THEMATIC STEERING GROUP
FOR PILLAR 2 (TSG2) "CONNECTING THE REGION"

Transport Sub-Group

Book on EUSAIR labelled projects

EU Strategy for the Adriatic and Ionian Region
EUSAIR

Interreg
ADRION
ADRIATIC-IONIAN
European Regional Development Fund - Instrument for Pre-Accession II Fund
EUSAIR FACILITY POINT

Premise

The Adriatic-Ionian region is a geographically diverse area including coastal, mountainous and insular areas that need investments on infrastructure in order to bridge up the accessibility gaps that still affect many areas not well connected to the main transport networks. Particularly, railways in the region are rather fragmented and need to catch up in order to contribute to the transition towards transport decarbonization and sustainable mobility.

Better transport connections are compelling needs for the macro-region and a precondition for its economic development and social cohesion. Besides, Infrastructural projects should be embedded into wider sustainability strategy linked to local and national environmental plans. Efficient and sustainable transport connections, capable of coping effectively with increased traffic flows, will improve attractiveness, both for foreign direct investments and for tourism. Better use of intermodal transport will reduce the costs of delivering goods in Central and Eastern Europe, improve the eco-balance and restore the competitive position of the North Adriatic ports as natural gateways to Central and Eastern Europe.

With regard to transport networks, there is a significant potential for quality improvement and better integration. Railway transportation is lagging behind the EU average both in terms of infrastructure as well as in freight and passenger volumes. In many EUSAIR countries and especially in Western Balkans, there are poor quality and unsafe rail systems. At the same time, connectivity is a key asset for Western Balkans within the enlargement process. The airports has inadequate capacity to sustain tourism development and connectivity in general, mostly due to doubtful economy of scale of the related catchment area, in an overall low density populated area, also affected by an overall declining demographic trend, especially outside the largest urban areas. Various bottlenecks have limited the development opportunities stemming from the motorways of the sea concept throughout the region.

National programmes and local actions can only partially address these challenges, due to the capital intensive measures required to improve and upgrade the networks. Even bilateral cooperation may not be sufficient to overcome bottlenecks and to promote connectivity and cooperation aimed at developing projects of common interest. **Wider macroregional cooperation is needed to provide services and benefits to the EUSAIR Countries.** *Major investments in infrastructure projects and transport policy programmes make sense and can be justified only if looked at from a macroregional perspective. They require coordination among national and local policies, common initiatives on infrastructure developments and harmonized transport operations.*

EUSAIR in years has contributed to improve connectivity, integration and cohesion within the Adriatic and Ionian Region, by identifying and monitoring projects of macroregional relevance enhancing:

- *accessibility to TEN-T networks with a particular attention to the last mile connections;*
- *interoperability and cross-border connections (for freights and passengers);*
- *inter-modality between different modes of transport;*
- *transport digitalization to overcome some structural gaps and improve transport service quality.*

In so doing, the Transport sub-group of the Thematic Steering Group (TSG) of Pillar 2 has "labelled" 58 projects, including 27 Infrastructure projects and 31 "Soft Measures", i.e. small scale pilot actions, services/facilities and feasibility studies.

The "EUSAIR-labelled" projects have different degrees of maturity, ranging from the proposal stage to execution and completed projects. TSG has kept on monitoring progresses as well as has contributed to outreach their visibility. This book presents a collection of those projects that are still in progress. The complete open list of the Transport EUSAIR-labelled projects can be found in the Annex.

SUMMARY

1. Infrastructures

Infrastructural projects are clustered into linear infrastructure (railway, road, Inland Waterways or other) and nodes (Maritime ports, Inland Waterway ports, Rail-Road Terminals, others). In particular the infrastructural projects aim at creating an Adriatic-Ionian corridor compliant with TEN-T standards, connecting the two coasts and Countries in the Region.

1.1 Linear infrastructures

1.1.1 Roads and multimodal corridors

The following figure presents an overview of the EUSAIR labelled road and multimodal infrastructural projects

Legend	
2	Last mile (Heavy vehicle) road connection of the Port of Bari and intermodal terminal
10	Highway E-761 Pozega-Uzice-Kotroman (Bosnia and Herzegovina border) –Visegrad /SEETO Route 3
11	Adriatic-Ionian Highway/expressway*
28	Multimodal Northern Adriatic Corridor
29	Multimodal Central Adriatic Corridor
37	Motorway E-763 Pozega-Boljare (Montenegro Border) -Bar
39	Construction of Motorway Niš-Merdere-Priština
52	Messina Strait Bridge (Ponte sullo stretto di Messina)

1.1.1.1 Adriatic-Ionian Highway / expressway

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*X*
GREECE	*X*
ITALY	*X*
SLOVENIA	*X*
Non-EU Countries	
ALBANIA	*X*
BOSNIA HERZEGOVINA	*X*
MONTENEGRO	*x*
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	

PROJECT DESCRIPTION

The main objective of this project is to improve connectivity within the region as well as road safety along a route that has great potential for growth and jobs in the Western Balkans (particularly for tourism). The Adriatic Ionian Corridor will be part of the TEN-T Mediterranean Core Network Corridor which connects central and Northern Europe with the Balkan peninsula – from Trieste in Italy, down to Kalamata in Greece. The overall Corridor from Italy to Greece will be approximately 1,500 km, while in the Western Balkans region the Corridor passes through Montenegro (approximately 110 km or 7% of total length) and Albania (approximately 305 km or 20% of total length). The project is compliant with finalization of the infrastructural interventions on the TEN-T axis. In fact, the Adriatic – Ionian Highway/expressway is included on indicative extension of the TEN-T Core Network (PMs WB6 Joint Statement, Brussels, April, 2015) based on the SEETO comprehensive network which encompasses the Croatian border-Bar-the Albanian Border through Montenegro territory (Route 1) and the Albanian North-South Road Corridor linking the Montenegro Border with the Greek Border, through Albanian territory (Route 2).

The project is also supported by Western Balkans Investment Framework (WBIF), Infrastructure Project Facility, Technical Assistance 5 (IPF 5), Infrastructures: Energy, Environment, Transport and Social. The specific purpose of the IPF5 operation is to support the preparation and implementation of priority infrastructure investment projects in the transport, environment, energy and social infrastructure, to be carried out in Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Kosovo, Montenegro and Serbia. Adriatic-Ionian Initiative (AII) established at the Summit on Development and Security on the Adriatic and Ionian Seas, Ancona 19th/20th May 2000 (attended by the Heads of States and Governments of Italy, Albania, Bosnia and Herzegovina, Croatia, Greece and Slovenia)

FUNDING SOURCES

Amount and type of the funding source	The WBIF awarded a €3,500,000 EU grant for the preparation of the feasibility study and associated designs for both routes in December 2015. The study is in the final steps. The estimated total investment is of 1,731 m of euro

PROJECT STATUS

The sections of the project have reached different stages and are advances in the preparation of technical documentation, expecting the finalisation/submission of the Preliminary Environmental and social impact assessments and related documents.

1.1.1.2 Motorway E-763 Pozega-Boljare (Montenegro Border) -Bar

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	*x*
NORTH MACEDONIA	
SAN MARINO	
SERBIA	*x*
TOTAL	

PROJECT DESCRIPTION

The E-763 motorway section connects Montenegro and Serbia and represents the part of Belgrade-South Adriatic Highway. After the construction of this road Serbia will have a better road connection to the sea, towards the port of Bar. Realization of this project will reduce travel time and increase traffic safety. The length of the road on the Serbian side is 107 kilometers. Construction value of this project is 1.6 bilion euros.

Finalisation of the project will increase the safety and security of the E-763 road and also will enable a better connection with Montenegro and Adriatic sea.

The project has been approved in the framework of Plan of rail, road, inland waterway, air and intermodal transport development in the Republic of Serbia from 2015 to 2020 and the General (Master) Plan of transport development in the Republic of Serbia from 2009 to 2027

FUNDING SOURCES

Amount and type of the funding source	€ 1.83 billion. The project is funded under the Law on Ratification of the Agreement on Economic and Technical Cooperation in the Field of Infrastructure between the Government of the Republic of Serbia and the Government of the People's Republic of China, signed on August 20th 2009 ("RS Official Gazette - International Treaties", No. 90/09); Law on Confirmation of Annex no. 1 of the Agreement on Economic and Technical Cooperation in the Field of Infrastructure between the Government of the Republic of Serbia and the Government of the People's Republic of China ("RS Official Gazette - International Treaties", No. 9/2013); Law on Ratification of Annex 2 to the Agreement on Economic and Technical Cooperation in the Field of Infrastructure between the Government of the Republic of Serbia and the Government of the People's Republic of China ("RS Official Gazette - International Treaties", No. 13/13)

PROJECT STATUS

Construction of the Duga Poljana base station is ongoing, technical documentation is ongoing.

1.1.1.4 Highway E-761 Pozega-Uzice-Kotroman (Bosnia and Herzegovina border) –Visegrad /SEETO Route 3

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	*x*
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	*x*
TOTAL	

PROJECT DESCRIPTION

E-761 motorway section connects B&H and Serbia and with road route E-763 further to Montenegro and with Corridor X. Outputs achieved (for Serbia): prepared Feasibility study and Preliminary Design, EIA Study, Design for construction permit and Design for execution of works. This highway will be constructed in two directions: Bijeljina – Sremska Rača (border with Bosnia-Herzegovina) – Kuzmin; Požega – Kotroman (border with Bosnia- Herzegovina). A commercial contract for the elaboration of detailed regulatory plans, project design and construction of these sections of the Belgrade-Sarajevo Highway was signed in Belgrade on 19th December 2018 between the Government of the Republic of Serbia, Public Company 'Roads of Serbia' and Turkish company TASYAPI. This commercial contract is valued at €250 million and encompasses the preparation of planning, design and technical documentation and the execution of works on the Sremska Rača-Kuzmin section (totalling €225 million) and the preparation of design and technical documentation for the Požega-Kotroman section (€25 million). The project will be financed jointly through a loan from a Turkish bank and the budget of the Republic of Serbia.

The project is compliant with the following specific criteria: Finalization of the infrastructural interventions on the TEN-T axis, Interconnection between the main TEN-T axis and the nodes, with a particular attention to the last mile connections.

The project has been approved within the national Law on Ratification of the Agreement between the Government of the Republic of Serbia and the Government of the Republic of Turkey on Cooperation in the Field of Infrastructure Projects, concluded on October 26th 2009 ("RS Official Gazette - International Treaties", No. 1/2010); Law Confirming Annex 1 to the Agreement between the

Government of the Republic of Serbia and the Government of the Republic of Turkey on Cooperation in the Field of Infrastructure Projects (Official Gazette of the RS - International Treaties, No. 2/2020).

The project relates to four Pan-European Corridors: Corridor 4, Corridor 5, Corridor 7 (Danube River) and Corridor 10. In addition, the construction of Pozega – Uzice – Border crossing with Bosnia and Herzegovina (Kotroman) is also creating a connection with Milos the Great highway and the future E-761 highway, Morava Corridor, in the Republic of Serbia. The corridor is currently covered by NR28, part of the Comprehensive Network. The project is not a pre-identified one as per Reg.1315/2013.

FUNDING SOURCES

Amount and type of the funding source	€ 830 millions, financed by a loan from Turkish banks and the budget of the Republic of Serbia

PROJECT STATUS

85% of project documentation has been finished, completion is expected in June 2023

1.1.1.5 Construction of Motorway Niš-Merdare-Priština

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	*x*
NORTH MACEDONIA	
SAN MARINO	
SERBIA	*x*
TOTAL	

PROJECT DESCRIPTION

The aim of the project is construction of motorway Niš-Merdere-Priština. Section of the state highway Niš - Merdare (Priština) belongs to: State road network class IB, AGR Road Network E-80 and Core Transportation Network SEETO Route. Realiation of this project will enable the connection of KiM with the Corridor 10, as well as further access to Albanian ports. The length of the road is 77 kilometers.

The finalisation of this infrastructural project will connect Serbia with Adriatic sea and contribute to the increase of safety and security on the roads in Serbia and the region.

The project has been approved in the framework of the national Plan of rail, road, inland waterway, air and intermodal transport development in the Republic of Serbia from 2015 to 2020 and the General (Master) Plan of transport development in the Republic of Serbia from 2009 to 2027.

Amount and type of the funding source	€ 855 millions; source of funding: • loan of up to €85 million from EBRD • loan of € 100 million from EIB • €40.6 million investment grant from WBIF (which will also fund the project preparation); Furthermore, in September 2020 the US International Development Finance Corporation (DFC) and the US Export-Import Bank (Exim) signed letters of intent to finance the motorway

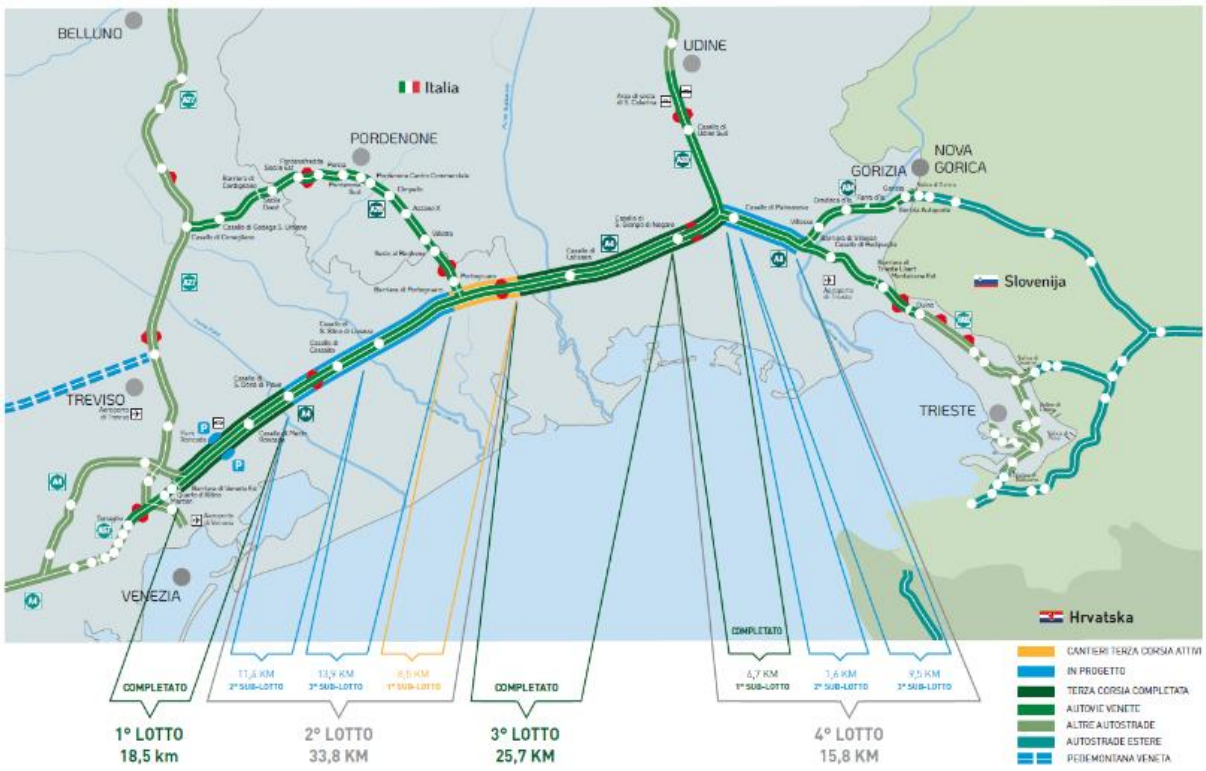
FUNDING SOURCES

PROJECT STATUS

First section Niš-Beloljin (Pločnik) 64% completed, 5.5 km, expected completion, June 2023.

1.1.1.6 Multimodal Northern Adriatic Corridor

PROJECT IDENTIFICATION



PROJECT DESCRIPTION

The project aims at reinforcing and making more efficient the Italian multimodal infrastructures system (rail and road) along the axis Ravenna-Venice-Trieste, part of the TEN-T network (Mediterranean and Baltic-Adriatic Corridors) in order to increase and improve the connecting infrastructures of the “core” ports in the Northern Adriatic basin. It includes: Third lane of the Venice-Trieste A4 highway; Upgrading of the national road SS 309 Ravenna - Venezia; Speeding up of Venice-Trieste conventional line and second track on Udine - Palmanova - Cervignano line; Hub of the Port of Ravenna. This project is also related to the EUSAIR labelled project "Upgrade of the railway infrastructures of the Port of Trieste".

The Action, if carried to term, will improve the western Balkans transport hinterland on the Italian northeastern coast, with particular reference to rail – road – maritime intermodal transport along the route between Ravenna and Trieste.

In synergy with EUSAIR labelled project n. 52 "Heavy vehicle road, connecting the TEN-T Port of Bari and the main road system" and n. 29 “Multimodal Central Adriatic Corridor” the Action has the goal of increasing the connections along the Adriatic coastal route which is the rail and

road connection from Bari up to Trieste (as shown in the map). The project will contribute to improving the maritime transport dimension in the entire macro-region.

It will also increase the horizontal connections to central Europe of the western Balkans along the Mediterranean TEN-T Core Network Corridor, and the vertical connections to northern Europe along the Baltic Adriatic TEN-T Core Network Corridor. This will result in an improvement of the maritime transport dimension, since Ravenna, Venice and Trieste are TEN-T core ports with a relevant function in connecting Italy to the western Balkans, and of the intermodal connections in the region with an increased use of road – rail - sea intermodal transport, including Motorways of the Sea. Overall, improved connections to the ports of Ravenna, Trieste and Venice are expected to increase maritime connections between the ports of the 2 coastal routes, also in the framework of the North Adriatic Ports Association (NAPA).

FUNDING SOURCES

Type of the funding source	National funds and a mix of EU and National funds for the Ravenna – Venezia section.
Name of the funding source	Connecting Italy: Infrastructure Requirements and Projects 2018, Annex to Economic and Financial Document – National Reform Program
Share of funding sources	**Road interventions:** Highway sections • Widening of motorway A4 with a third lane: Quarto d'Altino - Alvisopoli (including overpasses): 1.300,2 million euros • Widening of motorway A4 with a third lane: Alvisopoli - Gonars, new interchange of Palmanova and by-pass major road SS352 - 1 section 388,5 million euros • Widening of motorway A4 with a third lane Gonars - Villesse 314,96 million euros • New toll station of Alvisopoli junction with major road SS14 58,59 million euros • Venice-Trieste Motorway section: new toll station of Meolo 34,2 million euros • Acoustic Rehabilitation plan: acoustic barriers of Campoformido and Pasian di Prato 4,86 million euros • Venice-Trieste Motorway section: Revamping of existing barriers 15,67 million euros • Venice-Trieste Motorway safety plan: heavy vehicles park areas 19,97 million euros • Venice-Trieste Motorway safety plan: upgrade of motorway merge lanes - excerpt 1 21,2 million euros • Venice-Trieste Motorway safety plan: upgrade of motorway merge lanes - excerpt 2 3,06 million euros • new building service centre of Palmanova 7,88 million euros • Rehabilitation plan acoustic: additional works of acoustic barriers 19,55 million euros • Acoustic Rehabilitation plan: acoustic barriers of Duino Aurisina 6,53 million euros • S. Donà di Piave barracks 3,38 million euros • Further works for modernization and extension service areas 8,38 million euros • Venice-Trieste Motorway section: upgrading works on the tollgate barriers of Portogruaro 10,99 million euros Public Roads section: SS 309: national funds ("Contratto di Programma" MIT – ANAS) for 437 million euro of costs **Railway interventions:** • Speeding up Venice-Trieste 1^ phase: 219 million euro of costs fully financed covered by the allocation of national fund by the Ministry of Economy and Finance for 246 million euro. • Speeding up Venice-Trieste 2^ phase: 1.581 million euro of costs • Total Design costs: 31,61 million euro covered by the following sources: 21,62 million euro - Ministry of Economy and Finance; 5,73 million euro - European Commission; 4,26 million euro – Local Authorities • Second track Udine –Palmanova Cervignano: 305 million euro of costs; available resources for 5 million euro -Ministry of Economy and Finance

PROJECT STATUS

"Third lane of the Venice-Trieste A4 highway"

The A4 motorway runs along the west-east axis of the north of the Italian peninsula. The infrastructure develops along the European Mediterranean Corridor. The intervention consists in the construction of the third lane of the A4 in the Quarto D'Altino (VE)-Villesse (GO) section. The route has a development of about 95 km of which about 55 km in Veneto and 40 km in Friuli-Venezia Giulia and extends over flat terrain. It also includes the Portogruaro junction, through which the A4 connects with the A28 for Pordenone, and the Palmanova junction, which connects with the A23 for Udine. The works will be carried out in four construction lots (as shown in the figure in section 2):

- Quarto d'Altino-San Donà di Piave: lavori conclusi;
- San Donà di Piave-Svincolo di Alvisopoli: lavori in corso;
- Alvisopoli-Gonars: lavori conclusi;
- Gonars-Villesse: lavori in corso.

In December 2022, Cipess gave a favorable opinion on the cooperation agreement for the 30-year concession of the A4 Venice-Trieste to Società Alto Adriatico Spa, following up on the protocol signed in December 2016, aimed at establishing a new entirely public company with the task of managing and building the infrastructures already owned by Autovie Venete Spa. The work has been included among the strategic works envisaged by the Simplification Decree.

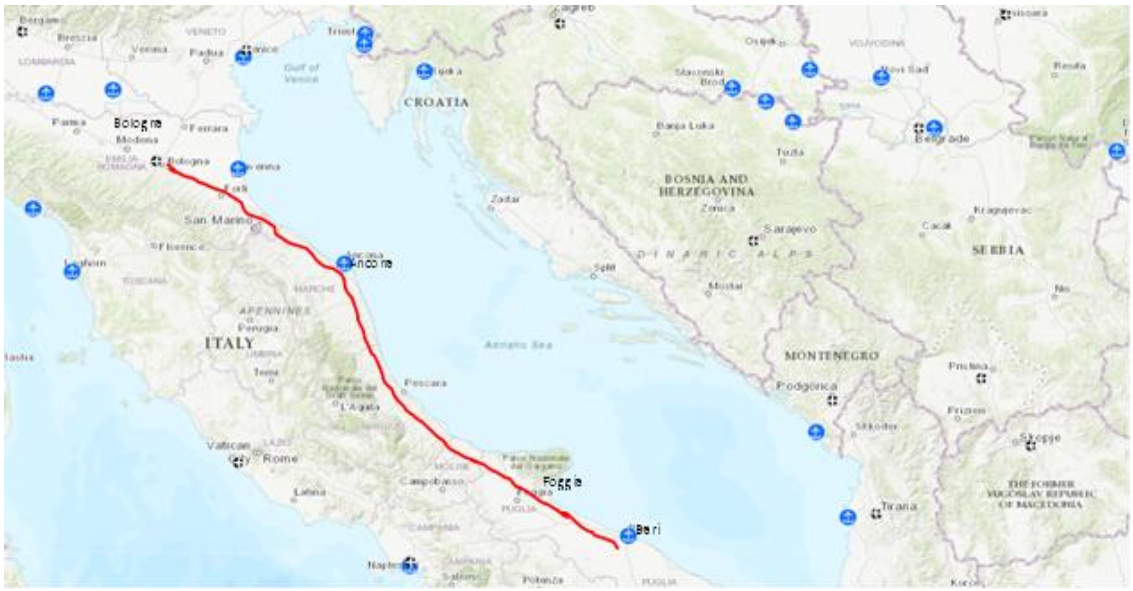
RESULTS

In synergy with EUSAIR labelled project n. 52 "Heavy vehicle road, connecting the TEN-T Port of Bari and the main road system" and n. 29 "Multimodal Central Adriatic Corridor" the Action has the goal of increasing the connections along the Adriatic coastal route which is the rail and road connection from Bari up to Trieste (as shown in the map). The project will contribute to improving the maritime transport dimension in the entire macro-region.

Once completed, the project will increase the horizontal connections to central Europe of the western Balkans along the Mediterranean TEN-T Core Network Corridor, and the vertical connections to northern Europe along the Baltic Adriatic TEN-T Core Network Corridor. This will result in an improvement of the maritime transport dimension, since Ravenna, Venice, and Trieste are TEN-T core ports with a relevant function in connecting Italy to the western Balkans, and of the intermodal connections in the region with an increased use of road – rail - sea intermodal transport, including Motorways of the Sea. Overall, improved connections to the ports of Ravenna, Trieste and Venice are expected to increase maritime connections between the ports of the 2 coastal routes, also in the framework of the North Adriatic Ports Association (NAPA).

1.1.1.7 Multimodal Central Adriatic Corridor

PROJECT IDENTIFICATION



PROJECT DESCRIPTION

The project aims at reinforcing and making more efficient the Italian multimodal infrastructures system (rail and sea) along the axis Bologna-Bari in order to improve the connecting infrastructures of the central-eastern side of the Adriatic coast. It includes the following interventions: speeding up Bologna-Foggia-Bari conventional line (improving connectivity along the Adriatic Line and connecting important Core nodes and ports: Ravenna, Ancona, Bari);

In synergy with EUSAIR labelled project n. 52 "Heavy vehicle road, connecting the TEN-T Port of Bari and the main road system" and n. 28 “Multimodal Northern Adriatic Corridor” the Action has the goal of increasing the connections along the Adriatic coastal route which is the rail and road connection from Bari up to Trieste (as shown in the map). The project will contribute to improving the maritime transport dimension in the entire macro-region.

It will also increase the horizontal connections to central Europe of the western Balkans along the Mediterranean TEN-T Core Network Corridor, and the vertical connections to northern Europe along the Baltic Adriatic TEN-T Core Network Corridor. This will result in an improvement of the maritime transport dimension, since Ravenna, Ancona and Bari are TEN-T core ports with a relevant function in connecting Italy to the western Balkans and intermodal connections in the region with an increased use of road – rail - sea intermodal transport, including Motorways of the Sea. Overall, improved connections to the ports of Ravenna, Ancona and Bari are expected to increase maritime connections between the central and southern ports of the 2 coastal routes.

FUNDING SOURCES

Type of the funding source	National funds and CEF funds
Name of the funding source	"Ports - Last mile connections", "Railways -Technological development to increase capacity and improve performance".
Share of funding sources	**Road interventions:** - SS.N.16 ADRIATICA Bari-Mola di Bari section - 863 million euro of costs financed for 17.5 million euro by Development and Cohesion Fund 2014-2020. - Expansion of the 4th lane of the A 14 highway: 568.175.733,30 € - Complanare Nord: 83.516.354,00 € - Compensatory Works in Pesaro: 132,6 M€ (ASPI financing to be given following the concession with MIT) - Fano Nord Junction: 15 M€ (ASPI financing to be given following the concession with MIT) - Potenza Picena Junction: 20M€ (ASPI financing to be given following the concession with MIT) - A14 Bologna - Bari - Taranto - Overpasses n.164 e 166: 4.5M€ (ASPI financing to be given following the concession with MIT) **Railway interventions:** - Adriatic Speed up 1^phase: costs 5.000 million euro, fully financed by the Ministry of Economy and Finance for 5.000 million euro - Adriatic Speed up 2^phase: cost 3.700 million euro, to be financed - Doubling Termoli Lesina section: cost 700 million euro, fully financed by Ministry of Economy and Finance for 542 million euro - Development and Cohesion Fund for 150 million euro - UE funds for 8 million euro - Doubling Pescara-Bari section 1^phase: Cost 318,79, fully financed by the Ministry of Economy and Finance for 276,79 million euro – Ministry of infrastructure and transport for 39 million euro and RFF for 3 million euro - Track adjustment and speeding up Bologna-Lecce railways axis: Cost 350,65 million euro, fully financed by the Ministry of Economy and Finance for 342,65 million euro- UE funds for 7,35 million euro – Local Authorities for 0,65 million euro

PROJECT STATUS

RAILWAY SECTIONS

The railway section of the project is a fundamental route that connects the most important cities and production areas of central-southern Italy with the north of the country. The railway line is mostly double track, with the exception of the Termoli-Lesina section, entirely electrified and managed by remote control. In addition, following the recent infrastructural interventions for the adaptation to combined transport coding P/C80, the line allows the intermodal transport of semi-trailers and rolling motorways. A series of interventions are underway on the line aimed at reducing the journeys between Bologna and Lecce by up to a further 30 minutes. Interventions are being evaluated both for the enhancement of freight and passenger transport. With reference to the territory of Emilia Romagna, the quadrupling of the Bologna – Imola/Castel Bolognese section is the subject of in-depth planning. The speed up of the rail sections is divided as follows:

- Adriatic Speed up first phase: Completed feasibility study, with priority indications for: Bologna - Imola quadrupling, Rimini – Foggia Speeding up, including Pesaro – Fano, Alba Adriatica – Roseto and Ortona variants
- Adriatic Speed second phase: Completed feasibility study, with priority indications for: Imola – Castel Bolognese and Barletta Bari quadrupling and further interventions to adapt the existing line
- Doubling Termoli – Lesina: Lot 1 Ripalta – Lesina: the conclusion of the contract and the delivery of the services took place in March 2021. The implementation phase is underway. Lot 2 Termoli – Ripalta: in April 2022 the final ineffective award of the main contract took place and in July 2022 the executive design was started.
- Doubling of Pescara - Bari: 1^phase: Track adjustment and speeding up of the Bologna - Lecce railway axis: Work in progress

ROAD SECTIONS

Expansion of the 4th lane of the A 14 highway

Expansion to the fourth lane of the A14 Highway. The section of the intervention develops on the A14 Bologna-Bari-Taranto motorway. The expansion project involves the upgrading of the current motorway site, configured with two carriageways each having three lanes and an emergency lane.

The preparatory activities and construction site activities have been launched.

