

# PORT NETWORK AUTHORITY OF THE EASTERN ADRIATIC SEA PORTS OF TRIESTE AND MONFALCONE



Autorità di Sistema Portuale  
del Mare Adriatico Orientale  
Porti di Trieste e Monfalcone

# Trieste

2018



**1<sup>st</sup>**  
port in Italy  
for rail traffic

**1<sup>st</sup>**  
port in Italy  
for total  
tonnage

**1<sup>st</sup>**  
oil port  
in the  
Mediterranean  
Sea

**6<sup>th</sup>**  
port in Europe  
for Short  
Sea Shipping  
(SSS)

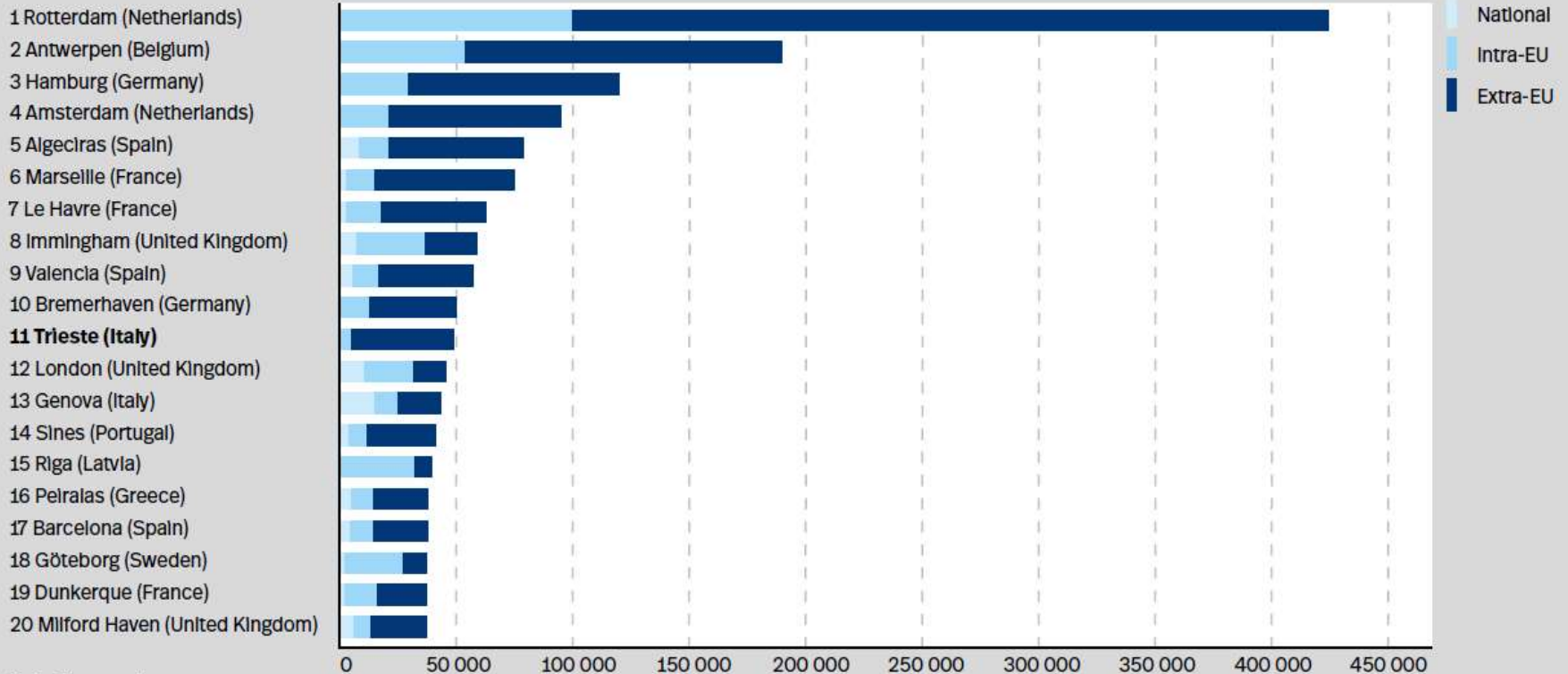
**12<sup>th</sup>**  
port in Europe  
for total  
tonnage

Eurostat Transport Statistics 2018, 2017 data



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Porto di Trieste

# Trieste in the top 20 European ports



Unit: Thousand tonnes

Source: Eurostat regional yearbook (2017)



