

Main Objectives



Smart Port Solutions

Employing ICT solutions to improve information flows between ports and port communities.



Green Port Solutions

Adopting green technologies to reduce the environmental impacts of port operations and save resources.



Interconnected Port Solutions

Combining different modes of transport and integrating different technologies to better monitor and control freight flows.

Consortium

Fraunhofer IFF

Acciona
Construcción

umec

Brunel University London

LEITAT
managing technologies

UBIMAX
wear IT at work

Port of Vigo
Port Authority of Vigo

Ports de Balears
Autoritat Portuària de Balears

MARTE
scotland logistics

PORT OF KRISTIANSAND

TRANSPORTWERK
Magdeburger Hafen GmbH

GREENPORT
Porti di Livorno, Piombino, Capraia Isola, Portoferraio, Rio Marina, Civico

Autorità di Sistema Portuale del Mar Tirreno Settentrionale

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PortForward

Towards a green and sustainable ecosystem for the EU Port of the Future



1. We are addressing real industrial needs

- Lack of **efficiency in operations** with heterogeneous freights (roll-on/roll-off cargo, containers)
- Need for **real time monitoring** of freight flows with end-to-end track-and-trace solutions to optimize port activities
- Need for **remote monitoring and management** of important port operations, such as maintenance scheduling, cargo and passenger traffic, especially for **short sea shipping** cases
- Interconnection with **hinterland transportation** with special focus on inland waterways
- Interface with the surrounding **urban environment**
- Experience sharing and **transferability** to other intermodal transport hubs
- **Environmental impact** reduction using green technologies and energy solutions saving

2. We are using State of the Art technologies

- An **IoT** concept for port assets
- **Sensor** deployment using e.g. cameras and multi-modal tracking devices
- Interconnection into one seamless, versatile and secure **IoT network**
- **Remote management and intelligent maintenance tool**
- **Virtual Port** tool providing centralized control and alternative visualisations
- Novel **smart logistics** platform with a decision support system (DSS)
- Environmental and energy monitoring/ optimisation system using the novel concept of **Green Yard Scheduling**
- **Augmented reality (AR)** for pilot assistance and remote assistance to workers/operators
- The socio-economic analysis of the **port interface with its surrounding area and the port-city**, as well as the rest of the **logistics value chain**

3. We are testing in real port environments

