



Autorità di Sistema Portuale
del Mar Ligure Orientale
Porti di La Spezia e
Marina di Carrara

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

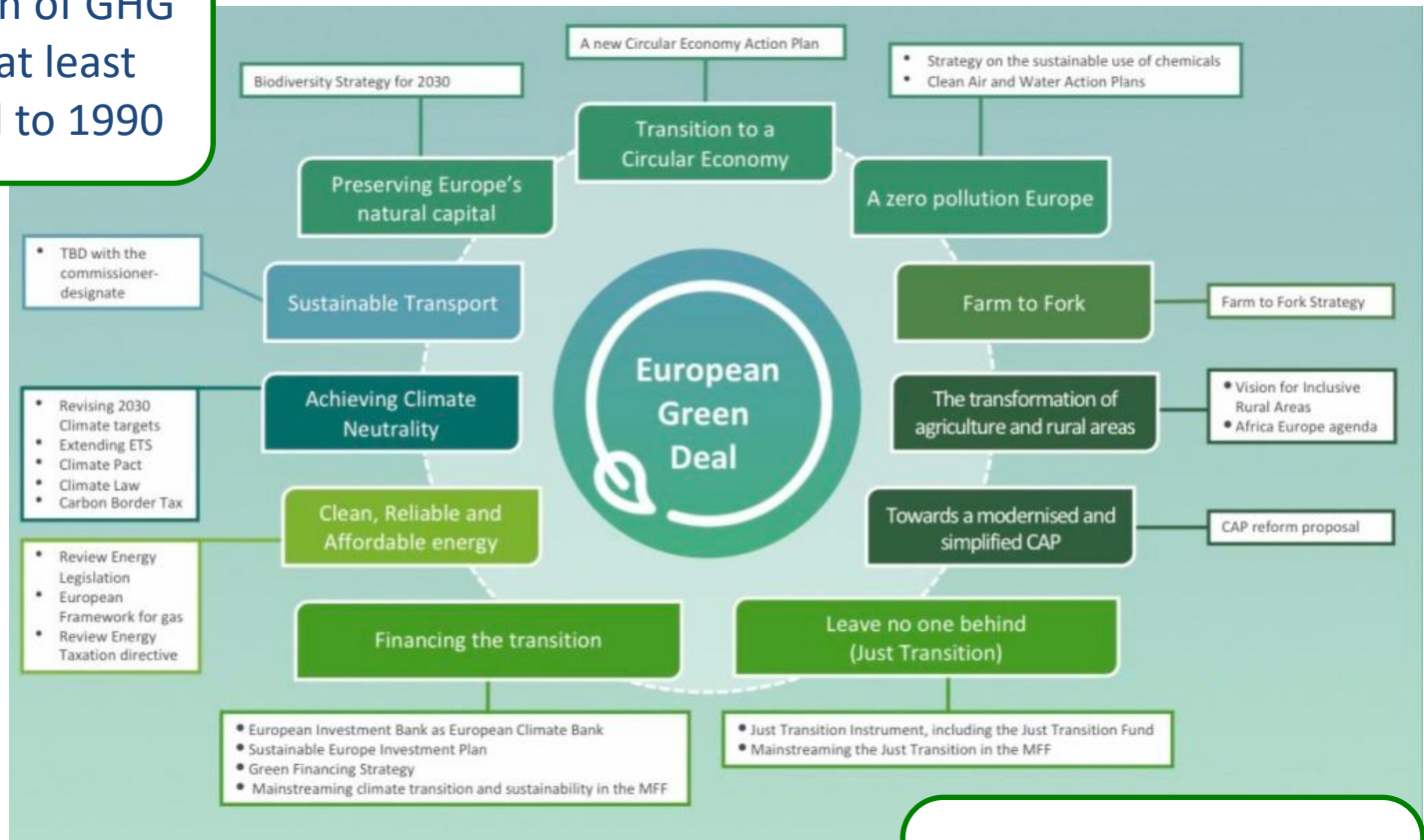
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Opportunities / challenges of digitalization and new technologies (digital twin, blockchain, AI)

2030 : reduction of GHG emissions to at least 55% compared to 1990



2050 : zero emissions



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





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



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 DTLF

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



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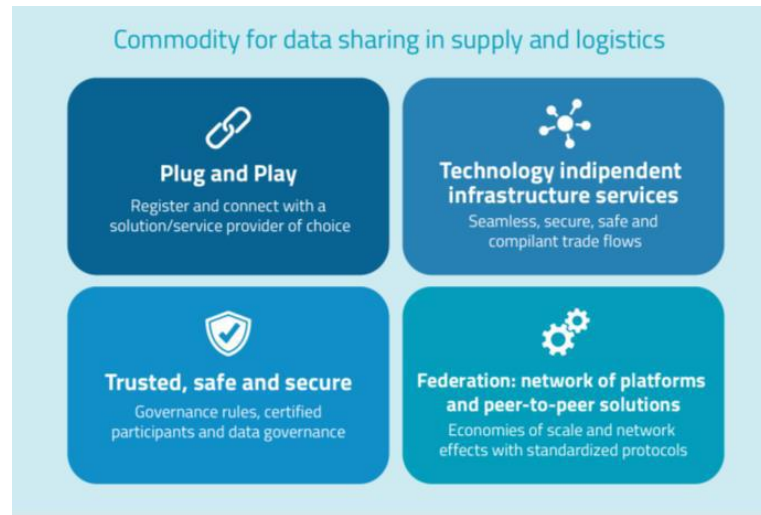
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Exchange of best practises between the CEF projects and DTLF

"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



Co-financed by the European Union
Connecting Europe Facility





International Fast & Secure Trade Lanes

Use Cases in FENIX

Current implementation

UC6 Digital synchro modal information dashboard

Future implementations

UC7 Synchro-
modality

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



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The FENIX project in the port of la Spezia



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.