# Competitive advantages



**1**

**Geographic  
position**



**2**

**Intermodal  
and railway  
links**



**3**

**18-meter  
deep berths**



**4**

**New Master  
Plan approved**



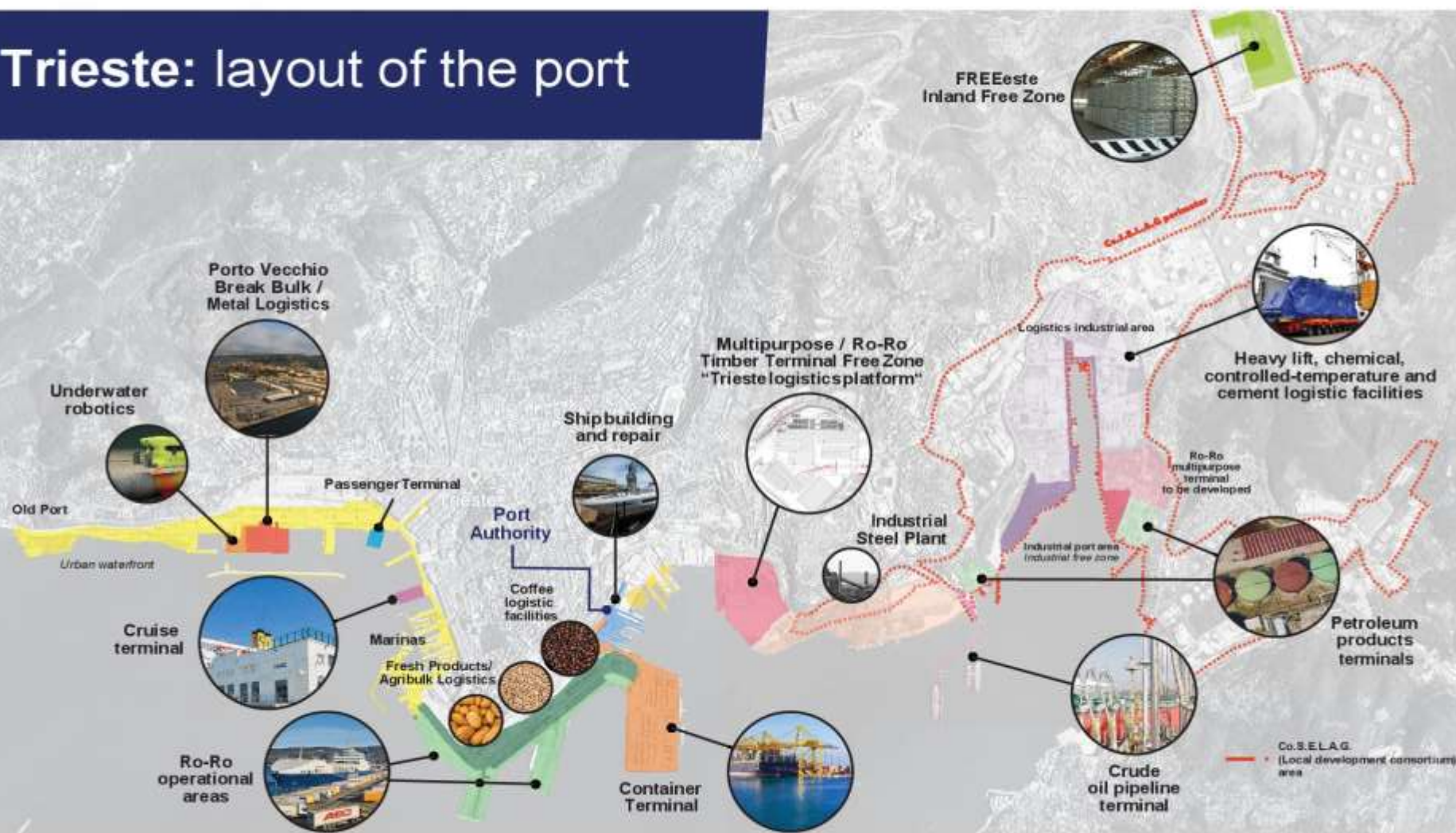
**5**

**Special Port/  
Free Zone  
status**





# Trieste: layout of the port



## The new Masterplan approved (2016)





## Statistics 1<sup>st</sup> semester 2018/2019

### Port of Trieste

January / June	2018	2019	% change
<b>Total tonnage</b>	<b>31,168,780</b>	<b>30,721,066</b>	<b>-1.44%</b>
Liquid bulk	21,503,899	21,102,476	-1.87%
Dry bulk	792,061	1,010,302	+27.55%
General cargo	8,872,820	8,608,288	-2.98%
Number of vehicles (semitrailer / private and commercial vehicles)	161,223	115,185	-28.56%
Number of containers / TEUs of which number of full containers / TEUs	345,056 318,350	391,068 349,197	+13.33% +9.69%
<b>Total TEUs*</b> (TEUs, semitrailers, swap bodies)	<b>695,207</b>	<b>643,038</b>	<b>-7.50%</b>

\*Total TEUs are obtained by converting the RO-RO semitrailers and swap bodies traffic into equivalent TEUs and adding them to the maritime TEU traffic



## Deep Sea services

**2M**  
MAERSK  
MSC

Port rotation:  
Busan  
Shanghai  
Ningbo  
Shekou  
Singapore  
Port Said  
Haifa  
Trieste  
Port Said  
King Abdullah  
Salalah  
Tanjung Pelepas  
Vung Tao  
Shekou  
Yantian  
Shanghai

Full container vessel up to 14,000 TEUs

**Ocean  
Alliance**

CMA  
COSCO  
EVERGREEN  
OOCL

Port rotation:  
Shanghai  
Ningbo  
Busan  
Shekou  
Singapore  
Suez Canal  
Port Said  
Marsaxlokk  
Trieste  
Marsaxlokk  
Damietta  
Suez Canal  
Jeddah  
Port Kelang  
Shekou  
Shanghai  
Ningbo  
Busan

Full container vessel up to 7,000 TEUs





## Mediterranean services

### Med Services

EVERGREEN

MSC

SEAGO LINE

MAERSK

CMA CGM

Alexandria  
Ashdod  
Beirut  
Damietta  
Gebze  
Gemlik  
Haifa  
Gioia Tauro  
Istanbul  
Izmir  
Limassol  
Malta  
Mersin  
Piraeus  
Port Said  
Tekirdag

### Ro-Ro Lines

EMT

EKOL

Trieste – Yalova (Turkey)

Trieste – Patras (Greece)

**SAMER & Co.  
SHIPPING**

DFDS Group

U.N. Ro/Ro

ULUSOY SEALINES

Trieste – Istanbul/Pendik (Turkey)

Trieste – Istanbul/Ambarli (Turkey)

Trieste – Mersin (Turkey)

Trieste – Istanbul/Yalova (Turkey)

### Ro-Pax Lines

GCT

ADRIA FERRIES

Trieste – Durres (Albania)



## Railway statistics 1<sup>st</sup> semester 2018/2019

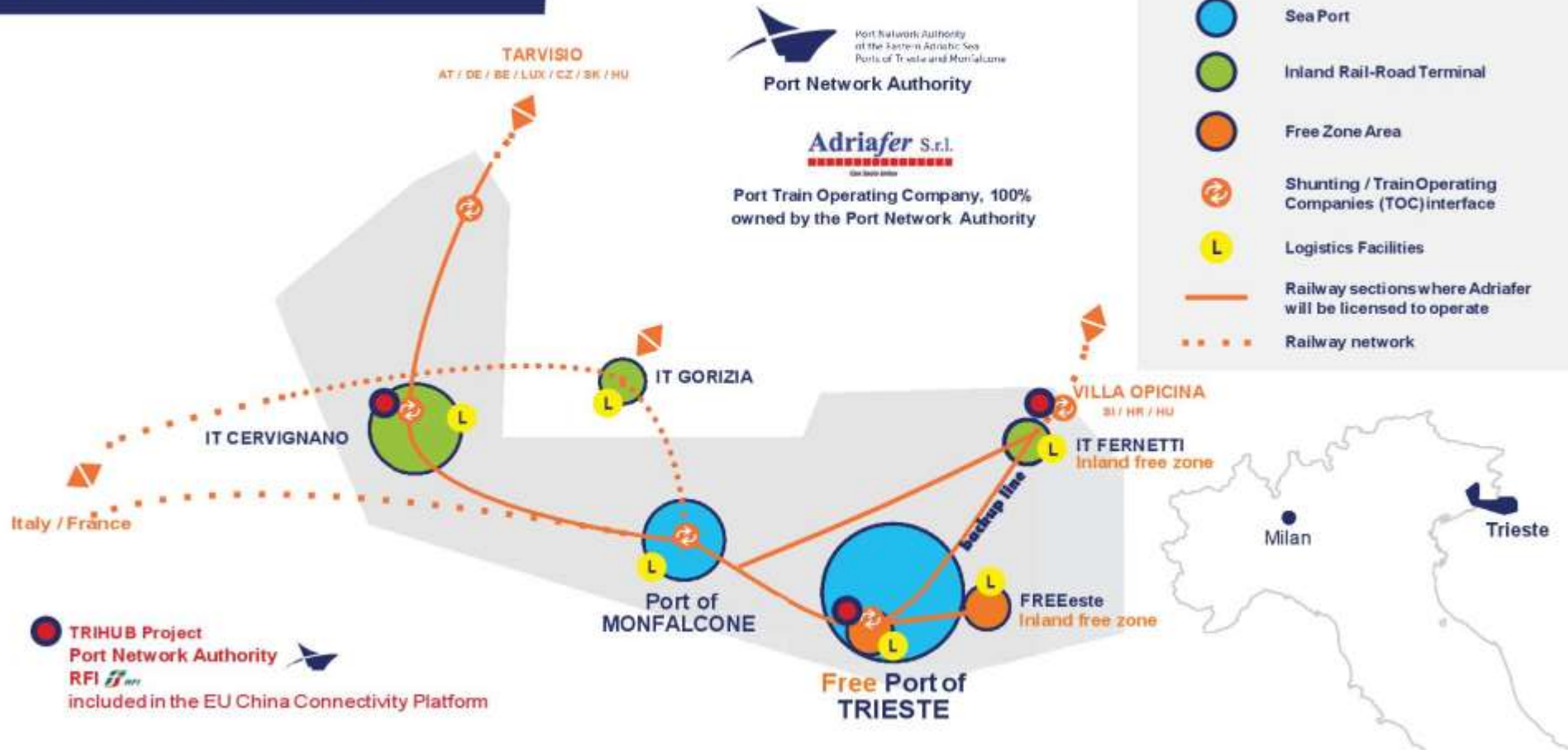
January / June		2018	2019	% change
<b>Industrial Port</b> (Dry + Liquid Bulk)	<b>Total trains moved</b>	<b>1,060</b>	<b>1,164</b>	<b>+9.81%</b>
<b>New Free Port</b>	Container	1,563	1,944	+24.38%
	Ro-Ro	2,031	1,935	-4.73%
	Dry Bulk	5	0	-100%
	Ro-La	157	128	-18.47%
	<b>Total trains moved</b>	<b>3,756</b>	<b>4,007</b>	<b>+6.68%</b>
<b>Total trains moved</b> (Industrial Port + New Free Port)		<b>4,816</b>	<b>5,171</b>	<b>+7.37%</b>

