



ROADMAP "NEW RAIL INFRASTRUCTURE/SERVICES 2030" - D.T3.2.7 - PORT OF TRIESTE

Work paper

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1. Introduction

This roadmap comprises the list of the railway physical infrastructures which will need to be built/upgraded by the Port of Trieste in the next few years. Most of the interventions are already funded through regional, national and own funds.

2. Lessons learned from WP.T1 and WP.T2

The baseline study (D.T1.1.5) analysed the freight transport nodes in the Friuli Venezia Giulia Region, i.e.:

1. Three ports:
 - a. Trieste - core node of the Mediterranean and Baltic-Adriatic CNCs
 - b. Monfalcone - comprehensive node of the Mediterranean and Baltic-Adriatic CNCs
 - c. Porto Nogaro - comprehensive node of the Mediterranean and Baltic-Adriatic CNCs
2. Four railroad terminals:
 - a. Trieste
 - b. Cervignano del Friuli - core node of the Mediterranean and Baltic-Adriatic CNCs
 - c. Gorizia
 - d. Pordenone

The SWOT analysis therein underlined that the governance of the aforementioned nodes is still fragmented, the ports of Trieste and Monfalcone as well as the RRTs of Trieste and Cervignano del Friuli being controlled by the Port Network Authority of the Eastern Adriatic Sea, while the others are managed by individual public entities whose main shareholders are municipalities / chambers of commerce.

Yet, the opportunities for these nodes are relevant, considering the considerable private investments in the port of Trieste and the public funds available by regional and national governments.

The bottleneck analysis (D.T1.3.3) underlined that despite the strong growth in total throughput in the port of Trieste over the pre-COVID19 years and the more than proportionate increase in rail transport, the physical infrastructures remained the same, proving to be an obstacle in the port and railway cargo growth.

These analyses and the results of the pilot actions implemented within WPT2, especially the new railway operational model, led to the identification of the measures to be implemented by 2030 included in this document.



3. Main challenges for the implementation of the roadmap

Most of the interventions listed in the following chapter have already been funded by an EIB loan, CEF Programme and national funds.

The most relevant challenge is time: they all need to be completed by the end of 2026. The public tenders will need to follow the national and EU rules, implying procedures above the EU threshold.

An external technical and legal support is being envisaged to help overcome potential hurdles.

4. Identification of the actions

ACTION/MEASURE	ESTIMATED COSTS	TIME HORIZON
A. TRANSPORT INFRASTRUCTURE		
A.1 New layout of the Campo Marzio Station	€ 77,000,000.00	2025
A.2 Upgrade of the Aquilinia-Wartsila railway line	€ 5,000,000.00	2022
A.3 Upgrade of the Aquilinia-ex-Aquila railway line	€ 2,700,000.00	2023
A.4 Reactivation of the Aquilinia-Muggia railway line	€ 9,000,000.00	2025
A.5 Installation of new IT railway gates and pre-gates of the Port of Trieste	€ 3,500,000.00	2025
A.6 construction of the new Servola railway station	€ 69,000,000.00	2026

5. Detailed description of priority actions/measures

Number and name of intervention: A.1 New layout of the Campo Marzio Station	
Priority area <i>Indicate the priority area of the intervention</i>	Transport infrastructure
Description of action/measure <i>Describe the action foreseen and the expected results from its implementation</i>	The measure includes the complete overhaul of the shunting area serving the Campo Marzio station, allowing 750m-long trains.
Description of the main steps for its implementation	December 2020: project final design



