



CLIMATE RESILIENT AND ENVIRONMENTALLY SUSTAINABLE TRANSPORT INFRASTRUCTURE, WITH A FOCUS ON INLAND WATERWAYS

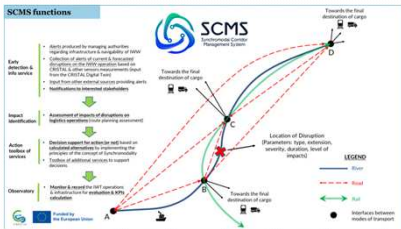
### About Us

The CRISTAL project focuses on the development of inland waterway transport (IWT) and its infrastructure on smaller and commercially undeveloped feedwater routes. They are key to expanding Europe's waterway system.

The crucial aim of the project is to create an innovative technology for monitoring and digitization of transport chains, indicating the direction of further development of business and management models that include river transport in multimodal chains.

### Project assumptions

- Developing new governance models enabling cooperation across institutional, modal and national boundaries.
- Provision of percent capacity in extreme weather situations.
- Use of the latest technological solutions, such as:
  - ✓ automatic buoys,
  - ✓ sensors monitoring the condition of the infrastructure
  - ✓ business models
  - ✓ a decision support system and an open data platform for synchronodal resource planning and operation preparation.



### Targeted Key Results

- CRISTAL's targeted key results are:
- Development of pathway towards 20% market share increase and 80% reliability
  - Use of state-of-the-art technologies, including digitalization, to increase the operability and resilience of infrastructure, and assure 50% capacity during extreme weather conditions.
  - Implementation of state-of-the-art technologies and market share increase strategy in the pilots as basis for further Europe-wide roll-out for increased market share of IWT
  - Exploitation on local as well as European level and beyond

### Work Structure



### Objectives

The objective of the CRISTAL project is to increase the share of freight transport on inland water transport by a minimum of 20% and to demonstrate on its three pilot sites (Italy, Poland and France) strategies to improve reliability by 80%. CRISTAL project will assure IWT capacity at 50% even during extreme weather events.

The all three pilot sites (Poland, Italy and France) will involve a step change from the current system concerning the inland water infrastructures asset management towards the ultimate vision of the Physical Internet linked to the sustainability and resilience concepts, by synchronizing intermodal services between modes and with shippers, (referred to as "Synchronodality"), aligning equipment and services on corridors and hubs and integrating these into networks.

#### Where are the Pilot sites?

The project case study will cover rivers in:

- Poland – Vistula & Odra
- Italy – Po
- France – Moselle & Seine



### CONSORTIUM



### Social networks



[www.cristal-project.eu](http://www.cristal-project.eu)

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