# Trieste Port Network





# Port Integrated Trimodal Comprehensive Hub



# Planned actions within the railway hub of Trieste



# Infrastructural Actions

No.	Action	Description	Time frame
1	Extension ACEI of TS CM to Servola	Reactivation within ACEI of routes connecting TS CM with Servola Yard, this has been done in July 2018 by RFI	Activated
2	Reactivation of the link between the junctions of S. Giacomo-Cantieri	Activity 2: Reactivation of the link between the junctions of S. Giacomo and Cantieri, this allows the line upgrade to PC 80 gabarit and the electric traction	2020
3	Reactivation Villa Opicina – Trieste CM	<b>Reactivation of the “Transalpina” railway line that directly connects TS CM with Villa Opicina without passing through Bivio D’Aurisina.</b> It will start operations as of September 2019	2020
4	New Logistics Platform link	Reactivation of about 2 km of the «Lower line» and gabarit adaptation of the Servola Tunnel	2020
5	PRG – Trieste Campo Marzio (anticipation)	<ul style="list-style-type: none"> <li>Re-opening Gate 2</li> <li>Connection «Parenzane» yard of track no. 14 and elimination of track no. 15</li> <li>Second track for rail manoeuvres through Gate 2 for line to/from Parenzane</li> </ul>	2020
6	Renovation railway link between Wärtsilä and Aquilinia	<ul style="list-style-type: none"> <li>Reactivation of about 3.5 km railway link</li> <li>Improved and automated protection of existing level crossing as TSI</li> </ul>	2021
7	Adjustment between «Trieste Servola» and «Trieste Aquilinia»	PRG (TS CM Rail Master Plan) <ul style="list-style-type: none"> <li>New technology between Aquilinia and Servola;</li> <li>Execution of Innovative Intermodal Terminal (IIT).</li> </ul>	2024
8	PRG (TS CM Rail Master Plan)	<ul style="list-style-type: none"> <li>New layout of the railway tracks in the port marshalling yard with 750m-long trains;</li> <li>New connection Pier 7 with gate no. 5;</li> <li>New computer-based interlocking systems.</li> </ul>	2025
9	New Logistics Platform link – Phase 2	Phase 2 completion of the infrastructural action: <ul style="list-style-type: none"> <li>Tracks module 750m;</li> <li>Extension of arrival and departure platform.</li> </ul>	TBD