Complanare Nord

Construction of the Northern Complanare to the A14 from Bologna San Lazzaro to the locality of Ponte Rizzoli in the Municipality of Ozzano dell'Emilia, including the junction at San Lazzaro, the Borgatella junction, the Idice junction and the new Ponte Rizzoli junction.

The Definitive Project has been drafted.

New Concessions

The purpose of the new connections is to bring to the motorway system a portion of the traffic demand currently used by the S.S.16 "Adriatica" in the stretch between the cities of Pesaro and Fano, with obvious benefits to traffic and environmental and safety conditions of the network and, at the same time, that of creating new connections of a local nature. The new infrastructures, therefore, are part of a broader rationalization plan of both the local and long-distance road network.

1) Compensatory Works in Pesaro

The Complementary Works of Pesaro derive from prescriptions expressed by the territory relating to the works to widen the 3rd lane of the A14 motorway in the Cattolica-Fano section (July 2006).

Following the subsequent consultations with the local authorities, in 2013, a special agreement was signed for the construction of the following infrastructures, divided into three lots:

- **Lot 0: New ring road of Muraglia;**
- Status: in progress
- **Lot 1: Road links of Pesaro;**
- Status: economic adjustment in progress
- **Lot 2: New junction in south Pesaro**
- Status: executive planning in progress

2) Fano Nord Junction

The intervention involves the construction of the junction to be located in Fenile. The design hypothesis envisages access to the motorway via a two-way ramp and a highly automated toll booth, serving the northern section of the A14, with connections to and from Bologna.

Status: design in progress

3) Potenza Picena Junction

The intervention, requested by the local authorities, aims to increase the degree of permeability between the motorway system, the local network and the territory crossed, also in relation to the location of the new Macerata hospital.

Status: design in progress

4) A14 Bologna - Bari - Taranto - Overpasses n.164 e 166

The initiative consists in the design and implementation of the redevelopment interventions of two overpasses in the Municipality of Camerano. For both the replacement of the existing

deck is envisaged in order to achieve, with the same location and cross-section, the classification of "1st category" bridge.

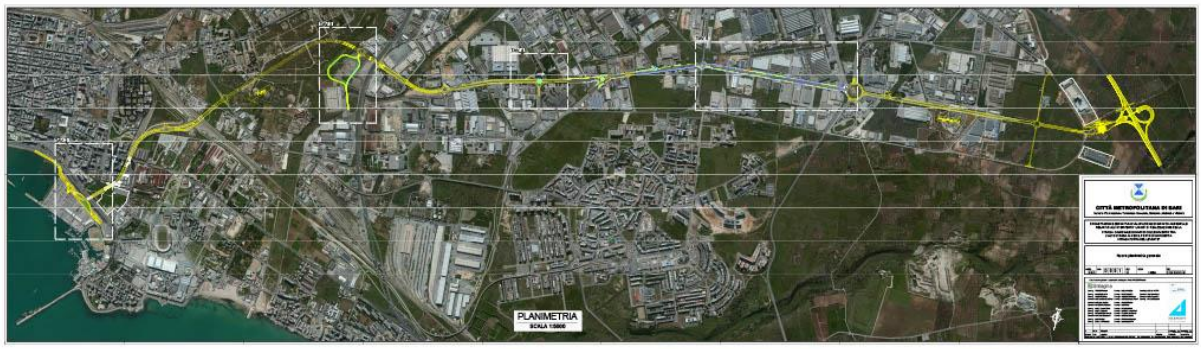
Status: work in progress

RESULTS

In synergy with EUSAIR labelled project "Heavy vehicle road, connecting the TEN-T Port of Bari and the main road system" and “Multimodal Northern Adriatic Corridor” the Action has the goal of increasing the connections along the Adriatic coastal route which is the rail and road connection from Bari up to Trieste (as shown in the map).
The project will contribute to improving the maritime transport dimension in the entire macro-region.
It will also increase the horizontal connections to central Europe of the western Balkans along the Mediterranean TEN-T Core Network Corridor, and the vertical connections to northern Europe along the Baltic Adriatic TEN-T Core Network Corridor. This will result in an improvement of the maritime transport dimension, since Ravenna, Ancona and Bari are TEN-T core ports with a relevant function in connecting Italy to the western Balkans, and of intermodal connections in the region with an increased use of road – rail - sea intermodal transport, including Motorways of the Sea. Overall, improved connections to the ports of Ravenna, Ancona and Bari are expected to increase maritime connections between the central and southern ports of the 2 coastal routes.

1.1.1.8 Last mile (Heavy vehicle) road connection of the Port of Bari and intermodal terminal

PROJECT IDENTIFICATION



PROJECT DESCRIPTION

The Last mile (Heavy vehicle) road connection of the Port of Bari and intermodal terminal, called "Strada Camionale" constitutes a transport-urban improvement work, capable of disposing of the heavy traffic flows destined for the port of Bari through direct access to the port area. The new road network will eliminate the current overlapping of urban traffic with that strictly directed to the port.

The creation of the new road network reorganizes the structure of the connections between the communication routes of the city, lightening the critical roads through an integrated design between the different disciplines: urban planning, architecture and landscape, transport and infrastructure.

This project is part of the European TEN-T (Trans-European-Networks-Transport) program which aims to integrate the Bari transport network with the road networks of Europe and East Asia.

Intermodal connections between the port of Bari and the A14 Bologna Taranto highway, will allow HDV (heavy duty vehicles) to avoid the Bari seafront and other congested areas.

In particular, the project includes the construction of a new motorway exit and a 10.5 km road connection, partly new and partly with upgrading and modernization of the existing one.

This road connection will eliminate the congestion caused by heavy traffic on urban roads, directly connecting the Port, Interporto, ASI area, Airport and Motorway and creating direct access through a new tollgate on the A14.

The proposal is fully coherent with the following TSG2 specific criteria:

- "Interconnection between the main TEN-T axis and the nodes, with a particular attention to the last mile connections "
- "Interoperability and multimodality between different modes of transport",

In synergy with EUSAIR labelled project " Multimodal Northern Adriatic Corridor" and "Multimodal Central Adriatic Corridor" the Action has the goal of increasing the connections along the "Adriatic coastal route", which is the rail and road connection from Bari up to Trieste. The project will

contribute to improving the maritime transport dimension in the entire macro-region by upgrading the connections of the port of Bari to the Adriatic coastal route, and the Italian hinterland. This will create the conditions for a better development of MoS services as well.

The Port of Bari represents the main Europe's door to the Balkan Peninsula and the Middle East being the western end of the TEN-T Scandinavian-Mediterranean Corridor.

The objectives of the proposed intervention can be summarized as follows:

1) create a fast and accessible connection between the port and the main roads.
2) free up the precious port areas of Marisabella through a large parking area for T.I.R. at the head of the truck;
3) systematize the logistical emergencies of the port, the terminal, the freight yard and airport, through an efficient road network.
4) decongest urban traffic, freeing via Napoli from the traffic of vehicles heading to the port;
5) reduction of polluting emissions due to heavy vehicular traffic.

FUNDING SOURCES

Type of the funding source	National and ERDF
Name of the funding source	Piano Operativo del Fondo Sviluppo e Coesione Infrastrutture (Infrastructure Development and Cohesion Fund) 2014/2020 Ministerial Decree
Share of funding sources	Total amount 216 million EUR coming from the following sources: • Fondo Sviluppo e Coesione (FSC) - Development and Cohesion Fund -Funds 2014 2020 pursuant to CIPE resolution no. 54 of 12/1/2016 (Infrastructure Operational Plan) Addendum approved by the CIPE on 12/22/2017 € 90,000,000.00 – 41,67% • Fondo Sviluppo e Coesione (FSC) - Development and Cohesion Fund Funds 2014 2020 pursuant to CIPE resolution no. 54 of 12/1/2016 (Infrastructure Operational Plan) According to Addendum approved by the CIPE on 02/28/2018 € 7,000,000.00 - 3,24% • Fondo Sviluppo e Coesione (FSC) - Development and Cohesion Fund Funds 2014 2020 pursuant to CIPE resolution no. 26 of 10/08/2016 (Agreement for Bari) € 37.000.000,00 – 17,13% • Ministerial Decree MIT 353/2020 Agreement 01/09/2021 between MIT and ADSPMAM € 42,000,000.00 – 19,44% • Ministerial Decree MIT 332/2021 Agreement 09/28/2021 between MIT and ADSPMAM € 40,000,000.00 – 18,52%

PROJECT STATUS

With Resolution no. 2214 of 23/04/2021 of the Metropolitan City of Bari, the technical engineering and architecture services consisting of the definitive and executive design, environmental impact assessment and safety coordination in the design phase were awarded. Moreover, following the contract stipulated in date 18/06/2021, the above-mentioned services were definitively entrusted to the R.T.P. SINTAGMA S.p.a. and DBA Progetti S.p.a. and SIPAL S.p.a.

Since more than 5 years have passed since the drafting of the preliminary design, the first activity that was put in place was to define some slight variations to the project to take into account requests received from institutions such as the System Port Authority of the Southern Adriatic Sea and the Consortium for the Industrial Area of Bari.

This activity, also useful for identifying a definitive design solution to be sent to the Consiglio Superiore dei Lavori Pubblici to obtain the opinion pursuant to art. 215 paragraph 3 of Legislative Decree 50/2016, was the subject of a design variant which was approved with resolution of the Metropolitan Council n.182 of 28.12.2021.

The work is financed for a total amount of 216 million euro, being able to take advantage of the Ministerial funding obtained in 2016, for 37 million euro under the Pact for Bari, of the 97 million euro following the agreement between the Region and the Metropolitan City referred to in the CIPE Resolution, another 42 million euro and 40 million euro deriving from the two aforementioned decrees with which the Ministry donated resources to the System Port Authority of the Southern Adriatic Sea.

Subsequently, the Metropolitan City of Bari announced on 22/03/2023 a tender procedure for the award of a four-year Framework Agreement for the execution of the work construction interventions and which is proceeding with the definitive award of the contract.

The Environmental Authorizations Section of the Department of the Environment and Landscape of the Puglia Region has called a Conferenza dei Servizi (formal agreement amongst two or more public administrations, with internal rules and purposes, as provided for L 241/90) in synchronous mode to be held pursuant to art. 14-ter (simultaneous conference) of Law 241/90 as amended and supplemented in order to arrive at unambiguous determinations to be used as the basis for the final provision of PAUR.

RESULTS

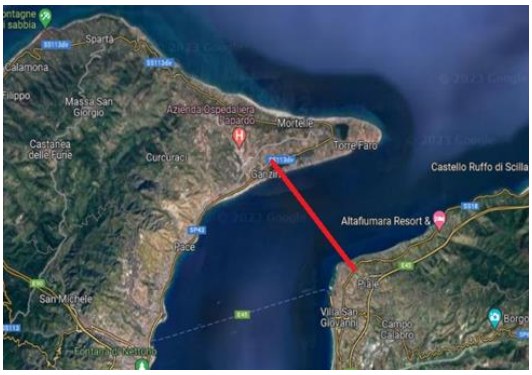
The project is still nearing completion; the tender for the works has been awarded but it is too early to know the impacts of the project on the region and related activities.

Once completed, the project will increase the horizontal connections to Italy and Western Balkans along the Scandinavian Mediterranean TEN-T Core Network Corridor, and the vertical connections to northern Europe along the Baltic Adriatic TEN-T Core Network Corridor. This will result in an improvement of the maritime transport dimension, since Bari is a TEN-T core port with a relevant function in connecting Italy to the western Balkans, and of the intermodal connections in the region with an increased use of road – rail - sea intermodal transport, including Motorways of the Sea. The project will also have important social benefits in reducing road congestion within the city of Bari.

The project is fully in line with the two identified regional priorities: the harmonized, sustainable and inclusive development of a maritime transport system in the Adriatic-Ionian Macro-region and the development of a network of competitive and efficient intermodal connections for the transport of goods and passengers in the Adriatic-Ionian macro-region.

1.1.1.9 Bridge over the Strait of Messina

PROJECT IDENTIFICATION



PROJECT DESCRIPTION

The fixed-link connection between Sicily and the Italian peninsula represents a priority work and one of pre-eminent national interest; it is, in fact, strategic for the completion of the trans-European transport networks. The stable crossing over the Strait of Messina was designed according to the layout of the suspension bridge. The currently available technical project envisages a length of the central span of 3,300 meters, compared with a total length of 3,666 meters including the side spans, 60.4 meters in width of the deck, 399 meters in height of the towers.

The work consists of 6 road lanes, 3 for each direction (fast, normal, emergency) and 2 railway tracks, for an infrastructure capacity of 6,000 vehicles/hour and 200 trains/day.

The final project also envisaged various works to connect the bridge with the existing road network, with the construction of 20.3 km of road connections and 20.2 km of railway connections.
When completed, the project will improve the intermodal connections in the Macro-Region, by creating land road and rail connections between Italy and the island of Sicily and completing a last mile connection in the southernmost section of the Scan Med Core Network Corridor.

Moreover, carrying out the project will create jobs and help improve the economic situation of Sicily, enhancing its connection to the rest of Europe.

FUNDING SOURCES

Type of the funding source	Regional, National and EU
Name of the funding source	Infrastructure Development and Cohesion Fund, National funds, regional funds, EU funds
Share of funding sources	13,5 Billion euro divided in regional, national and EU funds + 1,1 Billion euro for the access route

PROJECT STATUS

Between 2003 and 2005 procurement procedures were started with regards to:

- Definitive and executive design, construction of the bridge and related road and rail connections on the Calabria and Sicily sides, as well as all related activities.
- Project Management Consulting services and verification and control activities on the performance of the General Contractor, both in the design phase and in the construction phase.
- Environmental, territorial and social monitoring services, for the ante operam, construction and operation phase of the work (post operam).

After the stipulation of the contracts, the decree-law of 3 October 2006, n. 262, converted into law 27 December 2006, n. 286, deferred the construction of the bridge, allocating the sums originally allocated for the subscription of the capital increase of the Strait of Messina to various uses.

In 2009, the work was re-included in the economic-financial planning document for the three-year period 2009-2011 among strategic infrastructures, as a priority work. The concessions and contracts with economic operators were updated, given the large amount of time that had passed.

Following the restart of the activities, on the 20th December 2010 the final project was delivered, then subjected to verification and control activities. Given the positive opinion, the board of directors of the Strait of Messina approved the final project of the work on the 29th July 2011.

Pending the completion of the authorization process, however, the State has started a process aimed at verifying, in consideration of the simultaneous state of tension in the international financial markets, the sustainability of the economic and financial plan of the stable road and railway connection between Sicily and the Continent.

As a result of this verification, article 34-decies of the decree-law of 18 October 2012, n. 179 provided for the termination of the Concession Agreement entrusted to the Strait of Messina Company, as well as all the contractual relationships stipulated by the same with the successful tenderers of the public tenders referred to above. With the Decree of the President of the Council of Ministers dated 15 April 2013, the liquidation of the Company was consequently ordered.

The objective on which the Ministry will focus is the reactivation of the concession relationship, the contracts and the recovery of the project, with the necessary adjustments, together with the closure of the disputes opened with the contractors, which began following the revocation ex lege of the respective contracts (with respect to which, among other things, the first rulings recognized the legitimacy of the revocation *ex lege* of the contractual relationships, without prejudice to the need to recognize a fair compensation in this regard).

RESULTS

It will be the longest suspended bridge in the world and its construction will allow a drastic reduction in CO2 pollution and a significant reduction of discharges into the sea.

The bridge over the Straight of Messina is an investment with very long-term benefits for the entire Italian national system and consequently to the overall Region with reference to the South, also in the light of the interventions, already planned, to modernize the railways in Calabria and Sicily with speeding up and high-speed/high-capacity sections.

With the completion of the high-speed rail system in the two regions and the realization of the bridge, it is estimated that the traveling time from Rome to Palermo (currently 12 hours) will be halved (an hour and a half is required for the ferrying of the wagons only). This will imply significant savings for citizens, businesses and logistics.

Moreover, the Bridge over the Strait of Messina represents a strategic work for the completion of the trans-European transport network and therefore a key infrastructure for the Adriatic Ionian Region. When completed, the project will improve the intermodal connections in the EUSAIR macro-region, by creating land road and rail connections and completing a last mile connection in the southernmost section of the European Scan Med Core Network Corridor which will be directly connected to the new Western Balkans -Eastern Mediterranean Corridor involving all the Countries of the Strategy.

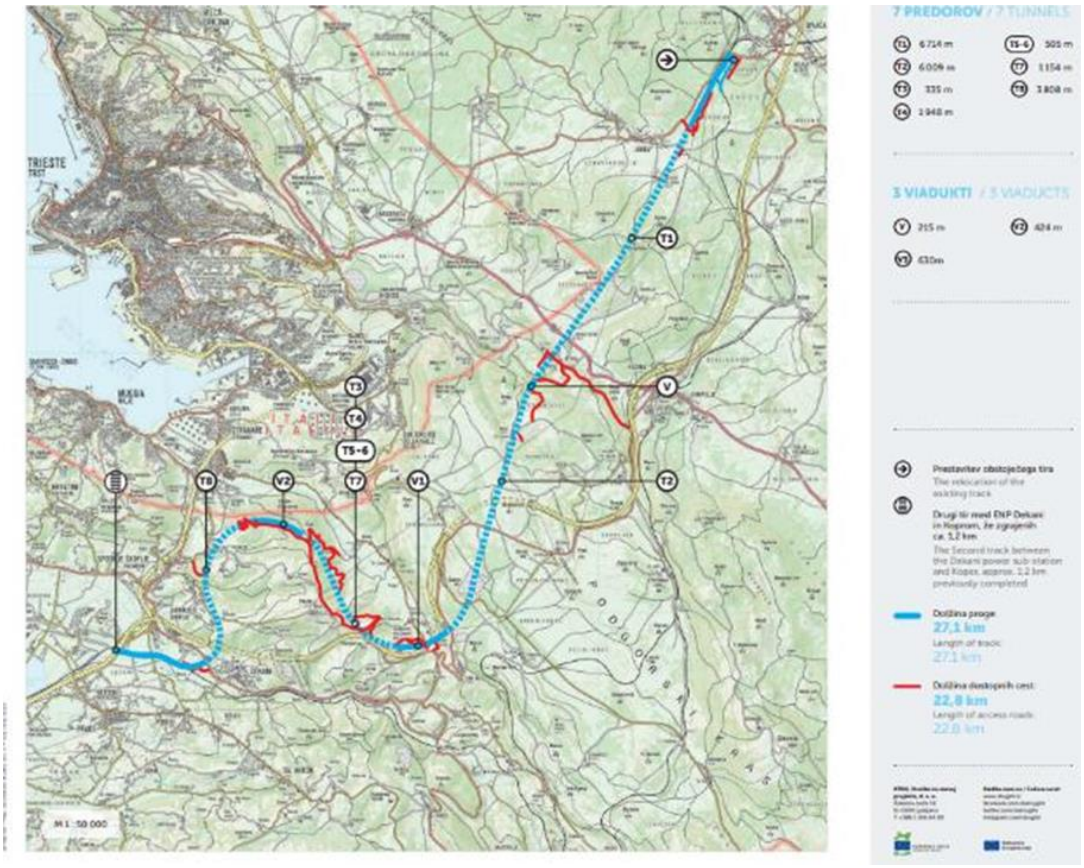
1.1.2 Railways

The following figure presents an overview of the EUSAIR labelled railway infrastructural projects

Legend	
12	Upgrading and reconstruction Railway line Beograd Bar (E79)
13	CB Railway missing link between Greece and Albania (section Florina-Pogradec)
14	2nd Railway track Divaca – Port of Koper
28	Multimodal Northern Adriatic Corridor
29	Multimodal Central Adriatic Corridor
30	Upgrading Palermo - Catania - Messina railways
38	Upgrading and Reconstruction) Railway line Beograd-Zagreb
52	Messina Strait Bridge (Ponte sullo stretto di Messina)
53	Construction of railway section of corridor VIII Kicevo – Border with Albania
54	Railway connection between the main passenger station in Skopje with the airport in Skopje
55	Reconstruction of railway section Okučani – Vinkovci
56	Upgrade, renewal, construction of second track and construction of new double-track line on sections of railway line Dugo Selo - Novska
57	Modernisation of Zagreb Kustošija – Zagreb West Station – Zagreb Main Station
58	Modernization of Railway line M604 Oštarije - Knin - Split

1.1.2.1 2nd Railway track Divaca – Port of Koper

PROJECT IDENTIFICATION



PROJECT DESCRIPTION

The existing single-track railway line on the Divača–Koper section does not meet modern transport requirements and, due to limited capacity, constitutes a bottleneck in the Slovenian and pan-European TEN-T core rail network. This bottleneck represents a constraint for the logistics industry in Slovenia and also severely limits further development of the Port of Koper. The key objective of the construction of the second track on the Divača–Koper section is to remove the bottleneck in order to ensure the long-term capacity of the infrastructure for rail traffic in Slovenia.

Through the construction of a modern railway track running through seven tunnels, the project will connect the port city of Koper with the hinterland town of Divača. The project will, due to the removalof the the bottleneck on the existing congested railway lines boost economic development on the Slovenian coast, especially the development of local transport and logistics companies. In addition to being a key construction priority under the national transport strategy, the second track project will also bring significant benefits to the entire Central European region, as the railway section represents a bottleneck on both the Mediterranean and the Baltic-Adriatic TEN-T core corridors.

Table 1: Project objectives and comparison of indicators

#	Objective	Current	Target
1	Increasing the capacity of the existing Divača–Koper railway line in terms of number of trains per day and freight transported per year	Existing track: 94 trains/day; 12.7 million tonnes/year	Existing and second track: 212 trains/day, 36.9 million
2	Reducing the railway distance on the Divača–Koper section	44.6 km	27.1 km
3	Reducing the average journey time on the Divača–Koper section for freight trains	Existing track: 100-110 min	Second track: 30 min Existing track: 70-
4	Increasing the maximum train speed on the Divača–Koper section	Existing track: 65-75 km/h	Second track: up to 160 km/h[3]
5	Reducing the maximum track gradient on the Koper-Divača section	2.6%	1.7%
6	Increasing the number of passengers on trains operating on the section and the passenger transport on the Divača–Koper route, by shifting passengers from other modes of transport to rail, where the value of time is higher and external costs lower	8 trains per day, with more than 150,000 passengers per	22 trains per day, with more than 300,000 passengers per
7	Generating savings in time and operating costs for freight operators on the section, as well as savings in overall operating costs on longer routes due to the diversion of freight from road to rail and the generation of rail freight on the second track	✗	✓
8	Increasing the reliability of freight traffic on the Divača–Koper railway section	✗	✓
9	Improving railway safety on the Divača–Koper section by ensuring adequate track maintenance (longer intervals)	✗	✓
10	Increasing the efficiency of traffic management on the Divača–Koper	✗	✓
11	Removing bottlenecks on the core Slovenian rail network and thus ensuring efficient rail transport connections to nearby European countries such as Austria, Hungary, Slovakia, the Czech Republic and	✗	✓
12	Ensuring compliance with TEN-T criteria on the Divača–Koper section	✗	✓
13	Increasing the average train length on the Divača–Koper railway line and thus improving the throughput of the Slovenian rail freight network	✗	✓
14	Increasing the competitiveness of rail freight and passenger transport compared to other modes of transport that generate higher external costs	✗	✓
15	Increasing the share of rail transport in the modal split of the Port of Koper and increasing long-distance rail transport in Slovenia and internationally, while avoiding excessive congestion on the road network	✗	✓
16	Reducing congestion on roads and rail, which the EU estimates at around 1% of EU GDP per year	✗	✓
17	Reducing greenhouse gas emissions at regional and national level	✗	✓
18	Reducing other external costs of traffic on this section (e.g. costs of accidents, noise, congestion, pre- and post-production costs)	✗	✓
19	Increasing the delivery of goods to the economies of Slovenia, Austria, the Czech Republic, Slovakia, Hungary and other	✗	✓
20	Reducing routes and journey times for maritime transport, in particular by diverting freight from North Sea ports to the Port of	✗	✓

[1] In 2021, a study of options/pre-investment concept for double-tracking of the new railway line Divača–Koper was prepared, where the capacity of the double-track line was calculated at 293 trains/day or 55 million tonnes/year. The new double-track line is presented in more detail in NIP2, chapter 9.6.

2 The new double-track line will also reduce journey times on the whole line.

[3] The new double-track line will allow train speeds of up to 160 km/h on both tracks.

Construction of the second track is a modern, economically viable and environmentally acceptable project that will accelerate the development of the Slovenian logistics industry and contribute to Slovenian and regional economic development in general, due to increased flows of goods to the hinterland of Central Europe.

The project comprises the construction of a new single-track railway line, 27.1 km long, of which 20 km will pass through 7 tunnels[4]. The new track will allow a mixed traffic regime for passenger and freight trains. For this reason, the three longest tunnels, T1, T2 and T8, will be built with parallel service tubes to ensure adequate safety standards. The service tubes are envisaged to be of the same diameter as the main tunnels not to unable potential future upgrade to a double-track railway if needed and if economically eligible. In addition to the tunnels, the project also comprises the construction of additional structures, namely three viaducts. The project also includes the modernisation of safety and signalling systems.

Table 2: Physical indicators to monitor the implementation of the project objectives

No.	Indicators	Number	Length
1	Route (including the deviation of the existing line outside Divača)		27.1 km
2	Access roads and main construction roads	31	20.2 km
3	Tunnels with service tubes	7	37.4 km
4	Viaducts	3	N/A
5	Overhead contact lines	1 system	N/A
6	Upper structure, tracks and track facilities	1 system	N/A
7	Signalling, safety and telecommunications equipment	1 system	N/A

The total investment cost of the "Second Divača–Koper track" project is 1,085 million EUR (excluding VAT and excluding funds already invested before 2018) at constant prices, or 1,109 million EUR (excluding VAT and excluding funds already invested before 2018) at current prices.

[4] Originally 8 tunnels were envisaged, however, the T5 and T6 tunnels have been merged into the T56 tunnel

FUNDING SOURCES

Type of the funding source	- Increased user charge for railways - EU grants - Debt - State budget - Toll surcharge
Name of the funding source	- Increased user charge for railways - EU grants (CEF 2014, CEF 2016, CEF 2017, Cohesion Fund) - Debt MFI (EIB) bank - Commercial bank debt (NLB) - State budget: - 15 % Slovenian participation in the Cohesion Fund - Toll surcharge
Share of funding sources	- Increased user charge for railways: 3.8 mio EUR (0%) - EU grants: 288.6 mio EUR (25%) - Debt MFI (EIB) bank: 250.0 mio EUR (21%) - Commercial bank debt: 112.5 mio EUR (10%) - State budget - 15 % Slovenian participation in the Cohesion Fund: 14.1 mio EUR (1%) - Slovenian capital - state budget: 400.0 mio EUR (34%) - Capital of Slovenia - toll surcharge: 103.4 mio EUR (9%) **Total sources: 1,172.3 mio EUR (110%)**

PROJECT STATUS

The Project is ongoing (in progress).

All work on the implementation of the second Divača–Koper railway track is expected to be completed by the end of 2025. The first half of 2026 will be spent on remedial work and trial operation. Supervision, external quality control and project management services will also take place in 2026. It is expected that the operating permit will be obtained in mid-2026.

Table: Timeline of construction

Item	Start	End
Lot 1 (tunnels T1 and T2)	Q3.2021	Q2.2025
Lot 2 (tunnels T3-T8, viaducts V1 and V2)	Q3.2021	Q4.2024
Lot 3 (tracks and track facilities)	Q2.2023	Q4.2025
Access roads	Q1.2019	Q2.2021
Glinščica	Q3.2020	Q3.2022
Services	Q1.2019	Q4.2026
Remedial work and trial operation	**Q1.2026**	**Q2.2026**

Photos (below): Viaduct Vinjan

Photos (below): Viaduct Gabrovica


Photos (below): Excavation of the tunnels began in September 2021 (Milestones reached: Breakthrough of tunnels T3, T7 and T8; 22 km of excavated tunnels)



Dissemination events and activities relevant for EUSAIR: the project status and activities were presented on several events in Slovenia and abroad.

RESULTS

At the time of creation of the document in question, works were being carried out on the entire route of the second track. By May 2023, tunneling contractors have exceeded the limit of a total of 22 kilometers of excavated main and service pipes of the second track (more than half of all tunnels). At the moment, 13 underground work sites are open along the entire route, while excavation work has already been completed in the T8 tunnel, and in the T7 tunnel, where the excavation and the basic substructure have already been completed, the implementation of the inner lining system is currently underway. Excavations are still underway in the other tunnels. On the viaduct (V1) Gabrovica, the second lintel structure has been pushed up to now. Thus, the horizontal part of the viaduct reached the first pillar from the direction of Koper. The support structure is almost finished, now it's time for the carriageway structure. On the viaduct (V2) Vinjan, concreting of the lintel structure is in progress. The work on the Glinščica bridging facilities was completed in 2022. In April 2022, the access roads were handed over to the investor. Tenders are in progress or preparation of tender documentation for railway and tunnel systems.

The new line will significantly contribute to the further strengthening of cargo transit connections from the Port of Koper to Slovenia, Hungary, Austria, Germany, the Czech Republic, Slovakia and Ukraine, as well as to the Western Balkans countries. At the same time, the new line will take over part of the road traffic from the Port of Koper (transfer from road to rail) and thereby reduce external transport costs between Koper and Divača or Koper and Ljubljana.

The project is one of the main priorities for improving the competitiveness of the Slovenian rail network within the framework of the Transport Development Strategy of the Republic of Slovenia Until 2030. In the EU context, the second Divača–Koper track is a link between the core seaport of the Port of Koper (LK) and two TEN-T corridors, namely the Mediterranean and the Baltic-Adriatic corridors and the new line will enable the Port of Koper to continue with its development. There is currently a spatial plan in the preparation phase for a parallel track to be built and the existing track to be relinquished, with the aim to mitigate adverse environmental impacts of the existing track. After the adoption of the spatial plan, further activities will be undertaken for the provision of legal, technical and financial documentation to implement the additional track.