<i>List and describe in detail the main steps for the implementation of the action (i.e. planning phase, tender procedures, etc...)</i>	June 2021: start of the tender for works 2022: start of the works
Stakeholders involved <i>List the stakeholders involved. What is their role in the action? Will they be the direct beneficiaries?</i>	RFI S.p.A. Terminal operators
Timeline <i>Indicate the time horizon for the implementation of the action</i>	2025
Investment cost <i>How much will cost the construction/realization of the future initiative/action/technology?</i>	77.000.000 euros
Sources of financing¹ <i>What are the sources of financing? Private capital, public capital, CEF, etc... How much is the share covered by each of them?</i>	CEF funds (TriesteRailPort project) EIB loan
Impact of the initiative <i>Describe the expected future economic, social, environmental impacts of this initiative</i>	<ul style="list-style-type: none"> ✓ Increase the train capacity of the marshalling yard of the Port of Trieste by 80%; ✓ Allow 750m-long trains, thus increasing the train length by 35%; ✓ Increase the speed of marshalling operations on average by 35%, and by 70% for Pier no. 7. ✓ Ensure full IT interoperability with port railway stakeholders
Compliance with the overall objectives of REIF project <i>Describe the expected contribution of the action/measure to the achievement of REIF project (e.g. connection to TEN-T corridor, ...)</i>	The project will remove a bottleneck in the further development of railway connections to/from the Port of Trieste and increase the cargo total handling capacity of the Port of Trieste by streamlining cargo flows by train, overcoming the lack of space dedicated to storage, due to the proximity with the city of Trieste.
Compliance with guidelines of national and regional planning instruments <i>Describe the compliance with the aim of national and regional planning instruments</i>	The project is coherent with the Italian Strategic National Plan for Ports and Logistics and the Regional plan of transport infrastructures, freight and logistics of the Friuli Venezia Giulia region.

Number and name of intervention: A.2 Upgrade of the Aquilinia-Wartsila railway line	
Priority area <i>Indicate the priority area of the intervention</i>	Transport infrastructure
Description of action/measure <i>Describe the action foreseen and the expected results from its implementation</i>	The measure includes the reactivation of the Aquilinia-Wartsila railway track (approx. 3 km)

¹ This information, if already available, could be assumed in the draft version and it has to be confirmed in the final one



Description of the main steps for its implementation <i>List and describe in detail the main steps for the implementation of the action (i.e. planning phase, tender procedures, etc...)</i>	2021: start of the tender for works
Stakeholders involved <i>List the stakeholders involved. What is their role in the action? Will they be the direct beneficiaries?</i>	RFI S.p.A. Trieste Inland Terminal
Timeline <i>Indicate the time horizon for the implementation of the action</i>	2022
Investment cost <i>How much will cost the construction/realization of the future initiative/action/technology?</i>	€ 5,000,000.00
Sources of financing² <i>What are the sources of financing? Private capital, public capital, CEF, etc... How much is the share covered by each of them?</i>	EIB loan Own funds
Impact of the initiative <i>Describe the expected future economic, social, environmental impacts of this initiative</i>	✓ Reactivation of an existing railway line, disused for years, connecting the Aquilinia railway station with the new FreeEste area, ensuring sustainable industrial and logistic growth around the port of Trieste
Compliance with the overall objectives of REIF project <i>Describe the expected contribution of the action/measure to the achievement of REIF project (e.g. connection to TEN-T corridor, ...)</i>	The project will reactivate a local railway line serving an industrial area. This activity is fully in line with the aim and scope of the of the REIF project.
Compliance with guidelines of national and regional planning instruments <i>Describe the compliance with the aim of national and regional planning instruments</i>	The project is coherent with the Italian Strategic National Plan for Ports and Logistics and the Regional plan of transport infrastructures, freight and logistics of the Friuli Venezia Giulia region.

Number and name of intervention: A.3 Upgrade of the Aquilinia-ex-Aquila railway line	
Priority area <i>Indicate the priority area of the intervention</i>	Transport infrastructure
Description of action/measure <i>Describe the action foreseen and the expected results from its implementation</i>	The measure includes the reactivation of the Aquilinia-ex-Aquila railway track (approx. 1.5 km)
Description of the main steps for its implementation <i>List and describe in detail the main steps for the implementation of the action (i.e. planning phase, tender procedures, etc...)</i>	2022: start of the tender for works

² This information, if already available, could be assumed in the draft version and it has to be confirmed in the final one