# STATE OF THE ART

## RFI Station and Port Marshalling Yard



## Current layout of Pier 5/6 shunting





# Current layout of Pier 7 shunting

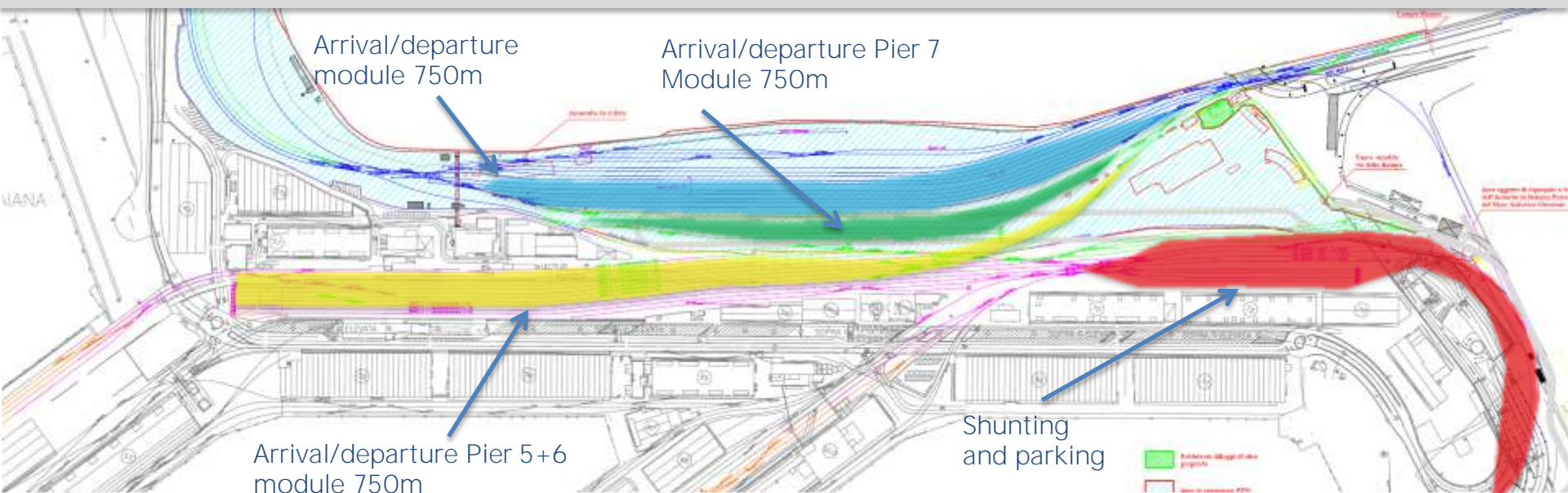




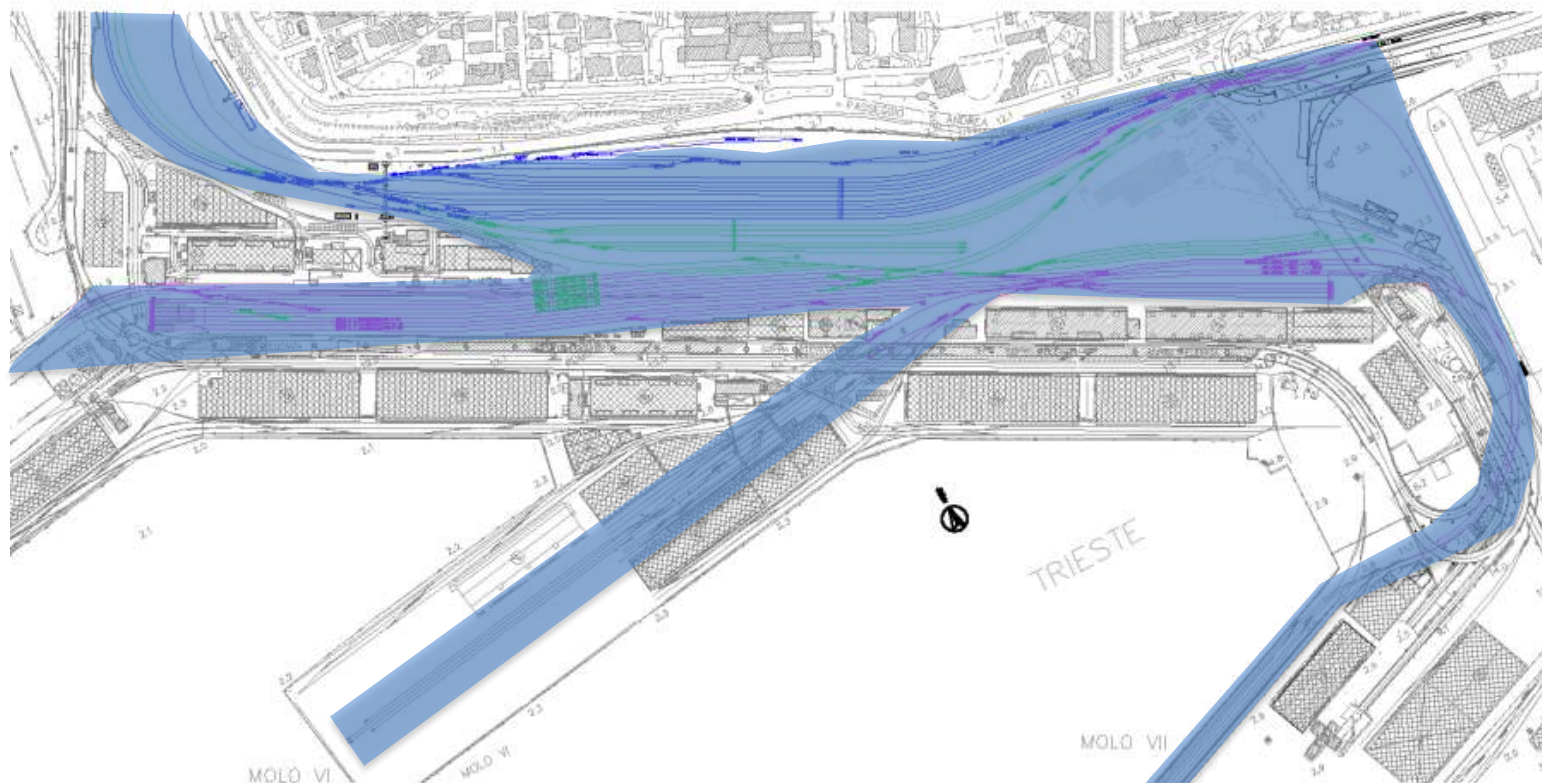
# The future railway station of Trieste Campo Marzio – New Free Port

- Extension of the Free Zone customs status to RFI areas (marked in red);
- Implementation of a single railway customs gate (replacing the two existing ones);
- Implementation of pre-clearing gates at the terminals entrance;
- Centralisation, through SCC of all manoeuvres in both Port and RFI areas – except for manoeuvres within the terminal boundaries;
- Construction of no. 6 arrival/departure tracks in the Port area (totalling 16 arrival/departure tracks);
- Implementation of joint Circulation Monitoring Room RFI-AdSP.

