A new approach for boosting cargo transport

Central European inland waterways are underutilised due to factors such as an ageing fleet, low profits, high fuel costs and long delays. An EU initiative looked at how to boost traffic by designing innovative technical and logistical solutions.

To meet the cross-border European challenges for optimised inland waterway container transport, cargo handling must be fully integrated into the EU transport and logistics chain. In order to achieve this, the EU-funded NEWS (Development of a next generation European inland waterway ship and logistics system) project worked on rendering container transport on inland waterways more efficient.

By transforming ports on the Danube River basin into logistics centres and efficient terminals, the project sought to help increase cargo flows along the river by 20% until 2020. The project conceived a new vessel type to minimise carbon dioxide emissions from container transport and make transport links across continental Europe more accessible, addressing...
bottlenecks along the major freight route Rhine/Meuse-Main-Danube.

To achieve its aims, project members defined the concept and validated the technical specifications of a novel inland waterway container ship. They designed ship hulls to enable efficient container transport in shallow and low-level waters, as well as an electric propulsion system that uses alternative energy sources and fuels. The new vessel was designed to boost resource efficiency by up to a third and lower harmful exhaust emissions from ships.

The Upper Danube between Germany and Hungary was identified as the most promising area to operate the system. In this context the team analysed the target area’s logistical network and integrated the vessel into intermodal transport chains within the Danube Region. This facilitated the assessment of current transport chains and the planning of potential new ones with the system.

Although the new vessel design is very promising, return on investment at this time is too high to make it commercially viable. Nonetheless, the project team has outlined a series of recommendations and logistics approaches to streamline inland waterway cargo transport.

The vessel design could eventually prove inspirational for future researchers, setting the stage to help raise the competitiveness of the inland waterway shipping industry and drive traffic along its routes.

Keywords
Inland waterways, container transport, cargo, logistical, freight

Discover other articles in the same domain of application

Real-time modulation of processor energy consumption achieves a minimum all the time

8 November 2019

LIFE AFTER...

Catching up with STEFY: Ambitious plans for a food safety-focused innovative SME

3 January 2020
Robo-inspector checks industrial tanks from inside