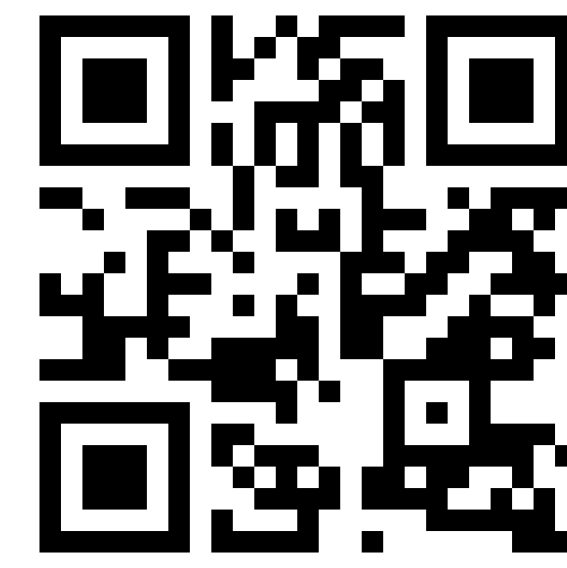




# SEAMLESS



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

## Objectives

### BUILDING BLOCKS

#### **B1 & B2**

Tailored autonomous cargo shuttles, which will operate 24/7 in remote control centres.

Cooperation between autonomous vessels and automated & autonomous shore-side infrastructure.

#### **B3**

Redesigned logistics system that will facilitate seamless freight flows through the supply chain by minimising delays in intermodal nodes.

### ENABLERS

#### **E1 & E2**

Validation of the building blocks and demonstration of the transferability in selected use cases.

#### **E3**

Development of novel business models and identification of gaps and challenges in the current regulatory framework related to autonomous vessel operation.

**Seamless** will develop and adapt missing technology 3 building blocks and 3 key enabling technologies into a fully automated, economically viable, cost-effective, and resilient waterborne freight feeder loop service for Short Sea Shipping (SSS) and/or Inland Waterways Transport (IWT). Autonomous systems in a way that ensures safe, resilient, efficient, and environmentally friendly operation to shift road freight movements towards waterway will be developed and integrated.

### CHALLENGES & BARRIERS:

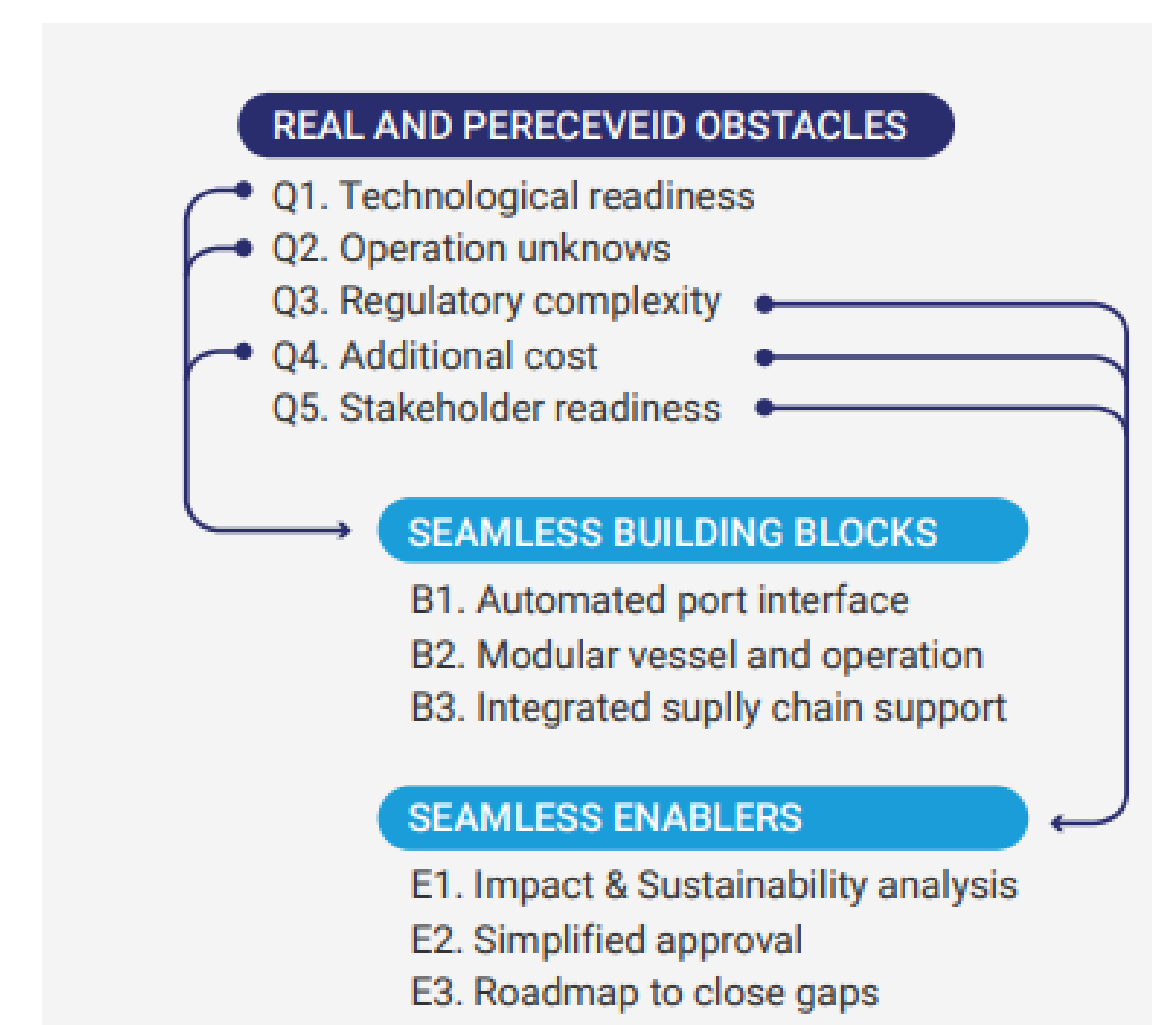
Technological readiness: issues related to complexity and cost of vessel and automation of the port interface.