Total investments amounting to 170 million Euros

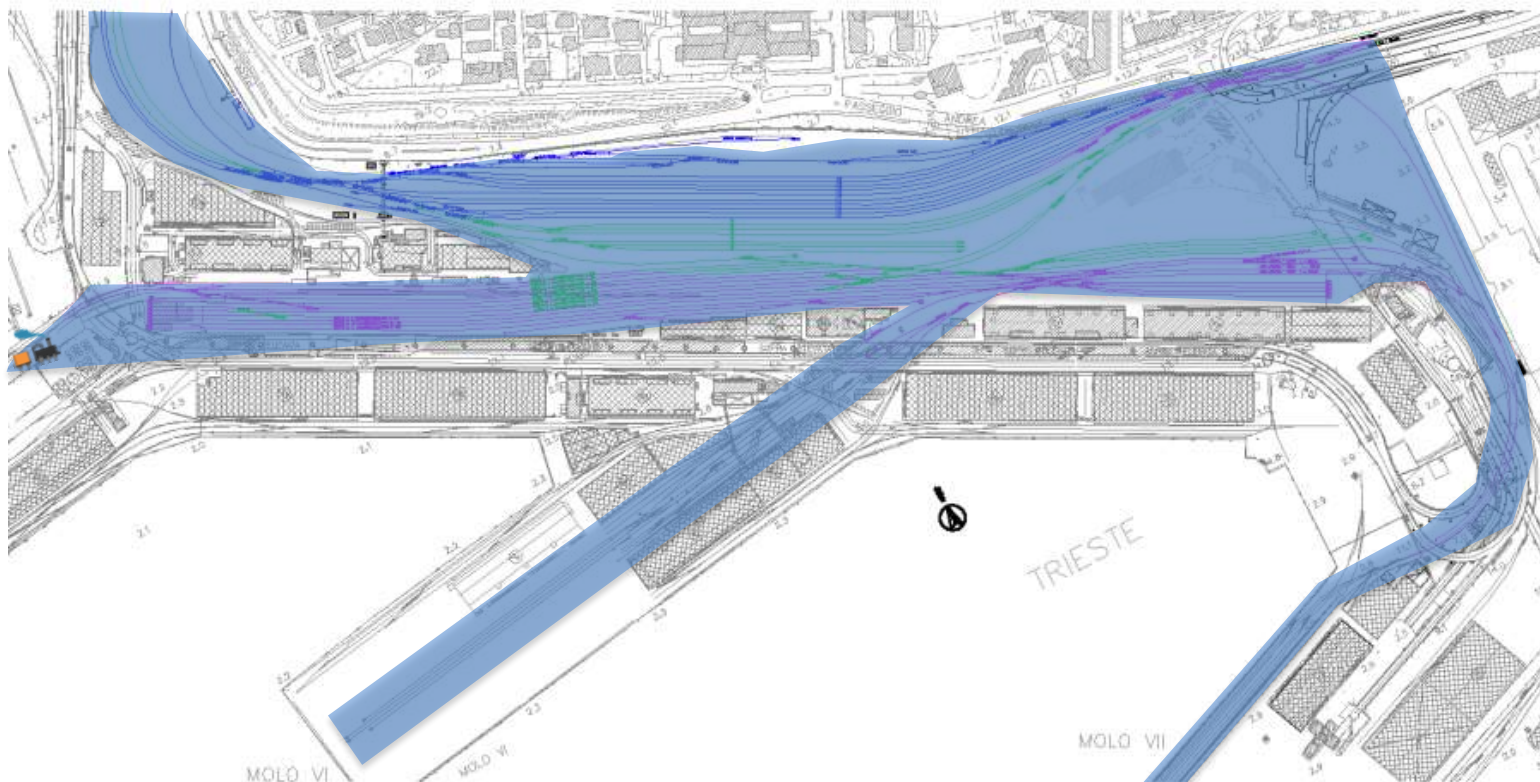


## 8 NEW STATION CAMPO MARZIO + PORT



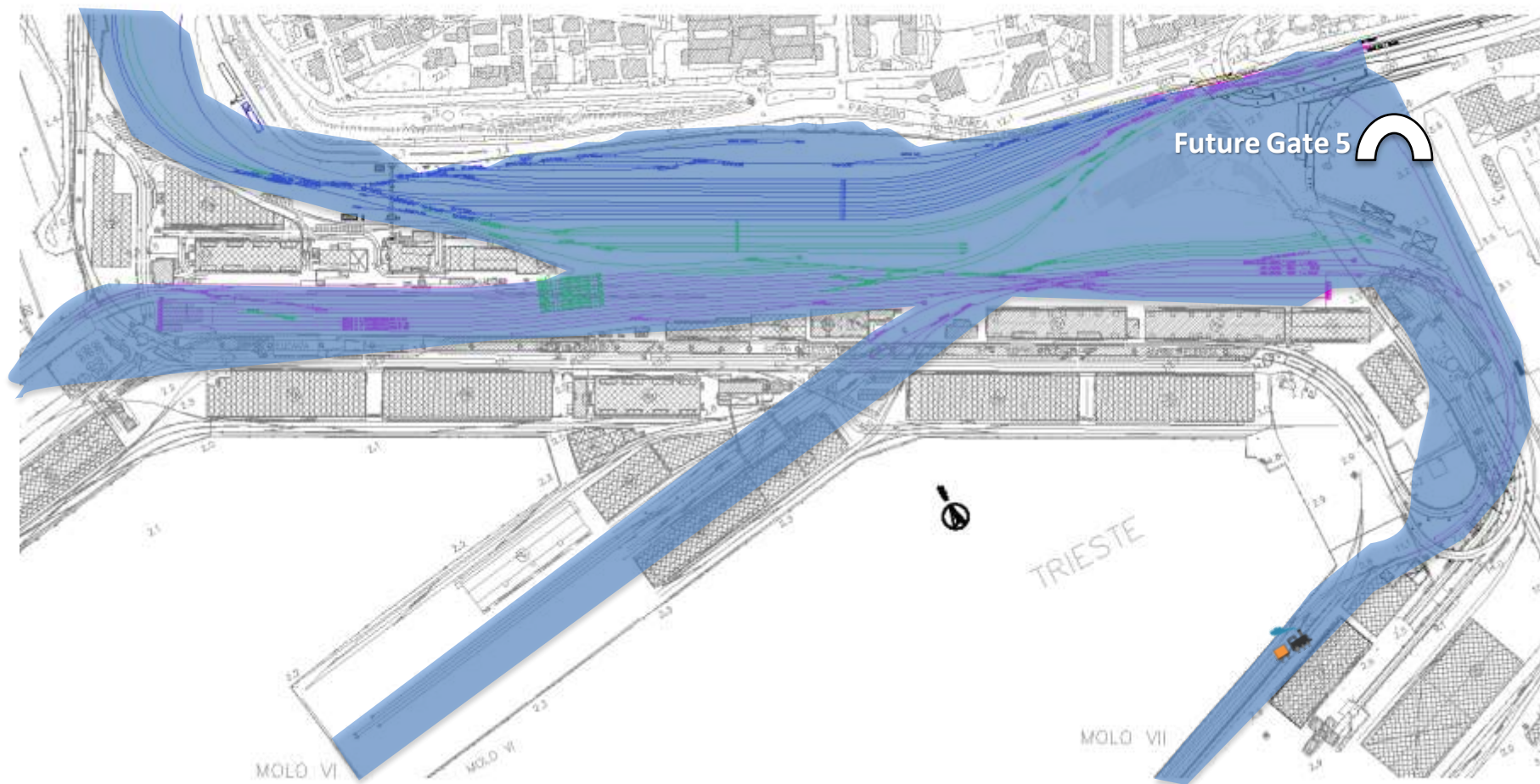
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## NEW LAYOUT – Pier 5+6 shunting (2025)





## 8 Departure from Pier 7 (2025)



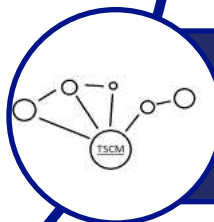
# Advantages



Reduced shunting time - 57%

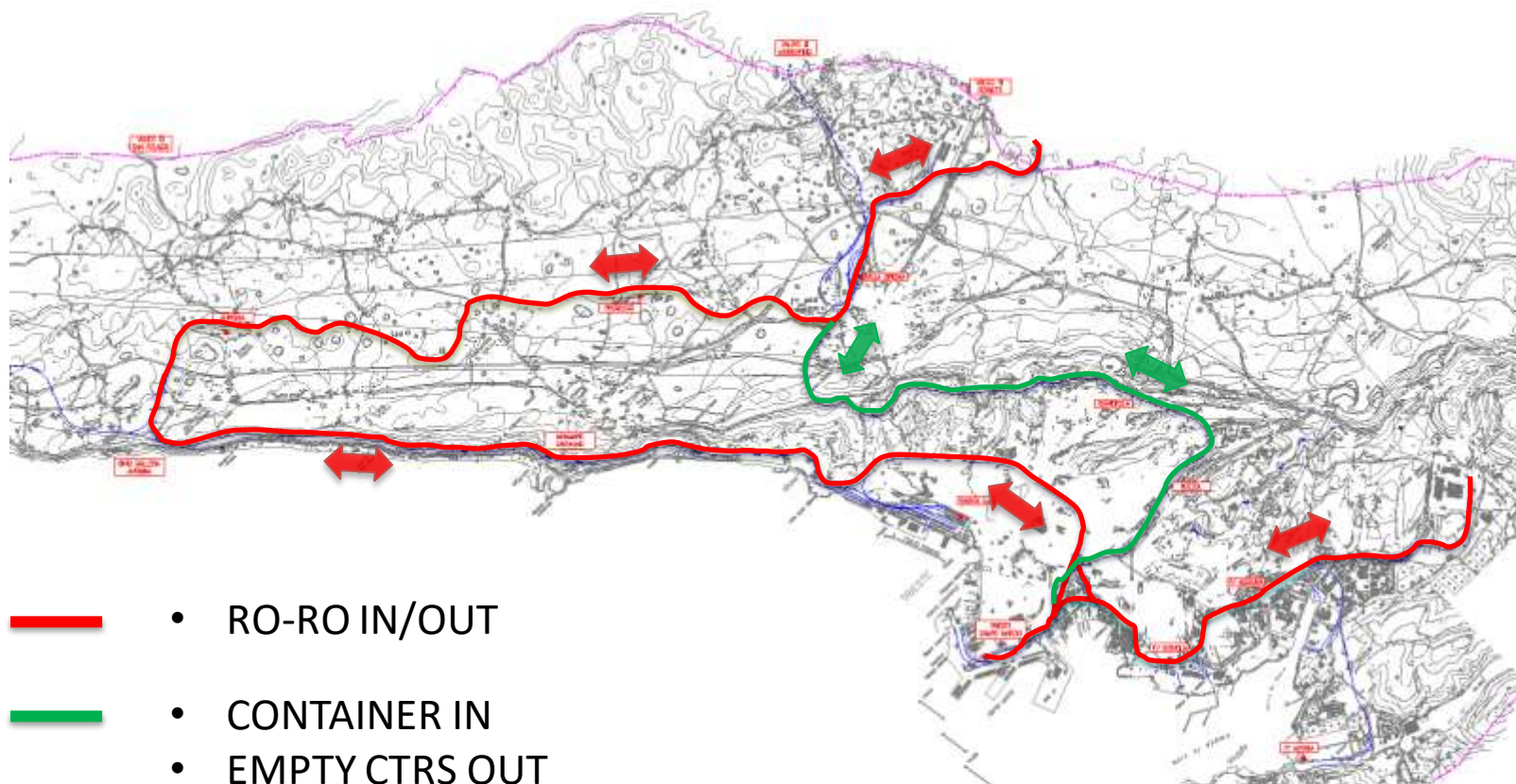


Reduced shunting costs – 20%



Increased capacity to 25,000 T/Y (30,000 with all District and shuttle services)