1.1.2.2 Modernization of Railway line M604 Oštarije - Knin - Split

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*X*
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	

PROJECT DESCRIPTION

The Oštarije - Knin - Split railway line represents the only railway connection of Dalmatia with the rest of Croatia and the European railway network. The line is part of the TEN-T comprehensive network.

The project includes:

- reconstruction of 3 stations: Drniš, Perković and Labin Dalmatinski
- installation of electronic signalling safety devices which will enable the establishment of so-called inter-dependency and Central traffic management.

The implementation of the works will enable an increase in throughput as well as travel speed and the expected travel time from Zagreb to Split will be a maximum of 4 hours and 30 min, which represents a 35% reduction in travel time.

The project was labelled as it contributed to the development of the Western Balkans transport network

FUNDING SOURCES

Type of the funding source	Works: EU funds, National Recovery and Resilience Plan 2021-2026 - applied on NRRP
Share of funding sources	Works - estimated value: € 39.8 m

PROJECT STATUS

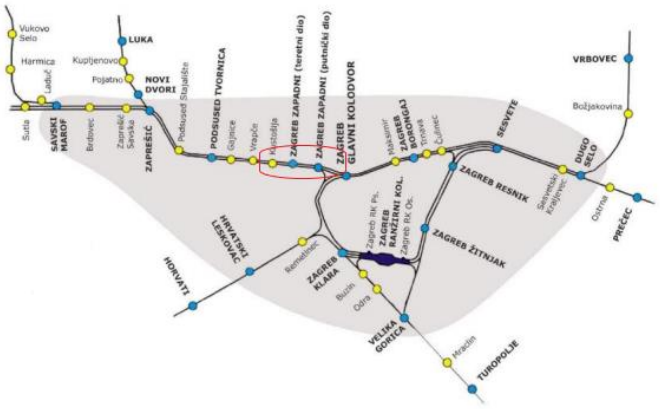
Project in preparation:

1. Reconstruction of stations:
   - Labin Dalmatinski i Perković - Tender documentation for works prepared
   - Drniš - Location permit was issued on 20.05.2022. and preparation of Main Design is ongoing; after obtaining the Construction Permit, public procurement is planned to be started
2. installation of electronic signalling safety devices - Tender documentation for completed; obtaining of the remaining location and building permits is ongoing.

1.1.2.3 Modernisation of Zagreb Kustošija – Zagreb West Station – Zagreb Main Station

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*X*
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	



PROJECT DESCRIPTION

The prokects consists of two-track railway line on the section Zagreb Kustošija - Zagreb West Station - Zagreb Main Station for a length of 3,4 km shall be reconstructed and modernised. The project was labelled by EUSAIR as it contributed to the development of the Western Balkans transport network

Within the Project following works are planned:

- renewal of level crossings
- track restoration
- switch replacement
- rehabilitation and construction of bridges and culverts
- construction of landscaped areas for passenger access
- works on signalling and security and telecommunications devices
- work on the restoration of the contact network.

The objective of the investment is to modernise the railway section of Zagreb Kustošija – Zagreb West Station – Zagreb Main Station, improving the quality and availability of local and regional rail passenger transport, better integrate railways into the public transport system of the City of Zagreb, as well as increase the share of rail and local public transport in the wider area of Zagreb City. The project shall contribute to achieving the objective of completing the core TEN-T network by 31 December 2030.

FUNDING SOURCES

Type of the funding source	EU funds National Recovery and Resilience Plan 2021-2026 - applied on NRRP
Share of funding sources	Works - Contracted value: € 26,8 m

PROJECT STATUS

Works are ongoing

RESULTS

The project is still ongoing;

1.1.2.4 Upgrade, renewal, construction of second track and construction of new double-track line on sections of railway line Dugo Selo - Novska

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*X*
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	

PROJECT DESCRIPTION

The project consists in the upgrade, renewal, construction of second track and construction of new double-track line on sections of railway line Dugo Selo - Novska includes following:

- Reconstruction of the entire single-track railway section approximately 73 km long
- Construction of the second track on the sections Dugo Selo - Kutina and Lipovljani - Novska; and the construction of a new double-track railway on the section Kutina - Lipovljani
- Reconstruction of railway stations Dugo Selo, Ivanić Grad, Popovača, Kutina and Novska
- Repealed of most level crossings while performing them out of level
- Modernization of electrical power supply
- Modernization of signaling and telecommunications devices

With this project, the aforementioned railway section aims to be reconstructed and renewed for safe and efficient railway traffic and to harmonize with the prescribed conditions of interoperability, and by achieving the rated design speed of 160 km / h to enable the reduction of the total travel time on the entire length of the corridor on the territory of the Republic of Croatia.

FUNDING SOURCES

Type of the funding source	• Project preparation for phase 1 - source of co-financing: EU funds/State Budget • Project preparation for phase 2 and 3 - source of co-financing: EU funds/State Budget • Works: • National Recovery and Resilience Plan (NRRP) – subsection Kutina – Novska - applied on NRRP • CEF 2 - Popovača - Kutina – project application submitted in 01/2023 • EU FUNDS - subsection Dugo Selo - Ivanić Grad (subsection A), for part of works on subsection D (which are not included in the NRRP) and for works on signalling subsystem

Share of funding sources	• Project preparation - Contracted value:
	  ○ Phase 1 - € 5,4 m
	  ○ Phases 2 and 3 - € 11,5 m
	
	Works - Estimated value: € 670,5 m
	
	• value of 140,69 mil. € - related to the part of the works on the section Kutina - Novska - applied on NRRP
	• value of 299,29 mil. € - related to the works on the section B (Ivanić Grad - Popovača) and section C (Popovača - Kutina) - applied for EU funding in 2023 from CEF - works include all works except works on the signalling and interlocking subsystem
	• value of 230,48 mil. € - related to the rest of the Project will be applied for EU funding in the programming period 2021 - 2027

PROJECT STATUS

Completed in 12/2019 - phase 1 - Preparation of the design and other project documentation necessary for the reconstruction and modernisation of Dugo Selo – Novska railway line, phase 1.

Within the project, the following documentation and permits were prepared/obtained:

- Preliminary design for the reconstruction of the existing track including the obtaining of the location permit
- Main design with pertaining studies for the reconstruction and renewal of the existing track of the railway line on the subsection Dugo Selo – Novoselec and 11 building permits have been obtained

- Environmental Impact Assessment of the reconstruction of the existing track
- Feasibility Study, Cost-Benefit Analysis and a draft project application for reconstruction of the existing track of the railway line on the section Dugo Selo – Novska for co-financing of works from the European Funds
- Documentation for the tender for the reconstruction and renewal of the existing track of the railway line on the subsection Dugo Selo – Novoselec.

Ongoing - phase 2 and 3 - Preparation of projects and other project documentation for the second track upgrade, rehabilitation and construction and construction of the new double track railway line Dugo Selo – Novska, Phases 2 and 3

Purpose of this project is following:

- preparation of the main design and other documentation required for obtaining of construction permits in line with previously designed Preliminary design and obtained location permit,
- preparation of the tender documentation
- obtaining of construction permits for upgrade, reconstruction and rehabilitation of the existing single-track railway line on subsections Novoselec–Kutina (26 km) and Kutina–Novska (25.5 km)
- preparation of the preliminary design, feasibility study with cost-benefit analysis and financial and economic analysis, environment impact assessment
- project application
- main design
- tender documentation and obtaining of location and construction permits for construction of the second track on subsections Dugo Selo–Novoselec (32 km), Novoselec–Kutina (29 km) and Lipovljani – Novska (11 km) and for construction of the new double-track railway line on subsection Kutina – Lipovljani (10 km).

Status: preparation of Main Design and obtaining Construction Permits ongoing

Works:
Project description: Reconstruction of existing track, construction of a second track on the sections Dugo Selo - Kutina and Lipovljani - Novska (73 km in total) and construction of a new double - track electrified railway line on the Kutina - Lipovljani section (10 km in total)

Status: in 01/2023 was submitted Application for CEF 2 Traffic call for works on the sections Ivanić Grad - Popovača (section B) and Popovača - Kutina (section C) (works include all works except on the signaling and safety subsystem)

For works on subsection Dugo Selo - Ivanić Grad (subsection A), for part of works on subsection D (which are not included in the NRRP) and for works on signalling subsystem is planned submission for EU funding.

RESULTS

Project preparation for phases 2 and 3 - ongoing

1.1.2.5 Reconstruction of railway section Okučani – Vinkovc

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*X*
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	

PROJECT DESCRIPTION

Railway section Okučani - Vinkovci 131.329 km in length, which is a part of the global project of reconstruction and modernization of railways on the section from Dugo Selo to state border with the Republic of Serbia. The global project includes railways M103 Dugo Selo – Novska and M104 Novska – Vinkovci – Tovarnik – state border (border with the Republic of Serbia), which are part of the TEN-T Core Network in accordance with the Regulation 1315/2013, and the Commission Delegated Regulation of February 2016/758, amending Regulation 1316/2013 and after the revision of Regulation 1315/2013 will be the part of Western Balkan East Med ETC.

These railway lines are a main branch of the RH1 Corridor in the Republic of Croatia pursuant to the Decision of the Classification of the Railway Lines of the Government of the Republic of Croatia (OG No. 03/14), which is the extension of the railway lines M101 State border – S. Marof – Zagreb Gk and M102 Zagreb Gk – Dugo Selo. These railway lines are the backbone of the railway network connecting Republic of Austria and Republic of Slovenia with Republic of Serbia, and on to Hellenic Republic (Greece) and Republic of Bulgaria respectively.

Implementation of this project will help enable bottleneck removal, which is expressed in the increase of usable tracks lengths at stations, speed increase, journey time reduction, railway line capacity increase and further development.

This projects was labelled by EUSAIR as it contributes to the development of the Western Balkans transport network

FUNDING SOURCES

Type of the funding source	Project Preparation EU funds - CEF/State Budget Works: planned to be applied for EU funding in the programming period 2021 - 2027
Share of funding sources	Project preparation - € 11,2 m Works - estimated value: € 530,0 m

PROJECT STATUS

Project preparation - in progress

- Study documentation prepared and approved: Conceptual solutions and multicriteria analysis, FS, CBA and EIA
- Project documentation – Preliminary Design for civil engineering and electrical power and traffic-control and signalling and interlocking infrastructure subsystem – ongoing.

RESULTS

Project preparation – ongoing

1.1.2.6 Upgrading and Reconstruction of Railway line Beograd-Zagreb

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*x*
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	*x*
TOTAL	

PROJECT DESCRIPTION

The reconstruction of Belgrade-Zagreb railway is currently one of the most important infrastructure projects in the region, since it is located on the Pan-European Corridor 10, which connects not only Croatia and Serbia, but also other European countries from the east to the west of Europe. The plan is to reconstruct Beograd Zagreb railroad at a speed of 160 kilometers per hour, which will reduce travel time from the current 7.5 hours to a maximum of 4 hours.

The reconstruction of Belgrade-Zagreb railway will contribuite to the promotion of green transport and also will connect Corridor 10 with future intermodal terminal in Batajnica.

The project has been approved in the framework of the General (Master) Plan of transport development in the Republic of Serbia from 2009 to 2027 and the Strategy for Infrastructural and Institutional Development of the Railway Sector in the Republic of Serbia for the period from 2012 to 2021.

FUNDING SOURCES

Amount and type of the funding source	€ 250 millions, financed by WBIF TA

PROJECT STATUS

Plan, preparation of the project documentation is ongoing; expected construction to begin in second quartal of 2024.

1.1.2.7 Upgrading and reconstruction Railway line Beograd Bar (E79)

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	*x*
NORTH MACEDONIA	
SAN MARINO	
SERBIA	*x*
TOTAL	

PROJECT DESCRIPTION

The project consists in the reconstruction and modernisation of the Belgrade-Bar railway (E79), 454.8 km long.

The port of Bar and the railway line Beograd - Bar are forming a unique transport system. The purpose of the project is to establish a more efficient intermodal transport by modernization of this railway line which connects the IWW, sea and rail transport and to increase the number of container units transported on this railway line.The realization of this project wants to reduce travel time, increase capacity of railway track and thus increase the competitiveness of the railway traffic.

The Belgrade-Bar railway line is a vital project connecting landlocked Serbia to the most important port of Montenegro on the Adriatic Sea, the port of Bar. It is an existing railway line, which will now be modernised to increase its capacity. An integrated traffic control centre should be built as well.

Apart from the Belgrade-Bar railway line, the railway line to Montenegro provides Serbia with a connection to the Montenegrin network, including its other Adriatic ports. This will contribute to the socioeconomic development of Serbia, both in terms of increasing cargo turnover and by increasing transport accessibility for the population.

The project has been approved in the framework of Serbia 2025 Railway Strategy and is supported by Economic and Investment Plan for the Western Balkans. Pan European Transport Corridor X (Salzburg-Ljubljana-Zagreb-)

FUNDING SOURCES

Amount and type of the funding source	€ 226.5 millions; the project is financed by EIB and Serbian Government. In 2019 Russia and Serbia assigned an €172.5m intergovernmental loan agreement. Budget integrated by 57.5m by the Serbian State.

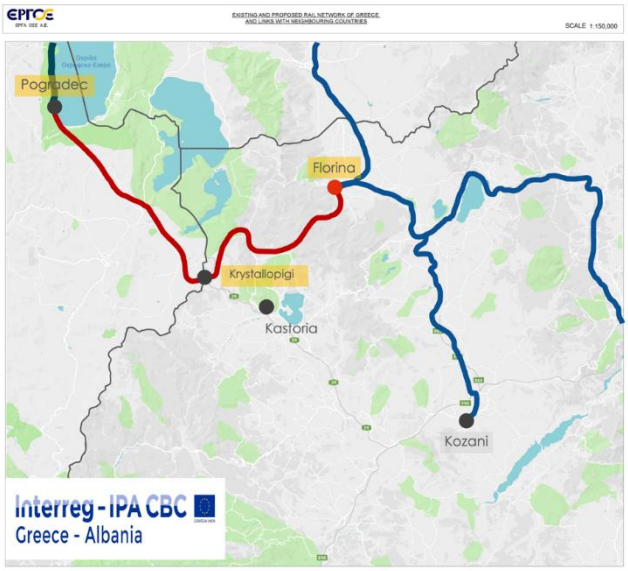
PROJECT STATUS

Preparation of the project documentation is ongoing.

1.1.2.8 CB RAILWAY: Initiative for improving cross border transport through rail connection between Krystallopigi and Pogradec

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	*X*
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	*X*
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	*2*



PROJECT DESCRIPTION

The project involves the design and construction of a new single railway line connecting the existing Greek and Albanian railway networks across the border. The project involved the conduction of feasibility studies for both the Greek and the Albanian territories. Each beneficiary has selected its own design office to conduct the feasibility studies.

For each section of the project on either side of the border, three alternative alignments have been designed by the respective consultant. The alternative scenarios considered in this traffic analysis have been developed based on these alternative alignments. The routes considered for each national section of the project are presented below.

Albanian Territory: Pogradec - Korçë - Border

For the Albanian section of the project, the Preliminary Design of three alignments is reported in the "STUDY ON THE DEVELOPMENT OF AN INVESTMENT PLAN FOR A NEW RAILWAY LINK FROM POGRADEC TO THE GREEK BORDER / KRYSTALLOPIGI". All three routes, each about 75 km long, are equivalent regarding traffic accommodation, as they:

- Consist of an electrified single railway line.
- Follow the same technical standards (design speed, slope, etc.).
- Run within a corridor with a maximum width of about 6 km.
- Include 2 railway stations, a new one in Pogradec (near the edge of the town, in contrast to the existing one which is located at about 2.5 km from the town center) and one in Korçë.
- Use the same location for the 2 stations.

- Have approximately the same length (difference in length does not exceed 3%), using a detour to accommodate the main provincial centre of Korçë and avoiding the mountainous area to the east of Korçë.
- Pass by Bilisht, the main town near the border, following an identical alignment. It should be noted here that an additional station could be design at this town at the next phase of the project.

The main difference between the three options is the length of the needed tunnels (10.45 km for option A, 16.11 km for option B and 21.2 km for option C) and the consequent difference regarding their construction cost. Based on the above, the most economical alignment has been selected (Corridor A), considered as the most favourable in the multi-criteria analysis.

Greek Territory: Florina – Perdikkas – Kozani – Kastoria – Border

For the Greek Territory, three essentially different routes have been identified , each one starting from a different point of the existing network and converging in Kastoria, and then continue with an identical alignment up to the border (in Ieropigi). Two stages of design were submitted:

- Reconnaissance Design, where several variants for each of the three main routes of the project were considered (including, for the Northern Route, a variant ending in Krystallopigi). According to the assessment of these variants the most appropriate variant was selected and developed in the next stage.
- Advanced Reconnaissance Design, which included the horizontal and the vertical alignment of the three options/pathways according to the selected variant.

All three alternative options for the Greek section of the project consist of an electrified single railway line linking the existing railway network with the Albanian section of the project at Ieropigi, according to the same technical standards (design speed, slope, etc.). Nevertheless, they follow a completely different corridor up to the area of Kastoria, as:

- Option I (north alignment) starts at Florina.
- Option II (intermediate alignment) starts between Amyntaio and Ptolemaida.
- Option III (south alignment) starts at Kozani.
- Only the last section, between Kastoria and Ieropigi (at the Greek – Albanian border) is identical for all three options.

Thus, the three alternatives are quite different in several aspects, including their length, the tunnels and bridges needed in each case, their proximity to places of cultural heritage or of natural interest, their construction cost, the traffic forecasts, etc.

According to their alignment:

- Option "I": It uses the existing line from Amyntaio to Florina, modifying the terminal station of Florina to a through station, before crossing mountain Vernon with a long tunnel (more than 11 km long) to reach the area of Kastoria. This option (passing through Florina) coincides with the statutory railway axis shown in the maps of the Trans-European railway network, but it has the disadvantage of a considerably increased cost as it includes a long tunnel. Also, the junction leading to the North Macedonia border (passing by the village of New Caucasus) is located at the outskirts of Florina.
- Option "II": It uses the southbound existing line from Amyntaio up to the north of Ptolemaida, near the village of Perdikkas. At this area, it turns to the west, following practically the alignment of TAP (Trans-Adriatic Pipeline) and crossing the sierra of Vernon with a tunnel of 2.7 km length before reaching the town of Kastoria from the southern side of the lake. This option offers the shortest route to the border, though the new section that needs to be constructed is longer than the one of Option I. It has also the disadvantage of not servicing the towns of Kozani, which is the capital of the region of West Macedonia, and Florina, which is an important development pole according to the Spatial Planning of West Macedonia Region.
- Option "III": It uses the entire existing line from Amyntaio to Kozani through Ptolemaida, extending it further up to the area of Siatista before turning to the Northwest, to reach Kastoria using the same corridor as the corresponding Egnatia road link. The total length of this option (as well as the length of the new line needed to be constructed) is considerably greater than the length of the other two options. Nevertheless, the construction cost is much lower than that of Option I and only 10% more expensive than that of Option II according to the cost estimations of the consultant. In addition, it has the advantage of passing through the capital of West Macedonia Region (Kozani) and thus it can be also used as a suburban railway.

According to the above, it is clear that the three alternative options in the Greek Territory of the project are quite different regarding traffic accommodation (the Southern Route, passing through Kozani, which is the administrative centre of Western Macedonia Region and the largest city in the region, can be used for the operation of a suburban line, but increases significantly the length of long-distance

trips) and therefore each of them was considered individually in order to calculate induced and generated traffic.

Based on the above, the main alternative strategic options for the project (apart from Option “0”, which corresponds to the "Do-nothing" scenario) correspond to the three alternative routes on the Greek side of the project. These alternatives, together with Option “0”, constitute the respective scenarios (0, I, II and III) that were simulated in the traffic analysis.

FUNDING SOURCES

Type of the funding source	1) European Regional Development Fund (ERDF) 2) National co-financing
Name of the funding source	INTERREG IPA CBC Ελλάδα – Αλβανίας 2014 – 2020
Share of funding sources	Total Budget: € 845,698.05 - 85% from ERDF - 15% National co-financing

PROJECT STATUS

All technical parts of the projects have been completed. The only part of the project still active is the dissemination phase which includes:

- The organization and conduction of 2 congresses, one in Albania and one in Greece.
- The creation of the project’s web site.
- The design and print of brochures, pamphlets, maps, etc.

It is expected that the program will conclude all parts during the 3rd Quarter of 2023, i.e., a last brief program extension will be requested.

RESULTS

Since the technical parts of the program have been completed and the alternative railway routes have been proposed, the very significant benefits of the program (railway connection between Greece and Albania) for the two countries are already known and have been described in the program feasibility studies.

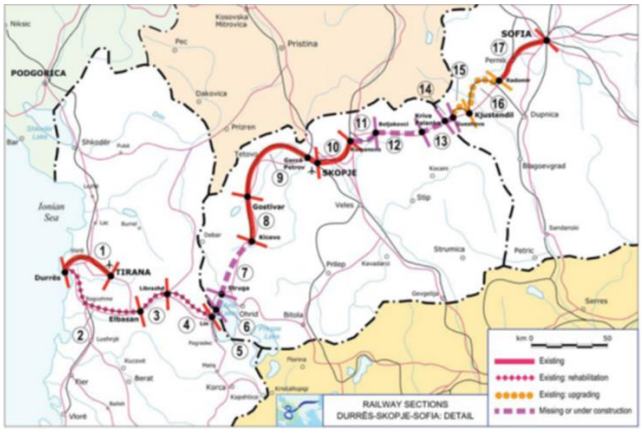
The impact to both sides (Greek and Albanian) will be tremendous since there is now no railway connection between the two countries. The feasibility studies have proved the financial capacity of the program and its great importance for the efficient transportation of people and goods, which is now achieved in full by cars, busses, and trucks.

It is therefore very important that funding for the next phases of the project (all designs phases, up to the final project design) should be made available as soon as possible to make this railway cross-border connection possible.

1.1.2.9 Construction works of the railway section along the corridor VIII Kicevo – Border North Macedonia - Albania

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	*x*
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	*x*
SAN MARINO	
SERBIA	
TOTAL	*2*



PROJECT DESCRIPTION

General

The favorable geographical location of the Republic of North Macedonia has contributed to the development of international traffic on two Trans National Axes: North-South (Corridor X) and East-West (Corridor VIII) linked to the Trans European Transport Networks.

The railway network in the country consists of two main lines:

- Tabanovci – Kumanovo – Skopje – Veles - Gevgelija (Corridor X) with branch from Veles to Kremenica (Corridor Xd) and
- Western part of Ralii Coriodr VIII: Kicevo -border with Repablic of Albanija – Kicevo, Central Part: Kumanovo – Skopje - Kicevo (), and Eastern part: Kumanovo – Beljakovce-Kriva Palanka border with Bulgaria (in construction phase).

Developing the Western Balkans transport network

The development of Corridor VIII along the East-West axis is a necessary economic and political instrument for the Balkan region that helps to improve interregional connectivity and stability. The specific importance of Corridor VIII is in the regional connection east-west, both road and railway connection with the ports (Adriatic, Ionian and Black See), and the exchange of goods and facilitated transfer of people.

The geographic location of the country is at the crossroads of South-Eastern Europe, as an important transit route for land traffic between Central Europe, Ionian and Adriatic Sea, the Aegean Sea, the Black Sea and further with Asia. The favourable landlocked geographical location of the country has contributed to the development of international traffic on two Trans National Axes: North-South (Corridor X) and East-West (Corridor VIII), both part of the indicative extensions of the Trans European Transport Networks towards the Western Balkan Region.

At the moment, the transport connections along Corridor X are adequately developed and they are the only access (road and rail) to the sea, to ports in Greece, mainly Thessaloniki and Piraeus.

The transport connections, with the ports on Adriatic, Ionian and Black Sea need serious rehabilitation, reconstruction or construction. Especially, the incomplete/missing railway line east-west has a negative impact on the competitiveness of the railway transport and on the economy of the Republic of North Macedonia. This kind of rail-disconnection with the Republic of Albania and the Republic of Bulgaria is a major obstacle for improving the trade. From a strategic point of view, the connection of the Macedonian with the Albanian and Bulgarian railway network is an important challenge.

Investing in the railway corridor will ensure faster and more efficient use of the benefits of the common economic area of the Western Balkans, regardless of the shape of the area. Furthermore, the CEFTA membership can only be used and improved with better connectivity infrastructure, and in that sense the benefits for the economies will undoubtedly be significant for GDP growth rates and improved business competitiveness.

Also, rail transport, as “green” type of transport has an advantage over other modes of transport due to the insignificant impact on the environment in the phase of use. Increasing the share of the rail transport, in comparison with the road, will contribute towards decreasing the road congestions and improving the road safety.

The railway line along the Corridor VIII through territory in Republic of North Macedonia has a length of about 315 km. The route of this line runs east – west direction in the Balkan Peninsula, from the port Burgas in Republic of Bulgaria, goes through territory in Republic of North Macedonia and ends in the port Durres in Republic of Albania. The eastern part of Corridor VIII from Skopje to the Black Sea is part of the Indicative extension of the TEN-T Core Network, as well as the Section Kicevo – border with Albania in the western part. The section from Skopje to Kicevo, with the signing of a high-level Understanding on Indicative TEN-T Maps, has become part of the Indicative extension of the TEN-T Extended Core Network. The railway link is interrupted in two sections between Republic of Albania and Republic of North Macedonia (about 63 km railway track) and between Republic of North Macedonia and Republic of Bulgaria (about 89km railway track). The lack of these connections is an obstacle to develop foreign exchange market, not only between neighboring countries, but also with regions in Eastern Europe.

In order to pursue the objective of establishing an operational continuity of Rail Corridor VIII, it is necessary to plan the completion of the missing links. The implementation of Rail Corridor VIII, in general framework will contribute to an efficient and environmentally friendly East-West transport Corridor in the Southern Balkans. The construction of this railway link will establish a railway connection between Republic of North Macedonia and Republic of Albania and which opens the

possibility of transport connection to the ports of Durres and Vlore on the Adriatic Sea. This is of a particular importance for Republic of North Macedonia as a continental landlocked country.

Corridor VIII will bring economic development benefits to the sub regions and municipalities along its route and provide better connection to ports on both the Adriatic and Black Seas, allowing better access to raw materials and markets. Implementation of this project will improve accessibility of the south western region to other Macedonian regions for both freight and passenger services by rail along the project section and to/from destinations such as Skopje, other regions in North Macedonia, Albania and Bulgaria.

This project consists of construction works of completing of the railway network in the Corridor VIII between Republic of North Macedonia and Republic of Albania. The length of the new electrified single railway line in the existing Preliminary Design is about 63 km.

The single railway line will be intended for combined transport (freight and passenger), with prevailing freight transport. It will be designed as single-track of standard gauge - 1 435 mm. Nominal speed will be 100 km/h for passenger and freight transport.

Electrification system - 25 kV, 50 Hz. Nominal speed of 100 km/h for contact network and equipment of the contact network, supply and control of the traction.

Harmonized fully with Corridor X and the eastern part of Corridor VIII (when built).

FUNDING SOURCES

Type of the funding source	Grant/Source: **WBIF** Loan/Source: **EIB/EBRD** National Co-financing: **TBD**
Name of the funding source	WBIF, EIB/EBRD, National Co-financing
Share of funding sources	To be defined

PROJECT STATUS

- Preparation of the project documentation on a level of Detailed Design is completed Q4 2017.
- Following Government decision from 22.09.2020, this railway line was split into two sections: Section 1 Kicevo – Struga and Section 2: Struga – border with Republic of Albania[5].
- In August 2022, a WBIF TA application was submitted for update of the available project documentation at level of detailed design, so that the comprehensive documentation (Feasibility Study, Cost Benefit Analysis, Environmental Impact Assessment, Detailed Design etc.) should be updated in order to make this project eligible for funding, as well as to provide compliance with the latest legislation, TSIs requirements, directives etc. This refers only to the section Kicevo – Struga, while for the section from Struga to border with Albania, a joint WBIF application for TA from Republic of North Macedonia and Republic of Albania is expected to be submitted on 2023.

[5] Based on UNESCO recommendation.

- The Works Contract should be executed according to the relevant regulations in the country, EU standards (PRAG procurement rules and procedures) and the FIDIC rules for implementation of the works and supervision.
- Start with preparatory activities by the end of 2023; duration of the construction works is expected to be 72 months.

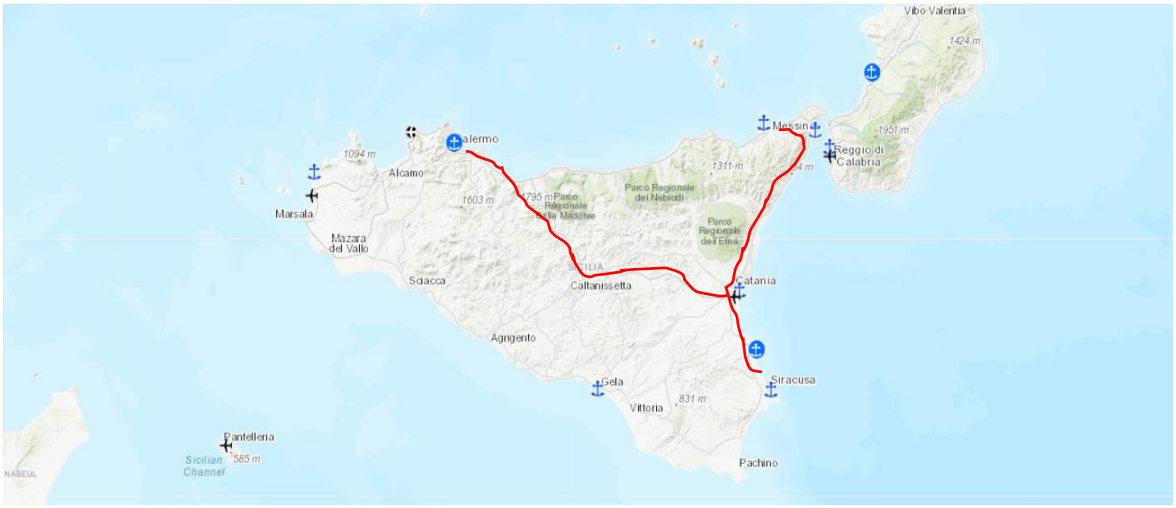
RESULTS

- The construction of this railway is in accordance with EUSAIR priorities as it will provide a link with railway connection between Republic of North Macedonia and Republic of Albania, which opens the possibility of transport connection to the ports on the Adriatic Sea. Project development also through the further connection with Corridor VIII will bring economic development benefits to the sub regions and municipalities along route connection to ports on both the Adriatic and Black Sea.