Operational unknowns: less investigated and relate mainly to how remote control is exercised for ship, port, and port equipment.

Regulatory complexity: investigation needed to reduce high costs in doing risk analysis.

Additional costs: related to automation as well as cost-effective of remote control.

Stakeholder readiness: general public acceptance and investment willingness for ship operators are crucial.



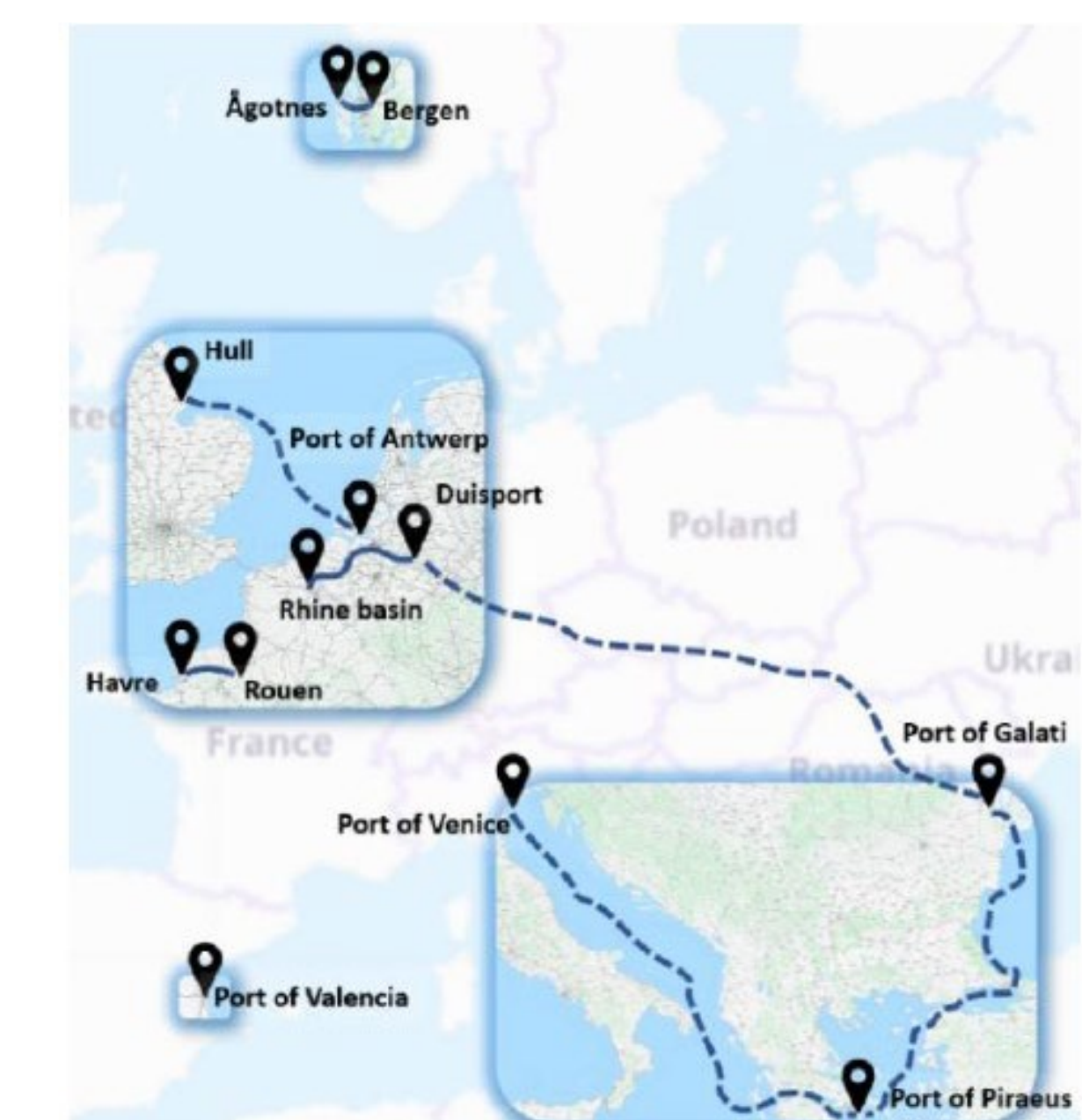
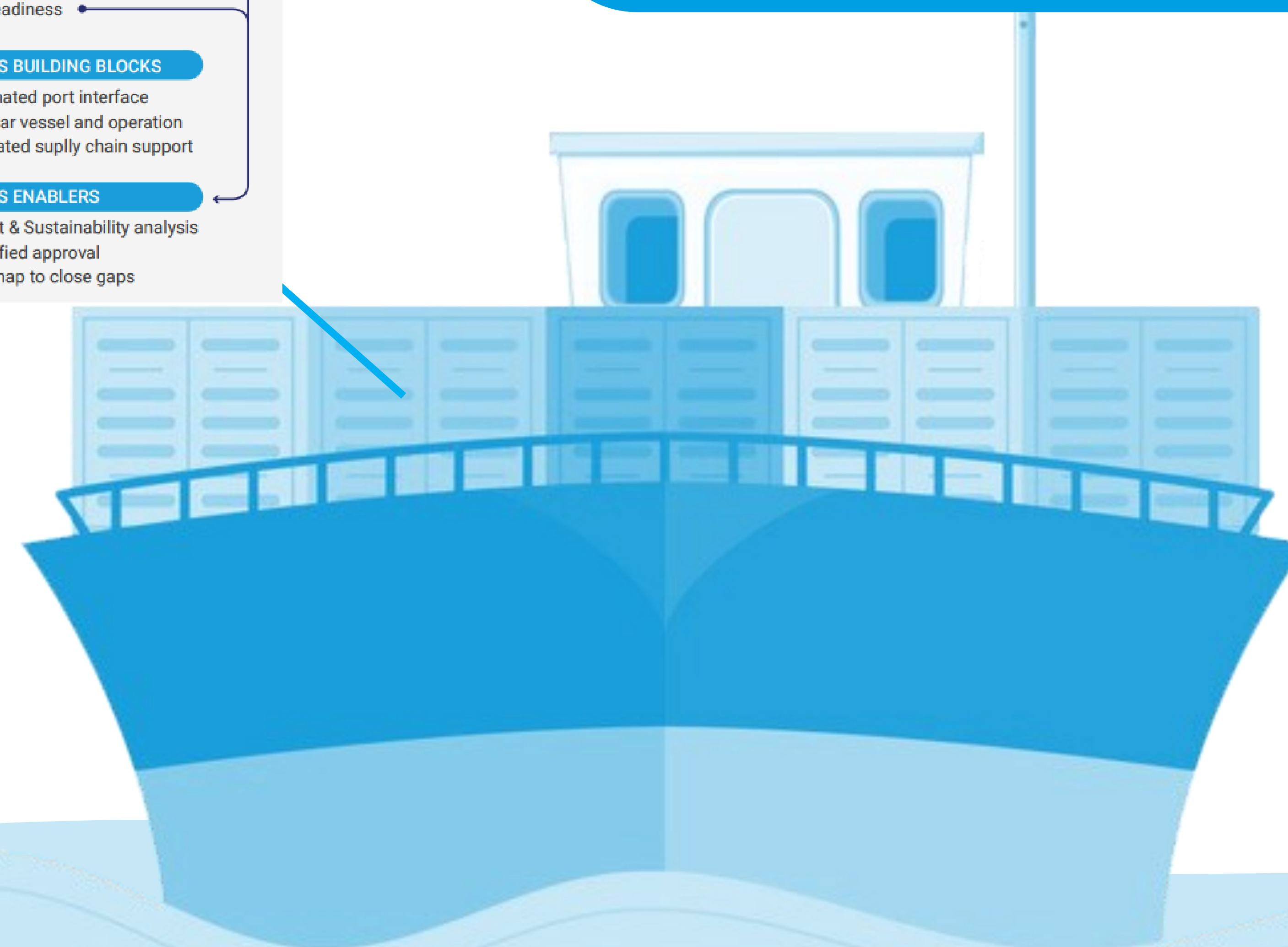
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