

Estonian Centre for Maritime Retrofit



Stakeholders

The Estonian Center for Maritime Retrofit (EC-MaRe) project aims to advance sustainable, secure, and efficient maritime operations. 'Retrofit' here means transforming maritime logistics by reorganizing supply chains, decarbonizing, and digitalizing. The project will drive research in maritime decarbonization, digital resilience, and retrofit, integrating smart shipping, port technologies, cybersecurity, and alternative fuels, with a particular focus on hydrogen as an emerging energy carrier and its integration into future maritime energy systems.. This requires significant changes across fleets, ports, and supply chains. The centre will collaborate with research, industry, and policy stakeholders to provide recommendations, supporting the Baltic Sea maritime sector's competitiveness and EU sustainability goals.

Industry: EC-MaRe Hub will connect researchers, the private and public sectors through networking events to foster co-creation. This collaboration aims to boost market growth and exports. The Business Accelerator supports startups with idea development, mentorship, funding, and networking; developing R&I pilots to solve maritime retrofit challenges. The industrial ecosystem also includes strategic energy and hydrogen partners contributing expertise in green hydrogen supply, infrastructure development and system-level integration for maritime retrofit and hybrid propulsion solutions.

Policymakers: EC-MaRe aims to inform policy development, evidence-based policymaking, and the creation of standards and strategies.

Researchers: EC-MaRe researchers will create high-quality knowledge in maritime retrofit and aims to increase the number of Estonian research articles among the top 10% most-cited globally and double research income.

Higher education: The retrofit technologies and approaches require a new generation of experts. The unique, interdisciplinary PhD programme, which will be developed in close cooperation with partners, the public and private sector, will bring Estonian higher education an entirely new edge.



Partners

As Estonia's only technological higher education institution, TalTech is the ideal host for EC-MaRe. To strengthen EC-MaRe, TalTech has engaged partners from top European research institutions and national stakeholders, forming a balanced consortium with a broad network.



What is Teaming project?

Teaming for Excellence is a Horizon Europe funding instrument for widening countries to establish and reinforce Centres of Excellence. Projects receive up to €15M from Horizon for developing the centre. Co-funding of an equivalent amount is guaranteed by the Estonian Ministry of Education and Research (€12M) and complemented by BHG-Estonia (€3M).

Project lasts 6 years.

The results will be announced in May 2026.