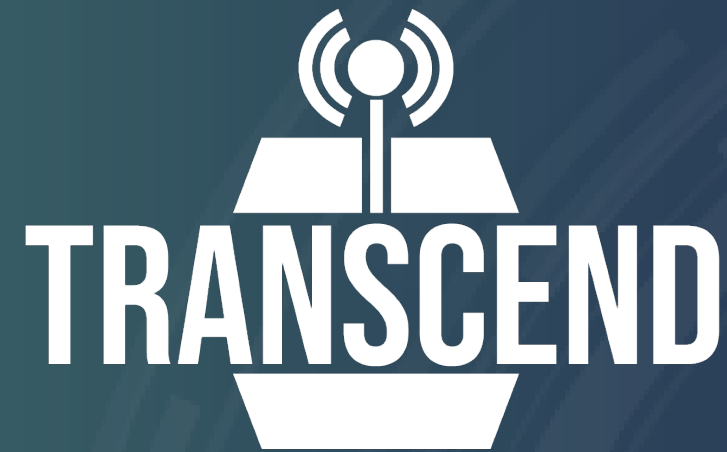


SCANDINAVIAN-MEDITERRANEAN EUROPEAN TRANSPORT CORRIDOR

4TH MEETING

BRUXELLES, 23/06/2026

Project - ID Card



*Transport Resilience against Cyber and Non-Cyber Events
to prevent Network Disruption*

- Funding tool: **HORIZON-CL3-2023-INFRA-01-02**
- Topic: **Supporting operators against cyber and non-cyber threats to reinforce the resilience of critical infrastructures – Innovation Action**
- Duration: **36 months starting on September 1, 2024**
- **21 partners**
- Budget: **around 5M€ (EC contribution: 4.38M€)**

www.transcend-logistics.eu

This project has received funding from the European Union's
Horizon Europe research and innovation programme under
grant agreement No 101168023



**Funded by
the European Union**



Consortium and pilots

REGULATORY AUTHORITIES



ROAD



TRANSVERSAL

Netcompany



LTC Luxembourg House of Cybersecurity



LUXEMBOURG CENTRE FOR LOGISTICS AND SUPPLY CHAIN MANAGEMENT (LCL)



