

STRATEGY FOR FOSTERING COORDINATED MULTIMODAL
FREIGHT TRANSPORT THROUGH ICT SYSTEMS - LA
SPEZIA

DELIVERABLE D.T1.3.4

Version 1

O.T1.2

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1. Introduction

Within the COMODALCE project, outputs of the WPT1 include a “Strategy for fostering coordinated multimodal freight transport through ICT systems” (D.T1.3.2-10)”, described as “strategy for fostering multimodal transport through ICT systems setting a vision, objectives and priorities in a mid- to long-term perspective, including a detailed wish list of measures to be tested in the pilot action”.

This document includes the strategy elaborated for the Port of La Spezia.



2. Methodology

2.1. Setting vision, mission, key values

The definition of vision statement, mission statement and key values provides a strategic framework for the planned measures.

VISION

(Vision statement focuses on tomorrow and set the target aims to be achieved)

The goal of digitalisation is to foster growth, competitiveness, jobs and the internal market, through making better use of the opportunities offered by digital technologies. Specifically, in the transport sector, such tools could improve the use of existing resources.

Digitalisation and new ICT tools have the potential to change the way cargo and traffic flows are organised and managed, they generate business opportunities and pave the way for innovation, new services and business models. They enable cooperation between supply chain actors, better supply chain visibility, real-time management of traffic and cargo flows, simplification and the reduction of administrative burden, and allows for a better use of infrastructures and resources, thereby increases efficiency and lowers costs.

To reap those benefits transport should become digital by default. Electronic data should flow seamlessly through supply chains including the exchange of data with public authorities and between businesses. Data should be used data to generate added value for business.

The Port Authority of the Eastern Ligurian Sea is working on this direction following the main national and European strategies. Among them, the National Strategic Plan for Ports and Logistics (Piano Strategico Nazionale della Portualità e della Logistica) and the Digital Single Market strategy are two pillars. In view of supporting this process and improving interoperability in logistics and freight transport across modes and sectors, the Port Authority is member of the Digital Transport and Logistics Forum (DTLF).

MISSION

(Mission statement focuses on today, what challenges shall we face towards the vision today)

The creation of seamless IT tools for digitalizing the supply chain and the port procedures will provide several benefits for the stakeholders such as:

- possibility of accessing to shared dashboards that allow in real time the monitoring of the Intermodal Unit long the entire corridor;
- possibility of displaying the status of the network and services in real time;
- possibility of communication and sharing of information with operators of distant geographical contexts; data exchange, through the platform, between the ICT management system of each operator and that of the other operators involved in the corridor;
- interoperability of Port Community Systems;
- limitation of inefficiencies caused to the lack of communication between operators;
- limitation of errors in the transmission of data related to the goods;



- prevention of consequent damages, through specific alerts;
- reduce dwell time of goods in port;
- improve last mile connections;
- possible extensions of the use of the Platform also in the Customs field (for instance, to facilitate customs clearance in the place where this is most appropriate);
- possibility for the Public Administration to obtain statistical data on the use of the railway networks for intermodal transport, in order to improve it and further incentivize it.

KEY VALUES

(The principles and values that are the basis of the vision of the strategy)

The pillar of the digitalization of procedures within the port of La Spezia is represented by APNet.

APNet, the PCS developed by the Port Authority of the Eastern Ligurian Sea, represents a highly innovative tool for the management of all services and procedures relating to the import and export of goods. Available free of charge for all port operators, APNet provides a single point of access to all the services necessary for the performance of the procedures for managing goods traffic, thanks to the interoperability with the national information systems of the Customs Agency, Harbor Master's Office, etc. Through the Port Community System, it is also possible to manage and synchronize document flows, monitor Port Security, schedule the arrivals and departures of trucks and trains and monitor the status of ship trips.



2.2. Setting strategic goals

Medium term (5 years):

1. Goal no. 1: Development of further functionalities of the Port Community System of La Spezia - APNet
2. Goal no. 2: Sustainable Governance of Port/Logistics Cluster managed by the Port Authority of the Eastern Ligurian Sea combining the activities in the two ports of La Spezia and Marina di Carrara
3. Goal no. 3: Upgrade of the dry port of Santo Stefano Magra
4. Goal no. 4: Implementation of the Customs Fast Corridors, in line with the Fast Corridors 2.0 initiative promoted by the Italian customs Agency
5. Goal no. 5: Digitalization of the rail shunting operations in the "Last Mile" connection
6. Goal no. 6: Integration of the Port Community System functionalities with other systems in non-European countries (i.e. Moroccan system PORTNET)

Long term (10 years):

1. Goal no. 7: Development of a common model for a national Port Community System within the PLN (National Logistics Platform) and coherent with the National Strategic Plan for Ports and Logistics and the
2. Goal no. 8: Interoperability between the Port Community System - APNet and the other IT tools used by the actors of the supply chain



Goal no. 1: Development of further functionalities of the Port Community System of La Spezia - APNet

