A greener cargo ship concept

*Researchers have developed a new sea vessel concept to facilitate the transport of cargo into smaller ports.*

Currently, road transport remains the dominant form of goods transport within Europe. However, this method of transporting freight brings a high environmental impact and faces rising costs due to higher fuel prices and increasingly congested roads.

An EU-funded project, EU-CARGOXPRESS, aimed to offer an alternative by designing and developing a new sea-based vessel concept. The research was based on sustainable energies and technologies as well as alternative supply routes using small marine and river ports. Estimated efficiency savings are around 50% reductions in fuel consumption and carbon dioxide (CO2) emissions.

Working on vehicles, vessels and infrastructure, the project produced a number of technological breakthroughs that can be used together or applied separately to existing marine transport systems. These include a lightweight catamaran cargo vessel; a system to achieve stability without ballast water; a modular electric drive system; sustainable propulsion systems based on large sail wings and solar panels; and onboard ship-to-shore cranes to handle both containers and XXL cargo.

The project also identified suitable small ports in Africa and Europe and found 560 sites currently lacking maritime cargo transport but suitable for the small cargo vessel concepts being developed. Team members estimated that up to 64 million people in these towns and their hinterlands could be served through direct delivery by sea or river, resulting in substantial cuts in road transport.

EU-CARGOXPRESS has laid the groundwork for a radical transformation of cargo transport, which could lead to dramatic improvements in sustainability to the benefit of all Europe's citizens.

**Related information**

| Report Summary | Final Report Summary - EU-CARGOXPRESS (Greening of surface transport through an innovative and competitive CARGO-VESSEL Concept connecting marine and fluvial intermodal ports) |

**Subjects**

Innovation and Technology Transfer