

PRESS RELEASE

The Future of shipping is Green

A joint EU- and UK-funded project is expected to significantly accelerate the climate neutrality of ships through retrofitting existing fleets. The future of shipping will be energy and fuel-efficient, incorporating carbon capture technologies and more advanced air purification systems that reduce contaminants and airborne pathogens.

The Green Marine consortium consists of 10 partners from 7 countries across the European Union and the United Kingdom, working together to develop practical solutions for reducing greenhouse gas emissions from existing vessels. The project is making significant progress toward accelerating the transition of maritime transport to climate neutrality. Funded by the European Union and the United Kingdom, the project focuses on retrofitting existing vessels with innovative emission-reduction technologies.

Land-Based Testing Activities in Cyprus

A key milestone of the project has been the land-based testing campaign conducted in Cyprus, where several technologies were evaluated under realistic marine engine conditions.

These tests are an essential step towards validating the technologies before potential onboard demonstrations.

During the testing campaign, multiple systems were evaluated, including:

- **Membrane-based carbon capture technologies**, which were tested to evaluate their capability to capture CO₂ from marine exhaust gases.
- **The Carbon Capture Machine (CCM)**, which converts captured CO₂ into mineralised products, demonstrating an alternative pathway for carbon capture and utilisation.
- **Thermo-Electric Element (TEE)** technology, which converts waste heat from engine exhaust into electricity, demonstrating the potential to recover energy that would otherwise be lost during vessel operation.
- **SepaRaptor particle treatment technology**, designed to improve the efficiency and durability of membrane-based carbon capture systems by removing fine particles from flue gas streams.



Green Marine is funded by the European Union funding from the European Union's Horizon Europe research and innovation program under grant agreement No. 101096522. UK participants in Horizon Europe Project Green Marine are supported by UKRI grant numbers 10064539 (University of Strathclyde), 10068477 (CalMac Ltd) and 10064666 (CCM).

These land-based tests allowed the partners to evaluate system performance, assess operational conditions, and gather critical data required for future optimisation and deployment.

Ensuring Safety and Regulatory Compliance

To prepare for testing and future onboard demonstrations, the project consortium conducted extensive safety and regulatory assessments. This process involved collaboration with key maritime stakeholders, including the Maritime and Coastguard Agency (UK) and Lloyd's Register, the classification society responsible for evaluating the safety and compliance of the proposed systems.

A series of HAZID workshops and technical consultations were held with these organisations to ensure that the technologies meet maritime safety standards and regulatory requirements.

Engaging the Maritime Community

The Green Marine website serves as the main information hub for the project, where deliverables, press releases, newsletters, and updates are regularly published.

The project also maintains an active presence on social media. On LinkedIn, the Green Marine community has grown steadily.

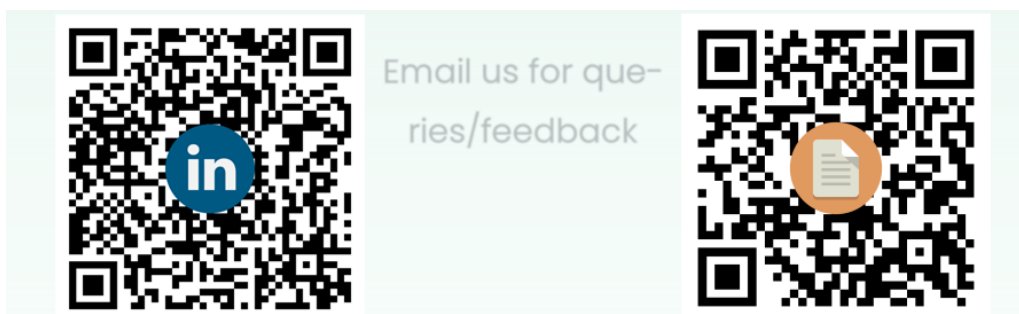
Through continued dissemination and collaboration, the Green Marine consortium aims to accelerate the adoption of sustainable retrofit solutions in the global maritime industry.

More news and information

You can find more news and information on the Green Marine Project on our website and LinkedIn page. Links to both are provided below.

<https://greenmarine-project.eu/>

<https://cy.linkedin.com/company/green-marine-project>



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