- This Corridor will contribute most to promoting international exchanges and traffic and open the way to the Caucasus and Central Asia, connecting the East and Southeast Europe (Romania, Russia, Turkey etc.) with Western Europe (through the maritime port of Brindisi in Italy with the West European countries). Sections 6 and 7, part of the designed railway line Kicevo – border with Republic of Albania will connect the underdeveloped regions and will contribute to their economic prosperity. The construction of a better infrastructure will stimulate economic growth not only in areas of immediate vicinity of the line, but wider in the country and in the entire region.

1.1.2.10 Upgrading Palermo - Catania - Messina railways

PROJECT IDENTIFICATION



PROJECT DESCRIPTION

The interventions are part of the Scandiavian-Mediterranean Corridor and consist of doubling of the existing railway line of the Palermo-Catania axis (from Bicocca to Catenanuova and from Catenanuova to Agira and Fiumetorto, alongside or in variation of the existing line, for a total of about 183 Km) and of the Messina Catania axis (from Giampilieri to Fiumefreddo, for a total of about 42 Km, with the realization of 2 new stations and 4 stops, 8 new double-barrelled tunnels for about 35 Km, 2 new single-barreled tunnels and 9 new viaducts).

The project was labelled due to its contribution to the two priority actions of the EUSAIR strategy. Firstly, the works of the project contribute to reinforcing intermodal connections in the macro-region by making the railway network in Sicily compliant with the TEN-T regulation, thus completing the southernmost railway-sea intermodal connections of the Scandinavian – Mediterranean TEN-T Core Network Corridor, with particular reference to the connections to the nodes of Palermo, Messina and Catania, which all have a port within the TEN-T network. Moreover, considering the project of the bridge on the Messina straight (Labelled project ID 52), this action will also bring to the completion of the railway connections of Sicily, completing the southernmost section of the EUSAIR Macro- Region. Finally, the above-mentioned railway works, once completed, are highly likely to increase freight and passenger traffic, within Sicily and from Sicily to the Western Balkans and the rest of Italy and the whole Region.

FUNDING SOURCES

Type of the funding source (	National funds and CEF funds
Name of the funding source	FSC 2014-2020 / PO MIT
Share of funding sources	Total costs: 11.892M€ Availability: 8.663,41 M€ Requirement 3.228,59 M€ • Palermo Catania 1^macro phase: Costs: 7.499 M€ Resources: 5.707,53M€ as follows: ○ MEF 3.535,25 M€ ○ FSC/PAC 1.716 M€ ○ RFF 316,87 ME ○ UE 139,41 M€ • Palermo Catania 2^macro phase: Costs: 567 M€ Resources: 408 M€ from FSC/PAC 408 M€ • Messina Catania Doubling Giampilieri - Fiumefreddo: Costs 2.365 M€ Resources: 2.201,27 M€ as follows from MEF 2.201,27 M€ • Nodo di Catania (not included in the previous version of the description) Costs: 1.461 M€ Resources: 346,61 M€ as follows: ○ MEF 5 M€ - MIT 11,61 M€ ○ FSC/PAC 235 M€ ○ RFF 95 M€

PROJECT STATUS

First lot of the final project

For the Catania-Palermo railway line, a first lot is planned from "Bicocca to Catenanuova", for a total of 38 km.

The contracted lot has a total cost of €. 415.000.000,00 (lifetime cost).

The delivery of the works took place on 25/03/2019 and the completion of the works took place in 2021 for the first track and will be in 2023 for the second track.

The entire intervention concerns the provinces of Catania, Enna, Caltanissetta and Palermo

The interventions are part of the Scandinavian-Mediterranean Corridor and consist of:

- Doubling the railway connection Catania-Palermo (section Catenanuova-Fiumetorto). doubling of the existing railway line of the Palermo-Catania axis from Bicocca to Catenanuova and from Lercara to Fiumetorto, alongside or in variation of the existing

line, and the construction of a new simple track speeded up in the Lercara - Catenanuova section, for a total of about 183 Km; The activation of the railway lines will be completed within February 2025. The entire Palermo-Catania link is partly financed with PNRR funds.

- Doubling of the existing railway line of the Messina-Catania axis from Giampilieri to Fiumefreddo. Doubling of the existing railway line of the Messina-Catania axis from Giampilieri to Fiumefreddo for a total of about 42 km, most of which in gallery, with the realization of 2 new stations and 4 stops, 8 new double-barrelled tunnels for about 35 Km, 2 new single-barreled tunnels and 9 new viaducts). The interconnection for Letojanni will be kept in operation, which will assume the function of a branch line. As part of the project, the new service locations of Fiumefreddo – Calatabiano, Alcantara-Giardini Naxos, Taormina, S. Alessio-S. Teresa, Nizza-Alì and Itala-Scaletta will be built. Works are in progress and the completion date should be defined.

RESULTS

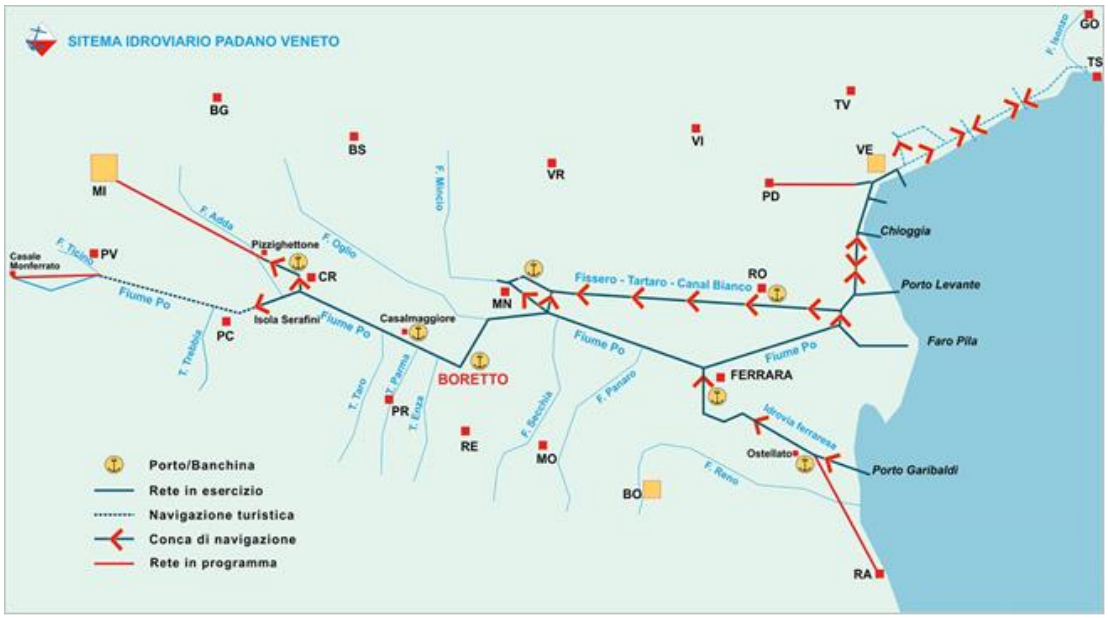
The completion of the project will have a very significative impact on the EUSAIR Macro-Region, on Italy and on the TEN-T network as a whole, in terms of improved railway and intermodal connections, with particular reference to the Scandinavian Mediterranean Corridor, which connects the northernmost (Finland and Norway) part of the EU with the southernmost (Malta).

Moreover, considering the project of the bridge on the Messina straight (Labelled project ID 52), this action will also bring to the completion of the railway connections to Sicily, completing connections to the southernmost area of the EUSAIR Macro-Region. Finally, the above-mentioned railway works, once completed, are expected to increase freight and passenger traffic flows, within Sicily and from Sicily to the Western Balkans and the rest of Italy and the Macro-Region. Finally, the project is highly likely to increase the modal shift from road to rail with positive environmental and social impacts.

1.1.3 Inland Waterways

1.1.3.1 Improvement of the connections between the Po river navigation network and the Adriatic Sea

PROJECT IDENTIFICATION



PROJECT DESCRIPTION

The Project aims at improving IWW links among the most important cities and industrial areas of northern Italy and Adriatic ports, enhancing Motorways of the sea and connections among regions and countries. It is composed by several actions, having the goal to upgrade the Po river and connected canals navigation network. The proposed Project will guarantee navigation along the Po river 340 days/year, remove physical bottlenecks along the connected canals to reach the standards of EC class IV/V of navigation, upgrade port facilities and build new dock.

The project is coherent with both Priority Actions of the EUSAIR strategy. It improves the maritime dimension and the intermodal connections by creating intermodal inland waterways connections between the Italian Adriatic ports of Ravenna and Venice and the Mainland, thus improving maritime and Motorways of the Sea horizontal connections between Italy and the western Balkans along the Mediterranean TEN-T Core Network Corridor. Moreover, it encourages the use of inland waterways as compared to road, with clear environmental and social benefits.

FUNDING SOURCES

Type of the funding source	National funds/EU funds
Name of the funding source	National funds and CEF
Share of funding sources	• National funds - 97,167 milion EUR - 15.77% on the total cost • CEF - 0.4765 milion EUR - 0.077%

PROJECT STATUS

Most of the interventions foreseen by the project have been implemented through other actions such as:

- RIS II - Study for standard enhancement and interconnection of national systems of RIS-Italy (concluded in 2018), which included raising the navigation standards on the Italian inland waterway system (made up by the Po river and connected canals) to class V and the development of a series of intermodal connections between the above mentioned system and the road and railway TEN-T network.
- INIWAS - Improvement of the Northern Italy Waterway System: Removal of physical bottlenecks (concluded in 2019). The project included works in the North and South areas of Po, such as the basin of the Serafini Island in Piacenza and the Boicelli canal near the Po delta. Moreover, the Action aimed to enhance the freight traffic on the Po to reach 628.864 tons by 2024.
- WIN-IT: Works for Implementing the Navigation in Northern Italy. The project includes the definitive and executive design in view of the execution of the works necessary to improve the navigability of the Po river, in order to guarantee free-flow navigation in the Mantua-Ferrara and Cremona-Mantua sections and to upgrade the sub-coastal route Veneta waterway from Venice to the mouth of the Tagliamento river.

However, certain sections of the Action have remained uncompleted, with reference to the section between Mantua and Ferrara, submitted for financing with national funds and the Po section between Piacenza and Mantua.

Dissemination events and activities relevant for EUSAIR:

- Meeting "WIN-IT - *Works for Implementation of the Inland Navigation in Northern Italy"* at Transport logistic 2023 in Munich (Germany), 9-12 May 2023;
- Kick off meeting WIN-IT, Bilog 2022 - Logistics & Maritime Forum in Piacenza (Italy), 10 November 2022.

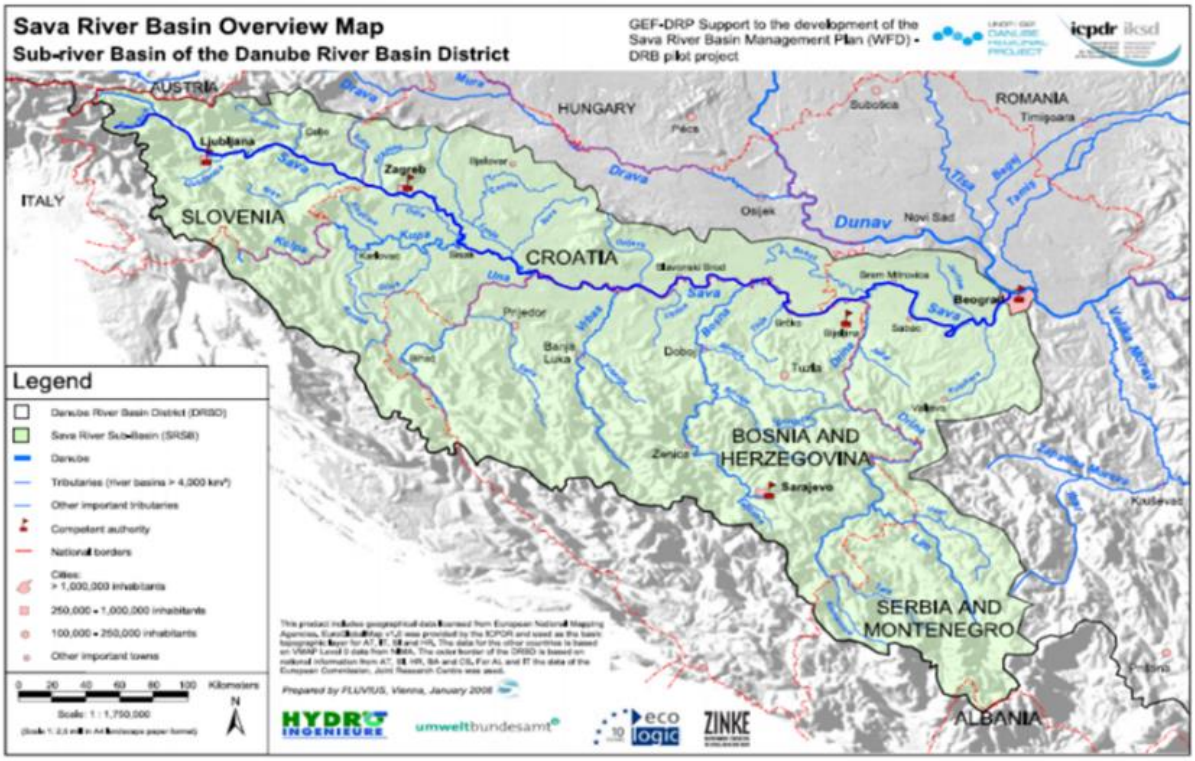
RESULTS

The main achieved result of the project is the development of a reliable Inland Waterways transport network, connecting the most important cities and industrial areas of Northern Italy to the Adriatic sea and enhancing consequently Motorways of the sea. Once all the activities foreseen in the project have been financed, there will be a considerable improvement of the intermodal connections between the ports of Adriatic Sea and the hinterland, both for freight and passengers.

In conclusion, the project will improve intermodal inland waterways connections between the Italian Adriatic ports of Ravenna and Venice and the Mainland, thus improving maritime and Motorways of the Sea horizontal connections between Italy and the western Balkans along the Mediterranean TEN-T Core Network Corridor. Moreover, it encourages the use of inland waterways as compared to road, with clear environmental and social benefits.

1.1.3.2 Hydro-technical and dredge excavation on critical sectors on the Sava river

PROJECT IDENTIFICATION



PROJECT DESCRIPTION

The project is included in the Sava River Basin Management Plan and consists in the hydraulic and dredging work in critical sections of the Sava River. The purpose of the Project is providing the prescribed minimum depth and width of the Sava river fairway. Navigation condition on the Sava river would become more predictable in the sense of available fairway dimension, more reliable in the sense of logistics and transport planning and more competitive in comparison to comparable means of transportation.

The project is coherent with the TSG2 specific criteria:

- -"Interoperability and intermodality between different modes of transport".
- "Finalization of the infrastructural interventions on the TEN-T axis "

Indeed the project aims at developing a reliable Inland Waterways transport network, connecting the most important cities and industrial areas of Serbia, Bosnia and Herzegovina, Croatia and enhancing consequently Motorways of the sea. It will improve intermodal connections between the ports of Adriatic sea and the hinterland, both for freight and passengers.

The project is coherent with EUSAIR Plan of Action, in particular with the topic Intermodal connections to the hinterland, addressing the following actions:

- Developing the Western Balkans comprehensive network
- Improving the accessibility of the coastal areas and islands
- Developing motorways of the sea
- Cross-border facilitation

Indeed In addition to being part of the EU Core Trans-European Transport Network (TEN-T), the Sava is subject to the 1996 European Agreement on Main Inland Waterways of International Importance (AGN).

FUNDING SOURCES

Amount and type of the funding source	€ 9,3 millions; 50% of financing is provided by EIB(financing agreement stipulated), 50% of financing is provided by WBIF

PROJECT STATUS

Preparation of the technical documentation is ongoing

1.2 Nodes

1.2.1.1 Improving accessibility and sustainability of Port of Koper

This paragraph encompasses four individually labeled EUSAIR projects. All four projects (including interventions on Pier I, Basin III, Basin II, and electrification of the berths) aim to improve the accessibility and sustainability of operations of the Port of Koper, which is included in the Core Network (Baltic-Adriatic, Alpine-Western Balkan and Mediterranean corridors)..

Since year 2010, when after the recovery from global recession crisis, the port of Koper handled 15 million tons, the cargo traffic at the port has been steadily growing, recognizing the cargo groups of containers and cars as best performers. In 2022 the port of Koper handled 23 million tons of cargo and the numbers are growing in 2023. Nevertheless, having a centralized managed port, to mitigate risks deriving from market instabilities connected to an increased economy globalisation, it is foreseen that the port will remain a multi-purpose and flexible multi-modal core node, with the ability to handle also general cargoes, dry and liquid bulks.

The development of the only Slovenian core port foresees proper integration with land transport infrastructure networks as well as interconnections with other modal networks to enable proper development of North Adriatic stretch on three priority multimodal European corridors, namely the Mediterranean, the Alpine-Western Balkan, and the Baltic-Adriatic. At the same time, the development of the port of Koper is relevant also in relation to Pan-European corridor X and EU macro-regional strategies in terms of Adriatic – Ionian and Danube.

The Port of Koper has increased impressively its traffics in the last decade by doubling the throughput. Market demand is increasing and there are needs for upgrading / improving / rearranging port and connecting infrastructure.

In addition, large ships with special requirements regarding the accessibility to the port and the growing traffic in the Port of Koper require the construction of additional infrastructure capacity in the area of Basin III. It is necessary to upgrade, to improve, to rearrange the port area, berths and connection infrastructure, supported by the development of its hinterland too.

The following projects have been included in two topics dedicated to:

- **Topic 1: Maritime transport dimension in the macro-region**
    - Developing ports, optimizing port interfaces, infrastructures, and procedures or operations
- **Topic 2: Inter-modal connections in the macro-region**
    - Developing the Western Balkans transport network
    - Developing motorways of the sea

The interventions are aimed at improving last mile connections on the TEN-T newtwork (BA, AWB and MED corridors), eliminating existing bottlenecks between the existing hinterland connections and the port area (reducing traffic and port congestion especially at the main port entrance in the city centre) and also improving intermodality and accessibility within the port (new berthing capacities at the multipurpose berth, new railway tracks and access roads in the port, dredging in Basin III, etc).

Interventions will also improve port infrastructure to support further development of the MoS and short sea shipping in the EUSAIR region.

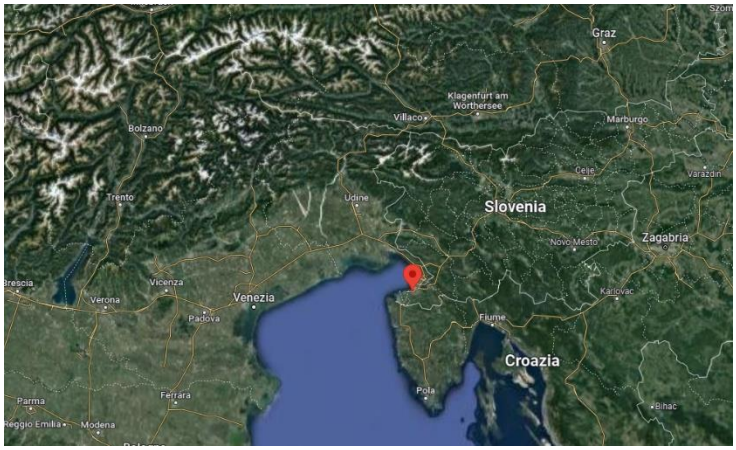
The projects are also included in

- Port of Koper development programmes 2021 – 2025 and 2021-2030 approved in accordance with the Ministry of Infrastructure of RS and the Government of the RS;
- Transport Development Strategy of the Republic of Slovenia.

The global project aims at developing the core TEN-T network linking the port of Koper with the main transport arteries in the hinterland. This development is in line with the characteristics of the infrastructure and with national plans, which will allow the extension of surfaces and improvement of equipment that will be used in the port. The access from the transport Core Network road to the port area is going to be optimized and enlarged by the end of 2026, which will allow the port to properly serve the terminals through the new gates of Sermin and Bertoki, which will improve the possibilities to face the increasing volumes of cargo, especially in terms of transport and boarding point. As per the TEN-T Core Network, the development of infrastructure for road and maritime access is necessary in Koper to face the volume of transported cargo by road and rail. The global project, in this sense can include the implementation of the national infrastructure with the completion of the new railway Koper-Divača by the end of 2026, as well as the access road from the motorway to the port. Both these works are planned to be completed by the end of 2026

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	
ITALY	
SLOVENIA	*X*
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	



Port of Koper Pier I – core network: accessibility and intermodality

PROJECT DESCRIPTION

The current capacity for containers is approx. 1.200.000 TEU/year with a very good 90 % of utilization; in the past years there was also a very favorable modal split of around 54% on rails, but these statistics are changing in favor of road transport when considering that, during last years, the ratio between rail and road transport is approaching the limit of 50:50 with a concrete increase of trucks in the port.

What is expected in next years is upgrading, improving, and rearranging of port's main infrastructure. The construction of port facilities and intermodal infrastructure is planned to support the development of container traffic to capacity 1,75 million TEU/year.

Figure: main activities expected in next few years at Pier I in the port of Koper

The project is currently in execution and due to some delays caused by covid pandemic and by the increase of prices of raw material at the international market, a general delay regarding the completion of activities was considered in the last development plans.

FUNDING SOURCES

Type of the funding source	1) European Regional Development Fund (ERDF)
Name of the funding source	1) Interreg CE 2) Interreg ITA-SLO 3) CEF 4) Luka Koper's own funds and loans
Share of funding sources	• **CEF: ACCESS2NAPA** (50%) 3,3mio EUR for studies and project design • **Interreg CE: COMODALCE** (85%) 0,2mio EUR for equipment • **Interreg ITA-SLO** (85%): 0,2mio EUR for equipment • **Interreg CE: ACCESSMILE** (80%) 0,2mio EUR for equipment

PROJECT STATUS

Regarding the activities foreseen at Pier I in the port of Koper, they're specifically dedicated to increase capacities for container traffics, including the purchase of new equipment, even if they're indeed already taking place at the port of Koper. In fact, for what regards the activities at Pier I in the last 5 years, dredging along berth 7c to -15 m took place in year 2015 through the activity co-financed as part of the TEN-T Action nr. 2012-EU-91176-P (NAPADRAG). Due to a great workload on the existing berths 7a, 7b and 7c, Luka Koper has extended the southern side of the Pier I with the quay walls toward west with the construction of berth 7d. The preparation of the project design and documentation of such extension was co-financed in the past through the TEN-T Action nr. 2012-SI-91117-S (NAPAPROG). Moreover, the construction of berth 7d as well as the reconstruction of berths 7a and 7b was co-financed through the CEF Action nr. 2014-EU-TM-0343-M (NAPA4CORE).

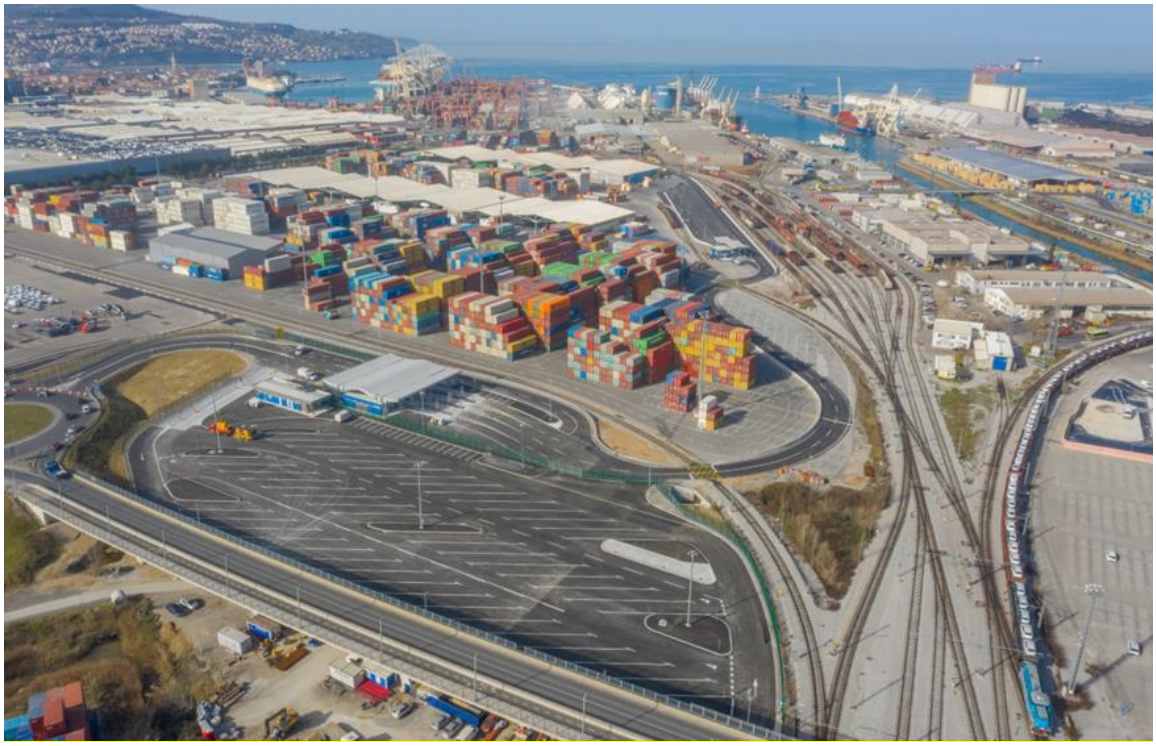
In 2021 the southern side of Pier I was extended with the EU contribution provided by the CEF Action nr. 2014-EU-TM-0343-M (NAPA4CORE). Already now, due to a high utilization rate of the southern part of Pier I for container vessels, congestion episodes take place in case of relevant delays of container mother vessels – since only one berth is adequate for such vessels and therefore at the moment at the port of Koper it is possible to accept only one mother vessel at a time. That's why with the project ACCESS2NAPA, there were faced necessities to extend also the northern side of Pier I for the berthing of container vessels, where in 2030 is foreseen the throughput of 1,75mio TEUs.

Figure: extension works completed at southern side of Pier I in the port of Koper

Therefore, through ACCESS2NAPA the preparation of project designs for the extension of northern side of Pier I with the construction of berths 7F and 7G in Basin II and the land filling towards east, were included in the proposal for co-financing, with new berthing capacities to be completed in next years.

The extension of Pier I was supported also by the construction of the new Bertoki entrance, which is mainly dedicated to trucks transporting containers to Pier I.

Figure: construction of the new Bertoki entrance and truck parking in the port of Koper



As mentioned in previous paragraphs, the next step will be the construction of the northern side of Pier I, with new berthing capacities at berths 7F and 7G, where an additional Post-Panamax and New Panamax vessel can be berthed. This phase will be followed by the bridging of the Rižana watercourse in order to allow the continuous transport of equipment and containers through the whole Pier I. In the last phase the project will be completed with the transfer of some warehouses dedicated to General Cargo in the backyard of Pier II and Pier III, which will allow Pier I to be completely dedicated to containers. The total cost of expected works is estimated for around 210mio EUR of which some of them is expected to be co-financed by CEF.

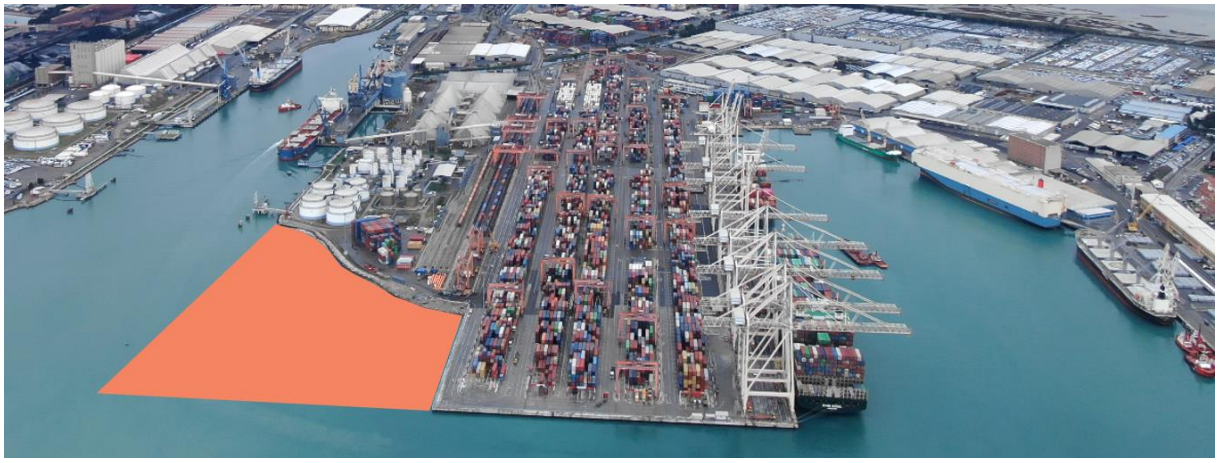
RESULTS

Traffic at the core port of Koper is steadily growing in last decade, significantly fulfilling available port's capacities. Considering additional important market potentials and the growing volumes of freights, to support port's further development, an extension and upgrade of actual Piers with greater capacities and appropriate drafts are needed. The only Slovenian port also represents the first port of call for Post Panamax and New Panamax vessels weekly linking the Adriatic with the Far East.