MIT GLOBAL SCALE NETWORK

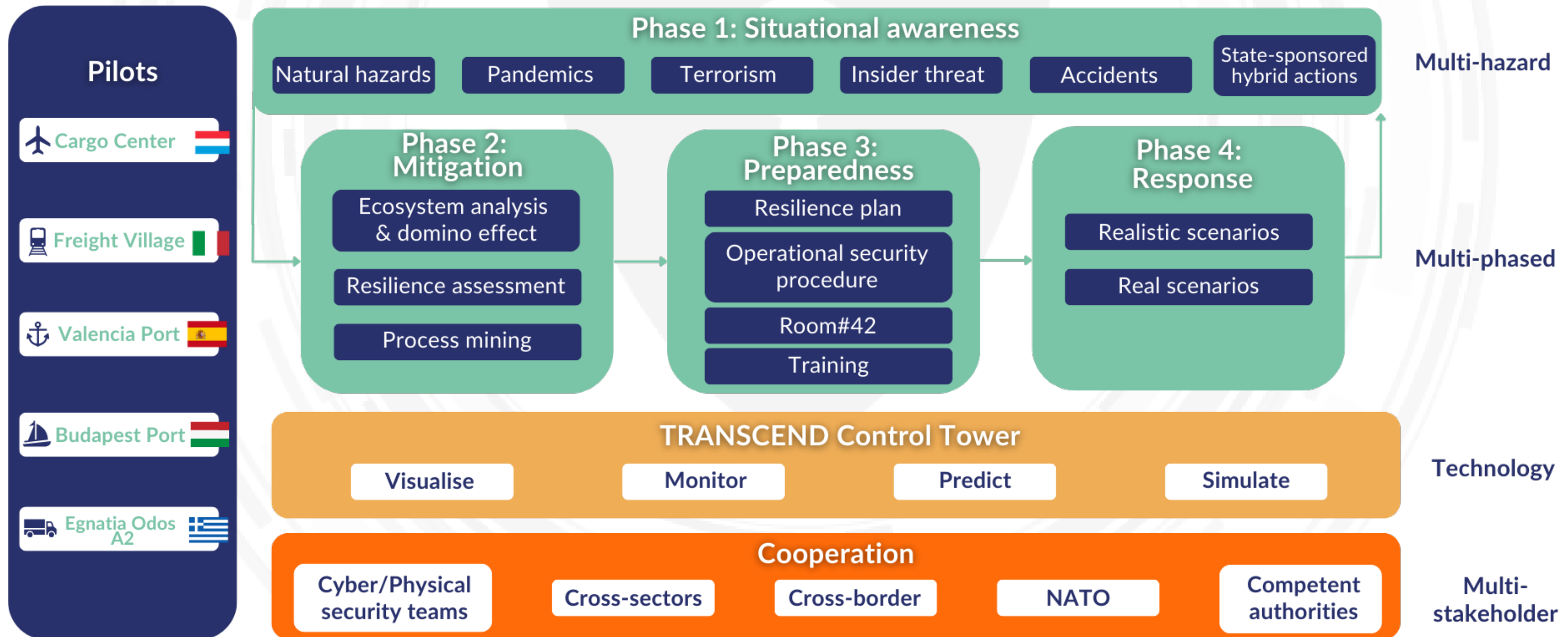


CSP Iberian Valencia Terminal S.A.U.

Objective & Approach

Focus on Freight Transport

Objective: Provide an integrated set of advanced tools, guidelines and technological solutions to reduce risk, and enhance the protection and resilience of their critical infrastructure and interrelated critical infrastructures against physical, cyber and hybrid threats.

