

Special Projects, Innovation and Institutional Relations



The Digital Outlook of the Port of La Spezia

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Framework EU: Green Deal, Next Generation EU, sustainable & smart mobility strategy

Recovery, resilience, reinventing





RESILIENCE

DIGITALIZATION

SUSTAINABILITY

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Opportunities / challenges of digitalization and new technologies (digital twin, blockchain, AI)

2030: reduction of GHG A new Circular Economy Action Plan emissions to at least . Strategy on the sustainable use of chemicals Biodiversity Strategy for 2030 . Clean Air and Water Action Plans 55% compared to 1990 Transition to a Circular Economy Preserving Europe's A zero pollution Europe natural capital TBD with the commissionerdesignate Sustainable Transport Farm to Fork Farm to Fork Strategy European · Vision for Inclusive **Achieving Climate** The transformation of Revising 2030 Rural Areas Green Climate targets Neutrality agriculture and rural areas Africa Europe agenda Extending ETS Deal Climate Pact Climate Law Carbon Border Tax Towards a modernised and CAP reform proposal simplified CAP Affordable energy · Review Energy Legislation European Framework for gas Leave no one behind Review Energy Financing the transition (Just Transition) Taxation directive European Investment Bank as European Climate Bank Just Transition Instrument, including the Just Transition Fund Sustainable Europe Investment Plan · Mainstreaming the Just Transition in the MFF · Green Financing Strategy · Mainstreaming climate transition and sustainability in the MFF 2050 : zero emissions



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Opportunities / challenges of digitalization and new technologies (digital twin, blockchain, AI)

SUSTAINABLE & SMART HOBILITY STRATEGY European transport on track for the future Objective Objective Sustainable Resilient Smart Mobility Mobility Mobility AN IRREVERSIBLE SHIFT TO ACHIEVING SEAMLESS, SAFE A MORE RESILIENT SINGLEEUROPEAN ZERO-EMISSION MOBILITY AND EFFICIENT CONNECTIVITY TRANSPORT AREA: FOR INCLUSIVE CONNECTIVITY Reinforced Single Market: 90% reduction in transport emissions; Seamless multimodal transport more investment in infrastructure and fleets; based on digital solutions; All transport modes are made - deepening and enforcing internal market. Unleash full potential of data; more sustainable; making our system crisis proof. Sustainable alternatives are available: Develop and deploy connected, cooperative, Fair and just mobility (that is affordable and accessible); and automated mobility services; Right incentives are in place for sustainable choices. Paperless freight transport in favour of fast, Enhanced safety and security.

THE EU AS THE WORLD'S CONNECTIVITY HUB

digital procedures.

#MobilityStrategy





Digital Transport and Logistics Forum: an Italian Port in the group of European experts

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The DTLF is a group of experts that brings together stakeholders from different transport and logistics communities, from both the private and the public sector, with a view to build a common vision and road map for digital transport and logistics. The DTLF also contributes to identifying needs for measures at EU level and supporting their development and implementation where relevant.

The Port of La Spezia is the only Italian port member of DLTF

Subgroup 2 on Corridor Freight Information System

Federation of Platforms: to create (technical, functional, and business model) interoperability between different platforms, even when each platform is realised with different technology.

- Semantic
- Global standards
- Trust in data sharing



Exchange of best practises between the CEF projects and DTLF

"Digital corridor information systems"

Creation of a Federative Network of Platforms for data sharing with two main features:

- one single entry point for organisations (business and authorities)
- platform interoperability



The work of the DTLF Subgroup 2 is supported by two EU funded projects: FEDeRATED and FENIX









International Fast & Secure Trade Lanes Use Cases in FENIX

Current implementation

UC6 Digital synchro modal information dashboard

<u>Future</u> <u>implementations</u>

UC7 Synchromodality UC8 Real-time Road optimisation UC9 Real-time Rail optimisation

Use Case	Nome	Breve descrizione
UC6	Digital synchro modal information dashboard	Interoperability of the different actors on the "fast trade lane" and to develop the dashboard as the pipeline in which all the different federated systems will contribute to. This will enhance the visibility over the supply chain, integrating logistics and customs procedures and leading to a reduction of transit time and a related increased efficiency.
UC7	Synchro-modality	Planning and optimisation modules
UC8	Real-time Road optimisation	Optimised Real-time operations in ports
UC9	Real-time Rail optimisation	Optimised Real-time operations in ports



The FENIX project in the port of la Spezia

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Digitalization of procedures and data exchange between the ports of La Spezia and Casablanca

Creation of an international logistic corridor between the Port of La Spezia and the Port of Casablanca according to the Memorandum of Understanding signed between the Port Authority of the Eastern Ligurian Sea and Agence Nationale des Ports (ANP), as well as the participation of Tarros Group in the project.

The data exchange between all the actors involved in the logistic corridor and the interoperability of the IT systems in the ports of La Spezia and Casablanca has the aim of increasing trades in an efficiently way between Italy and Morocco.



The FENIX project in the port of la Spezia Functional diagram



Through the installation of IoT seals (eSeals) on the containers and monitoring via dashboard, the advance exchange of documents at the port of arrival before the departure of the ship is guaranteed. The system is able to exploit the advanced Customs Agency IT tools applied to the international corridor.



The FENIX project in the port of la Spezia Installed devices

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ANTENNAS



READERS



SEALS



- The antennas located near the gates both at entry and exit allow automatic radio frequency detection of the RFID seals put on the container by controlling access
- The Long Range Reader operating in UHF band offers high quality performance and reliability.
 It is capable of managing up to 2 antennas simultaneously ensuring a wide reading range through a series of antennas all connected to a single reader
- The containers on the vehicle are equipped with an RFID seal which through a numbered sequence that allows immediate identification



The FENIX project in the port of la Spezia Benefits



Benefits in operational and safety terms

- Security checks on the integrity of the automated seals and recognition of the code of the containers
- Reduction of manual errors when checking seals
- Reduction of the time spent inside the port areas and of the transit time along the land routes

Benefits in terms of customs procedures

- Information and customs documents in advance to Portnet and PCS APnet systems
- Complete digitalization of the Cargo + Customs Manifesto from the port of departure and direct exchange with the port of arrival
- Use of simplified EU customs procedures (EU Customs Code + Italian preclearing, fast corridor)

Other RFID applications

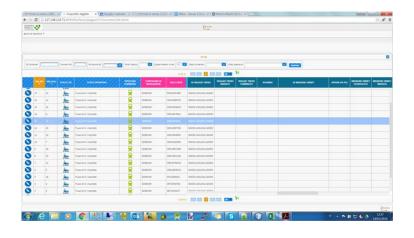
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Not only in FENIX...

- WiderMoS project: installation of RFID eSeals for monitoring containers through the Corridor Management Platform
- International cooperation agreement between Italy and South Korea: international corridor between the ports of La Spezia and Busan







Framework EU: Green Deal, Next Generation EU, sustainable & smart mobility strategy

RESILIENCE

Enhance intermodal transport

Monitoring processes

Digital collaboration

Continuous training

DIGITALIZATION

Blockchain, AI, big data
From paperless to contactless
Private/public partnership
Global interoperability and standard in transport

SUSTAINABILITY

Implementing actions for sustainable transport
Combining digitalization and sustainability
Taking advantage of the EU Green Deal
opportunities



THE DIGITAL PORT OF LA SPEZIA

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Thanks for your attention!

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