The Project consists of works for new berthing facilities at the port and for new terminal capacities. The increase in freight and the development of Koper also increases the traffic congestion on the city's access roads. The construction of the new access road will help also to divert the main part of freight traffic away from other roads leading to Koper (highlight ecological and safety aspects).

In terms of activities, the extension of the southern side of Pier I is completed for both, berthing capacities with the new berth 7d and the reconstruction of berths 7B and 7A, as well as with the operational area behind these berths. From 2023 Luka Koper is working on the extension of the Pier I at its northern side, which will allow to reach the operative capacity of 1,75mio TEUs. Works will be completed by the end of 2030 on the latest.

Figure: planned extension of northern side of Pier I in the port of Koper



Port of Koper Basin III – MoS: accessibility and intermodality

PROJECT DESCRIPTION

Large ships with special requirements regarding the accessibility to the port and the growing traffic in the Port of Koper require the construction of additional infrastructure capacity in the area of Basin III. It is necessary to upgrade, to improve, to rearrange the port area, berths and connection infrastructure, supported by the development of its hinterland too.

Figure 2: new Ro-Ro berth in Basin III in the port of Koper

In the near vicinity of the Basin III are planned many investments, which are all dedicated to car terminal and partially also to timber. The main works foreseen are: (re)construction of the multipurpose berth, dredging works in Basin III, especially in the frame of (re)construction of the multipurpose berth. The development of the seaside will be accompanied by the construction of new railways supporting both, road and railway connections in the port area, also including open storage areas for project cargo handling.

The works foreseen in Basin III are mainly linked with the activities planned for the car terminal, which are going to have considerable effects on traffic flows in the whole port's area. For this reason, the activity is linked with the further traffic planning needed at Pier II and its hinterland.

Figure 3: new railways and parking area in the backyard of Basin III in the port of Koper

With the construction of new port's gates, the traffic flows directed to Basin III are mainly linked with the vehicles passing through the new Sermin gate, which allows to better distribute trucks in port's area, by supporting mainly the transport of cars, but also of general cargo, and project cargo.

The project is currently in execution and due to some delays caused by covid pandemic and by the increase of prices of raw material at the international market, a general delay regarding the completion of activities was considered in the last development plans.

The plan is to withdraw primary freight traffic outside the area of storage terminals, thus ensuring greater efficiency of the internal logistics of individual terminals on the entire backyard of Pier II, as well as in the area of Basin III. By moving the harp and by abolishing track 50B, Luka Koper gains space where a new access road connection for transit transport will be located. Extensions and construction of additional tracks n.70 and n. 44 are planned. The new connections are designed in such a way that they run mostly along the paved surfaces of the piers and backyards.

The investments will include also works on road and railway infrastructure. Tracks are being laid on the railway infrastructure behind the European Energy Terminal with the aim of ensuring more appropriate usable track lengths and ensuring adequate road and rail crossings, as well as reducing waiting times for lorries and trains for dispatch or transport.

FUNDING SOURCES

Type of the funding source	2) European Regional Development Fund (ERDF)
Name of the funding source	5) CEF 6) Luka Koper's own funds and loans
Share of funding sources	• **CEF: ACCESS2NAPA** (50%) 3,3mio EUR for studies and project design • **CEF: EALING** (50%) 0,5mio EUR for electrification of new Ro-Ro berth

PROJECT STATUS

Regarding the activities foreseen in Basin III in the port of Koper, for the construction of new multipurpose berth, new calls for CEF funds are being sought. Potential co-financing is also available for the electrification of the berth, considering actual calls for proposals including funds for Onshore Power Supply (OPS) infrastructures. In addition to this, the ACCESS2NAPA project is contributing to reaching this goal by co-financing the preparation of project design documentation for the railway tracks foreseen at basin's III backyard, namely tracks 70, 60 and 44, which may all be linked with the co-financing of the road connecting the motorway with the Sermin entrance (ACCESS2KOPERPORT).

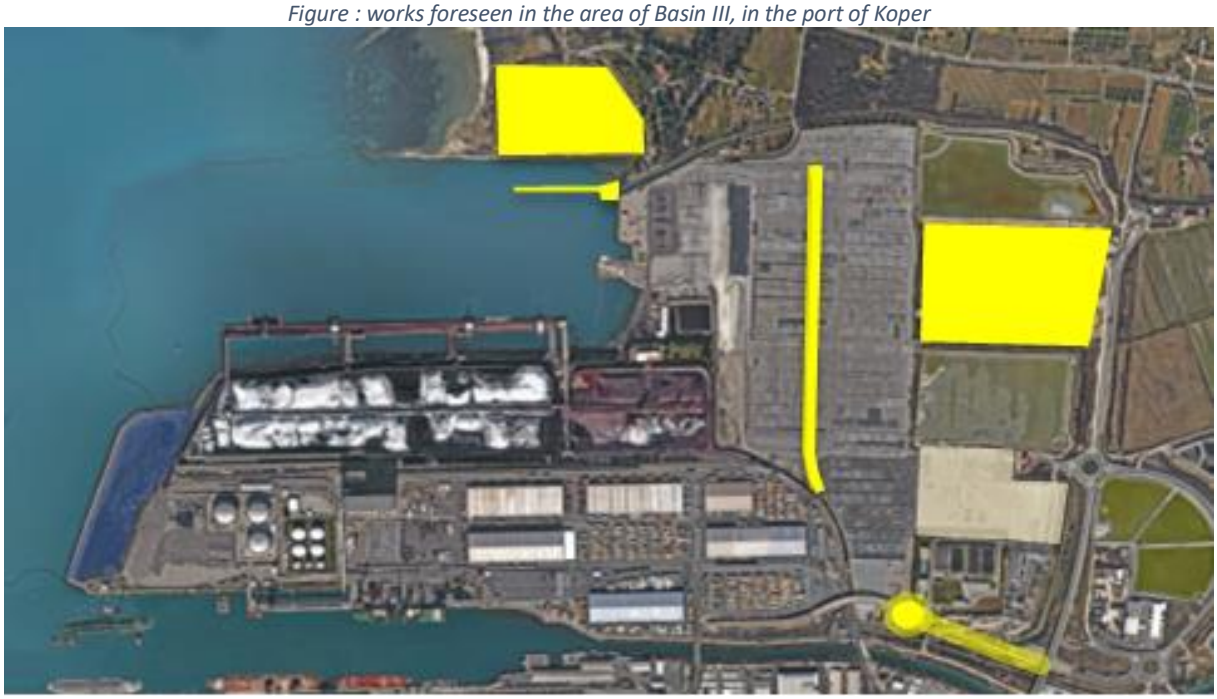
Due to the necessity to berth larger vessels in Basin III and taking in account their specific requirements for port accessibility, there's a general need in the area to provide additional infrastructure capacities. Going into details, there is a necessity to face growing volumes of cars. The volumes of Ro-Ro segment are growing very fast and it's gaining relevant cargo flows form imports (consumption) and exports (production). After the recession crisis the automotive industry has rearranged its traffics and the port infrastructure must be adapted for new needs.

Current capacities for Ro-Ro segment are the following:

- 780.000 cars/year with very good utilization approx. 95%;
- very favorable modal split: 45% on rails.

The main idea is to improve the construction of port facilities to support the development of Ro-Ro traffics accompanied by intermodal infrastructure and last mile new port entry connection. After the completion of these works, the new capacity will reach 950.000 cars/year. The activities will be completed with the land consolidation foreseen in the backyard of Basin III, where new operative capacities will be obtained (mainly dedicated to car terminal with new parking areas).

Figure : works foreseen in the area of Basin III, in the port of Koper



As mentioned in previous paragraphs, the next step will be the construction of new berthing capacities linked with the multipurpose berth in Basin III. This phase will be accompanied by the inclusion of the Sermin gate in the traffic planning of port's internal viability, which will consistently modify the access and the traffic flows at Pier II and in the backyard of Basin III in general.

Merging the necessities of the new berthing area in the backyard of Basin III (initially for parking areas for car terminal), with the traffic planning at Pier II, and the optimization of flows through the new Sermin entrance, all these factors together will better distribute the traffic flows within the whole port's area and, at the same time, they will reduce both the traffic jams around the port and the levels of pollution in port's area.

RESULTS

The Project consists of works for new berthing facilities at the port and for new operative capacities. The increase in freight and the development of Luka Koper also increases the traffic congestion on the city's access roads. The better use of the new access roads (Sermin and Bertoki entrance) will help also to divert the main part of freight traffic away from other roads leading to Koper (highlight ecological and safety aspects).

In terms of activities, the works at Basin III will help both, increase of berthing capacities with the new Ro-Ro berth and the (re)constructed multipurpose berth, as well as with the operational area in the backyard of Basin III. From 2023 Luka Koper is working on the development the port's northern area, with a special attention to the works foreseen at Pier II and Basin III, which will allow to group the diversified operational structure of the berths, with new capacities strictly dedicated to the Car Terminal in the port of Koper.

Port of Koper Basin II – core network: maritime accessibility

PROJECT DESCRIPTION

All around Basin II are planned many investments. The main works foreseen are: (re)construction of additional berths (berth 12, Ro-Ro berth, berth 11 and berth 11a), dredging works in the whole Basin II, especially in the frame of (re)construction of berths, new railways supporting the new berths and road connections in the port area, also including open storage areas for project cargo handling.

Figure: area linked with construction of berths and dredging activities in Basin II in the port of Koper

The works foreseen at Pier II are all linked with the activities planned in Basin II, which are going to have considerable effects on traffic flows in the whole port's area. For this reason, a further traffic planning is needed.

Figure : traffic planning at Pier II for Basin II in the port of Koper

With the construction of new port's gates, the traffic flows directed to Basin II are mainly linked with the vehicles passing through the new Sermin gate, which allows to better distribute trucks in port's

area, by supporting the transport of fuel, general cargo and cars, which are mainly handled through the Pier II and its hinterland.

Figure: new Sermin entrance which mainly serves Pier II and activities in Basin II in the port of Koper

The project is currently in execution and due to some delays caused by covid pandemic and by the increase of prices of raw material at the international market, a general delay regarding the completion of activities was considered in the last development plans.

The plan is to withdraw primary freight traffic outside the area of storage terminals, thus ensuring greater efficiency of the internal logistics of individual terminals on the entire Pier II. By moving the harp and by abolishing track 50B, Luka Koper gains space where a new access road connection for transit transport will be located. Extensions and construction of a new track are planned. A new level crossing at the filling station is arranged for cereals. The new connections are designed in such a way that they run mostly along the paved surfaces of the pier.

The investments will include also works on road and railway infrastructure. Tracks are being laid on the railway infrastructure south of the European Energy Terminal with the aim of ensuring more appropriate usable track lengths and ensuring adequate road and rail crossings, as well as reducing waiting times for lorries and trains for dispatch or transport. The traffic regulation also includes the road network at the end of Pier II in the case of the construction of a new plateau at the extension of Pier II or in the case of the arrangement of new berths for tankers, and the connection of this network to the primary road via Pier II.

FUNDING SOURCES

Type of the funding source	3) European Regional Development Fund (ERDF)
Name of the funding source	7) Interreg ITA-SLO 8) CEF 9) Luka Koper's own funds and loans
Share of funding sources	• **CEF: ACCESS2NAPA** (50%) 3,3mio EUR for studies and project design • **CEF: ACCESS2KOPERPORT** (50%) 16mio EUR for construction of berth 12 and new Ro-Ro berth • **Interreg ITA-SLO** (85%): 0,2mio EUR for equipment

PROJECT STATUS

Regarding the activities foreseen in Basin II in the port of Koper, for the purchase of project design documentation, they're mainly foreseen in the ACCESS2NAPA project and are relevantly contributing to the development and modernization of infrastructures in the port of Koper. In addition to this, the construction works for berth 12 and the new Ro-Ro berth are co-financed by the ACCESS2KOPERPORT, which also covers the co-financing of the access road to the port, linking the motorway and the Sermin entrance.

Due to the necessity to berth larger vessels in Basin II and taking in account that their specific requirements for port accessibility, there's a general need in the area to provide additional infrastructure capacities. Going into details, there is a necessity for:

- adequate berthing facilities, considering even bigger vessels being hosted by the Port of Koper in last decade. At this regard, there are (re)constructed berth 12, new Ro-Ro berth, berth 13 and berth 13A. Their project design documentation is near to be completed and the construction phase is foreseen from 2024. In the area of Basin II there must be considered the berths 7F and 7G being constructed with the extension of northern side of Pier I,
- terminal manipulations, due to the accelerating growth of container volumes and passenger segment, traditional berthing traffics have been moved from Basin I to Basin II. New facilities are missing. Consequently, two additional berths are planned on the southern side of Pier II in basin II and manipulative / storage area for containers is being created at Pier I hinterland, moving general cargo, project cargo, cars and timber in the hinterland area of Pier II. The works are in progress and further co-financing is being expected in next years, for the completion of the project, even if some funds are already provided by CEF projects for project design documentation (ACCESS2NAPA) and construction of berth 12 and new Ro-Ro berth (ACCESS2KOPERPORT).

Figure: new berths at southern side of Pier II in the area of Basin II, in the port of Koper

As mentioned in previous paragraphs, the next step will be the construction of all the berthing capacities around Basin II. On side there're the berths 7F and 7G at the northern side of Pier I, where an additional Post-Panamax and New Panamax vessel can be berthed. On the other side of Basin II, there're new berths being (re)constructed for the berthing of petrol tankers, general cargo vessels and Ro-Ro ships.

This phase will be accompanied by the inclusion of the Sermin gate in the traffic planning of port's internal viability, which will consistently modify the access and the traffic flows at Pier II and around Basin II in general. Merging the necessities of the new berthing area in Basin II, with the traffic planning at Pier II, and the optimization of flows through the new Sermin entrance, will better distribute the traffic flows within the whole port's area and, at the same time, it will reduce both the traffic jams around the port and the levels of pollution in port's area.

RESULTS

The Project consists of works for new berthing facilities at the port and for new operative capacities. The increase in freight and the development of Luka Koper also increases the traffic congestion on the city's access roads. The construction of the new access road will help also to divert the main part of freight traffic away from other roads leading to Koper (highlight ecological and safety aspects).

In terms of activities, the works at Pier II will help both, increase of berthing capacities with the new berths 12, 13, 13A and Ro-Ro berth, as well as with the operational area behind these berths. From 2023 Luka Koper is working on the development the area around Basin II, with a special attention to the works foreseen at Pier II, which will allow to diversify the operational structure of the berth, with new capacities not only for petrol vessels but also for the General Vargo Terminal and for the Car Terminal in the port of Koper.

Port electrification - providing electricity to ships while berthing at port of Koper

The new berthing area in Basin III was selected to host the first electrified berth in the Port of Koper, which has already been confirmed by participating to CEF projects like the Action 2015-EU-TM-0250-M, with the acronym CarEsmatic, in which the new Ro-Ro berth in Basin III was (re)constructed.

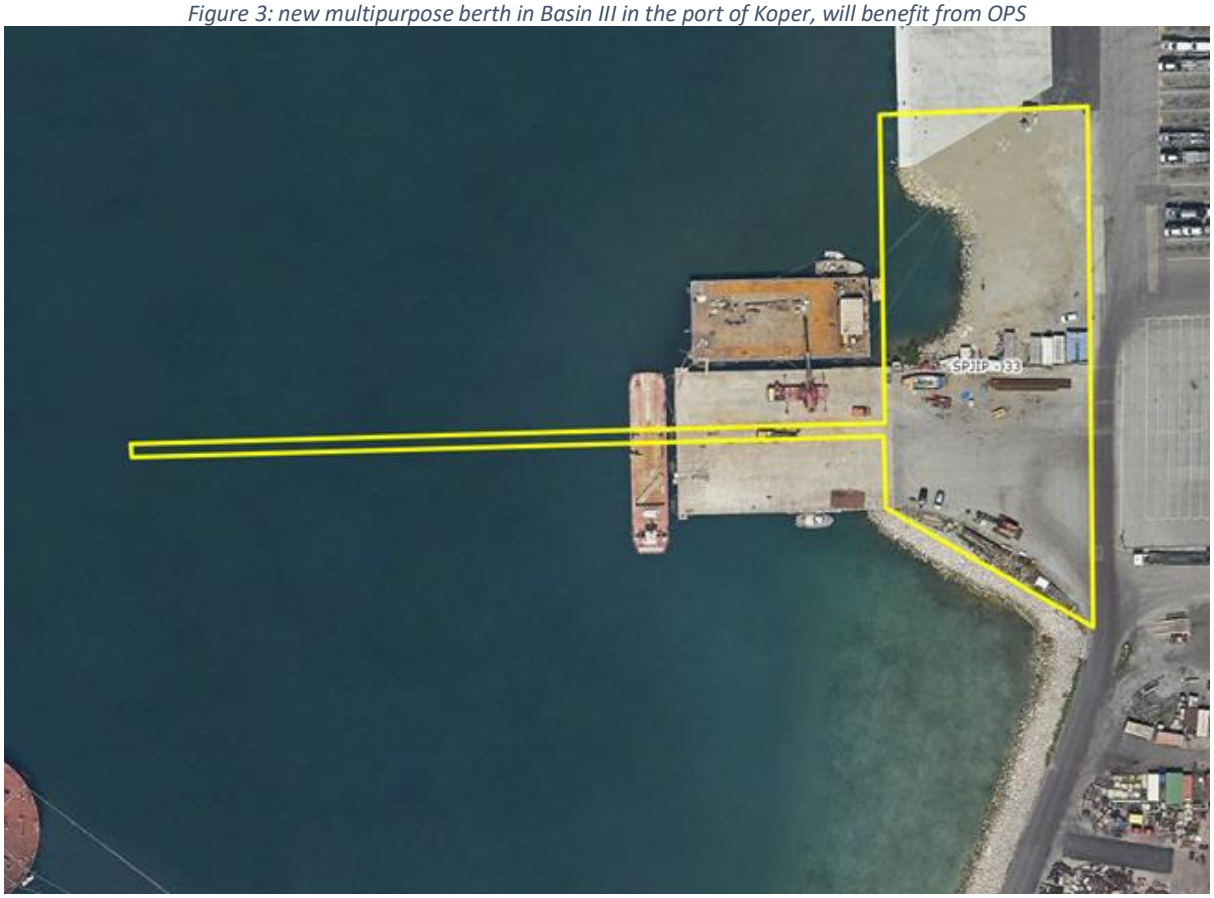
Figure: new Ro-Ro berth in Basin III in the port of Koper

This berth is going to be electrified in next years and the project documentation is co-financed by the CEF Programme and its co-financed EALING Action number 2019-EU-TM-0234-S. The activities concern the implementation of a detailed analysis on the current status of technical, legal and regulatory framework – at Member States level and at EU level – concerning the implementation of OPS in the port of Koper, as well as in other EU ports.

According to Directive 2014/94/EU on the deployment of alternative fuels infrastructure EU TEN-T core ports have the obligation to implement shore-side electricity facilities that can serve maritime transport as clean power supply. At the Port of Koper we will establish the shore side electricity supply for ships while berthing at the port. Shore-side electricity can contribute to reducing the environmental impact of maritime transport. Such infrastructure requires significant modification of the existing electricity grid. The first step is preparation of documentation and acquiring all necessary permits for the connection to 110 kV grid. Afterwards the implementation of cold ironing in port of Koper will be done in phases, including all essential elements (construction work, converter stations and substations, cable connections and ship connection cable management system). At the same time the additional el. charging stations for electrical vehicles and other port mechanisation (el. forklifts, el. terminal tractors, etc.) will be set up.

As said in previous paragraphs, in the near vicinity of the Basin III are planned many investments, which are all dedicated to car terminal and partially also to timber. The main works foreseen are: (re)construction of the multipurpose berth, dredging works in Basin III, especially in the frame of (re)construction of the multipurpose berth. The development of the seaside will be accompanied by the construction of new railways supporting both, road and railway connections in the port area, also including open storage areas for project cargo handling. The electrification of the first berth in that area is the natural consequence of the progress of works planned in the northern area of the Port of Koper.

Figure 3: new multipurpose berth in Basin III in the port of Koper, will benefit from OPS



FUNDING SOURCES

Type of the funding source	4) European Regional Development Fund (ERDF)
Name of the funding source	10) CEF 11) Luka Koper's own funds and loans
Share of funding sources	• **<u>CEF: EALING</u>** (50%) 0,5mio EUR for project documentation related to the electrification of new berths in Basin III

PROJECT STATUS

Regarding the activities related to the electrification of berths in the port of Koper, the construction of new multipurpose berth can be linked with the electrification of the whole area through new calls for CEF funds. Potential co-financing is available for the electrification of the berth, considering actual calls for proposals including funds for Onshore Power Supply (OPS) infrastructures.

The electrification of the first berth will be supported by the greening of the whole port which is going to be covered by new green energy coming from solar energy. It's going to be produced by many solar systems from the roofs of different warehouses

Figure : green energy produced in the port of Koper

Due to the necessity to berth larger vessels in Basin III and taking in account their specific requirements for port accessibility, there's a general need in the area to provide additional infrastructure capacities. Going into details, there is a necessity to produce more green energy if we consider that in the year 2021, only 1% of port's electricity was produced from solar energy and 4.5% of electricity was recovered from cranes' systems. The perspective for year 2025 is for about 25% of electricity produced through solar systems in the port (approx. for 7 MWp) even if the 4,5 % of electricity will still be recovered from cranes.

Following the plans agreed with the Ministry and Government, the electricity produced from solar systems by the end of 2030 will reach the 30% of the energy consumed by the Port of Koper (10 MWp) which is the max power allowed by actual electrical infrastructure in the Port of Koper.

In addition to this, the electrification of the port includes also:

- the creation of a Energetic Control and Information Centre,
- the electrification of Rubber-Tyred Gantry – RTG,
- the purchase of electrified Rail Mounted Gantry Cranes – RMG,
- the obtaining of quality certificates for standards ISO 50001:2018,
- the introduction of LED lighting all over the port area,
- system implemented on cranes for the recovery of 30% electricity, which results on yearly basis on a recuperation of approx. 2 MW of power,
- SCADA control system for the recovery of data about consumtion of electricity in the port area.

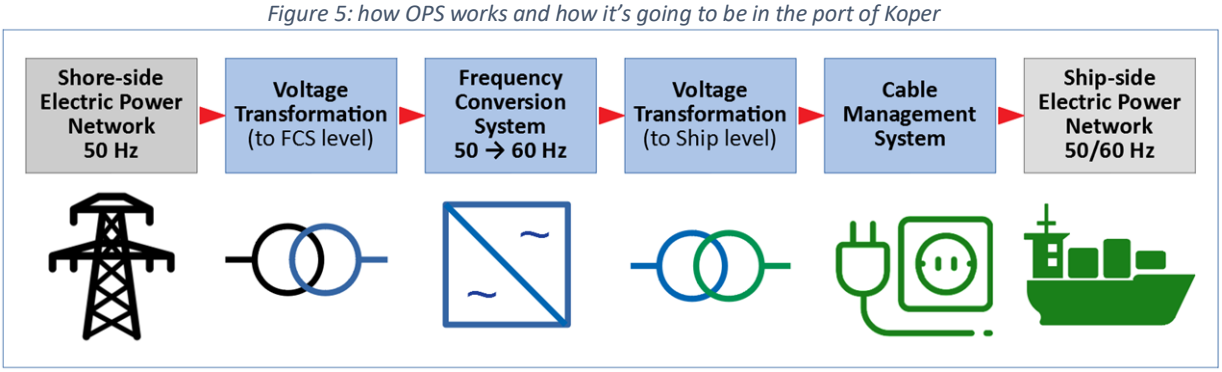
RESULTS

The directive 2014/94/EU of the European Parliament and of the Council of the 22nd of October 2014 on the establishment of infrastructure for alternative fuels defined in its art. n.4 that Member States shall assess in their national policy frameworks the need for shore-side electricity supply for inland waterway vessels and seagoing ships in seaports and inland ports.

Such shore-based electricity supply shall be established in TEN-T core ports and other ports as a matter of priority by the 31st of December 2025, unless there is no demand and the costs are disproportionately high compared to the benefits, including environmental benefits.

The European Commission is preparing a proposal for a new regulation that will repeal Directive 2014/94/EU and foresees the obligation to provide electricity supply from the shore only for container and passenger ships in TEN-T ports by the 1st of January 2030.

Figure 5: how OPS works and how it's going to be in the port of Koper



Also the Port of Koper is going to follow the indications provided by the new EU Directives. At this regard, studies and analysis have already been done and proper support from electricity supplier will be needed in order to upgrade the infrastructure supplying the Port of Koper with electricity.

Figure 6: how an OPS looks like

1.2.1.2 Upgrading of Railway infrastructures of the Port of Trieste

PROJECT IDENTIFICATION

Autorità di Sistema Portuale
del Mare Adriatico Orientale
Porto di Trieste

Co-financed by the European Union
Connecting Europe Facility

PROJECT DESCRIPTION

Regarding the Maritime dimension topic of EUSAIR, the Adriatic and Ionian Seas represent the backbone of the Region, and its major asset.

Maritime transport is an economic sector that could play a significant role in Adriatic and Ionian countries. In this context, development of maritime transport, in particular motorways of the sea as navigation corridors, is of paramount importance and must go hand-in-hand with the creation of modern and efficient intermodal ports integrating maritime transport with rail and road. Such an extension of infrastructure and transport activities must be accompanied by a coherent sustainable transport plan linked, inter alia, to an air quality plan under Directive 2008/50/EC. Investments in innovation and modernisation of infrastructure, reduction of procedural constraints and bureaucratic burden (especially in port operations) and promotion of safe maritime traffic should be given priority in the
entire sea basin.

The North Adriatic Ports Association (NAPA) constitutes a positive step of cooperation between the Adriatic ports in their global competition with those of Northern Europe. The partners agreed, in particular: (a) to establish a network of port community systems capable of integrating all members of the transport community through internet; (b) to exchange data on the shipping lines and vessels operating between sea ports and harbours in order to achieve coordination and integration; and (c) to promote the concept of "Single Window" with the aim of reducing transaction costs and operation turnaround time.

Ports also play a key role in local traffic, with ferries and Ro-Ro short-sea shipping.

In this framework the Port of Trieste plays an important role, because is also part of NAPA Association. And moreover in TRIESTERAILPORT Porject it satisfies the criteria of the priority action: Developing ports, optimising port interfaces, infrastructures and procedures/operations: Developing the ports and port terminals in order to boost maritime transport, short-sea shipping capacity and cross-border ferry connectivity. Ports should favour development of combined infrastructure (trade, procedures, movement of goods information systems, structures, vehicles and operations), improving links to the mainland and emphasising the supply chain of goods.

In fact, TRIESTERAILPORT is part of a Global Project which aims to upgrade the railway infrastructure of the Port of Trieste, including Campo Marzio, Aquilinia and Scalo Legnami stations, as well as the last mile interconnections among them.

The Global project comprises four main sections:

1) Upgrade of the railway last mile connection;
2) Infrastructure upgrade for the reactivation of the railway line connecting Aquilinia station to Campo Marzio;
3) Upgrade of the existing infrastructure and new railway station at Scalo Legnami;
4) Infrastructural and technological upgrade of the port marshalling yard connecting Piers 5, 6 (RoRo transport) and 7 (containers) to Campo Marzio Station and then to the national railway lines;

The Action is located in the core maritime Port of Trieste on the Baltic-Adriatic and Mediterranean core networks.

The Port of Trieste registered considerable growth not only in the total throughput, but also in the intermodal transport, becoming the top ranking Italian port in both domains.

The current railway layout of the fourth section of the Global project is a bottleneck for the further development of intermodal transport to/from the port, presenting the following restrictions:

- the train length is currently limited to 550 metres;
- it does not allow trains to operate simultaneously from the three port terminals,
- the manoeuvres of the marshalling yard are not automated, causing delays and posing higher risks to the safety of the operations due to human errors.

The objective of the Action is to improve the hinterland accessibility and multimodal connections of the Port of Trieste by upgrading the physical and soft railway infrastructures of the port's marshalling yard connecting Piers 5, 6 (RoRo transport) and 7 (containers) to Campo Marzio Station, in order to:

- increase the train capacity of the marshalling yard of the Port of Trieste by 80%, by 18,000 trains;
- 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 to 3 and 2 hours respectively;
- ensure full IT interoperability with port railway stakeholders.

Specifically the Action TriesteRailPort addresses:

- infrastructure works to change the current layout of the port shunting area;
- full automation of the maneuvers and full coordination with the automated system used by RFI S.p.A. by deployment of a new signalling system;
- installation and launch of the soft infrastructures (software and hardware) to ensure interoperability with all relevant stakeholders, i.e. the Port Community System of the Port of Trieste, RFI S.p.A, Customs Agency, terminal operators, railway shunting company, multimodal transport operators (MTOs), inland terminals/ rail-road terminals (RRTs), railway undertakings.

FUNDING SOURCES

Type of the funding source	CEF - Connecting Europe Facility.
Name of the funding source	CEF - Connecting Europe Facility.
Share of funding sources	Total budget: 6.540.000,00 € eur (20 % CEF)

PROJECT STATUS

The project is still ongoing. The end is foreseen in December 2023. The “Campo Marzio” railway station, managed by the national infrastructure manager (RFI S.p.A.) shall be modernized starting 2019 and it will be financed by the national budgetary allocation. It is part of the Global project.