### 3 Reactivation Transalpina TS CM-VOP





## 4 Logistics Platform Trieste



Construction of 4 new tracks

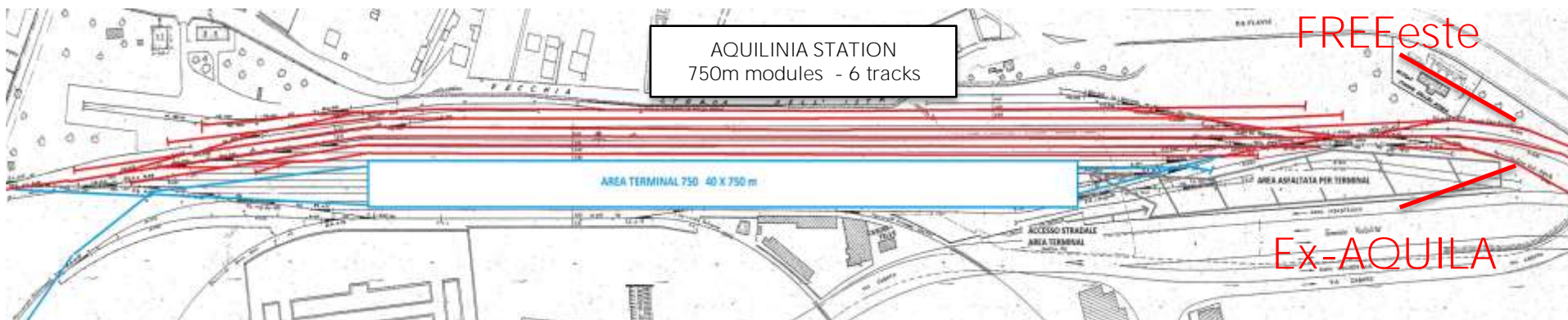
550m / 600m train modules

Potential capacity:  
11 RT/DAY – 3.400 trains/year



7

# AQUILINIA STATION + NEW INTERMODAL TERMINAL



750m-module  
tracks

2 junctions  
(FREEeste, EX-  
AQUILA)

25.000 sqm  
terminal area

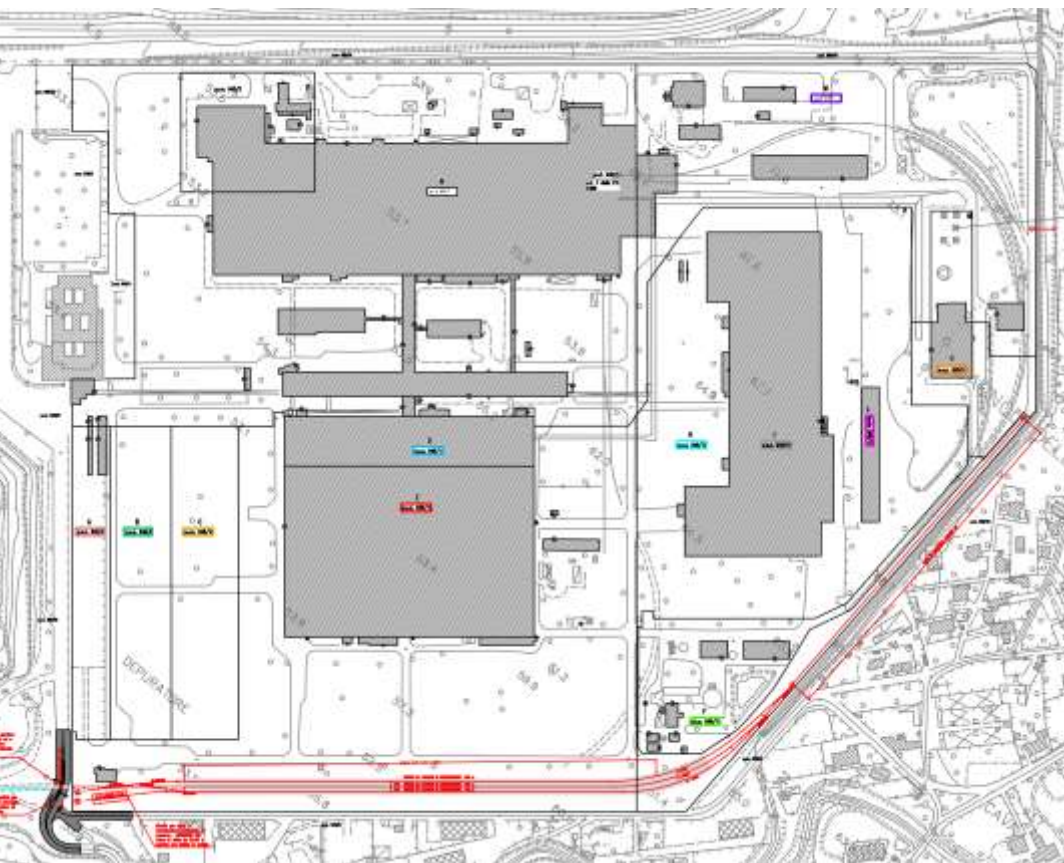
Starting  
operations  
from 2023

Potential  
capacity 7.000  
trains/year



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## 6 FREEeste – Wärtsilä



Customs Free Zone area

Ideal area for added-value manufacturing & logistics activities

Reactivation of IFN link





Renovation of 3 junction tracks

420 m minimum length for train unloading

Potential capacity in the 1<sup>st</sup> phase  
6 RT/week - 1.200 T/Y





-  RFI ASSET
-  Railway line to be re-activated
-  Area Future RO-RO terminal
-  Hypothesis of terminal's tracks



## PORT NETWORK AUTHORITY ACTIVITIES ON RAILWAY NETWORK

Infrastructure



Management

- SMS
- ReCoMaf
- Shuttle with inland terminals



# Outlining the future SMS



## Ongoing activities in 2019:

- Infrastructure log
- Risk Assessment
- Regulatory oversight
- Operating procedures
- Continuous training and skills maintenance
- Safety Management System – the process aims at obtaining the safety authorization to NSA to become qualified Infrastructure Manager



# ReCoMaF «District Regulation of the Railway Shunting»



The **Representative of the District (RD)**, has regulatory powers and its measures are mandatory for the District Review Operators (DO). The RD also represents the DOs against Shunting Manager and Transport Regulation Authority (ART).