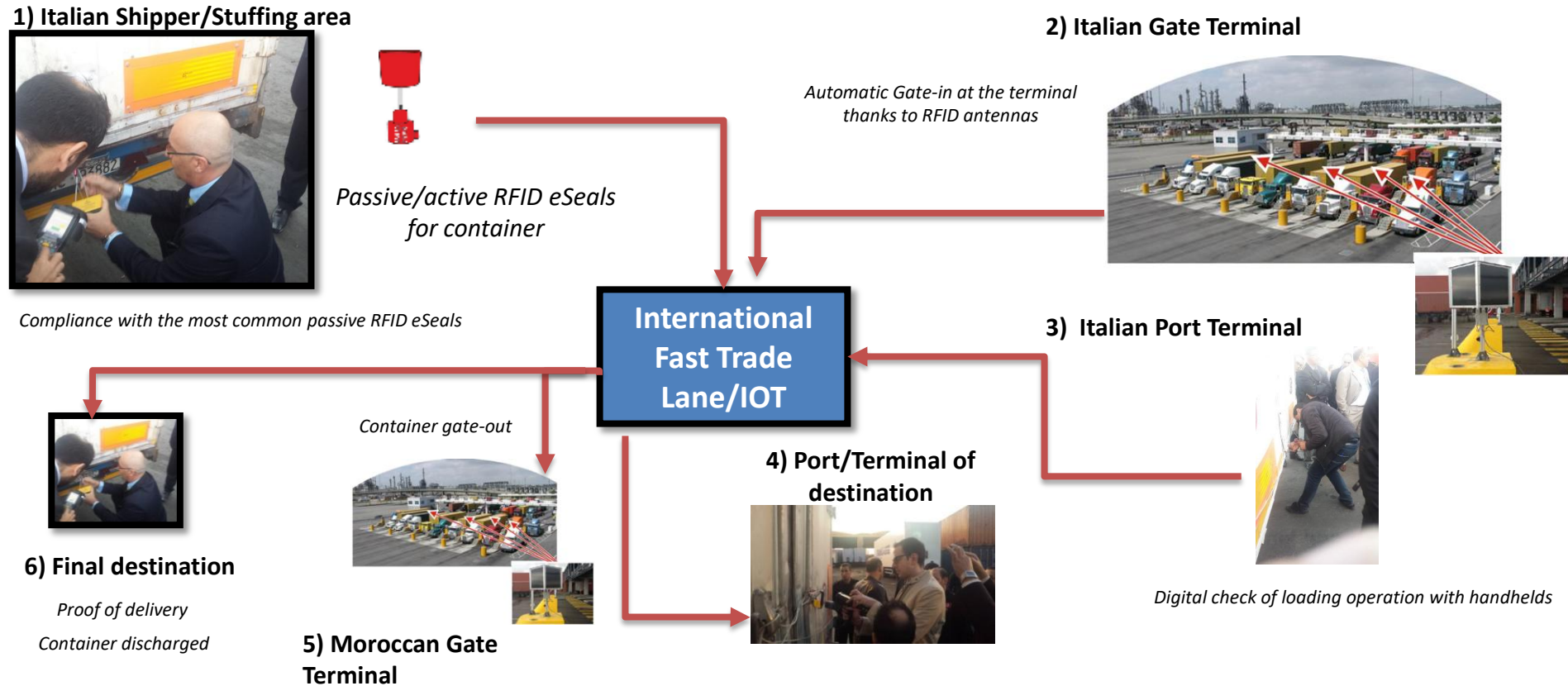


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The FENIX project in the port of la Spezia

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

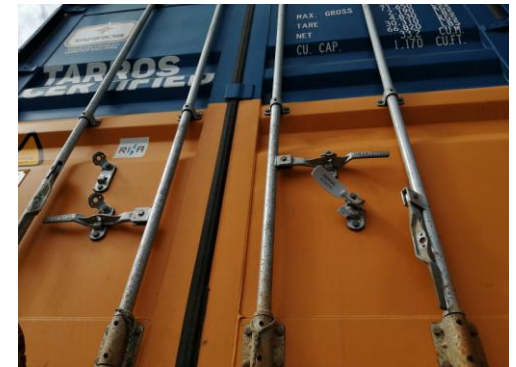
ANTENNAS



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



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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



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

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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



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THE DIGITAL PORT OF LA SPEZIA



1. DIGITALIZATION OF THE LOGISTICS CHAIN
2. NATIONAL AND INTERNATIONAL FAST CORRIDORS
3. CUSTOMS CORRIDOR BETWEEN PORT AND DRYPORT
4. LAST MILE RAILWAY DIGITALIZATION
5. PCS AND PLN INTEGRATION
6. NEW PORT ACCESS PERMITS MANAGEMENT SYSTEM
7. MOBILE APP TO SUPPORT TRUCKS DRIVERS
8. DIGITAL TWIN, DRONES



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TRANSPORT EVENTS

WEBINAR

TECHNOLOGY SUPPLY CHAIN: ARE YOU READY FOR RFID?

Sponsored by



Thanks for your attention!

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