The works schedule on the railway infrastructure of the Campo Marzio Station are managed by RFI S.p.A.

In June 2019, the Port of Trieste and RFI agreed to jointly implement the works as to minimize the impact of the works on the growing rail freight flows.

The contract agreement with EIB was signed on 20th Dec. 2019.

In May 2020 a dedicated Protocol with RFI was signed for project final designs, which were finalized by December 2020.

In September 2021 a 2nd protocol with RFI was signed, whereby RFI accepted to be the contracting authority for the works. RFI launched the related tender for the works in October 2021.

Works started in December 2022, and the project will be completed in 2024. A project extension will be requested to CINEA.

RESULTS

Thanks to its geographical position, the Port of Trieste is the hub of regular and direct ocean connections with the Far East, with stops also at numerous Mediterranean ports by the world's leading shipping companies. Also, the Port of Trieste is a member of the North Adriatic Ports association (NAPA) which brings together four ports, Rijeka, Venice, Trieste and Koper, that stand as a multiport gateway to the markets of Central Europe.

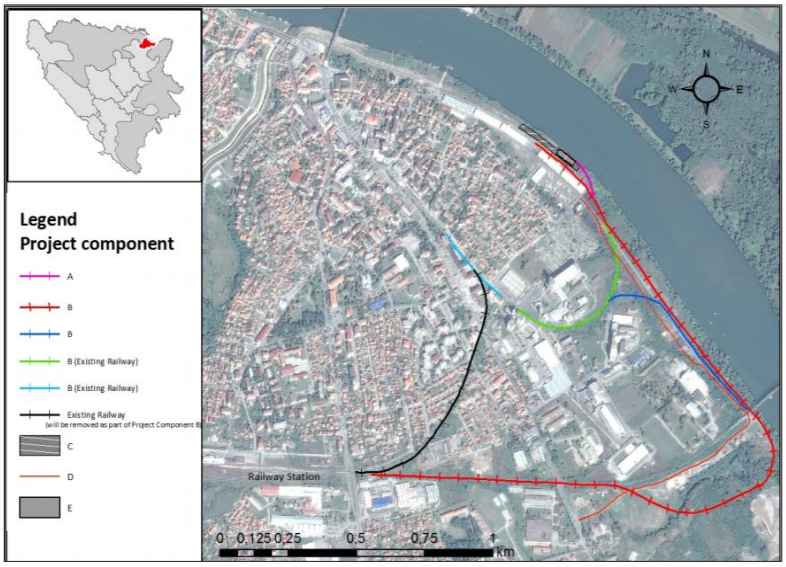
More than 200 trains a week connect Trieste with the industrial areas of North-Eastern Italy and Central Europe, with various destinations such as Germany, Austria, Luxembourg, Slovakia, Hungary, Belgium and the Czech Republic, serving an economic hinterland that is increasingly developing and extremely articulated. Highly specialized intermodal services with direct trains have been developed to reach the target markets in Central and Eastern Europe.

The results of the TRIESTERAILPORT project will enable the port of Trieste to increase its capacity by improving the integration of sea and rail transport, in compliance with the EUSAIR strategy

1.2.1.3 Reconstruction and upgrading of functional facilities in the Port of Brčko

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	*x*
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	



PROJECT DESCRIPTION

International Port Brčko is located in the Northeast part of Bosnia and Herzegovina, on the right riverbank of the Sava River waterway. Category IV navigability, average navigation period of 260 days per year and the economy of this gravity area determined the significance of this Port compared to upstream ports.

It is possible to establish direct transport of goods along the Sava River with the Danube ports in the Western and Eastern Europe and the ports in the North Sea and the Black Sea. Connecting the European railway network with the Tuzla-Vinkovci road. Motorway Zagreb-Belgrade (European Corridor X) is in the vicinity of the Port of Brčko, as well as the main road M14.1.

It consists of 5 sub-projects:

1. Construction of railway track to Brcko harbour on the section of harbour crane path.
2. Reconstruction of industrial railway track on the line from the Port of Brcko to the Train station Brcko Novo and reconstruction of connections to industrial zone.
3. Construction of the asphalt plateau with drainage of rainfall.
4. Reconstruction of the access road from Bijeljinska cesta to the Port of Brcko.
5. Supply and installation of portal (harbour) crane.

The project is compliant with the criteria "Interoperability and intermodality between different modes of transport", "Promotion of green transport solutions (land and sea side)".

The project has been approved in November 2016 within the national “Framework Transport Strategy of Bosnia and Herzegovina 2016-2030”

FUNDING SOURCES

Amount and type of the funding source	Total cost: 13,18 millions, of which 10.00 millions have been financed by EBRD.

PROJECT STATUS

Approved. The project is progressing.

2. Soft Measures

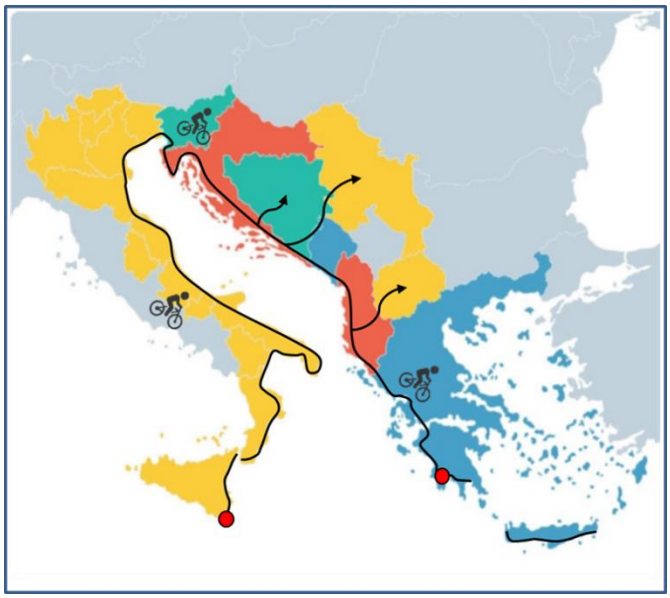
Projects labelled as softmeasures include Services, studies, pilot projects, EU Territorial Cooperation

a. Soft-Active mobility

1. ADRIONCYCLETOUR - ADRiatic IONian CYCLE route for sustainable TOURism

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*X*
GREECE	*X*
ITALY	*X*
SLOVENIA	*X*
Non-EU Countries	
ALBANIA	*X*
BOSNIA HERZEGOVINA	*X*
MONTENEGRO	*X*
NORTH MACEDONIA	*X*
SAN MARINO	*X*
SERBIA	*X*
TOTAL	*10*



PROJECT DESCRIPTION

The project aims to establish and develop the ADRIATIC-IONIAN Cycle Route that consists of a cycling route running along the coast of the entire Adriatic and Ionian basin from Italy (all the involved Regions) to Greece crossing the EUSAIR concerned Countries (coastal network) and including its main cycle connections to the hinterland areas of the eight EUSAIR countries (inland network). The route intends to have a twofold function, serving as infrastructure, integrated with the public transport systems (railways, bus, sea), for cycle tourism and for a sustainable urban and interurban mobility. At the same time developing of innovative and attractive transnational tourism product on the ADRIATIC-IONIAN Cycle Route and its main cycle connections to the inland areas represents also the main objective to be attained. The cross pillar idea contributes to the sustainable development of the territory at macroregional scale, promoting both sustainable mobility and the flourishing of sustainable tourism, supporting the tourism industry in full compliance of the environmental, artistic and historical assets of the entire Region.

In Italy the ADRIATIC-IONIAN Cycle Route starts from the Italian-Slovenian border at the east side of Trieste (Friuli Venezia Giulia Region) and runs along the Adriatic coast (Regions of Veneto, Emilia Romagna, Marche, Abruzzo, Molise) reaching Santa Maria di Leuca (Apulia Region) and the Ionian coast (Regions of Basilicata, Calabria and Sicilia). The overall length of the ADRIATIC-IONIAN cycling route in Italy is about 2.750 km. Additionally, In Italy the ADRIATIC-IONIAN Cycle Route for most of its length is a part of the National Cycling Route Network (Ciclovia Trieste-Lignano-Venezia, Ciclovia Adriatica, part of Ciclovia Magna Grecia). The ADRIATIC-IONIAN Cycle Route is also connected with the European cycle network "EuroVelo": in the northern part (Veneto and Friuli Venezia Giulia: EuroVelo n. 8) and in the southern part (Calabria and Sicilia: EuroVelo n. 7).

ADRIONCYCLETOUR was labelled as EUSAIR Project because it is fully coherent with the Priority Action "Maritime transport dimension in the macro-region" because ports should enable the development of combined infrastructure and boat/ferry-boat connections, as intermodal nodes within the wide area of the ADRIATIC-IONIAN Cycle Route, increasing the number of passengers/tourists. The cycling tourism path on both sides of the Adriatic/Ionian basin will allow the setting up and implementation of a large bicycle ring around the Adriatic and Ionian basin, whose ports serve as intermodal poles for the achievement of the opposite coasts by cyclists. The project is also coherent with the Priority Action Inter-modal connections in the macro-region, since the cycling tourism path on both sides of the Adriatic-Ionian Sea follows the coastline and the main cycle connections to the inland area. To promote such cycling network as new sustainable tourism route it is necessary to promote and develop also reliable transport networks and intermodal connections with the hinterland in order to valorize and promote the richness and unicity of natural and cultural heritage of the entire Region (charming small towns, natural, cultural and historic sites, quality of accommodation facilities and promotion of traditional local food).

FUNDING SOURCES

Type of the funding source	1) European Regional Development Fund (ERDF) 2) National co-financing
Name of the funding source	Interreg Italy - Slovenia
Share of funding sources	Total Budget available within Interreg Italy-Slovenia: euro 4.375.000,00 - 85% European Regional Development Fund (ERDF) - 15% National co-financing

PROJECT STATUS

ADRIONCYCLETOUR is a mature project as far as part of the Adriatic- Ionian Region is concerned. In Italy most of the ADRIATIC-IONIAN Cycle Route (coast network) is encompassed in the "National System of Tourist Cycleways" established by Law n. 208/2015, updated then by Law n. 96/2017. The aforementioned laws finance both the feasibility studies for the construction of these cycleways. Also the Italian Regions have already built or financed additional sections of cycle routes belonging to the ADRIATIC-IONIAN Cycle Route. With reference to the other EUSAIR countries, similar planning and implementation processes are being developed and financed under national and EU Funds. Northern and eastern part of the entire proposed ADRIATIC-IONIAN Cycle Route (coast network from Venice to Greece) coincides with the "Mediterranean Route - EuroVelo 8", that is a part of the European cycle network EuroVelo. Eurovelo 8 is currently benefitting from financing for its development by Interreg MED and more precisely by the MEDCYCLETOUR approved project which involves 11 partners from 7 of the countries crossed by the EuroVelo 8 (Spain, France, Italy, Slovenia, Croatia, Greece and Cyprus). The project provides actions for the development of the cycle route along the coast of the northern Mediterranean (Cadiz-Trieste-Athens-Cyprus). EuroVelo 8 does not include the Regions of Central-northern Italy as the ADRIATIC-IONIAN Cycle Route.

Exploiting the opportunity given by EU regulations referred to the programming period 2021 - 2027 of the European territorial cooperation, with particular reference to the embedding of the macro-regional flag-ship projects into main stream and Interreg programmes, FVG Region managed to include in the OP Interreg Italy-Slovenia 2021-2027, among the project of strategic relevance selected by the Programme itself, the cross-pillar (TSG2 and TSG4) and flagship project Idea of ADRIONCYCLETOUR. On October 21st, FVG Region, Central Directorate for infrastructure and territory, has been officially invited to submit the project proposal which will make it possible the embedding of ADRIONCYCLETOUR project idea into that cross-border cooperation programme. The total assigned budget is 3.500.000,00 of ERDF fund (plus 20% of national cofinancing), which will be used also for improving some cycling infrastructures on both countries, part of the ADRIONCYCLETOUR coastal and inland network. The project was submitted by the set deadline of December 21st. The project was

approved on January 18th, 2023, with a total budget of € 4.375.000,00 (of which euro 3.500.000,00 ERDF, and national public Italian co-financing envisaged by Delibera CIPESS n. 78/2021, euro € 525.000,00) and it will have a duration of 36 months (end date 31.08.2025).

On December 16th, 2020, the workshop "ADRIONCYCLETOUR: an integrated project for the Adriatic-Ionian Region cycle routes", as an online event via EUSAIR Stakeholder Platform, was organized in collaboration with the Friuli Venezia Giulia Region and Pillar 2 - Transport subgroup, as part of the activities envisaged by the EUSAIR WorkPlan 2020 TSG 2 - Transport subgroup. The purpose of the event was the presentation of the cycle lanes already planned and partly built or in design phase, which may be part of the ADRIATIC-IONIC cycle route. Information and inputs were collected on technical guidelines for evaluating cycle routes in EUSAIR countries and on funding currently available for their construction in the project area.

RESULTS

With reference to the expected results, it is worth mentioning the sustainable development of the territory at macro-regional scale, promoting both sustainable mobility and the flourishing of sustainable tourism, supporting the tourism industry in full compliance of the environmental, artistic and historical assets of the entire Region.

In terms of expected impacts on the Adriatic Ionian Region, should be taken into account various and main effects which will positively impact the environmental quality, economy and quality of people life, such as:

- contribution to the sustainable development;
- reducing use and transfer by car (diminishing CO2);
- developing a bike culture as mean of autonomy and relationship;
- promoting use of bike as healthy activity preventing from diseases.

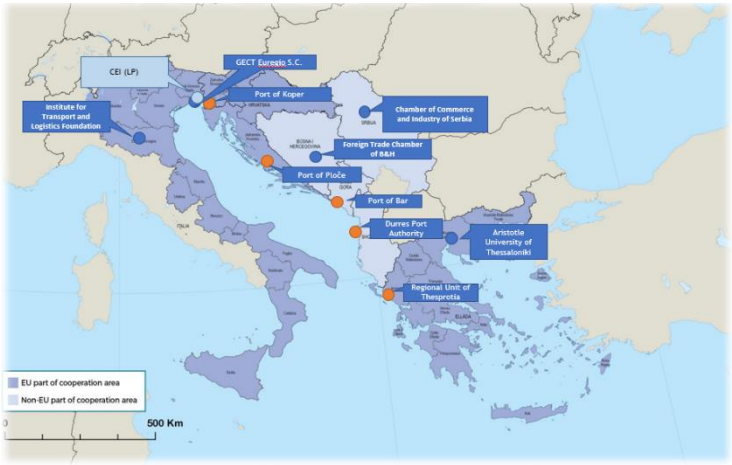
Completion and full establishment of the entire Adriatic-Ionian cycle route and the inner connections to the hinterland would require/imply the activation of National Funds (including regional and local co-financing) for each concerned Country. Therefore, further expected development is mostly connected with the availability of funds at national but also at EU level for completing the cycling infrastructures in the whole Adriatic Ionian area. Following what was done in the framework of Interreg Italy – Slovenia 2021-2027, similar projects are bound to be submitted in the future calls of the 2021 – 2027 territorial cooperation programmes, involving the countries part of the macro-regional strategy, supporting the implementation of the project idea.

b. Studies and pilots

1. ADRIPASS

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*X*
GREECE	*X*
ITALY	*X*
SLOVENIA	*X*
Non-EU Countries	
ALBANIA	*X*
BOSNIA HERZEGOVINA	*X*
MONTENEGRO	*X*
NORTH MACEDONIA	
SAN MARINO	
SERBIA	*X*
TOTAL	*8*



PROJECT DESCRIPTION

Following three years of fruitful cooperation between project partners and with transport stakeholders, the ADRIPASS project has achieved all the planned results, providing innovative approaches and methodologies for enhancing multimodal freight transport in the ADRION region.

According to the project, partners have initially focused on analyzing physical and non-physical barriers along the TEN-T corridor networks in ADRION region with a special focus on Western Balkans (where the issue of border crossing points is particularly relevant), collecting data on the main transport nodes. This analysis – that covered 30 road BCPs (94%), 21 rail BCPs (100%), 15 sea-ports (87%) and 28 inland

terminals (71%) – not only have provided information regarding the existing problems affecting the efficiency of the node, but has also highlighted, grouped and prioritized potential mitigation measures. The results of the performed analysis have been summarized in the "Final report on data collection" and in the "ADRIPASS Transnational action plan for transport facilitation in the Adriatic and Ionian region".

According to the outcomes of the above-mentioned analysis, ICT applications have shown all their potential added value as relatively low-cost solution to improve the efficiency of the surveyed transport nodes. This is the reason why in the second phase of project implementation, specific ICT applications (upgrades of Port Community Systems) have been implemented in 4 selected ports (Koper, Ploce, Bar, Igoumenitsa). Moreover, considering the importance of ICT applications to improve the performance of the ports, ADRIPASS has also supported the port of Durres ADRIPASS in setting the requirements of its (future) Port Community System. Based on the knowledge gained during pilot action implementation and following an analysis of best practices on ICT applications, the "ICT Action plan for improving multimodal transport in the ADRION region" has been developed by project partners, designing a roadmap for further promoting digitalization of processes at main logistic nodes as a crucial element to improve the attractiveness and sustainability of multimodal transport in the region.Following the positive conclusion of the analysis on the existing bottlenecks as well as the implementation of the 5 pilot actions on ICT, project partners, in cooperation with the national ministries of transport and other regional, national, and international transport stakeholders, have designed the "transnational strategy for the improvement of multimodal transport and accessibility in the ADRION region", paving the way to the concrete implementation of the roadmap for promoting maritime-hinterland sustainable freight connectivity within the Adriatic-Ionian region. The ADRIPASS strategy has been acknowledged by project partners and by the ministries of Bosnia and Herzegovina, Serbia, Albania, Montenegro, Greece as well as by the Transport community Permanent Secretariat, by the Emilia Romagna region and other transport stakeholders.

FUNDING SOURCES

Type of the funding source	EU Funds – Interreg ADRION Programme
Name of the funding source	ERDF – European Regional Development Fund IPA II – Instrument for Pre Accession
Share of funding sources	ADRIPASS PROJECT Total ERDF: 802 398.71 Total IPA II: 407 910.75 % on the total cost: 85%

PROJECT STATUS

The ADRIPASS project was successfully completed in December 2020.

ADRIPASS AR navigation

available on the Google Play: https://play.google.com/store/apps/details?id=com.indigital.adripass

available on the App Store: https://apps.apple.com/app/id1477491530

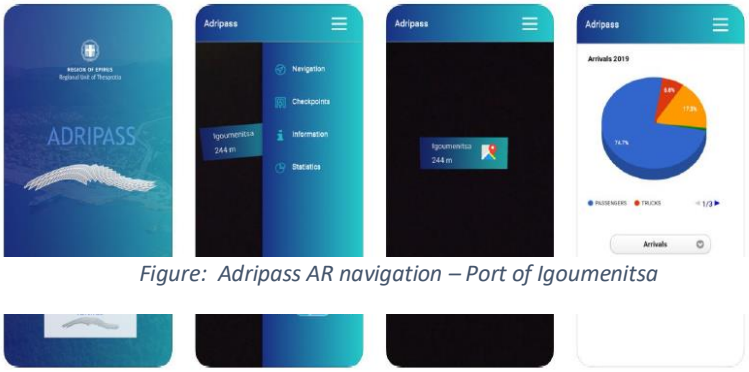


Figure: Adripass AR navigation – Port of Igoumenitsa

Following the successful completion of the ADRIPASS project, with its main achievements on border crossing facilitation, dematerialization of administrative processes exploiting the potential of ICT in some selected ADRION ports and with the endorsement of the transnational strategy for the improvement of multimodal transport and accessibility in the Adrion region, partners and relevant target groups worked together on the ADRIPASS PLUS Project with the main focus of updating the above mentioned transnational strategy taking into account the additional challenges posed by COVID19 as well as by the difficulties related to the current international context.

Partners worked together with the ADRIPASS transnational cooperation network to collect from stakeholders and target groups updates and new priorities for the promotion of multimodal transport in ADRION and to identify potential improvements of the ADRIPASS transnational strategy. This was mainly performed through the organization of two Cooperation Network online meetings (February 2022 and June 2022), with the participation of high-level stakeholders of the EUSAIR region.

In addition, taking into account the positive results achieved within ADRIPASS in terms of digitalization of operational processes in the ports of Bar and Koper, ADRIPASS PLUS project supported further enhancements of the already developed ICT platforms (Port Community Systems).

Furthermore, interaction with the members composing the ADRIPASS Transnational Cooperation network and consultation with other institutions and entities (universities, associations, …) guaranteed appropriate dissemination not only for the activities developed within ADRIPASS PLUS project but also, more generally, for the promotion of sustainable multimodal transport policies and solutions in the ADRION and EUSAIR region.

ADRIPASS and ADRIPASS Plus projects were promoted through their project website, on the social media pages and in several events, such as:

- the EUSAIR 16th meeting of sub-group of transport (TSG2) – 18th March 2022
- EUSDR 25th Steering Group Meeting – 5th May 2022
- ADRION'S Annual event held back to back with the 7th EUSAIR Forum in Tirana - 6th May 2019
- 7th and 13th Transport Facilitation Technical Committe meeting (Transport Community Permanent Secretariat) – 25.01.2021 and 13-03.2023

- Interact Event “Learning about Sustainable Transport”, organized by INTERACT in Brussels, 7th March 2019

In view of enhancing the collaboration with international organizations, the CEI-ES held an online meeting with CEFTA and had regular cooperation with the Transport Community Permanent Secretariat.

RESULTS

Three methodological phases have been implemented in the framework of the ADRIPASS project:

- phase 1) Analysis/better understanding of problems and identification of soft measures,
- phase 2) Testing/implementation of piloting activities and investment studies and
- phase 3) design of a vision/strategy for the enhancement of multimodal transport in the Adriatic Ionian region, s etting up a dedicated Transnational Cooperation Network.

Figure Port of Ploce – module for announcements

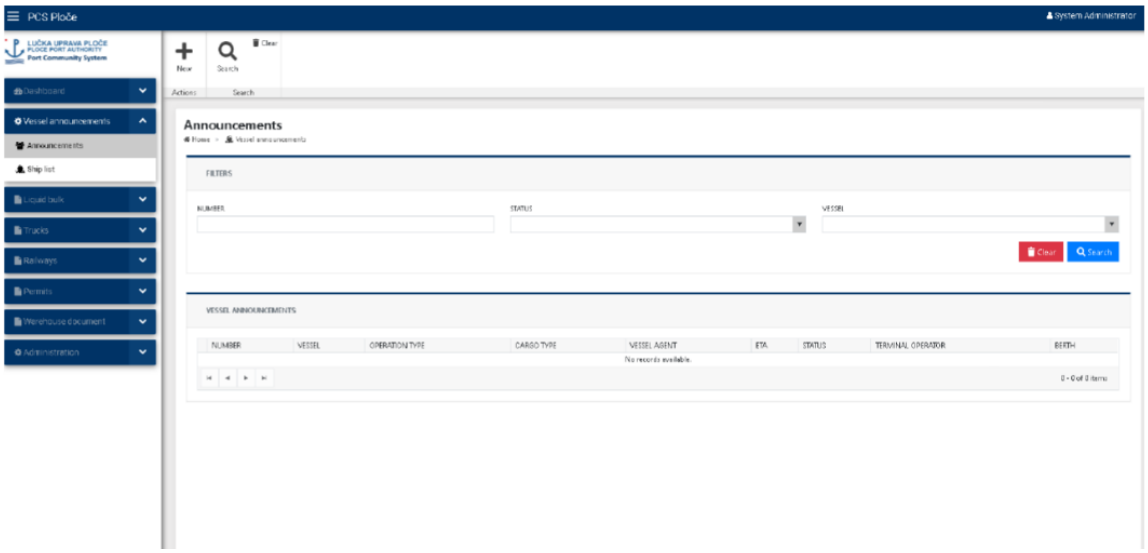
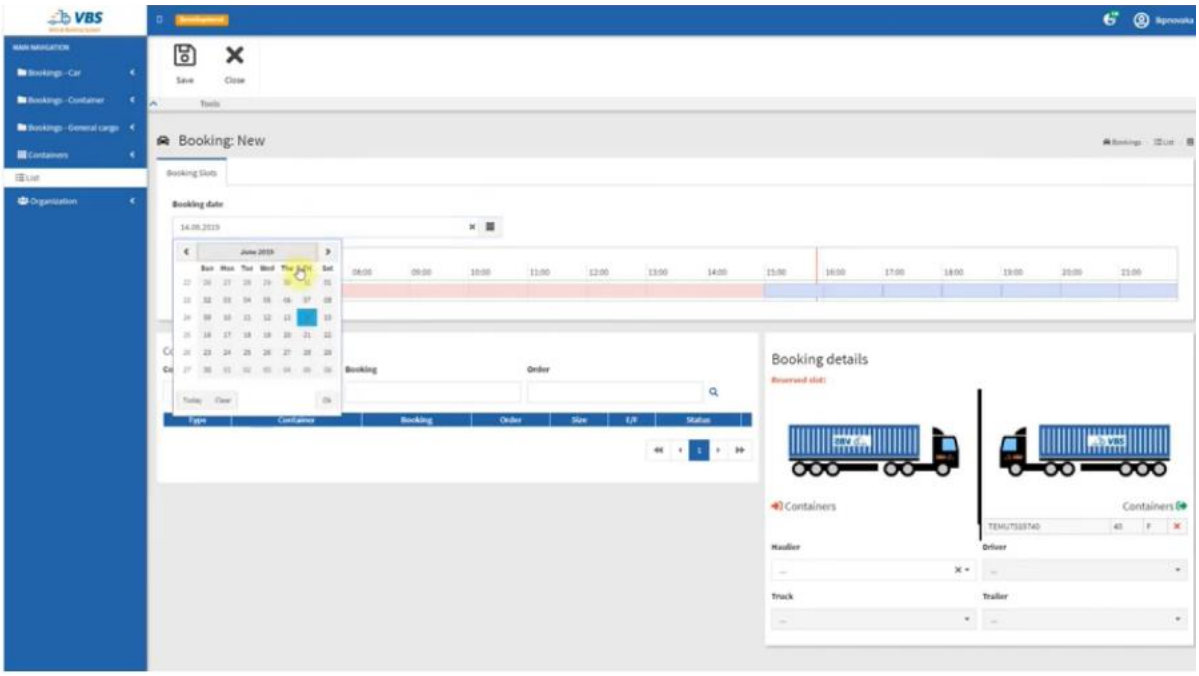


Figure Vehicle Booking system – port of Koper



Regarding phase 1, the performed analysis on physical and non-physical barriers along the TEN-T corridors in ADRION on the one hand has guaranteed an in deep analysis on the existing barriers with a special focus on Border Crossing Points, on the other highlighted the potential benefit referred to the implementation of soft measures (ICT, administrative, organizational measures). This analysis resulted in the design of a "transnational action plan for transport facilitation in ADRION".

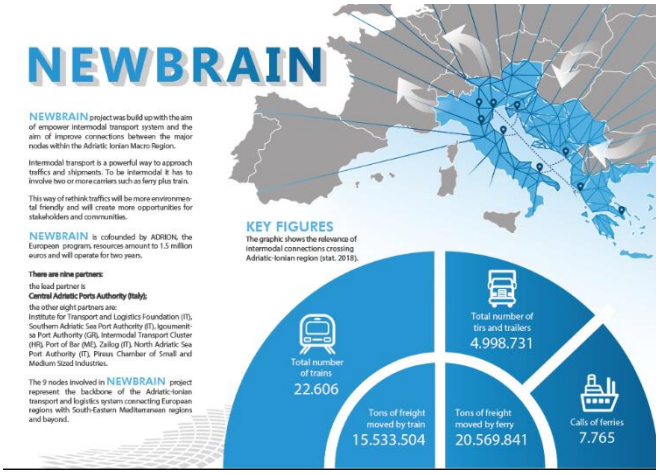
Phase 2, dedicated to the concrete implementation of ICT application in 5 selected ports/regions, guaranteed not only the improvement of operations at ports but has also supported the identification of a specific action plan on ICT (i.e. "ICT Action plan for improving multimodal transport in the ADRION region"). Additionally, based on the outcomes of phase 3, project partners worked in cooperation with transport stakeholders, ministries of transport and other institutions (e.g. international organizations, transport community, …) to design a shared vision for the promotion and the enhancement of sustainable multimodal transport solutions in ADRION. This was achieved by designing and adopting the "Transnational strategy for the improvement of multimodal transport and accessibility in the ADRION region". Transport stakeholders not only supported the strategy but also agreed to take actively part in the proposed cooperation network to further promote multimodal transport in the ADRION region.

The adoption of the strategy for the improvement of multimodal transport accessibility in the Adriatic Ionian area was accompanied by the creation of a transnational cooperation network aimed at ensuring collaboration among the project stakeholders (partners and associated partners), beyond the project closure. In this regard, it is worth recalling that the ADRIPASS project was followed by the ADRIPASS PLUS capitalization project, financed in 2021 and aimed at updating the transnational strategy in light of the changed international context (COVID-19) and the resulting economic crisis. Furthermore, ADRIPASS PLUS has allowed for further enhancement of the port community systems of partner ports, with additional modules aimed at promoting the dematerialization of operations in ports. More information about project results are available in the project's final publication.

2. NEWBRAIN

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*x*
GREECE	*x*
ITALY	*x*
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	*x*
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	*4*



PROJECT DESCRIPTION

NEWBRAIN project was labelled EUSAIR because it is fully coherent with EUSAIR Strategy and in particular with Pillar II "Connecting the region" – Topic 2 "Intermodal connections to the hinterland" as it aimed at strengthening connections and accessibility of the 8 core nodes of the Adriatic- Ionian Macro-Region as main access gates to Europe of consistent passengers and freight traffics from South-East Mediterranean and Far-East to Central Europe.