Perspectives	Goal	Measurement
1. Environmental and safety perspective	Speed up processes through the PCS means less pollution in the port area	Average dwell time (and indirect impact on pollution)
2. Internal processes perspectives	Digitalization of the port procedures increase the efficiency of internal processes	Number of employees involved in the new procedures
3. Innovation and growth perspective	Digitalization of the port procedures is a way to support innovation and sustainability	Number of new functionalities implemented
4. Customer/Partner perspective	Involving the port operators is essential to optimize the functionalities of the PCS	Number of new port operators involved
5. Financial perspective	Speed up processes through the PCS means less costs for the port operators	Average cost per move
<p>VISION: The goal of digitalisation is to foster growth, competitiveness, jobs and the internal market, through making better use of the opportunities offered by digital technologies.</p>		



Goal no. 2: Sustainable Governance of Port/Logistics Cluster managed by the Port Authority of the Eastern Ligurian Sea combining the activities in the two ports of La Spezia and Marina di Carrara

Perspectives	Goal	Measurement
1. Environmental and safety perspective	Coordination between ports allows the possibility to shift volumes of traffic in case of emergencies	Working days without interruptions
2. Internal processes perspectives	Harmonization of the two ports procedures increase the efficiency of internal processes	Number of interactions between the two ports
3. Innovation and growth perspective	Harmonization of the ports procedures is a way to support innovation and sustainability	Number of functionalities harmonized
4. Customer/Partner perspective	Involving the port operators is essential to harmonize the activities of the two ports	Number of port operators involved
5. Financial perspective	A common governance rationalises the costs without doubling of the same functions	% Cost reduction of the ports administration
<p>VISION: The goal of digitalisation is to foster growth, competitiveness, jobs and the internal market, through making better use of the opportunities offered by digital technologies.</p>		



Goal no. 3: Upgrade of the dry port of Santo Stefano Magra

Perspectives	Goal	Measurement
1. Environmental and safety perspective	Increase the capacity of the dry port allows the possibility to handle more trains with an indirect benefit on environment	Number of trains handled
2. Internal processes perspectives	Harmonization of procedures between the port and the dry port increase the efficiency of internal processes	Number of interactions between the port and the dry port
3. Innovation and growth perspective	Harmonization of the procedures is a way to support innovation and sustainability	Number of functionalities harmonized
4. Customer/Partner perspective	Involving the operators is essential to harmonize the activities of the port and the dry port	Number of dry port operators involved
5. Financial perspective	The coordination of the activities between the port and the dry port rationalises the handling costs	Average cost per move
<p>VISION: The goal of digitalisation is to foster growth, competitiveness, jobs and the internal market, through making better use of the opportunities offered by digital technologies.</p>		



Goal no. 4: Implementation of the Customs Fast Corridors, in line with the Fast Corridors 2.0 initiative promoted by the Italian customs Agency

Perspectives	Goal	Measurement
1. Environmental and safety perspective	Speed up processes through the Customs Fast Corridors means less pollution in the port area and along the supply chain	Average dwell time (and indirect impact on pollution)
2. Internal processes perspectives	Digitalization of the customs procedures increase the efficiency of internal processes	Number of employees involved in the new procedures
3. Innovation and growth perspective	Digitalization of the customs procedures is a way to support innovation and sustainability	Number of new functionalities implemented
4. Customer/Partner perspective	Involving the port operators is essential to optimize the functionalities of the Customs Fast Corridors	Number of new port operators involved
5. Financial perspective	Speed up processes through the Customs Fast Corridors means less costs for the port operators	Average cost per move (indirect impact)
<p>VISION: The goal of digitalisation is to foster growth, competitiveness, jobs and the internal market, through making better use of the opportunities offered by digital technologies.</p>		



Goal no. 5: Digitalization of the rail shunting operations in the "Last Mile" connection

Perspectives	Goal	Measurement
1. Environmental and safety perspective	Increase the capacity of the last mile connection allows the possibility to handle more trains with an indirect benefit on environment	Number of trains handled
2. Internal processes perspectives	Digitalization of the rail shunting operations increase the throughput of the rail yard	Number of units handled
3. Innovation and growth perspective	Digitalization of the rail shunting operations is a way to support innovation and sustainability	Number of tracks managed by the system
4. Customer/Partner perspective	Involving the railway undertakings and the shunting companies is essential to optimize the functionalities of the Last Mile connection	Number of operators involved
5. Financial perspective	Speed up processes through the digitalization of the rail shunting operations means less costs for the port operators	Average cost per move (indirect impact)
<p>VISION: The goal of digitalisation is to foster growth, competitiveness, jobs and the internal market, through making better use of the opportunities offered by digital technologies.</p>		



Goal no. 6: Integration of the Port Community System functionalities with other systems in non-European countries (i.e. Moroccan system PORTNET)