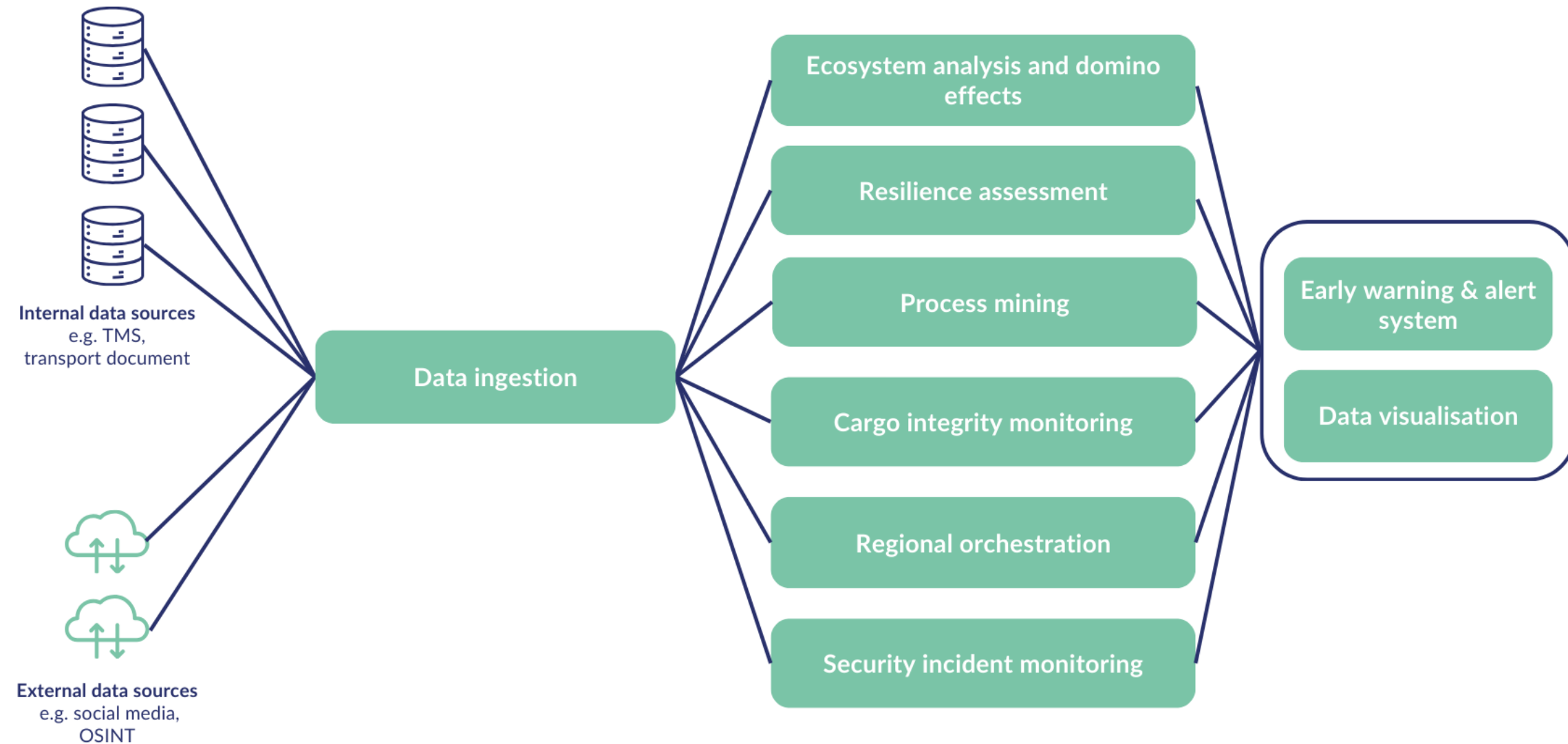


Control Tower Concept

Approach with embedded business intelligence to increase resilience of transport critical infrastructures

To build freight transport resilience by:

- improving transparency
- minimizing risks and exposure to shocks
- building capacity to resist
- absorbing and recovering from disruptive incidents



Expected Results



IDENTIFIED VULNERABILITIES AND RISKS

To define mitigation strategies and improve capacity to prevent, resist, absorb and recover from disruptive incidents

Vulnerability assessment

Resilience assessment

Process mining analysis

Strengthened cooperation



POLICIES AND PROCEDURES

Guidelines for a resilience plan

Resilience plan for each pilot

Security operational procedures

Inputs for a national risk assessment and resilience strategy



TECHNOLOGICAL SOLUTIONS

To support implementation of policies and plans for cost effective risk reduction and resilience

Machine-readable threat modelling for large-scale simulations

State-of-the-art analysis and experimentation of physical and cyber detection technologies

ML/ AI-based predictive models and algorithms to detect early signs of disruption

Generic TRANSCEND Control Tower



REAL WORLDS PILOTS

To demonstrate the impacts of the TRANSCEND solutions to the freight transport sector

To secure cargo integrity

To coordinate capacities between CIs at the regional level

To monitor security incidents in multimodal transport

Concept for testing human behaviour and procedures in realistic attack scenarios

WP 8: PILOT OF THE BOLOGNA RAIL-ROAD TERMINAL

Activities to Perform in Bologna Pilot

Implement, test and evaluate the effectiveness and impacts of new technological solutions