NEWBRAIN aim was to boost the relevance of the Adriatic Ionian core nodes system, both maritime and dry ports, in the framework of the European transport policy and TEN-T network as key gates connecting Central and Western Europe with the South-East Europe and Mediterranean countries.

In this context, NEWBRAIN contributed to the cooperative and coordinated approach for the improvement of physical and non-physical infrastructure works and integrated connections between ports and their hinterlands identified by the EUSAIR as key interventions to reduce the strong disparities between the MS and Western Balkan regions transport system.

Main objective of NEWBRAIN project was also to unlock the potential for integrated intermodal transport and improve the connections between the main logistics nodes of the Adriatic Ionian area by enhancing their capacities to launch feasible investments, in line with the priority of development of the South East Mediterranean Motorway of the Sea Master plan to concentrate flows of freight on sea-based logistical routes, as foreseen in the "Intermodal connection in the macro-region" priority of the EUSAIR Action Plan.

NEWBRAIN project matches with the EUSAIR flagship project of "ADRIATIC-IONIAN GREEN/SMART PORT HUBS CONCEPT" as it contributes to the objective of making seaports of A-I region a driver in pursuing resilience to climate change. NEWBRAIN in fact focusses also on the environmental dimension

as one of the most important variables to be taken into consideration when evaluating specific interventions in the nodes: it was calculated that the interventions planned by the partners in the field of intermodality counts for over 1 Million tons of CO2 saved every year corresponding to nearly 2,7 Million €/ year-

In the framework of the Thematic Cluster No.4 "Integrated multimodal sustainable water and land transport" of ADRION programme, coordinated by Central Adriatic Ports Authority as LP of NEWBRAIN, it was elaborated a policy paper based on the results of the 6 Thematic cluster projects that highlights strategic recommendations on Funding, Cooperation, Infrastructure, Innovation and Digitalization topics.

The policy paper contributes to the shaping of policy priorities on future EUSAIR action plan and transport masterplan, with the scope of strengthening of the Adriatic Ionian transport and logistics system, at the light of its central role in the European freight traffic of the current programming period 2021-2027.

FUNDING SOURCES

Type of the funding source	1) European Regional Development Fund (ERDF) 2) IPA II 3) National Co-financing
Name of the funding source	Interreg ADRION 2014-2020 programme
Share of funding sources	Total Budget: 1,49 mil EUR 85% ERDF and IPA II funds 25% national contribution

PROJECT STATUS

The project was concluded in December 2020 through a final conference held online due to COVID-19 restrictions.

The final Conference was participated by Ms. Calliari, Project Officer of NEWBRAIN project, and Prof. Coppola, representative of Pillar II of EUSAIR strategy.

Moreover, under NEWBRAIN PLUS Project, follow up of NEWBRAIN, the high level event "The Adriatic-Ionian Motorways of the Sea: sea bridges between continental Europe and the East Med" organized in Ancona on 20th May 2022 was characterized by the participation of the European Coordinator for the Baltic-Adriatic Corridor, Ms. Anne Jensen, and of the European Coordinator for the Motorways of the Sea, Mr. Kurt Bodewig, as main representatives of the European Transport Policy in the Adriatic-Ionian area. Moreover, the event was participated also by the Italian Ministry of Infrastructure, Enrico

Giovannini, the Vice-President of Europlatform, Alberto Milotti, the responsible for Pillar II "Connecting the Region" of EUSAIR strategy on transport sector, Pier Francesco Coppola, and several representatives of the Italian parliament in the field of transport and logistics.

The event deepened at a strategic level the issue on how a new transport and logistics integrated system can enable the Adriatic-Ionian Macro Region to be a sea bridge for the freight traffic between Continental Europe and East Med. This is consistent with the EUSAIR priority action "Inter-modal connections in the macro-region" and in particular "Motorways of the Sea" that seeks the improvement of coordination and integrated management of the whole logistic chain for the joint improvement of infrastructure within a port and its hinterland.

RESULTS

The bottleneck analysis of NEWBRAIN project highlighted 30 priority projects, mostly already identified in the TEN-T corridors, as strategic for the enhancement of the logistics and transport nodes in the Adriatic-Ionian Macro-Regional area, whose realization would allow to overcome infrastructural or organizational bottlenecks that currently impact on the smoothness of the traffic flows in the Adriatic-Ionian Macro Region.

Moreover, in the NEWBRAIN planning phase, the 8 action plans developed by the partners collected 27 interventions, of which 19 concern infrastructural projects and 8 info-structural projects summing up to more than 2 Billion of Euro of Investments.

The most outstanding result of NEWBRAIN project is represented by the launching of concrete investments, as they show the contribution of the project to act as leverage and to improve the access to other forms of financing, to reduce the time to investments of concrete infrastructure thus contributing to realization of "Motorways of the Sea" EUSAIR priority and TEN-T regulations objectives.

In particular, the investment launched as result of NEWBRAIN project were:

- the Cost and Effectiveness analysis drafted by Central Adriatic Ports Authority on the Artificial Intelligent System for the ferry traffic tracking in the port of Ancona allowed to obtain a co-financing under the CEF programme for the realization of the ICT investments for a total of 1 Mil € investment;
- the technical and economic feasibility study developed by Northern Adriatic Sea port Authority under NEWBRAIN project to develop a new rail link between the South

Industrial Area of Marghera and Marghera Scalo Station is at the basis of the Veneto Intermodal project financed under the CEF;

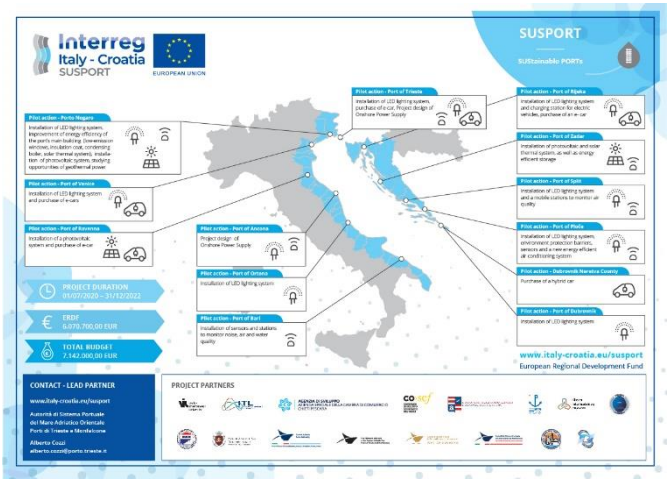
- The port of Bar, on the basis of the Main Design for reconstruction of reinforced-concrete structure of the Volujica quay 554 m in length realized in NEWBRAIN project, after a public procurement procedure, could assign the contract for the realization of the mentioned rehabilitation works for a value of 4.989.013,79 EUR. In addition, project of detailed geotechnical investigation of the terrain for extension of the quay Volujica (166m in length) lead to the signature of the contract for the main design of the quay extension for a total of 39.000 EUR

A follow up of NEWBRAIN proposal will be presented also under the IPA ADRION 2021-2027 call aimed to streamline the Motorways of the sea services crossing the EUSAIR Macroregion with the Western Med MoS. In particular, the focus will be on ICT tools to provide real time information across the smart corridor, market analysis with reference to transport solutions and to availability of alternative clean fuels for vehicles and ships, including coldironing in ports.

3. SUSPORT

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*x*
GREECE	
ITALY	*x*
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	



PROJECT DESCRIPTION

The EUSAIR Strategy for Adriatic and Ionian Macro Region is articulated on specific pillars, of which the second one “Connecting the Region” is strongly related to the topic of maritime transport and energy networks dealt with the SUSPORT Project.

More specifically, SUSPORT is totally coherent with the EUSAIR Plan of Action, in particular:

1. Maritime transport: Action "Adoption of a common framework for the development of green shipping solutions as the necessary facilities for bunkering with alternative fuels (LNG) and cold ironing in Adriatic-Ionian ports.
2. Intermodal connections to the hinterland.

Additionally, SUSPORT is coherent with the priority n.1 of Pillar 3 "To ensure a good environmental and ecological status of the marine and coastal environment by 2020 in line with the relevant EU acquis and the ecosystem approach of the Barcelona Convention".

SUSPORT has been labelled as EUSAIR Project because it is fully coherent with these two action priorities of the Macro Strategy, being able to provide a contribution to strengthen the institutional capacity and cross-border governance of the ports of the Programme Area in this sector and enhancing the environmental sustainability and energy efficiency.

Furthermore, SUSPORT, leading the practices devoted to reduce the emissions of pollutants and develop new tools and policies to address the environmental impacts of navigation and port operations, is compliant with another basic concept included in the Action Plan of the EUSAIR, which also became the Flagship Project of the Strategy: The Green/Smart Port Hubs Concept.

Regarding the Adriatic-Ionian Green/Smart Port Hubs Concept, in line with the goals and objectives of the European Green Deal, seaports in the A-I Region should be seen as a key priority in pursuing

resilience to climate change. SUSPORT Project acted exactly towards this direction: through the application of Pilot Actions that are coherent with the given objectives, the main Italian and Croatian ports in the Adriatic and Ionian Region were able to improve both the environmental sustainability and the environmental efficiency of their port operations.

EUSAIR promotes the development of concrete initiatives and SUSPORT appears to be coherent because the state of the art of these kinds of Projects can contribute to create and share a new knowledge basis.

FUNDING SOURCES

Type of the funding source	1. European Regional Development Fund (ERDF) 2. National co-financing
Name of the funding source	Interreg Italy-Croatia
Share of funding sources	Total budget: 7.142.000,00 eur 1. 85% - European Regional Development Fund (ERDF) 2. 15% National co-financing

PROJECT STATUS

The project is still ongoing. The main objective of SUSPORT is to enhance the environmental sustainability and energy efficiency of the ports in the Programme Area through increased institutional cooperation to create the basis for coordinated and permanent governance in the context of port environmental sustainability and energy efficiency at cross-border level, jointly developing action plans and a long-term strategy, increasing coordination and cooperation between ports to strengthen sustainability and competitiveness.

Through SUSPORT, ports of the Programme Area, will be able to share best practices and develop common methodologies for environmental sustainability and energy efficiency, to be tested in concrete pilot actions significantly improving the environmental performance of maritime transport in the whole Programme Area.

All ports involved in the project, after exchanging best practices, analysing the situation, and developing action plans in the field of environmental sustainability and energy efficiency, started carrying out their pilot activities as partners. In this context, ports tested several kinds of pilot actions as follows, ensuring a consistent exchange of experiences and expertise:

- replacement of the existing lightning system with LED light bulbs
- installation of photovoltaic and solar thermal systems
- implementation of e-mobility measures
- improvement of the environmental performance of port buildings

- installations of sensors and stations to monitor noise, air and water quality
- pre-investment studies for on-shore power supply

SUSPORT has facilitated the fulfilment of its scope, by generating a lot of studies and analysis on territorial needs, technologies, pilot actions, strategies and by creating events of dissemination such as training seminar, press articles, interviews with institutional subjects and technical conferences.

The final event will be held in Trieste on June 21st 2023. It will be organized with other projects and in cooperation with and under the auspices of EU Strategy for the Adriatic-Ionian Region.

RESULTS

The project will end in June 2023. The main result of SUSPORT is the enhancement of institutional capacity of the ports of the Programme Area in the key issue of environmental sustainability and energy efficiency, in a perspective long-term cooperation. In particular, SUSPORT aimed and aims to achieve the following specific results: 1) New planning documents of Italian and Croatian ports setting priorities and time frame for enhancing environmental sustainability and energy efficiency of maritime transport; 2) Reduction and monitoring of environmental impact of maritime transport; 3) Creation of a permanent cross-border cooperation structure on environmental sustainability and energy efficiency of maritime transport.

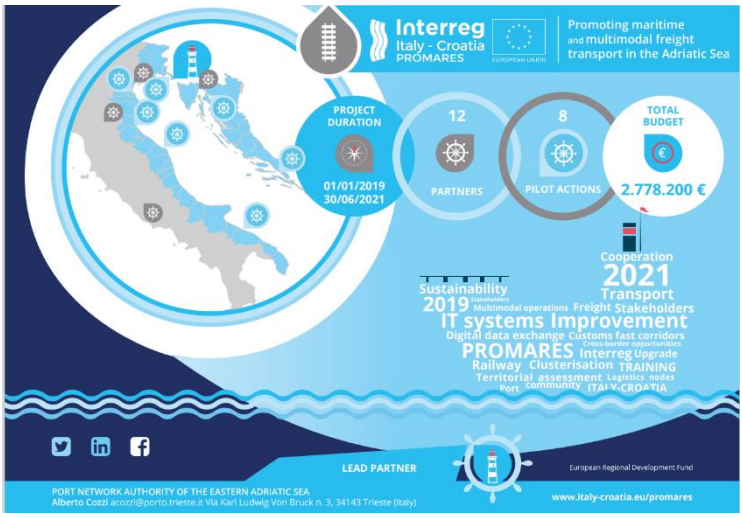
The results of the project are included in a cross-border strategy to strengthen port environmental sustainability and energy efficiency, which will be applied in the medium and long term by the project partners, signatories of a joint protocol during the final event.

Therefore, SUSPORT will create an institutional platform for long-term cooperation, cross-border governance of environmental sustainability and energy efficiency that will allow information, knowledge and best practices to be shared in a long-term perspective, also contributing to EUSALP, EUSAIR and EUSDR.

4. PROMARES

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*x*
GREECE	
ITALY	*x*
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	



PROJECT DESCRIPTION

PROMARES was labelled as EUSAIR Project because it is fully coherent with these two action priorities of the Macro Strategy, being able to provide a contribution on the overall knowledge of bottlenecks and issues related to the Intermodality.

Furthermore PROMARES, focusing on IC technology and its application on port/hubs systems, is compliant with another basic concept included in the Action Plan of the EUSAIR, that became also the Flagship Project of the Strategy: the Green & Smart Port. This reference topic holds a double meaning definition: technological and environmental. **Smart Port** concept originated within EUSAIR particularly refers to the development of those Information & Communication technologies able to improve in the Adriatic and Ionian basin:

- the operations concerning the maritime connections;
- the information exchange between the ports and also with the other stakeholders;
- the safety of navigation.

As every single Port is not an isolated entity, but part of a network, the right dimension to be considered is the one of the **Port Community System**. In this sense to rely on Smart Ports means being able to develop communities, endowing them with digital platforms that enable the exchange of information, data and best practices.

As a result this sharing can bring about higher efficiency of the operations, such as on custom clearance or on the whole logistic process.

PROMARES Project acted exactly towards this direction: through the application of Pilot Actions, the main Italian and Croatian ports in the Adriatic and Ionian Region were able both to upgrade some ICT features of their Port Community systems and to become parts of a wider interconnected network.

EUSAIR promotes the development of concrete initiatives and PROMARES appears to be coherent because the state of the art of these kinds of Projects can contribute to create and share a new knowledge basis. This process relies on two different elements: **ICT innovation** on one side and **overcome of bureaucracy** related to the implementation on the other. Concerning the first element, Communication and information technologies, if mature, can easily be integrated to improve the monitoring and the exchange of data within the logistic process.

PROMARES Project was able to do this, by upgrading the modules of the Port Community Systems of the main ports and hubs in the Adriatic and Ionian basin. Trieste and its RRT, Venice, Ravenna, Ancona, Bari & Brindisi, Rijeka and Ploče had the chance to implement specific ICT pilot actions on their PCSs (e.g. Suite based on data from cameras to ensure goods traceability, Integration of Railway telematics system, OCR gates, Back-up and disaster recovery systems, etc.) so as to optimise multimodal operations through digital data exchange with terminal and logistic operators. Each player was able in fact to develop ad-hoc solutions according to the specific needs and context; the impact was then different but for sure shared within the framework of the Project and therefore well-known and potentially replicable.

Concerning the second element of bureaucratic issues on implementation process, it has been observed that this is often the hardest part of the job. Normative application, regulatory constraints, geographical differences, political limits are amongst the bigger hurdles that usually affect the implementation of good initiatives. Sometimes the normative misalignment can obstacle the implementation of technologies that provide tools able to facilitate procedure and data sharing. In the framework of the PROMARES's Community a broad dialogue has been established in order to overcome these potential issues, by detecting also the more suitable applications for each technical Partner.

EUSAIR sustains the creation of a **transnational network** to foster Intermodality through the cooperation between ports/hubs in the Adriatic-Ionian Region. One of the possible way to overcome those political and normative barriers that normally speed down the development process of multimodal connections, is to promote the exchange of information.

The approach of PROMARES is based on the idea that a consistent group of stakeholders, that insist in a common geographical area, can release winning solutions on multimodal transport field by following two fundamental steps:

1. being connected each other into a **common framework** that reduces the distance in terms of interests and potential conflicts and highlights the idea that a real sustainable growth is not exclusive but inclusive;
2. implementing **innovative soft measures** that using smart technologies can simplify the operations, increase the secure exchange of information among the stakeholders of the handling chains and therefore increase the multimodal transport of freight.

High-level institutional players are often focalized on hard topics with the objective to develop better infrastructure systems, that in terms of Intermodality development means investing money to enhance railways, to reduce last-mile bottlenecks of terminals and to increase the infrastructural capacity of gateways.

Notwithstanding the importance to sustain a long-term infrastructural development, to foster multimodal transport solutions the contribution of key national entities needs to offer a **strategic internal guidance** to all players of the supply chain, such as ports and intermodal logistic operators, facilitating their interaction through **dedicated management resources**. Only after this achievement the cooperation can be effectively and further carried to a transnational level.

FUNDING SOURCES

Type of the funding source	1) European Regional Development Fund (ERDF) National co-financing
Name of the funding source	Interreg Italy-Croatia
Share of funding sources	Total Budget: 2.7 million EUR • 85% European Regional Development Fund (ERDF) • 15% National co-financing

PROJECT STATUS

The project ended in June 2022, the final conference being held on 8th June 2022 in the framework of the workshop titled "*Green and Smart Ports in the Adriatic-Ionian Region. The contribution of the European territorial cooperation between Italy, Croatia and Slovenia*".

On that occasion, PROMARES project partners signed a Memorandum of Understanding to continue cooperation in the topic of ICT applied to ports, maritime and multimodal transport in the years to come.

Also, on 30th June 2022 the Interporto di Trieste illustrated the most relevant physical investment implemented within PROMARES, i.e. a gate automation-based infrastructure for railway traffic management in the FREEeste area.

The new gate is located at the entrance of the FREEeste dry port area, in correspondence with the rail network already in place. In such a context, the aim of the Trieste Port and the FREEeste management is to enrich the Trieste railway opportunities to offer on the global market more train operations from/to FREEeste, also exploiting the strengths of the Free Zone Regime.

The impacts foreseen the increase of data accuracy and the certification of goods moving in the area, reduction of data entry processing and enhancing data visibility along the supply chain.

The pilot action is fully replicable in other contexts, even beyond the Programme Area.

RESULTS

PROMARES involved many subjects in the Adriatic and Ionian area and was able to do this, by sharing among them objectives, experiences and best practices. The Project in the last phase has also made the effort to establish an enlarged **cooperation network**, by involving institutional stakeholders that can have the interest and the power to sustain the concept of a permanent transnational network, even larger than the cross-border one Italy-Croatia.

This approach is fully compliant with the vision of EUSAIR Strategy, that sustains a political endorsement that facilitate an effective level of cooperation. A lot of the bottlenecks that block the development of Intermodality can be easily dissolved, if the political commitment is strong. For this reason the cooperation level has to be set also at higher level: **national entities like Ministries** should talk each other and listen to the opportunities, coming from the implementation of soft management measures and from the adoption of new smart and technological systems. Most of the time the investment cost of these solutions is low compared to the return on the efficiency of logistic processes and thus on Intermodality.

PROMARES has facilitated the fulfilment of this scope, by generating a lot of studies and analysis on territorial needs, technologies, pilot actions, strategies and by creating events of dissemination such as training seminar, press articles, interviews with institutional subjects, technical conferences.

5. INTESA

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*X*
GREECE	
ITALY	*X*
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	*2*

PROJECT DESCRIPTION

INTESA project established a network between Italian and Croatian Ministries of Transport, the Italian General Command of Coast Guard, the Meteorological and Hydrographic Institute of Croatia and the main Adriatic ports: ports of Venice, Chioggia, Trieste, Monfalcone, Ravenna, Ancona, Pesaro, San Benedetto del Tronto, Pescara, Ortona , Bari, Brindisi, Manfredonia, Barletta and Monopoli, on the Italian side, and the Croatian ports of Rijeka, Ploce and Split, on the Croatian shore, with the scope of harmonizing and optimizing the procedures of the complete maritime transport process in order to make port and maritime transport system more efficient and safe.

INTESA promoted the adoption of a common framework or the development of IT systems for the exchange of information between ship and onshore competent Authorities to establish a network of maritime and port authority capable of integrating all members of maritime transport community.

Moreover, INTESA enabled , for the first time ever, Italian and Croatian National Maritime Authorities to jointly define common guidelines for real-time AIS (Automatic Identification System) at National level and the Application Specific Messages (ASMs) sharing, through the implementation of integrated ICT software tools.

INTESA project is compliant with EUSAIR TSG2 specific criteria: a) Reinforcing the role of ICT to overcome the current infra and info structural gaps; b) Interoperability and intermodality between different modes of transport; c) Safety and security solutions in transport. Investments in innovation and modernization of infrastructure, reduction of procedural constraints and bureaucratic burden (especially in port operations) and promotion of safe maritime traffic is a priority in the entire Adriatic basin.

The Adriatic Sea must be conceived as one integral maritime space because annually about.7.000 ships with dangerous cargo (such as tankers (oil,chem,gas), containers) sail in its waters and on top of that we can add up the commercial, the leisure and the local traffic.

Maritime transport by definition is without borders and very much so the transnational cooperation approach is the only one proven to be efficient to obtain SUSTAINABLE GROWTH OF MARITIME ECONOMY.

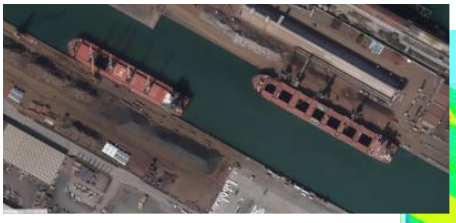
This means that we can - at the same time - prevent marine environment from adverse impact of maritime transport, Improve efficiency and safety in maritime transport and port operations (through the harmonization of port procedures and implementation of Intelligent transport services and reduction of administrative burden).

To achieve these goals, the ports , which are the crucial nodes in the global supply chain, needs to upgrade their assets and tool-boxes so to exploit the opportunities that technology development has to offer, as the digitalization of information. And this is what all INTESA partners have achieved in their cooperation.

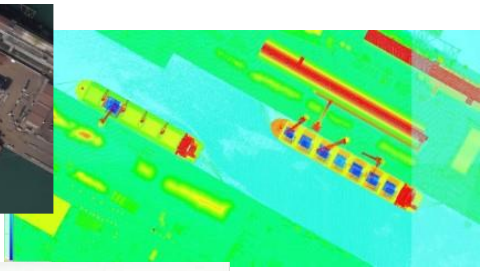
A balanced and sustainable development of the Adriatic Area is already possible, reducing the environmental impact of transport activities and enhancing the connectivity between the two sides of the Adriatic Sea.

Examples of pilot actions:

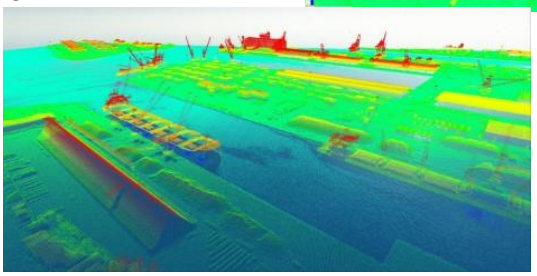
- updated cartography and LIDAR;
- Pilot Portable Units;
- Equipment for measuring weather conditions (buoys-sensors);
- Thermal cameras and ICT upgrades of VHF, AIS and VTS systems to uncovered port areas



Dock with barges, orthophoto



LiDAR point cloud colored by elevation



3D render of LiDAR point cloud


Interreg
Italy - Croatia
INTESA
EUROPEAN UNION
ChannelPilot
Interreg
Italy - Croatia
INTESA
EUROPEAN UNION
ChannelPilot
Interreg
Italy - Croatia
INTESA
EUROPEAN UNION
ChannelPilot


ADQ-2
ADQ-2
Panasonic
TOUGHPAD

FUNDING SOURCES

Type of the funding source	1) European Regional Development Fund (ERDF) 2) National co-financing
Name of the funding source	2014 - 2020 Interreg V-A Italy - Croatia CBC Programme Call for proposal 2017 Standard - INTESA Priority Axis: Maritime transport
Share of funding sources	Total Budget: € 2.896.480,00 EUR a) 85% European Regional Development Fund (ERDF) b) 15% National co-financing

PROJECT STATUS

Through real pilot actions the nautical accessibility of the main ports on both sides of the Adriatic Sea has been improved through the adoption of cutting-edge IT systems for navigation aids, port surveillance, exchange of data in real time.

INTESA started concretely the standardization and integrating of monitoring and port management procedures in the Adriatic Sea in order to make it more efficient and safe.

Beyond the upgrade of the IT systems and the deployment of highly technological equipment that will change for the better the Adriatic Sea for the decades to come, (Pilot portable units, ocean buoys and mereographs, to name a few), INTESA strengthened the network of port community systems capable of exchanging data on the shipping lines and vessels operating between seaports and harbors. The concept of maritime "Single Window" has been pursued by the responsible Ministries paving the way for a complete integration in the future, possibly to be extended also to the EUSAIR area (Ionian Sea).

INTESA has been labelled strategic in the "North Adriatic Sea Port Association - NAPA Joint Declaration on the promotion of trilateral cooperation between Italy, Croatia and Slovenia" signed by the three Ministers of Foreign Affairs and cooperation of Italy, Slovenia and Croatia in Ljubljana on 21/04/2021 stating that *"…In order to support the cross-border Institutional planning aiming at optimizing the harmonization of logistics and transport procedures both on the sea side and on the land side as to make port and maritime transport systems more efficient and safe, in the North Adriatic Sea basin, NAPA ports are developing three projects - INTESA , PROMARES and COMODALCE . These projects-are funded by the Interreg Italy-Croatia and Interreg Central Europe Cooperation Programmes, gathering also the other Italian and Croatian ports, as well as railroad terminals and ports of Hungary, Germany and Poland…"*

Moreover, on 3rd December 2021, an additional joint declaration has been signed by the 5 Adriatic ports of Ravenna , Venezia , Trieste , Koper and Rijeka in which they undertake to strengthen trilateral cooperation between Italy, Croatia and Slovenia through the implementation of common and coordinated policies, EU projects and pilot actions (such as INTESA ones, named in the document) in the areas of environmental sustainability, digitalisation of logistics and transport procedures and connectivity, and promoting the creation of green and smart ports. The strategic document was signed by the 5 presidents of the ports' authorities during a ceremony held in the presence of **Mrs Adina Vălean, European Commissioner for Transport**, Enrico Giovannini, Minister of Sustainable Infrastructure and Mobility, Jernej Vrtovec, Minister of Infrastructure of the Republic of Slovenia, Oleg Butković, Minister of Maritime Affairs, Transport and Infrastructure of the Republic of Croatia. Both Declarations have been extensively covered by general and social media, thus enhancing the Italy Croatia INTERREG Programme visibility.

On the theme of 'connectivity', the Joint Declaration underlines the importance of developing strategic projects to better integrate NAPA ports in the TEN-T network, in particular by strengthening last-mile rail connections. That is also the aim of the recently approved ACCESS2NAPA project, co-financed by the Connecting Europe Facility, which envisages actions to improve the maritime and rail accessibility of the ports. Finally, in order to support the trilateral cooperation, the Joint Declaration sets three priorities for the five North Adriatic ports: to complete the missing links and to foster the integration in the TEN-T network, to extend the TEN-T and MOS to non-EU countries and to include rail freight transport and the maritime dimension in the European Territorial Cooperation Programmes 2021-2027, in particular in the Central Europe, Adriatic-Ionian, Italy-Slovenia and Italy-Croatia Interreg programmes.

RESULTS

Thanks to the improvement of port accessibility, coordination and harmonization of procedures and the ports' upgrade of ICT assets and development of ICT applications, INTESA results have been mainstreamed as best international practices and technology applied to the safety of navigation and port operations and advocating at macro regional level about the importance of international cooperation for the safety at sea.

The strategic added value of INTESA lies in the opportunity for Italian and Croatian Authorities to jointly define common guidelines in order to share operational services, monitoring & communication assets and their own expertise to implement and test Transnational IT System for maritime safety in the Adriatic, such as integrated ICT software tools aimed to manage and broadcast (in Machine2Machine- M2M mode) the recognized AIS Application-Specific Messages (ASMs) on Maritime Safety Information, provided by their respective national AIS networks, in compliance with international technical standards.

INTESA project is labelled as EUSAIR relevant for PILLAR 2: CONNECTING THE REGION, with reference to the development of maritime safety and security and a competitive regional intermodal port system, underlying the strategic added value at cross border level between Italy and Croatia and at a wider scale.