Perspectives	Goal	Measurement
1. Environmental and safety perspective	Integration between platforms means faster connections and less pollution along the supply chain	Travel time (and indirect impact on pollution)
2. Internal processes perspectives	Digitalization of the international port procedures increase the efficiency of internal processes	Number of companies involved in the procedures
3. Innovation and growth perspective	Digitalization of the international port procedures within the PCS is a way to support innovation and sustainability	Number of new functionalities implemented
4. Customer/Partner perspective	Involving the port operators is essential to optimize the functionalities of the international Corridors	Number of new supply chain operators involved
5. Financial perspective	Speed up processes through the international Corridors means less costs for the port operators	Increase of traffic volumes (indirect revenues)
<p>VISION: The goal of digitalisation is to foster growth, competitiveness, jobs and the internal market, through making better use of the opportunities offered by digital technologies.</p>		



Goal no. 7: Development of a common model for a national Port Community System within the PLN (National Logistics Platform) and coherent with the National Strategic Plan for Ports and Logistics and the

Perspectives	Goal	Measurement
1. Environmental and safety perspective	Speed up processes through a common model for PCS means faster connections and less pollution along the supply chain	Travel time (and indirect impact on pollution)
2. Internal processes perspectives	Harmonization of procedures between the actors of the supply chain increase the efficiency of internal processes	Number of companies involved in the new procedures
3. Innovation and growth perspective	Harmonization of the procedures is a way to support innovation and sustainability	Number of new functionalities implemented
4. Customer/Partner perspective	Involving the supply chain actors is essential to optimize the functionalities of the PCS	Number of supply chain actors involved
5. Financial perspective	Speed up processes through the common model for PCS means less costs for the port operators	Increase of traffic volumes (indirect revenues)
<p>VISION: The goal of digitalisation is to foster growth, competitiveness, jobs and the internal market, through making better use of the opportunities offered by digital technologies.</p>		



Goal no. 8: Interoperability between the Port Community System - APNet and the other IT tools used by the actors of the supply chain

Perspectives	Goal	Measurement
1. Environmental and safety perspective	Integration between platforms means faster connections and less pollution along the supply chain	Travel time (and indirect impact on pollution)
2. Internal processes perspectives	Digitalization of the procedures of the supply chain operators increase the efficiency of internal processes	Number of companies involved in the procedures
3. Innovation and growth perspective	Digitalization of the procedures of the supply chain operators and the integration with the PCS is a way to support innovation and sustainability	Number of new functionalities implemented
4. Customer/Partner perspective	Involving the supply chain operators is essential to optimize the functionalities of the international Corridors	Number of new supply chain operators involved
5. Financial perspective	Speed up processes through platform of the supply chain operators and the PCS means less costs for all the supply chain operators	Increase of traffic volumes (indirect revenues)
<p>VISION: The goal of digitalisation is to foster growth, competitiveness, jobs and the internal market, through making better use of the opportunities offered by digital technologies.</p>		



2.3. Wish list of ICT measures

According to the AF, local strategies include a “detailed wish list of ICT measures to be tested in the pilot actions (WPT2)”.

Therefore, the items of the wish list are reported in the table here below.

The list is realized also on the basis of the identification of the needs of the stakeholders and their previous mapping and management, provided in the D.T1.2.4.

The consistency between the wish list of ICT measures, the strategic goals here above (4.2) and the pilot action being implemented is ensured.

Wish list of ICT measures			
Title	Short description	Link to the strategic goal	Link to the pilot action
1.	UPDATING OF EXISTING ICT PLATFORMS (PCS, other Corridor Platforms)	Goal no. 1 Goal no. 2 Goal no. 6	Functions of PCS APNet and other ICT platforms that have to dialogue with the Corridor Information Pipeline (CIP) foreseen by the Pilot Action, in order to their harmonization.
2.	DATA EXCHANGE IN THE CORRIDOR - INTEROPERABILITY BETWEEN ICT PLATFORMS (eg. PCSs, other Platforms, PIC)	Goal no. 1 Goal no. 6 Goal no. 7 Goal no. 8	Exchanging data, through the CIP, between the own ICT management system and that of the other operators involved in the corridor. i.e.: APNet; WiderMoS CMP; RFI PIC Platform
3.	MONITORING THE STATUS OF THE NETWORK AND SERVICES	Goal no. 8	Displaying the status of the network and services along the entire LA SPEZIA - VERONA - ROSTOCK corridor in real time.
4.	DIGITAL CONNECTION BETWEEN FAR OPERATORS	Goal no. 6 Goal no. 8	Need of communication with cross-border operators of the Central Europe countries, along the entire LA SPEZIA - VERONA - ROSTOCK corridor.
5.	DASHBOARD TO MONITOR UNITS	Goal no. 3 Goal no. 8	Access to a dashboard that allows the monitoring of the intermodal unit along the entire LA SPEZIA - VERONA - ROSTOCK corridor (new demand for



			ICT oriented transport services).
6.	SHARING INFORMATION ABOUT THE LAST MILE OPERATIONS	Goal no. 3 Goal no. 5	Sharing the data related to the operations that occur in the last mile, beyond the jurisdiction of the Rail network management Company in agreement with the port authority/inland terminal.
7.	FAST CORRIDORS 2.0 CUSTOMS OPERATIONS	Goal no. 4	Extension of the use of the platform also in the customs field (eg. facilitation of customs clearance in the place where this is most appropriate) for cross-border flows towards Central Europe countries.