

IW-NET – Innovation driven Collaborative European Inland Waterways

Transport Network

IW-NET will facilitate industry-wide collaboration for a unified Inland Waterway Area integrated in the TEN-T and European Transport System. The project's solutions comprise of highly configurable simulation models to support authorities and business stakeholders to evaluate and manage their strategies, and to optimize their tactical and operational planning capabilities. Furthermore, the project will cover state-of-the-art infrastructure and vessel technologies that support the streamlining and improvement of operational processes in inland waterway transport.

The aim of IW-NET is to initiate a multimodal optimisation process across the EU Transport System, increasing the modal share of IWT and supporting the European Commission's ambitions to reduce transport GHG emissions by two thirds by 2050. Enablers for sustainable infrastructure management and innovative vessels will support an efficient and competitive IWT sector addressing infrastructure bottlenecks, insufficient IT integration along the chain and slow adoption of technologies such as new vessel types, alternative fuels, automation, IoT, machine learning. The Living Lab approach is used to apply user-centered application scenarios in important TEN-T corridors demonstrating and evaluating the impacts in simulations and tests covering technological, organisational, legal, economical, ecological, and safety/security issues. The key thematic areas and application scenarios in IW-NET are:

1) Digitalisation: optimised planning of barge operations serving dense urban areas with predictive demand routing (Brussels-Antwerp-Courtrai-Lille-Valenciennes); data driven optimisation on navigability in uncertain water conditions (Danube).

2) Sustainable Infrastructure and Intelligent Traffic Management: lock forecasting reducing uncertainty in voyage planning; lock planning; management of fairway sections where encounters are prohibited; berth planning with mandatory shore power supply and other services (hinterland of Bremerhaven via Weser/Mittelland Canal).

3) Innovative vessels: new barge designs fitting corridor conditions and target markets: barges with a high degree of automation for urban distribution (East Flanders-Ghent); new barge for push boats capable with low/high water levels optimising capacities (Danube from Austria to Romania); use of GALILEO services for advanced driver assistance like guidance, bridge height warning and automatic lock entering (Spree-Oder waterway close to Berlin). Accompanying activities are stakeholder engagement, capacity building, and the delivery of a European IWT development roadmap with policy recommendations for increasing the IWT share.

Project background

The IW-NET project is funded by the European Union within the H2020 programme and will run for 36 months (June 2020 – May 2023). The project has a total budget of 8,302,838 Euro and will be implemented by a transnational consortium of 28 organisations from ten European countries.

For **further information** please visit our website: www.iw-net.eu/ and www.rewway.at/en/research-and-innovation/

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