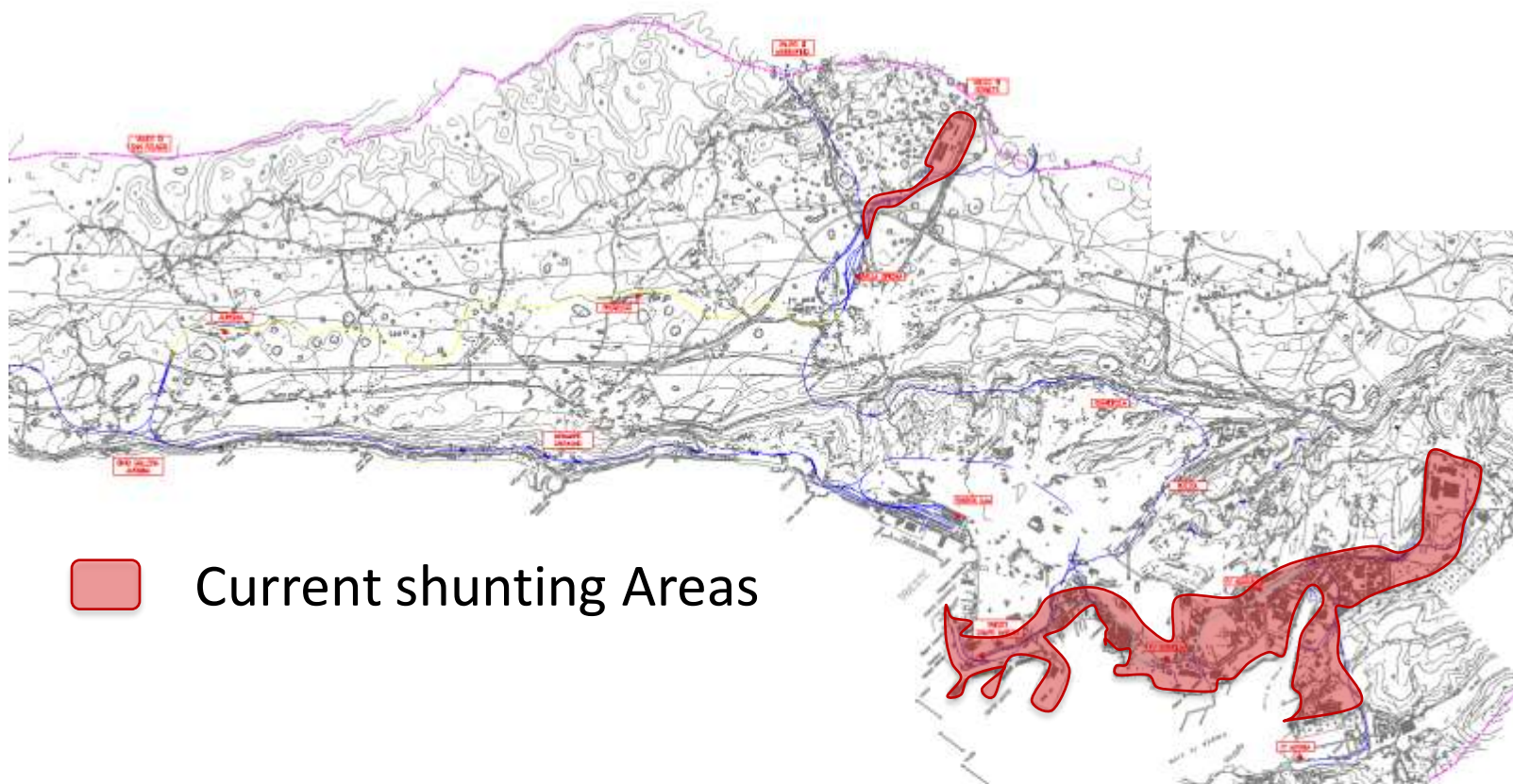


The **Shunting Manager (SM)**, carries out the Maneuvering Service as foreseen in the train schedule plan, it is appointed for 5 years unless expressed and motivated revocation.



Next step: extend the District area also to the Port of Monfalcone and IT-Fernetti.

# ReCoMaF



Current shunting Areas

## Framework Agreement of capacity (RFI - AdSP MAO)

On 03/13/2019 the FA between RFI and AdSP MAO was signed for the allocation of capacity to the Port System Authority.

The Framework Agreement ensures the infrastructure capacity aimed at optimizing the efficiency of the railway connections between the Port of Trieste and the strategic logistics centers, through a dedicated operator.

Relationship:



TSCM

- VOP
- Cervignano





# Trains slots dedicated to PNAEAS

## ALLEGATO A : Parametri caratteristici della capacità di infrastruttura

Richiedente : Autorità di Sistema Portuale del Mare Adriatico Orientale

Tipologia di trasporto : Merci

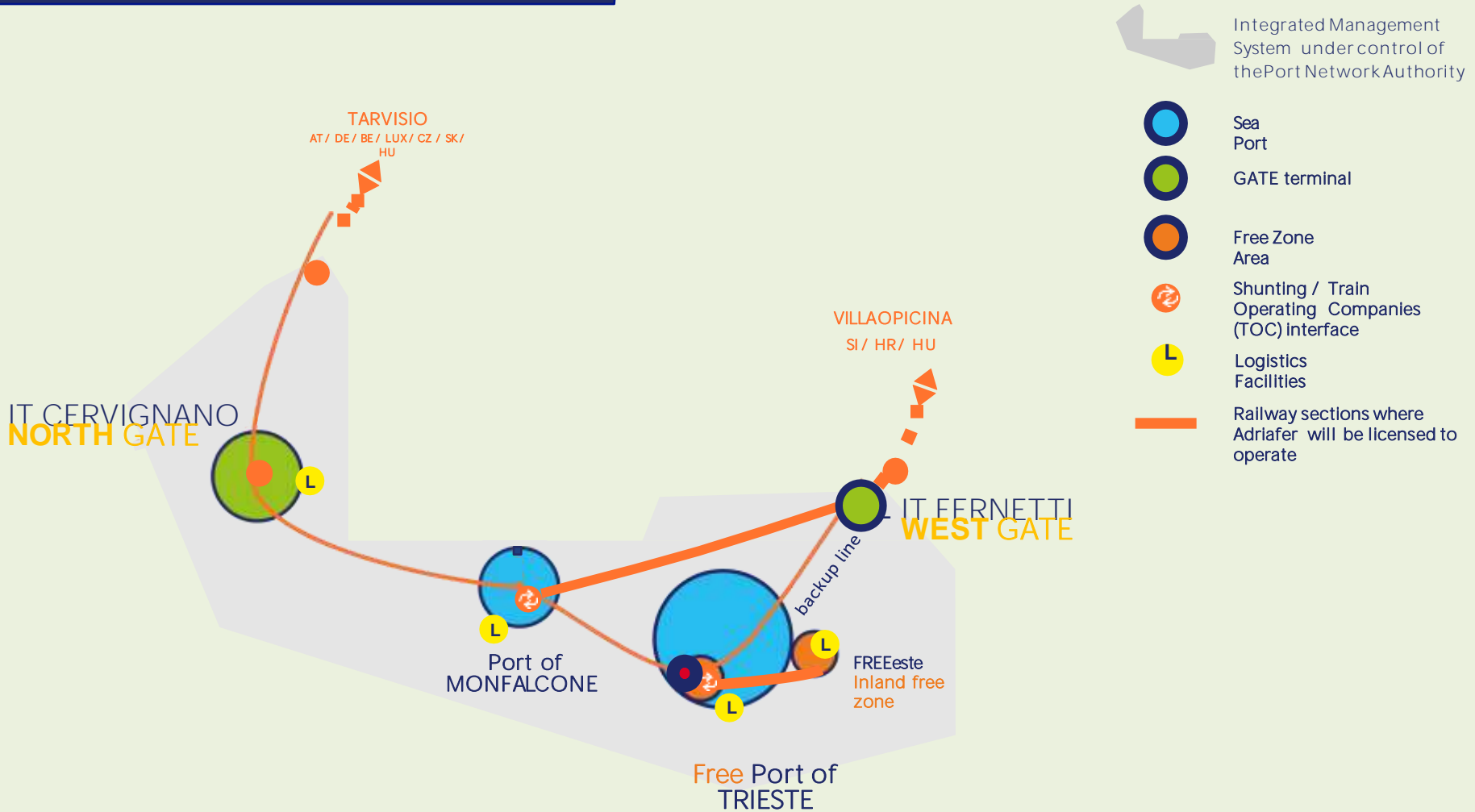
Identificativo slot (Traccia)	Impianto di Origine	Impianto di Destino	periodicità n. circolazioni settimanali	fasce orarie di partenza	Categoria di carico	Sagoma	Trazione	velocità (km/h)	peso rimorchiato (t)	lunghezza massima (m) rimorchiato	lunghezza convoglio	km	gg anno	Km*anno	Trasporto Merci Pericolose (TMP)
AdSP MAO 1	Trieste C.M.	Cervignano Sm.to	3	05.00 - 06.00	D4	C80/P400	ELETTRICA	120	1300	555	575	51,995	156	8.111,220	si
AdSP MAO 2	Cervignano Sm.to	Trieste C.M.	3	15.00 - 16.00	D4	C80/P400	ELETTRICA	120	1300	555	575	51,995	156	8.111,220	si
AdSP MAO 3	Trieste C.M.	Villa Opicina	3	06.00 - 07.00	D4	C80/P400	ELETTRICA	120	1300	555	575	33,932	156	5.293,392	si
AdSP MAO 4	Villa Opicina	Trieste C.M.	3	14.30 - 15.30	D4	C80/P400	ELETTRICA	120	1300	555	575	33,932	156	5.293,392	si
AdSP MAO 5	Trieste C.M.	Cervignano Sm.to (Interporto)	3	07.00 - 08.00	D4	C80/P400	ELETTRICA	120	1300	555	575	51,995	156	8.111,220	si
AdSP MAO 6	Cervignano Sm.to (Interporto)	Trieste C.M.	3	12.00 - 13.00	D4	C80/P400	ELETTRICA	120	1300	555	575	51,995	156	8.111,220	si
<b>43.031,564</b>															

