional de Mètodes Numèrics a l'Enginyeria (Spain) <https://www.cimne.com/>

Teledyne Reson A/S (Denmark) <http://www.teledynemarine.com/reson>

Universidade dos Açores (Portugal) <https://www.uac.pt/>

Kongsberg Maritime AS (Norway) <https://www.kongsberg.com/no/maritime/>

Kongsberg Seatex AS (Norway) <https://www.kongsberg.com/no/maritime/contact/our-offices/norway-trondheim-seatex-as/>

Universitat Politècnica de Catalunya (Spain) <https://www.upc.edu/>

Irish Ferries Ltd (Ireland) <https://www.irishferries.com/>

Irish Whale and Dolphin Group (Ireland) <https://iwdg.ie/>

The Nautical Institute (The United Kingdom) <https://www.nautinst.org/>

Lloyd's Register (The United Kingdom) <https://www.lr.org/>