Stakeholders involved <i>List the stakeholders involved. What is their role in the action? Will they be the direct beneficiaries?</i>	RFI S.p.A. Terminal operators
Timeline <i>Indicate the time horizon for the implementation of the action</i>	2023
Investment cost <i>How much will cost the construction/realization of the future initiative/action/technology?</i>	€ 2,700,000.00
Sources of financing³ <i>What are the sources of financing? Private capital, public capital, CEF, etc... How much is the share covered by each of them?</i>	EIB loan Own funds
Impact of the initiative <i>Describe the expected future economic, social, environmental impacts of this initiative</i>	✓ Reactivation of an existing railway line, disused for years, connecting the Aquilinia railway station with the “Noghere” industrial area, ensuring sustainable industrial and logistic growth around the port of Trieste
Compliance with the overall objectives of REIF project <i>Describe the expected contribution of the action/measure to the achievement of REIF project (e.g. connection to TEN-T corridor, ...)</i>	The project will reactivate a local railway line serving an industrial area. This activity is fully in line with the aim and scope of the of the REIF project.
Compliance with guidelines of national and regional planning instruments <i>Describe the compliance with the aim of national and regional planning instruments</i>	The project is coherent with the Italian Strategic National Plan for Ports and Logistics and the Regional plan of transport infrastructures, freight and logistics of the Friuli Venezia Giulia region.

Number and name of intervention: A.4 Reactivation of the Aquilinia-Muggia railway line	
Priority area <i>Indicate the priority area of the intervention</i>	Transport infrastructure
Description of action/measure <i>Describe the action foreseen and the expected results from its implementation</i>	The measure includes the reactivation of the Aquilinia-ex-Aquila railway track (approx. 6.7 km)
Description of the main steps for its implementation <i>List and describe in detail the main steps for the implementation of the action (i.e. planning phase, tender procedures, etc...)</i>	2023: start of the tender for works
Stakeholders involved <i>List the stakeholders involved. What is their role in the action? Will they be the direct beneficiaries?</i>	RFI S.p.A. Terminal operators

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Timeline <i>Indicate the time horizon for the implementation of the action</i>	2025
Investment cost <i>How much will cost the construction/realization of the future initiative/action/technology?</i>	€ 2,700,000.00
Sources of financing⁴ <i>What are the sources of financing? Private capital, public capital, CEF, etc... How much is the share covered by each of them?</i>	Own funds European funds
Impact of the initiative <i>Describe the expected future economic, social, environmental impacts of this initiative</i>	✓ Reactivation of an existing railway line, disused since 2009, connecting the Aquilinia railway station with the “Muggia” industrial area a new multipurpose terminal, ensuring sustainable industrial and logistic growth around the port of Trieste
Compliance with the overall objectives of REIF project <i>Describe the expected contribution of the action/measure to the achievement of REIF project (e.g. connection to TEN-T corridor, ...)</i>	The project will reactivate a local railway line serving an industrial area and a new multipurpose terminal. This activity is fully in line with the aim and scope of the of the REIF project.
Compliance with guidelines of national and regional planning instruments <i>Describe the compliance with the aim of national and regional planning instruments</i>	The project is coherent with the Italian Strategic National Plan for Ports and Logistics and the Regional plan of transport infrastructures, freight and logistics of the Friuli Venezia Giulia region.

Number and name of intervention: A.5 Installation of new IT railway gates and pre-gates of the Port of Trieste	
Priority area <i>Indicate the priority area of the intervention</i>	Transport infrastructure
Description of action/measure <i>Describe the action foreseen and the expected results from its implementation</i>	<p>The measure includes the installation of the railway gate located at the Servola railway station, while the pre-gates will be placed on the main points of the Eastern part of the Port of Trieste:</p> <ol style="list-style-type: none"> 1) HHLA PLT S.p.A., the so-called “Logistics Platform”, which is the object of the NAPA4CORE project (2014-EU-TM-0343-M), completed in 2020 2) Siderurgica, where a steel plant is located 3) Depositi Costieri, a refuelling and oil terminal 4) ex-Aquila, a new terminal and railway siding 5) Wartsila, a new free zone located outside the port, but connected to the railway line thanks to an EIB loan contract signed in December 2019 6) Muggia, related to the new RoRo Terminal, on the