Defining common procedures for cyber physical attacks

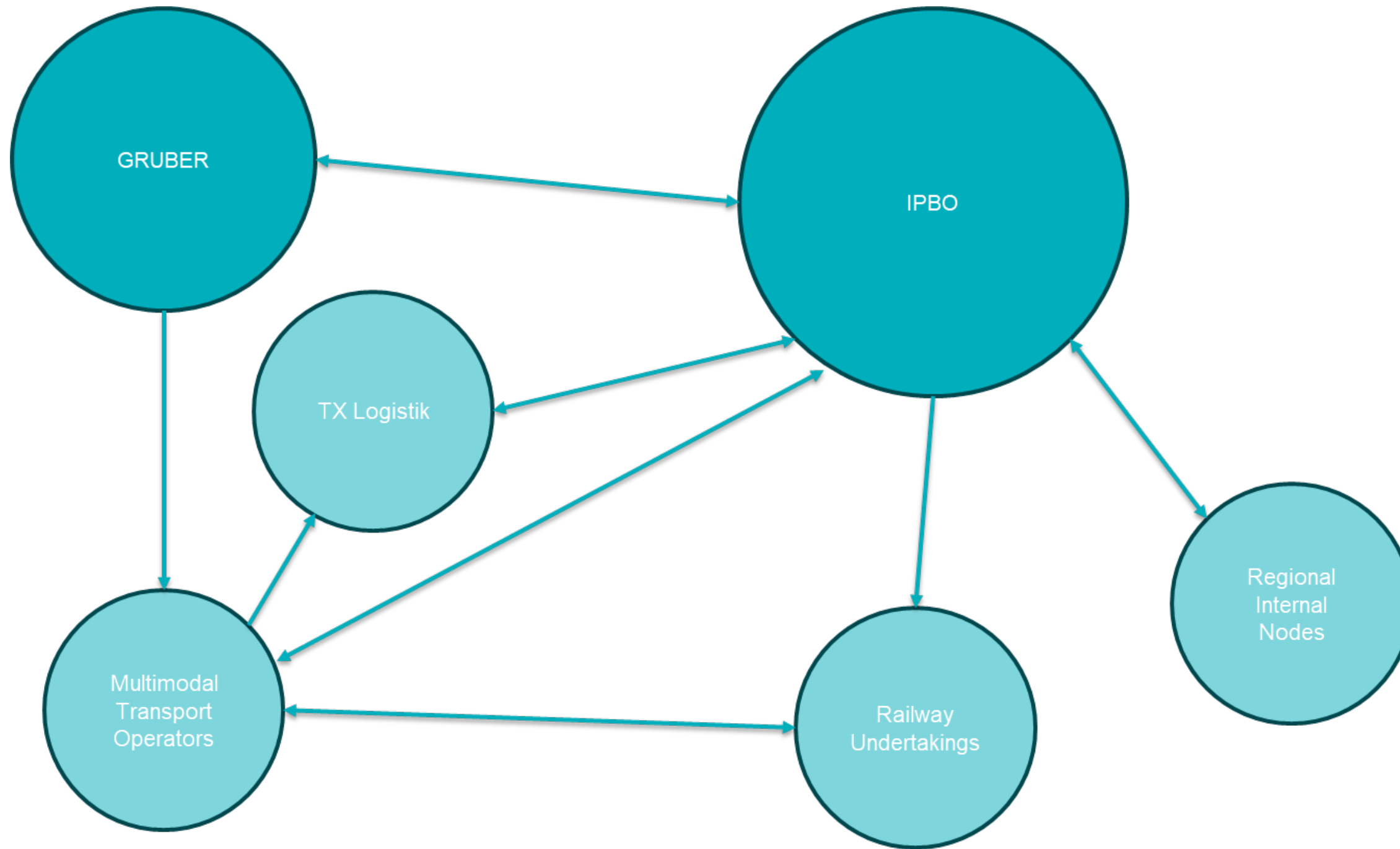
Prepare a set of realistic disruption scenarios in day-to-day activities of the Bologna Rail-Road Terminal

Testing the Control Tower on the real life with data coming from previous process mining





Rail-Road Terminal of Bologna



Organisations	6
Services	5
Functions/processes	22
Assets	9
TOTAL Components	42

Dependencies	57
Average connectivity	1.36
Criticality	Very low: 4% Low: 42% Medium: 46% High: 9% Very high: 0%

UE & ITALY STRATEGIC LOCATION



At the crossroads of n°5 multi-modal traffic routes of national and international relevance and at the intersection of n°3 TEN-T corridors:

Corridor 1
Baltic Sea-
Adriatic Sea

Corridor 3
Mediterranean

Corridor 5
Scandinavian-
Mediterranean



- The parts of the map pertaining to corridor alignment in their countries are indicated
- ATLANTIC
 - SCANDINAVIAN - MEDITERRANEAN
 - MEDITERRANEAN
 - NORTH SEA - RHINE - MEDITERRANEAN
 - BALTIC SEA - ADRIATIC SEA
 - WESTERN BALKANS - EASTERN MEDITERRANEAN
 - NORTH SEA - BALTIC
 - RHINE - DANUBE
 - BALTIC SEA - BLACK SEA - AEGEAN SEA

LOGISTICS AREA

- Total surface area: 4.105.463 sqm
- Area covered by warehouses and offices: 864.000 sqm

INFRASTRUCTURE & FACILITY

- n° 3 intermodal terminals
- n° 1 freight railway station on the RFI railway line Bologna-Ferrara-Padova-Venezia
- n° 1 dedicated motorway gate on the A13 Bologna - Padova

WORK

- n° 130 transport and logistics companies
- > 6.500 people working inside the area

SERVICE

- n° 2 access from North and South side (one with control gate)
- 20 km of optic fiber serving the area with broadband technology
- ICT services and video-surveillance (7/7 day - 24/24 h)

RAIL FACILITIES & SERVICES

RAIL SERVICES

HUB TRANSPORT OPERATOR SERVICES

(intermodal transport services customized according to customer needs:

- Door to Door< (from the loading warehouse to the unloading one)
- Terminal to Terminal (from the railway terminal of origin to the railway terminal of destination)

Value added services:

- Provision of transport units
- Back-office
- Tracking & Tracing of shipments

SHUNTING OPERATIONS AND TERMINAL SERVICES

operated under a network contract with Terminali Italia Srl, an Italian State Railways Group company:

Shunting, handling, surveillance, custom services.