N.B.: Le tracce O/D (AdSP MAO 1 e AdSP MAO 2) dall'impianto di Cervignano Sm.to saranno garantite solo se sarà richiesta la traccia del relativo proseguimento o arrivo in programmazione/progettazione non essendo possibile terminalizzare le presenti tracce su Cervignano Sm.to. Inoltre, le stesse saranno garantite se, disponibile la capacità ambito impianto di Cervignano Sm.to a seguito dell'armonizzazione con i treni che saranno richiesti in proseguimento dall'impianto.

Per i servizi internazionali la capacità è garantita sulla rete ferroviaria nazionale fino alla stazione di confine (stazione di collegamento reti) fermo restando quindi la necessità di concordare con i gestori della rete confinante, annualmente, la prosecuzione sulla loro infrastruttura.



# Shuttle connection

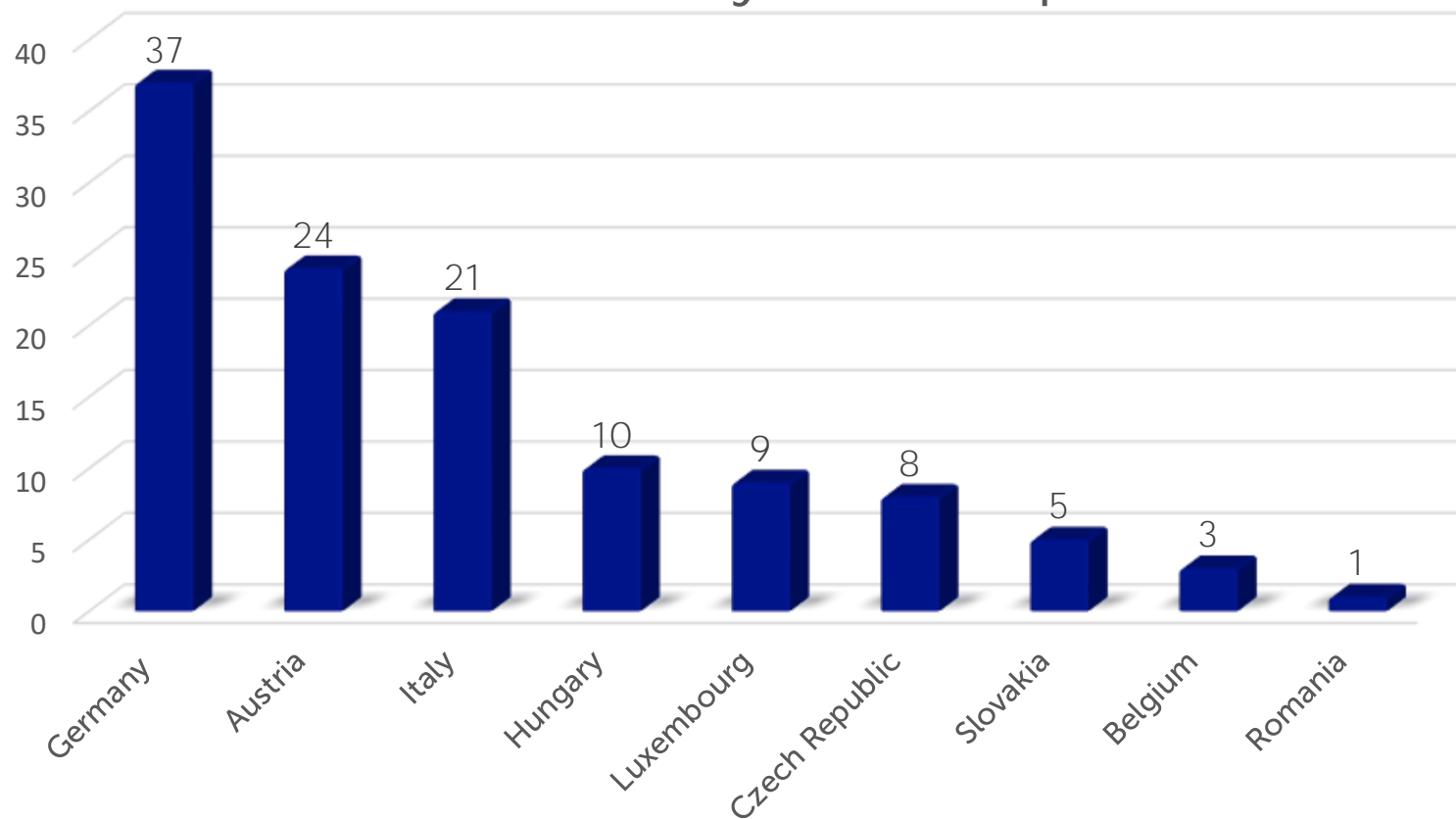






Some data..

## Weekly Round Trips



## Our Railway Undertaking



ADRIAFER S.r.l. is a company established by the Port Authority of Trieste, which owns 100% of its shares. It started its business in 2004 under a concession issued by the Trieste Port Authority, providing general interest port shunting services.

## Targets:

- Neutrality
- Efficiency
- Development of rail traffic in the port of Trieste
- Connection of all areas of interest of the Port Network Authority of the Eastern Adriatic Sea



- ✓Standardization of shunting operations since 2016 under a single Operator.
- ✓Maintenance of the port railway infrastructure and in the areas owned by the National Infrastructure Manager (RFI) implemented since 2015
- ✓Revamping of shunting locomotives, to improve performance and safety levels, reduce fuel consumption and gas emissions
- ✓The information system for shunting requests and for shunting operations is connected with the trains schedule and the customs operations at the International Free Port through Sinfomar (Port Community System of the Port Authority)
- ✓Train standards in Trieste are: length up to 600m, performance up to 2,000 t, limit profile P410 C80

In 2019, 7 Railway Undertakings served the Port of Trieste either as arrival or departure

Trains operated in 2019 carried 290,000 trucks-equivalent; 800 per day.



THANKS FOR YOUR ATTENTION!

PORT NETWORK AUTHORITY OF THE EASTERN ADRIATIC SEA—  
Ports of Trieste and Monfalcone  
Railway Infrastructure Director

ing. Paolo Crescenzi  
[pcrescenzi@porto.trieste.it](mailto:pcrescenzi@porto.trieste.it)



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Porto di Trieste