

Towards a resilient, competitive and sustainable waterborne sector

Context and drivers

The waterborne sector is dynamic, featuring a diverse array of public and private stakeholders. These stakeholders include classification societies, shipbuilders, shipowners (both maritime and inland navigation), equipment manufacturers, ports, infrastructure and service providers (e.g. dredging), as well as universities and research institutes. Small and medium sized enterprises (SMEs) form the largest part of the EU waterborne sector and play a crucial role in the sector and the broader European economy. The various stakeholder groups offer a wide range of services, trades and products, with the global fleet [categorized by ship types and services based on power requirements and autonomy](#). These categories include **inland waterway transport vessels, ferries, short sea, cruise, intercontinental and offshore ships**. Further distinctions exist between liner and tramp shipping and their respective business models, as well as between retrofitting existing vessels and building new ones. Finally, these ship types and services must be complemented with **underwater and unmanned vehicles**.

The waterborne sector is **critical to Europe's trade and economy**, handling nearly 90% of international trade, with 81% of the EU's external trade and 40% of its internal trade being carried by waterborne transport. Beyond trade, the sector is a significant employer in the EU, providing 4.2 million direct jobs and contributing approximately € 500 billion annually to the EU's Gross Domestic Product (GDP). The European shipping fleet is one of the largest in the world, representing [35% of the world fleet](#). Moreover, the European [maritime technology sector](#) is a global leader in high-technology shipbuilding (such as maritime and inland cruise ships, electric ships, offshore support vessels and [platforms](#) as well as underwater and unmanned vehicles) and **green and smart port and shipping technologies** (such as battery electric solutions, clean engines, exhaust treatment systems, green equipment, smart technology for improved efficiency and operations and automation). European companies supply almost half of global maritime equipment and have designed and developed most of the world's fleet power systems.

The sector actively invests in innovation **to remain a frontrunner** in the global **green and digital** transformation. It plays a significant role in reinforcing the **EU's resilience in terms of trade, security, defence, energy supply, and sustainability** while enabling the transition towards sustainable energy and a robust supply chain. Ports, in particular, play a strategic role as key enablers of the energy transition, modal shift and the decarbonisation of waterborne transport.

The waterborne sector is, due to its international character, regulated on many different levels: international, European, regional, national and local. This includes environmental objectives, like the **European 2040 target of 90% net greenhouse gas emissions reduction** as well as dedicated policy objectives including in the upcoming **comprehensive port strategy** and the **industrial waterborne strategy**. A **Joint and coordinated approach towards research, development, innovation and the deployment of innovations** is critical to achieve policy objectives.

Current research, development and innovation activities

The [Co-Programmed Partnership on Zero-Emission Waterborne Transport](#) (ZEWT) was launched in 2021 under the framework of Horizon Europe. The Waterborne Technology Platform (TP) coordinates the private side of the sector's involvement in this initiative. The Waterborne TP has been set up as an **industry-oriented** Technology Platform to establish a continuous dialogue between all waterborne stakeholders, such as classification societies, shipbuilders, shipowners, maritime equipment manufacturers, infrastructure and service providers, ports, universities or research institutes, and with the EU Institutions and EU Member States. Currently, Waterborne TP represents more than 120 members, originating from 19 EU Member States and four European countries associated with Horizon Europe. The ZEWT Partnership develops and demonstrates zero-emission solutions for all main ship types and services before 2030, enabling zero-emission waterborne transport before 2050. **It includes up to 530 million Euro in European Commission investments via Horizon Europe, and up to 3.3 billion Euro in private sector investments, achieving a leverage ratio of 1:6.**

Recently, the European Commission [published](#) the **evaluation report of the partnership**, as part of the **interim evaluation of Horizon Europe's activities related to the green transition**. This report provides an assessment of the Partnership against the following evaluation criteria: relevance, coherence, effectiveness, efficiency, EU-added value, additionality, directionality, international positioning and visibility, transparency and openness and phasing-out preparedness.

According to the report, the EU-added value of the partnership stems from its ability to bring together a highly fragmented sector with diverging strategic ambitions. Addressing key sectors through an integrated and holistic ZEWT perspectives crystallises as a central node for EU transformations – and potentially worldwide. The ZEWT partnership offers significant added value by **aligning agendas, resources, and efforts across sectors and businesses, including SMEs that dominate in the field. In addition, it secures commitment for further investment in research, dissemination, capacity building, and general sensibilisation.**

One of the partnership's key achievements is its contribution to **capacity-building among all stakeholders through knowledge, technological solutions, and co-creation**. ZEWT aims to actively engage people in transitions and enable them to further participate knowledgeably and actively. Overall, in the light of global challenges and the green transition, the new ZEWT partnership targets highly relevant objectives in line with its strategic implementation plan, put forward by a lean management and governance structure, which envisages ample synergies across relevant other partnerships, and European programmes and initiatives as well as international initiatives and arenas, especially the **International Maritime Organisation (IMO)**.

The partnership has already demonstrated tangible solutions, such as [wind assisted propulsion demonstration on two vessels](#) and the [development and demonstration of the world's first ammonia-powered platform supply vessel](#).

Team Europe approach critical for a resilient, competitive and sustainable future

Research, development, innovation and their deployment are key to enhance [Technology Leadership](#) of the European waterborne sector. Technology leadership means being a frontrunner in enabling transformation, which entails **developing and deploying competitive solutions** to mitigate climate change, providing the capability to become climate resilient, eliminate all harmful pollutants, improve working conditions and create new jobs, and stimulate economic prosperity. For the coming years, further developing digitalisation and sustainability (including circularity), will be the key focus areas to enhance resilience and competitiveness of the European waterborne sector. Competitiveness implies that the results of research, development and innovation provide the European waterborne sector with a frontrunners position regarding the technology developed. In addition, it implies a competitive advantage of the waterborne transport sector in comparison with other modes of transport.



Further developing and deploying **zero-emission solutions** (including circularity) and [digitalisation](#) , including enhancing the capability of the European maritime technology sector, will be critical to ensure a resilient, competitive and sustainable waterborne sector. A competitive value chain also heavily depends on **a resilient supply chain** that can source the entire product input from raw materials to finished high-tech parts. Reliable delivery equally requires a well-connected and innovative **trans-European transport network**.

The Co-Programmed Partnership on Zero-Emission Waterborne transport offers a unique stepping stone to achieve the objectives of the **European Clean Industrial Deal**, delivering tangible results scalable at European level also in the long-term. As for the period 2028 – 2035, considering the large number of SMEs in the sector, the implementation mode of a **co-programmed partnership centred around the transition to a resilient, competitive and sustainable waterborne sector** is the most suitable, to ensure that no one is left behind.

Whereas the activities of ZEWT have mainly been focussed on research, development and innovation, further strengthening the deployment of innovations (including skills) in the context of a new partnership will be critical for the transition to a resilient, competitive and sustainable waterborne sector. Developing and deploying zero-emission and digital solutions and products (such as vessels and platforms) requires the involvement of all key stakeholders and **joint investments** from ports, shipowners, shipyards, equipment manufacturers, infrastructure and service providers and the research community as well as the public side. Close cooperation with the different European Commission Services and EU Member States will further strengthen the **Team Europe approach**, ensuring collective progress towards a resilient, competitive and sustainable waterborne future.