FAST CORRIDOR with La Spezia and Gioia Tauro ports

UTI repair workshop inside the terminal

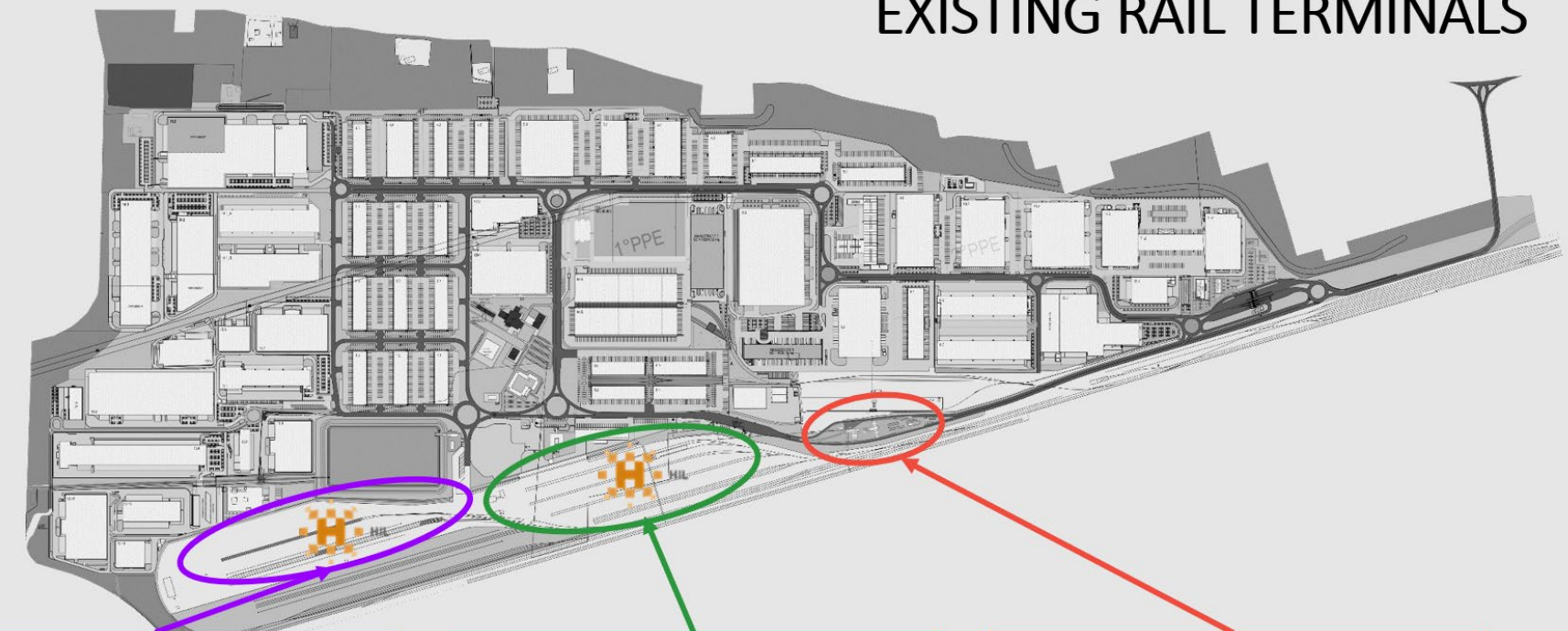
MAINTENANCE AND OVERHAUL WORKSHOP FOR FREIGHT WAGONS

available in both fixed and mobile modes

1,000 sqm of covered area, with 2 internal tracks, 1 external track and an inspection pit



EXISTING RAIL TERMINALS



Total area: 130.000 sqm
Storage area: 38.000 sqm
N. tracks: 5
Track length: average 600 m
Owner: RFI
Managing body: HIL

Total area: 140.000 sqm
Storage area: 42.000 sqm
N. tracks: 15
Track length: average 550 m
Owner: RFI
Managing body: HIL

Total area: 50.000 sqm
Storage area: 10.000 sqm
N. tracks: 2
Track length: average 460 m
Owner: Interporto Bologna
Managing body: CLBT Bertschi

MAINTENANCE AND REPAIR FREIGHT WAGONS WORKSHOP

The workshop building:

- Covered area: 1.000 sqm
- N°2 covered tracks (50 m long)
- N°1 covered track (150 m long)
- N°1 inspection pit (35m long)



Specific equipment:

- N°8 elevators for wagon lifting
- Bridge crane 8t max lifting
- Certified PdR5 **brake test machine**
- **Surface plate** for bogies check
- **Spring test machine**
- Equipment for **PND controls: VT and PT**
- Equipment for **pressure tank inspection**



LOGISTICS AREA



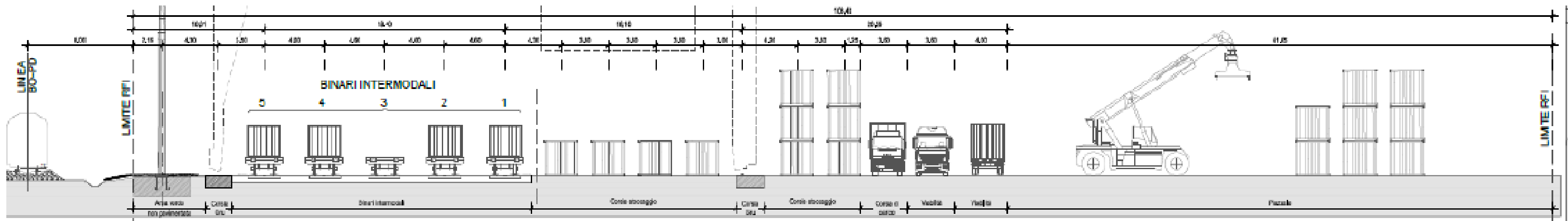
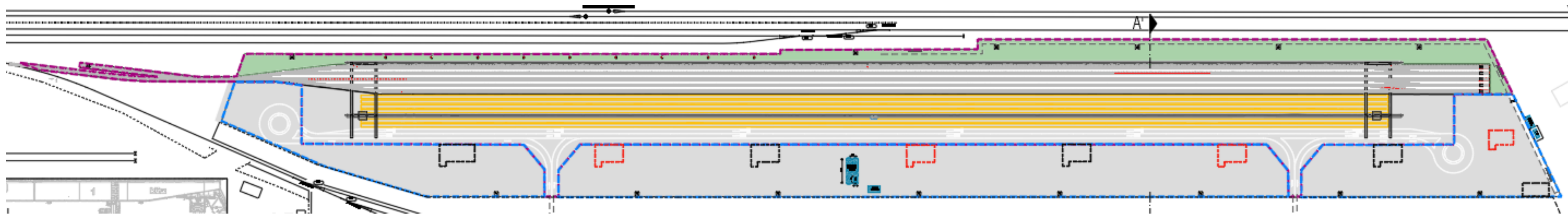
NEW INTERMODAL TERMINAL

