

WEBINAR Decarbonising small and medium ports

Best practices & pathways to implementation

Digitalisation in logistics – Digital Gate in Port of Aveiro



Digitalisation in logistics

Future logistics, from global to urban, will be founded on an **open global** logistics **system: connecting logistics networks**, founded on physical, digital, and operational interconnectivity.

This vision, the <u>Physical Internet (PI)</u>, will support the affordable transition of assets towards <u>Zero emissions logistics</u>.



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Alliance for Logistics Innovation through Collaboration in Europe

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Digitalisation in logistics

Forces driving innovation needs



In the coming decade, a number of trends driving the need for innovations in hubs, corridors and Synchromodality will be seen. Such trends have been identified:

- **Transport and supply chain processes are converging into well aligned systems.** Whereas in the past transport could be seen separately from manufacturing and distribution, now this is no longer the case.
- **Greening of supply chains** will go beyond efficiency improvement, to achieve the long term GHG emission reduction objectives. New solutions will be needed to achieve sustainable transport, such as innovative propulsion technologies and the influencing of consumer behaviour through information or pricing.
- The use of logistics data and ICT solutions will accelerate, including the development of applications for dynamic transport management, freight travel information, cargo and capacity management, Synchromodality and security related implementations.
- **Globalization** is pushing Europe to develop a position and a clear network strategy in the development of the main connectors to other world regions, including Central Europe, the Middle East, Africa, Asia and the US.
- Socio-demographic changes are attributable to a greying society, urbanization, migration and massindividualization. These will change the demand for transport, reduce the ability to operate labour-intensive systems, and increase public pressure on land development.







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The Port of Aveiro is a multifunctional port, playing a major role in the service of the various sectors of its hinterland industry, such as the ceramic, chemical, metalworking, wood and wood derivatives industries, as well as the agri-food and construction sectors.

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Port of Aveiro Project overview

The Process Model and Functional Specification of the entrance and access control rules of the port of Aveiro allowed:

- Document current access control and concierge practices and processes;
- Propose a future process model for entrance and access control;
- Obtain the involvement of port community actors regarding the new model;
- Specify the technological solution needed to implement this model;
- Evaluate costs and benefits.



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Portuguese logistic single window



Operationalisation



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Project solution

Kiosk options



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MARLO

Green Logistics in the Port of Aveiro



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MARLO

Our Role in Green Logistics

MARLO is deeply involved in the creation of innovative Technologies for Green Logistics

Solutions such as our MIXMOVEMATCH digital platform for supply chain executions enabled 50% carbon footprint reduction for large scale logistics operations. It also allowed us to get recognised by the EC as best innovator in the EU in the area of IT for society.

And we are also shaping the role of smart ports, using technology to reduce carbon footprint through innovative digital solutions



Appointed by the European Commission as **best innovator in Europe** in the category of Information and Communication Technologies for Society

https://ec.europa.eu/digital-single-market/en/news/2016-innovation-radar-prize-winners

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Thank you

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