

Connecting Europe by water

Discover the innovation of inland waterway vessels

Press Release

Green inland ships open the Connecting Europe Days in Brussels

Three innovative vessels called at the port of Brussels to show technical developments in zero and low carbon navigation to high-level participants of the Connecting Europe Days under the Belgian Presidency of the European Union. These vessels and an exhibition with more examples demonstrate transition and zero-emission technologies such as battery-electric, gas-electric, and hydrogen. Next to that a number of new developments in terms of remote control and deployment of innovative technologies in inland waterway transport were highlighted.

Realising the European Green Deal through IWT

Inland waterway transport (IWT) today is known as one of the two most sustainable modes of transport. It was therefore recognised by the European Union to receive more freight transport in its modal shift objectives. Inland vessels already today hold a positive record in terms of emissions and are committed to move towards full decarbonisation.

The event was opened by the Ministers of Transport for the Regions of Brussels, Flanders and Wallonia who praised and recognised the sustainable potential of IWT and called for continued Europe wide support. Belgium has supported the development of innovative inland vessels and future proof infrastructure to ensure the foreseen modal shift.

Support for the transformation

The event also saw the launch of the "INLAND WATERWAY TRANSPORT & PORTS AGENDA 2024 ONWARDS" which outlines the objectives of the sector's attempts and needs to achieve climate neutrality, increasing resilience, improving digitalisation and adopting automation.

In order to achieve such a transformation substantial investment and appropriate funding schemes would be required. These need to be combined with consistent policies supporting the shift away from polluting modes of transport as well as the creation of a framework to support digitalisation of the whole IWT value chain. Throughout, innovation support will remain foundational to ensure the necessary technological and operational advancements.

The event was closed by Director-General of DG MOVE Magda Kopczyńska of the European Commission saying "The future of transport in Europe must be smart and sustainable. Inland navigation stands out as one of the most energy-efficient modes already. We are pushing for a reduction of carbon emissions across all vessels and a seamless integration of inland waterways into the transport chain. Today, I am confident that the sector is ready to tackle its challenges head-on."



European Barge Union (EBU) www.ebu-uenf.org info@ebu-uenf.org +31 6 53 336 366



Inland Navigation Europe (INE) www.inlandnavigation.eu info@inlandnavigation.eu +32 475 60 92 72



European IWT platform (IWTP) www.inlandwaterwaytransport.eu f.esposito@inlandwaterwaytransport.eu +39 33 8497 7280

The European Skippers Organisation (ESO) www.eso-oeb.org secretariat@eso-oeb.org

European Federation of Inland Ports (EFIP) www.inlandports.eu info@inlandports.be +32 486 88 87 65







+ 32 50 47 07 20







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Innovative vessels

ePusher Series



The KOTUG E-Pusher, is world's first zero-emission inland vessel based on a commercial business case. The series of electric pusher tugs feature a smart electric grid able to handle a variety of energy containers (Battery, H2 or (bio)diesel). Its modular design allows for 100% assembly type production resulting in faster construction (>50%) and major costs advantages. Ready for large scale deployment on any type of river over any distance for a sustainable and competitive future. Propulsion: Variable up to 1,500kW. Type: Pusher tug. Size: from 5.7 to 30m. Cargo capacity from 100 to +6,000dwt.

Watertruck XI



WATERTRUCK XI is an innovative, flexible, unmanned vessel designed for small waterways (CEMT I-II). It enhances interconnectivity and interoperability between the TEN-T core network and smaller inland waterways. The push barge can sail individually or linked in convoy. Created by Celis, Seafar and Vlaamse Waterweg and co-financed by the EU. Operating on fixed trajectories through automated navigation, it offers revolutionising last-mile solutions and increases the use of inland water transport. Potentially taking 4,500 trailers off the road annually, it reduces emissions (25%) through effective modal shift. Propulsion: 150kw motor 800/RPM/400VAC. Type: Cargo Barge. Size: 39.95x6.58m.

La Coruna



La Coruna, a vessel retrofitted for sustainability and efficiency, sets new standards in inland transport innovation. With a well-to-wake approach using HVO in combination with a Euronorm 6 truck engine, it achieves a remarkable 90% reduction in emissions, preventing negative modal shifts and promoting sustainable inland navigation. La Coruna transports 120,000 tons (6,000 truckloads) annually, with 33% lower fuel consumption and significant emissions reduction. This short-term solution contributes to greening the existing fleet in inland shipping.

Propulsion: Euronorm 6 DAF/PACCAR engine MX13-390kW. Type: Cargo. Size: 55.7x 5.7m.

Zulu 06



As one of the first hydrogen powered cargo vessels, the Zulu 06 is spearheading the era of zeroemission urban logistics. This innovative vessel establishes an efficient and ecological transport system, which is particularly suited for urban and densely populated areas. With zero emissions and exceptional energy efficiency, the ZULU 06 heralds a new age of sustainable inland waterway transport, offering both environmental benefits and practical solutions for urban mobility challenges.

Propulsion: 200kW PEM fuel cells. Type: Motor Freighter. Size: 55x8m.

RH2INE H2 Barge 1&2



Under the RH2INE Project, the H2Barge 1 & 2 redefine inland waterway transport with hydrogen fuel cells. Additionally, RH2INE establishes green hydrogen production facilities along the EU North Sea Rhine Mediterranean corridor, promoting renewable energy use and enhancing energy efficiency. With hydrogen fuel cells being 15 to 20% more efficient than traditional engines, the H2Barge 1&2 not only ensures emission reduction but also lowers operating costs.

Propulsion: PEM fuel cells, hydrogen storage, battery packs and an electric drive train. Type: Inland container vessels. Size: 110x11.45m.

SEAFAR



SEAFAR is an independent ship management company specialised in unmanned and crew-reduced vessel operations. Through its advanced Control Center, it manages and operates automated inland barges, prioritising effective and safe operations. This innovative approach aligns with the European Green Deal's environmental goals, reducing operational costs and enhancing workforce efficiency. SEAFAR facilitates shore-based vessel operation, improving captains' work-life balance while ensuring both safety and sustainability in navigation operations.