- Area: 115.000 sqm
- N° 5 tracks (750 m long)
- N°2 other tracks dedicated to gantry cranes
- Loading/unloading area
- Container/UTI Storage area: 80.000 sqm



TERMINAL EXTENSION: FINAL PROJECT

Covered area: 115.000 sqm in total
 N°5 tracks of 750 m, of which
 N°2 gantry crane tracks goods unloading/loading area
 80,000 sqm of container storage area equipped with n°2 RMG gantry cranes

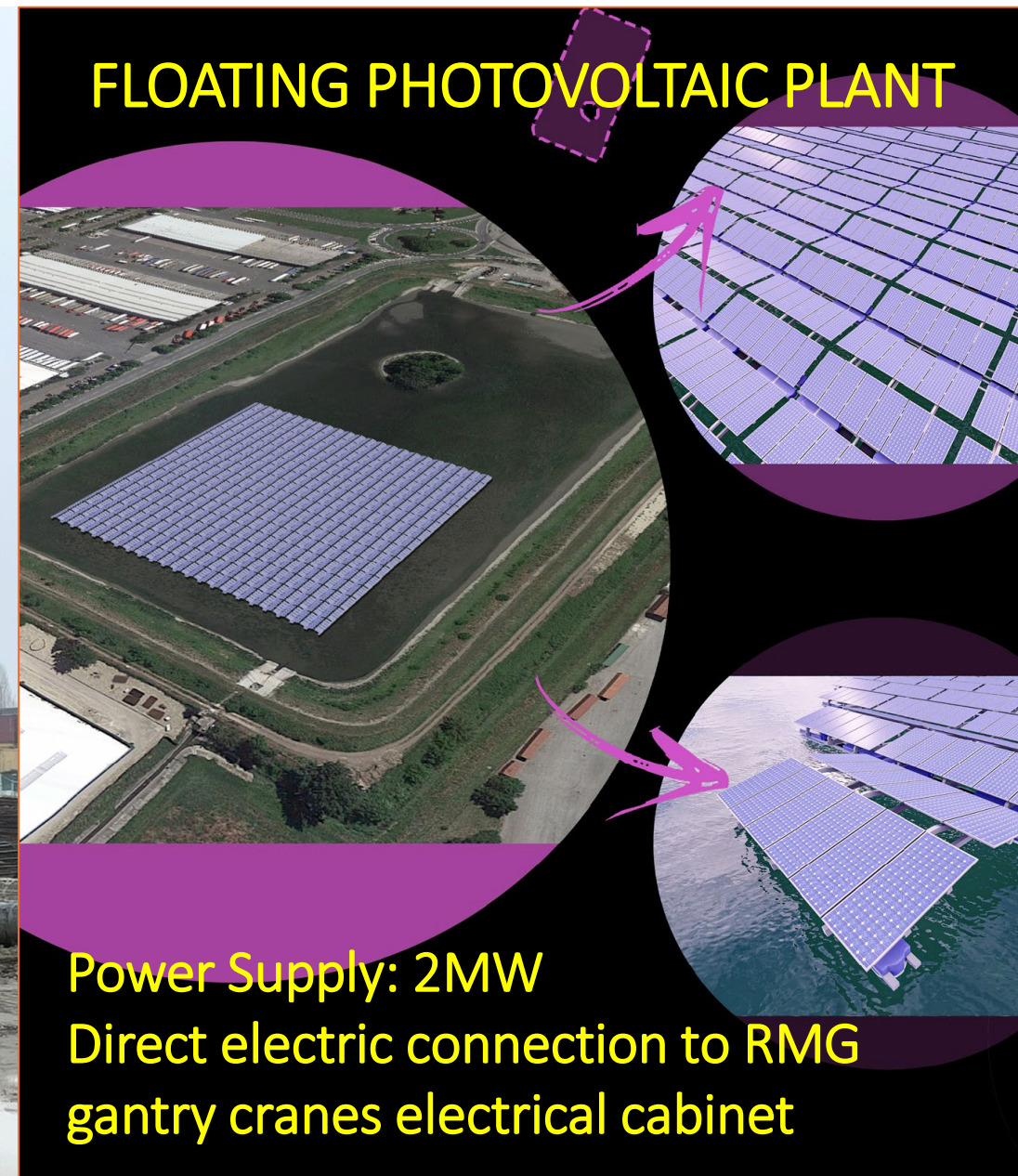
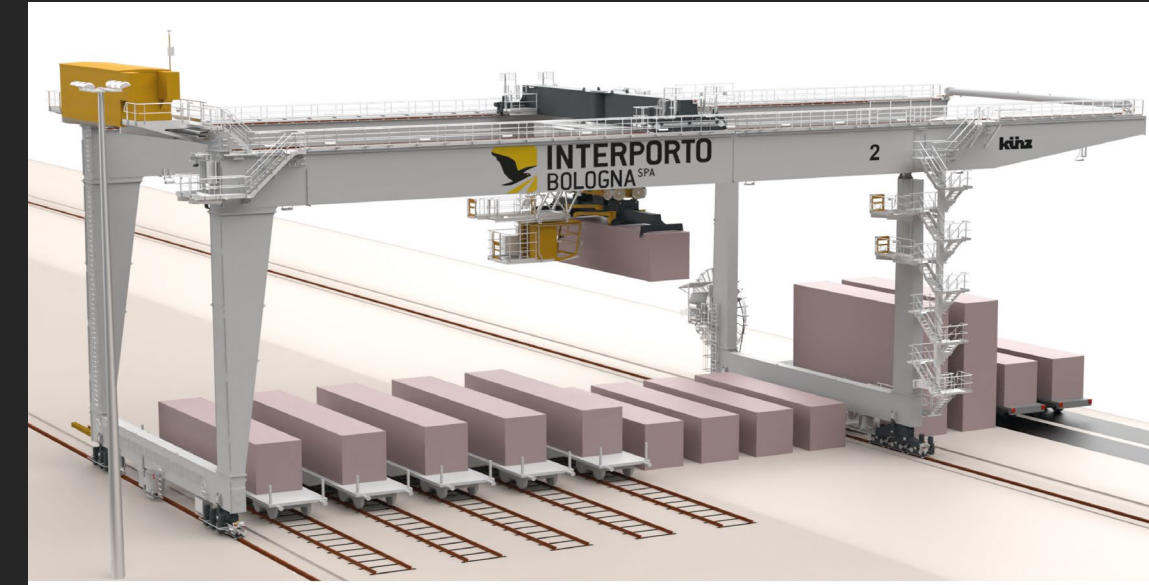


Total investment: € 43 milion (33 mln of terminal infrastructure + € 10 mln equipment)

Works start: July 2024

Works conclusion (estimation): Q1 2027

Start of operations (estimation): June 2027



ROAD TRUCK SERVICES



Certification Safe and Secure
Truck Parking Areas (SSTPAs)

- N°170 truck parking spaces
- Service building (toilets, showers, dressing rooms)
- Snack/beverage automatic machines
- New fences and barriers
- Lighting system
- Video-surveillance system



Fuel station equipped with LNG and HVO



Truck and silo washing facility



THANK YOU FOR YOUR KIND ATTENTION



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