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	Aquilinia-Muggia railway line
Description of the main steps for its implementation <i>List and describe in detail the main steps for the implementation of the action (i.e. planning phase, tender procedures, etc...)</i>	2024: start of the tender for works
Stakeholders involved <i>List the stakeholders involved. What is their role in the action? Will they be the direct beneficiaries?</i>	RFI S.p.A. Terminal operators
Timeline <i>Indicate the time horizon for the implementation of the action</i>	2025
Investment cost <i>How much will cost the construction/realization of the future initiative/action/technology?</i>	€ 3,500,000.00
Sources of financing⁵ <i>What are the sources of financing? Private capital, public capital, CEF, etc... How much is the share covered by each of them?</i>	Own funds European funds
Impact of the initiative <i>Describe the expected future economic, social, environmental impacts of this initiative</i>	✓ The installation of smart railway gates will enhance and streamline the railway traffic flows in the port of Trieste, having positive effect on modal shift from road to rail
Compliance with the overall objectives of REIF project <i>Describe the expected contribution of the action/measure to the achievement of REIF project (e.g. connection to TEN-T corridor, ...)</i>	The project will contribute to the already achieved pilot actions implemented in the REIF project, notably the development of the port's railway operational model.
Compliance with guidelines of national and regional planning instruments <i>Describe the compliance with the aim of national and regional planning instruments</i>	The project is coherent with the Italian Strategic National Plan for Ports and Logistics and the Regional plan of transport infrastructures, freight and logistics of the Friuli Venezia Giulia region.

Number and name of intervention: A.6 Construction of the new Servola railway station	
Priority area <i>Indicate the priority area of the intervention</i>	Transport infrastructure
Description of action/measure <i>Describe the action foreseen and the expected results from its implementation</i>	The measure includes the construction of the new Servola railway station, serving the so-called "Logistics Platform", which is the object of the NAPA4CORE project (2014-EU-TM-0343-M), completed in 2020, and the port's Eastern part. 7)
Description of the main steps for	2024: start of the tender for works

⁵ This information, if already available, could be assumed in the draft version and it has to be confirmed in the final one



<p>its implementation <i>List and describe in detail the main steps for the implementation of the action (i.e. planning phase, tender procedures, etc...)</i></p>	
<p>Stakeholders involved <i>List the stakeholders involved. What is their role in the action? Will they be the direct beneficiaries?</i></p>	<p>RFI S.p.A. Terminal operators</p>
<p>Timeline <i>Indicate the time horizon for the implementation of the action</i></p>	<p>2026</p>
<p>Investment cost <i>How much will cost the construction/realization of the future initiative/action/technology?</i></p>	<p>€ 69,000,000</p>
<p>Sources of financing⁶ <i>What are the sources of financing? Private capital, public capital, CEF, etc... How much is the share covered by each of them?</i></p>	<p>National funds European funds</p>
<p>Impact of the initiative <i>Describe the expected future economic, social, environmental impacts of this initiative</i></p>	<ul style="list-style-type: none"> ✓ The rail station will develop 750m long train tracks grouped in a set of 7 and in a set of 9 tracks, these two groups being divided by 4 service lanes for stocking and moving needs along rail tracks ✓ the rail tracks will be operated intimately with the port facilities of the Logistic Platform (whose construction) is about to be finished) and with Pier VIII, for which the Environmental Impact Assessment forms part of the Proposed Action ✓ In total, this new railway station will comprise more than 15km of rail tracks spread over an area of approximately 1 km×100 m, that is ~10 hectares.
<p>Compliance with the overall objectives of REIF project <i>Describe the expected contribution of the action/measure to the achievement of REIF project (e.g. connection to TEN-T corridor, ...)</i></p>	<p>The project will increase the chances for modal shift from road to rail of the Port of Trieste, this activity is fully in line with the aim and scope of the of the REIF project.</p>
<p>Compliance with guidelines of national and regional planning instruments <i>Describe the compliance with the aim of national and regional planning instruments</i></p>	<p>The project is coherent with the Italian Strategic National Plan for Ports and Logistics and the Regional plan of transport infrastructures, freight and logistics of the Friuli Venezia Giulia region.</p>

⁶ This information, if already available, could be assumed in the draft version and it has to be confirmed in the final one



6. Conclusion

The Port of Trieste has already achieved the EU goal of 50% of rail freight transport by 2050.

Yet, the increase in railway transport occurred over the last few years showed that the existing port railway infrastructures are not sufficient to meet the current and future demand.

This is why the Port of Trieste has identified railways as a key component of its development needing specific priority and actions.

The approach followed by the Port of Trieste is to reconstruct, reactivate and enhance the existing railway infrastructures wherever this is possible, instead of building new ones.

Over the next few years, the Port of Trieste will redesign the whole railway infrastructures serving the port of Trieste, paving the way for the port and industrial development of the City of Trieste for the next decades, contributing to the decarbonisation of the freight transport.

Keywords of the roadmap are:

- Modal shift
- Decarbonisation
- Industrial development