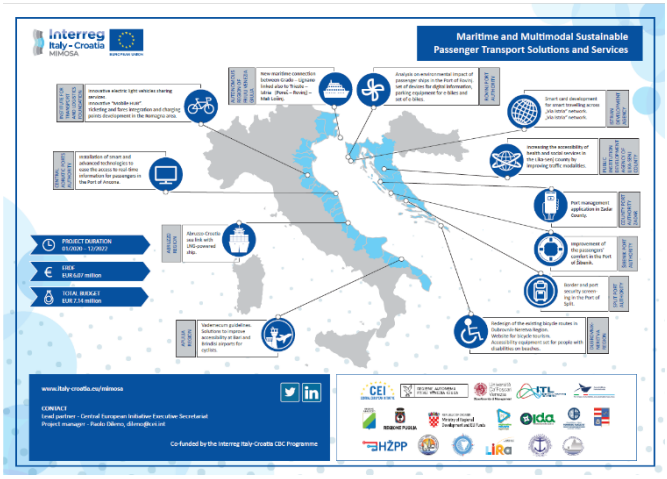
The cooperation can influence future calls and strategic projects , as for the completion of the full integration of the 2 National Single Windows (Italian and Croatian) and for further safety of navigation and equipment deployment in the Adriatic ports and for the MET service of Croatia, possibly to extend the integration to EUSAIR area (Ionian Sea). Moreover, the capitalization was accomplished since all INTESA partners are public bodies, they have pooled their results with other public institutions so to leverage the effects of the outputs and mainstream the new capabilities achieved with the pilot actions.

The partners, all public bodies, in their capacity as infrastructure developers and service provider regulators are in intense and stable relations, to tackle common challenges related to logistics and maritime safety and the cooperation will continue as in the past even without IT-HR further funding.

7. MIMOSA

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*X*
GREECE	
ITALY	*X*
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	



PROJECT DESCRIPTION

MIMOSA project, with the aim of improving the offer of multimodal sustainable passengers transport solutions and services, promoted a new cross-border approach for passenger mobility in the Programme area. The project partnership, composed by the main actors at regional and national level in both countries, was determined to jointly tackle the common challenge of increasing multimodality, reducing the impact of transport on environment. Having a result-oriented approach, in developing visible outputs, ranging from multimodal solutions to innovative and smart tools and technologies, MIMOSA was focused to change the current situation affecting the cross-border and regional connections, making more accessible, low-carbon and sustainable the mobility of passengers in the whole Programme area. A cross-border cooperation approach was necessary for solving the common problems of a predominant road traffic and of a low level of connectivity between the two countries, for providing to citizens and tourists a wider offer of mobility sustainable options, based on a shared knowledge on transport demand and passengers habits and needs, which made the project original in comparison to previous initiatives, thus contributing in achieving the medium-term result of passengers behavioural changes.

Project objectives were the following:

1. **To increase the knowledge of passenger transport and to foster a change in travellers' behaviour:** MIMOSA aimed to gain a better understanding of present and future user demand, and of the impact of passengers travel choices in the whole Programme area, in order to support transport planning and sustainable mobility policies at regional, national and cross-border level. To this purpose it also aimed to foster and to support a change in travellers' behaviour through the understanding of

the key determinants for regional and cross-border mobility, in order to favour a shift towards low-carbon modes, to better manage seasonal peaks of demand, to favour user acceptance in alternative modes of transport and to favour a direct perception of the positive impact on environment of a greener behaviour of travellers. That was achieved in accordance with the priorities identified by TSG2 of EUSAIR, analysing transport demand and habits, as well as the carbon footprint of the passengers' choices, increasing the knowledge of the offer of public transport services and defining a transport sustainability action plan. Furthermore, for enhancing the knowledge of sustainable mobility options, awareness and sensitization/behaviour programme and campaigns have been designed and carried out at regional and at cross-border level, to spread the opportunities offered by tools and solutions tested, and to capitalize the overall project results.

2. **To improve multimodal sustainable passengers connections and to harmonize and standardize services:** MIMOSA aimed to increase the routes and the multi-modal passenger interconnections between Italy and Croatia, to provide feasible alternatives to road transport, promoting greener multimodal solutions for passengers between the two countries. Additionally, it aimed to improve the accessibility and services for passengers, and the interconnections at transport nodes. That was achieved: a) offering an integrated set of sustainable transport solutions alternatives to individual car travelling between Italy and Croatia, to overcome problems created by congestion, pollution, lack of accessibility and connectivity, from the organizational and technological point of view; b) developing, sharing, harmonizing and standardizing a set of value-added integrated tools and services at main transport nodes of the area (ports, railway stations, bus stations, airports, intermodal centres etc.), fostering multimodality and modal shift opportunities, putting the users at the centre, with a peculiar attention to possible new forms of business models, to passengers with special needs and in implementing the integration between cycling mobility with other transport modes (bike&train, bike&fly, bike&boat; bike&bus intermodality). The elaboration of a CB planning model was also foreseen.
3. **To establish a cross-border network to foster a stable dialogue at cross border level:** MIMOSA aimed to make the outputs developed during project implementations, their related results achieved and the lessons learnt available in all the Programme area and beyond, by activating a stable dialogue at cross-border level and with EUSAIR macroregional strategy. That was achieved setting up a Permanent cross-border Network bound to be kept alive after project end, thus, to guarantee a long term cooperation, and to be open to other actors beyond MIMOSA partnership, exploiting the best practises coming from other existing cooperation experiences. A network which could also be considered a support to EUSAIR, both via EUSAIR stakeholder platform and via a direct dialogue with EUSAIR TSG2-Transport SubGroup, which could be even stronger taking into account that MIMOSA has succeeded in being included in the list of EUSAIR labelled projects. MIMOSA also built on the role of Friuli Venezia Giulia and Abruzzo Region, as parts of the Italian delegation within TSG2, with the task of coordinating the elaboration of the regional contribute to Pillar 2 activities, for giving further visibility to MIMOSA achievements too.

MIMOSA contributed to the implementation of EUSAIR Action Plan, particularly to specific objectives n. 1 and n. 2, and to two of the topics of Pillar 2 "Connecting the Region":

- *Topic 1 - Maritime transport: MIMOSA contributes to indicative action 3 Developing ports, optimising port interfaces, infrastructures and procedures/operations and above all to supporting multimodal cross border connections;
- *Topic 2 - Intermodal connections to the hinterland: MIMOSA offers contribution to indicative actions n.2) Improving the accessibility of the coastal areas and islands, contributing both to a) Support feasibility studies and market analyses and b) Promote cooperation between relevant actors to set/improve maritime connections between neighbouring countries.

MIMOSA also helped achieving the 2020 target indicator "Reduce the time spent at regional border crossings by 50%" . In particular, MIMOSA is in compliance with the following TSG2 specific criteria, thanks to a set of concrete pilot actions:

- Reinforcing the role of ICT in order to overcome the current infra and info structural gaps
- Interoperability and intermodality between different modes of transport
- Promotion of green transport solutions (land and sea side)
- Safety and security solutions in transport.

The macroregional relevance is due to the high institutional level of the partners involved (which range from regional administrations to relevant port authorities) and to the large area they represent, with particular reference to the Adriatic maritime dimension.

FUNDING SOURCES

Type of the funding source	EU Funds – Interreg CBC Programme Italy Croatia
Name of the funding source	ERDF – European Regional Development Fund
Share of funding sources	Total Cost: 7.140.000,00 € Total ERDF: 6.069.000,00 € (85%)

PROJECT STATUS

Following three and half years of successful implementation, the MIMOSA project, funded as strategic project by the Interreg CBC Italy Croatia programme, was completed and finalized in June 2023, delivering all the planned studies, deliverables, pilot actions and outputs.

Dissemination activities have taken place during the entire duration of the project and guaranteed the involvement of the identified target groups.

Main dissemination activities are summarized below:

- **Pilot action dissemination events**: all partners responsible for pilot activities organized at least one local public event for promoting and disseminating the achieved results in the programme area.
- **Dissemination of MIMOSA project in international events**: representatives of MIMOSA partners attended international events to spread the knowledge about the project results (E.g. Velo City 2022 and 2023, Adriatic Sea Forum 2022 and 2023, International Maritime Conference on Maritime Transport 2022, …)
- **Joint dissemination events**
    - **"Develop reliable passengers transport networks and intermodal connections in the EUSAIR area" (MIMOSA, ICARUS, SMACKER):** on 24th November 2021 a joint event to promote and disseminate the interim results of three EU funded projects having an impact on the EUSAIR region, was organized online;
    - **"New intermodal services for sustainable mobility between Italy and Croatia" (E-CHAIN, ICARUS and MIMOSA):** on 23rd September 2021 a joint dissemination event was organized in cooperation with other 2 IT-HR projects

Figure: parking equipment for e-bike n. 1 set of e-bikes (Rovinj Port authority)

Figure: SET OF SOLUTION FOR UPGRADING BIKE LANES IN DUBROVNIK-NERETVA COUNTY (DNZ)

RESULTS

In addition to a significant number of analysis and studies, which increased the knowledge of the complex dynamics of transport demand, passengers behaviors and available sustainable mobility options in the cross border area, a wide range of pilot actions supporting concrete innovative solutions have been developed and tested during the implementation of MIMOSA project. The various pilot actions not only clearly demonstrated their added value during the implementation phase but also guaranteed solid basis for the continuation of the tested services/initiatives beyond project closure.

MIMOSA studies and pilot actions have focused on several activities, aimed at:

- Promoting new sustainable transport modalities and e-services
- Connecting different transport nodes
- Adopting technological solutions for emissions reducing
- Elaborating of cross-border planning model
- Proposing the enhancement of maritime transport and innovative mobility services
- Promoting sustainable intermodal mobility
- Developing new smart technological tools and advanced solutions
- Improving the accessibility of transport nodes
- Harmonizing services for people with special needs
- Enhancing green transport modalities and the interconnections from the nodes and the cycling axis in the programme area

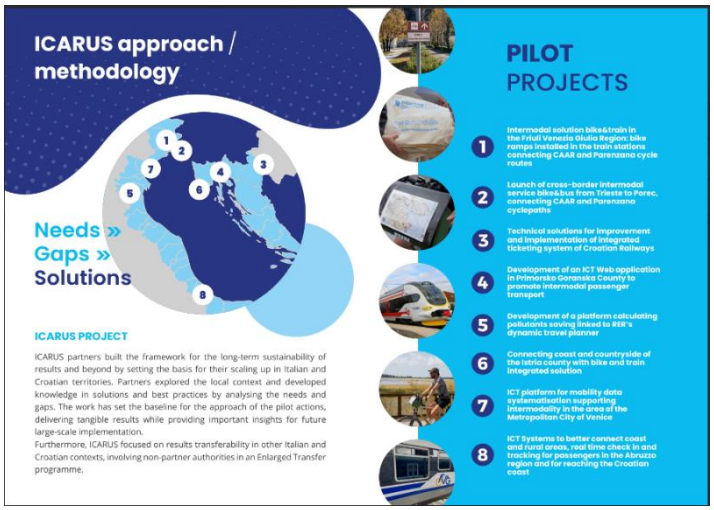
Furthermore, considering the strategic nature of the project and the excellent results obtained from the cooperation between partners, a cooperation network was defined at the project closure stage. Consisting of the project partners and open to sectoral stakeholders, the network is conceived as a tool for further cooperation on sustainable mobility issues, laying the foundations for the continuation of initiatives beyond the project closure and, moreover, to enable the creation of further areas of cooperation at cross-border and macro-regional level.

The considerable results of the MIMOSA project, ensuring better connectivity at cross-border level between Italy and Croatia, have also generated a positive impact at the macro-regional level, enabling an improved understanding of transport demand, testing innovative solutions that can be replicated in other EUSAIR areas, and creating a network of cooperation that can be naturally extended to a wider geographical context.

9. ICARUS

PROJECT IDENTIFICATION

EU Countries	
CROATIA	X
GREECE	
ITALY	X
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	



PROJECT DESCRIPTION

ICARUS aimed to improve passenger intermodal transport connections and facilitate sustainable accessibility between the coast and hinterland, promoting car-independent lifestyles. The project addressed issues arising from the extensive use of private cars by introducing solutions based on innovative technologies to adapt smart mobility in the digital world. Furthermore, it sought to bring about a behavioral change in mobility by embracing the concept of "Mobility as a Service," which represents a shift from personally owned modes of transportation to mobility solutions consumed as a service. Sustainable multimodal seamless solutions were tested through seven pilot actions, including the harmonization of timetables, the availability of car/bike sharing at transport nodes, innovative ICT solutions for the seamless flow of information, integrated intelligent multimodal payment systems, dynamic travel planning, and cross-border intermodal services. One of the Specific Objective aims at improving the quality, safety, and environmental sustainability of marine and coastal transport services and nodes by promoting multimodality in the program area; this objective addresses Local, regional, and national public authorities; Transport service providers; Regional development agencies; Regional innovation agencies and local chambers of commerce; Transport associations; Commuters, tourists, regional citizens, students, and the general public.

One of the activities was specifically dedicated to provide contribution to the relevant local, national, and macro-regional policies, and in particular the transnational level of EU macro-regions by presenting a specific set of policy recommendations to prioritize the three pillars of ICARUS - ICT tools, behavioral change, and Mobility as a Service (MaaS) - in the main transnational strategies involving the IT-SI cross-border regions, namely the EUSAIR, EUSALP, and EUSDR.

The ICARUS project supports the program area by enhancing sustainable intermodal mobility that connects coastal regions with hinterlands. To achieve this purpose, the objectives and activities of the project primarily focused on three interrelated thematic pillars:

1. Mobility as a Service (MaaS) and ICT in transport.
2. Intermodality.
3. Behavioral change.

1) MaaS applications are collaborative platforms that involve transport and ICT providers. They integrate public and private transport offerings based on users' needs. MaaS applications vary significantly in terms of two dimensions:
   a) Transport services (which can include traditional transport services as well as shared mobility services, DRT services, taxis, car rentals, etc.).
   b) Functionalities (MaaS functionalities can vary in terms of fare types, level of integration, services available on the platform, etc.).

Among all the pilot projects implemented within ICARUS, five pilot actions addressed four main topics related to MaaS and ICT, each at two levels of complexity.

2) Intermodal transport can be defined as the use of at least two modes of transport to travel from the starting point to the destination point of a journey. This can be achieved by enabling integrated public transport services between multiple providers using different transport modes or by allowing users to combine public transport services with active transport options such as cycling, with provisions for storing bicycles on buses, trains, or ships. Properly organized and developed, intermodal passenger transport offers a safer, greener, and potentially more cost-effective means of travel.

   All pilot actions implemented within ICARUS addressed the topic of intermodality, albeit in different ways:

   a) Through the development of ICT solutions aimed at increasing users' awareness of existing intermodal solutions and services (3 pilot actions).
   b) Through the implementation of new and innovative services and minor infrastructure works aimed at promoting bike-bus-ferry intermodality (3 pilot actions).
   c) Through a combination of both categories of interventions (1 pilot action).

The new intermodal solutions introduced and tested within the ICARUS project align with and contribute to the goals of the macro-regional strategies.

3) The activities and pilot actions carried out by project partners within the framework of ICARUS have contributed to behavioral change in mobility throughout the IT-SI cross-border region through a multi-channel approach:
   a) As a result of various activities, there has been improved accessibility to transport services, including through ICT services, and the activation of seamless intermodal solutions that were previously unavailable.
   b) Pilot, training, and promotional activities have been implemented to encourage harmonized intermodal transport in cross-border territories. Pilot tests have demonstrated the practical benefits of using multimodal transport solutions for passengers, commuters, and tourists. Lessons learned from behavioral change practices have been incorporated into policies by local/regional authorities or used by operators in their decision-making processes.
   c) By educating people about sustainability-related issues and fostering a sense of community through the use of intermodal transport solutions and shared mobility.

FUNDING SOURCES

Type of the funding source	1) European Regional Development Fund (ERDF) 2) National co-financing
Name of the funding source	Interreg Italy - Croatia
Share of funding sources	Total Budget: 2.2 million EUR - 85% European Regional Development Fund (ERDF) - 15% National co-financing

PROJECT STATUS

The project concluded in March 2022, with the final conference taking place on December 9th, 2021, in Trieste. On December 7th, 2021, ICARUS partners and various stakeholders gathered in Trieste to discuss the project's main accomplishments and learnings over the past three years. The conference's initial segment focused on ICT solutions such as apps, websites, and ICT platforms, as well as new and enhanced transport services, intermodal connections, and cross-border passenger services.

Several speakers, including Prof. Andrea Stocchetti, emphasized the significance of cross-border cooperation and stakeholder engagement. In his keynote speech, Prof. Stocchetti highlighted the importance of altering the mindset of citizens and tourists to embrace new and more sustainable transportation solutions. While imposing stricter regulations can lead to such a shift, it is often met with resistance. On the other hand, promotional activities, surveys, and citizen involvement can achieve the same result with broader acceptance from the public.

This perspective also influenced the round-table discussion with representatives from the participating regions. Participants shared insights on the primary challenges involved in driving such a change and engaging citizens, as well as future plans and synergies to maximize the benefits of ICARUS's outcomes.

The final segment of the conference focused on the Enlarged Transfer Programme, during which the project's lead partner recognized the best light action plan aligned with the objectives and plans of ICARUS.

RESULTS

During the project's lifespan, we consistently provided stakeholders and the various target groups with extensive material on the project's results, progress, activities, and outputs. This material included regular newsletters, news updates, the production of a video, dissemination events, and behavioral change events. These were primarily shared online through partners' websites, events, and meetings. The Enlarged Transfer Programme (A.4.4.) also served as an effective channel for

providing non-partner authorities with in-depth information regarding the results and outputs of ICARUS.8

The involvement of stakeholders was a crucial step in realizing new intermodal solutions. Passengers' habits and opinions formed the basis for developing common solutions tailored to their needs. Quality Partnership Meetings (QPMs) were held at the territorial level, focusing on the designated areas, where project partners selected local stakeholders to be involved in the ICARUS Quality Partnership. The QPM approach identified key actors from various backgrounds (public, transport operators, etc.), specifically targeting public authorities in each region to discuss and address issues with the main competent authorities. QPM organizational meetings took place throughout the project implementation.

ICARUS contributed to the development of sustainable and intelligent connections between Italy and Croatia through several pilot activities and efforts to incentivize citizens to shift towards more sustainable modes of transport. Sustainable development is a key aspect of future calls, and several pilot activities carried out in the ICARUS project have already been capitalized on in other EU projects.

Since its inception, ICARUS has placed great emphasis on cross-border cooperation, not only as a program requirement but also as an opportunity to collectively address and solve issues, leading to replicable and successful solutions. The added value of this cooperation includes the establishment of a network of authorities and the opportunity to exchange experiences through activities such as D.4.3.1 Peer review sessions and project meetings. Challenges encountered by each partner were resolved collaboratively with active participation. All partners agreed that cross-border cooperation was essential for exchanging knowledge and experiences, gaining insights into best practice solutions from other partners, facilitating communication and dialogue with various stakeholders, raising awareness in different transport sectors and among different institutions.

Cross-border cooperation facilitated dialogue among authorities and stakeholders from both territories, aiming to establish joint best practices and benefit from shared expertise. In general, the project underscored the importance of ensuring strong collaboration among different actors and the achievement of a shared vision to avoid misunderstandings and delays, and to implement activities that promote the development of the entire IT-HR cross-border area. Through various public events, QPM meetings, and stakeholder events, project ideas were disseminated on a larger scale, generating interest from other project organizations and initiatives.

11.DGSEA

PROJECT IDENTIFICATION

EU Countries	
CROATIA	*x*
GREECE	
ITALY	*x*
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	

PROJECT DESCRIPTION

The DGSEA PROJECT was labeled as EUSAIR relevant by the Transport Steering Group n.2 of the Adriatic-Ionian Macro Regional Strategy. This decision underlines the strategic added value of the project, not only at the cross-border level between Italy and Croatia, but also at a wider scale, and its coherence with the EUSAIR flagship project “Adriatic-Ionian green/smart port hubs concept”.

DIGSEA is fully consistent with EUSAIR, Pillar 2–"Connecting the Region". More specifically, DIGSEA is totally coherent with the EUSAIR Plan of Action, in particular:

1) Maritime transport: Action "Improving and harmonising traffic monitoring and management"- possible project "Implementation of ICT and intelligent infrastructure services to improve the efficiency, reliability and safety/security of the port operations and of the delivery system";
2) Intermodal connections to the hinterland

Besides, DIGSEA is wholly consistent with the EUSAIR flagship "Adriatic-Ionian green/smart port hubs concept", adopted on the 12th Extraordinary EUSAIR Governing Board meeting on June 10th 2020, whereby "digitisation of the supply chain, via the exchange or real-time information among all involved stakeholders in conjunction with the development of ICT systems to improve and facilitate data collection in ports, will result in a more efficient and transparent supply chain ports".

Maritime transport is the most sustainable way of transporting goods, but the fragmentation of the supply chain hinders the potential it offers. DIGSEA project clusters the technical knowledge of several Interreg IT HR 2014-2020 projects that deals with ICT applied to maritime and multimodal transport.

The collected knowledge will be consolidated in a single sea port hinterland logistics approach, covering the whole supply chain. This way, the experiences and expertise of the current programming period will serve as a basis for the new one, ensuring their long term sustainability and replicability. The mission of the project is to transfer knowledge and raise the awareness of the use of ICT as a powerful and efficient tool to improve the efficiency and consequently the environmental performance of ports and the whole supply chain.

In particular DGSEA clusters technical knowledge developed by 4 projects:

- INTESA project establishes a network among the National Maritime Administrations of Italy and Croatia and main port authorities of the Adriatic sea with the scope of harmonizing and optimizing the procedures of the complete maritime transport process in order to make port and maritime transport system more efficient and safe.
- DIGLOG, which aims to create the technological solutions, models and plans to establish the most advanced digitalised logistic processes for multimodal freight transport and passengers' services in the Italy Croatia area.
- PROMARES, which enhance the transport planning competences by means of an in depth cross border study analysing each territory in detail, a dedicated training seminar and the elaboration of a cross border action plan, to be tested through pilot actions.
- TRANSPOGOOD, which developed set of innovative ICT tools that assists users in finding the best solution of transport services offer and ensure monitoring transport logistics and environmental performances demonstrating concrete benefits in transport and logistics implementations.

The outputs produced by DGSEA include:

- Cross-border inventory of projects on ICT applied to freight transport
- EU-funded projects on ICT applied to freight transport
- Best practices regarding the most recent developments on ICT tools for enhancing maritime and multimodal transport
- Cross-border training curriculum on ICT application in the freight transport sector have shown that DGSEA contributes to several objectives of the EUSAIR strategy, including:
    - Enhancing vessels' safety
    - Vessel Traffic Monitoring and Information Systems (VTMIS)
    - Promoting Port Community Systems
    - Digitalization of multimodal travel planning
    - Developing Maritime Single Window solutions
    - Implementing automated/unmanned terminal and maritime operations
    - Experimenting the use of digital twins, Internet of Things, artificial intelligence, blockchain

In the last decade, the main emphasis of many projects was on digitalization while the environmental and energy aspects played a secondary role. Digitalization, however, is a crucial technical enabler, spreading in different parts of the transport sector.

FUNDING SOURCES

Type of the funding source	European Regional Development Fund (ERDF) and National co-financing
Name of the funding source	Interreg Italy-Croatia
Share of funding sources	Total budget: 599.430,00 eur 1) 85% - European Regional Development Fund (ERDF) 2) 15% National co-financing

PROJECT STATUS

DGSEA project clusters technical knowledge of previous projects TRANSPOGOOD, DIGLOGS, PROMARES and INTESA. Project partners strive to transfer knowledge and raise awareness on the use of Information and Communication technology as a powerful and efficient tool to improve the efficiency and increase the environmental performance of ports and the whole supply chain. Main project outputs are:

- Cross border inventory of projects' results
- Transnational inventory of projects' results
- Best practice analysis
- Project ideas for the 2021 2027 programming period
- EUSAIR flagship paper
- Study visits to five Italian and Croatian ports
- Thematic seminar with other initiatives/EU Programmes on project results tackling ICT applied to multimodal transport

So far, partners have achieved the following:

- Cross border inventory of projects' results, a document presenting all 4 projects capitalized by DGSEA Document gives a review of the 4 projects, including partners, main issues and objectives, barriers, pilot actions, results and lesson learnt Conclusion gives the capitalisation ideas based on reviewed projects
- Transnational inventory of project results, a document presenting 22 EU funded projects of other cross border and transnational ETC, H 2020 or CEF Programmes on ICT applied to freight transport The objective is to collect the best international practices in the European projects on ICT in maritime and multimodal freight transport The analysis of the main results, knowledge, and experiences will be selected and also applied in the DGSEA program area to transfer them at the transnational level
- Best practice analysis, a document that collect and analyses the best practices and most recent developments on ICT tools for enhancing maritime and multimodal transport The main goal is to present those developments for an easy access to all partners and interested stakeholders and to see what can be used to enhance maritime and multimodal transport in the area and beyond

- Cross border training curriculum on ICT application in the freight transport sector, a document describing a 3 week training program that addresses multiple areas and subjects The course is developed in 8 modules with total duration of 60 hours and includes training content, structure and format, training methods, creation of the training plan and direct measures for evaluation
- Project ideas for the 2021 2027 programming period, a document describing three project ideas that supports the implementation of INTERREG Italy Croatia 2021 2027 priority no 3 “Sustainable maritime and multimodal transport”, SO 3 1 “developing and enhancing sustainable, climate resilient, intelligent and intermodal national, regional and local mobility, including improved access to TEN T and cross border mobility” The ideas are focused on: Enhanced cyber resilience of ports, ICT applied to last mile accessibility of ports, Digital twin for ports, Study visits to five Italian and Croatian ports the first two visits have been done to the ports of Bari and Zadar Study visits are documented in the Study visit videos

On June 21st, 2023 will be organized in Trieste the DGSEA Final event in cooperation with and under the auspices of EU Strategy for the Adriatic-Ionian Region.

RESULTS

The project is still ongoing, till the end of June 2023. One of the main outputs is the Maximisation of project results of the IT-HR 2014-2020 Programme. This maximisation of project results on ICT applied to multimodal freight transport was and is considered as a bridge between the old and new programming period by transferring them to high-level policy makers and stakeholders. In order to change the attitude of freight transport stakeholders and policy makers as to apply the results achieved by clustered projects, in addition to the outputs produced and listed above, the communication approach chosen was and still is based on campaigning stakeholders and regional, national and EU/EUSAIR policy makers will be involved through the participation in targeted events, meetings, kick-off and final conferences, also involving current Standard and ADRION cluster projects.

Also, stakeholders and policy makers were and will be targeted through the dissemination of ad-hoc technical documents, such as the EUSAIR Flagship paper, which will be made available also online on the project’s website and presented at the final conference and included in the digital final publication. Another important point to note is that the results and outputs produced by DGSEA can be extended well beyond the program area.

c. *Services and facilities*

1. SMA Vessel traffic monitoring centre upgrade

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	
ITALY	
SLOVENIA	*x*
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	

PROJECT DESCRIPTION

The project significantly improved maritime safety (ensuring redundancy and upgrade of existing systems) and contributed to achievement of higher interoperability level and data sharing capabilities. The project is complementary to the EUREKA project already labeled as project of EUSAIR relevance. Improved maritime safety and vessel monitoring services will also have a positive effect on the preservation of the marine environment and will improve situational awareness picture at sea (relevant for SAR activities, pollution response and surveillance etc.).

The probability of an extraordinary event at sea is high due to the intense shipping traffic, demanding crossing of shipping lanes, limited depths of the seabed (the size of ships is constantly increasing), frequent and poorly predictable strong winds and the presence of smaller vessels on the waterways, while at the same time the consequences of the occurrence of an extraordinary event can be very large. **The goal of the project is to improve safety at sea and modernize the navigation control system**, which is why the Center of the Republic of Slovenia for Traffic Control and Management in Crisis Situations at Sea was established. With the optimal equipment it is possible to organize a ship traffic control service and thus achieve project goals. The project purpose has been achieved by reduced probability of an extraordinary event by 75%, meaning that the expected time between extraordinary events will be extended from the current 20 to 80 years. At the same time, the project will contribute to the decline in the growing trend of minor accidents, which are the result of the increase in marine traffic in the Slovenian sea and the North of Adriatic. At the same time, the project makes it possible for the Administrations with tasks/responsibilites at sea to respond to the situation with better quality in the event of a major accident due to better equipment and spatial arrangements.

The project has enabled improved surveillance of the sea and coastline in the field of maritime safety and ecology and quality of routine surveillance, Decision-making and provision of appropriate support

in the event of ship impacts or discharges are more effective. Rescue at sea in the event of accidents is faster and more efficient, Enforcement of port and maritime order is more effective. Surveillance of sea lanes and fishing grounds is improved. Exchange traffic and meteorological oceanographic data with neighboring countries is improved.

Project was labelled as EUSAIR Project because it is coherent with these action priorities:

- Topic 1 "MARITIME DIMENSION". Priority action: Improving and harmonizing traffic monitoring and management
- Topic 2 "Intermodal connection to the hinterland Topic", Priority action: Developing motorways of the sea

Indeed, Slovenian Maritime Administration will be able to perform VTS in the North Adriatic and thus contribute to more efficient transport.

FUNDING SOURCES

Type of the funding source	EU Funds
Name of the funding source	Project value: EUR 2.32 million and has received EUR 1.56 million or 85 % on the total cost with 15% National co-financing

PROJECT STATUS

The project started on 10. 10. 2019 and ended on 31. 1. 2021, with status completed. Project is part of the Operational Programme for the Implementation of European Cohesion Policy 2014–2020.

The communication plan pursuant to the requirements of the EU Cohesion Fund was implemented through information on web pages, notice boards and press communications.

RESULTS

The project included an investment in the relocation, modernization and expansion of traffic control equipment and management in crisis situations at sea.

The investment thus included the relocation of the microwave directional radio links and the arrangement of new premises of the Center for traffic control and management in crisis situations at sea within the Slovenian Maritime administration, the purchase of hardware (radar, Metocean, AIS, radio, antennas, CCTV with equipment, GPS, servers, PC, monitors) and modernization of the secondary location and training center at the Faculty of Maritime Affairs and Transport.

On January 28, 2021, the Center for traffic control and management in crisis situations was taken over by the Maritime Administration of the Republic of Slovenia, and on February 15, 2021, the control center began to fully perform its tasks at the new location.

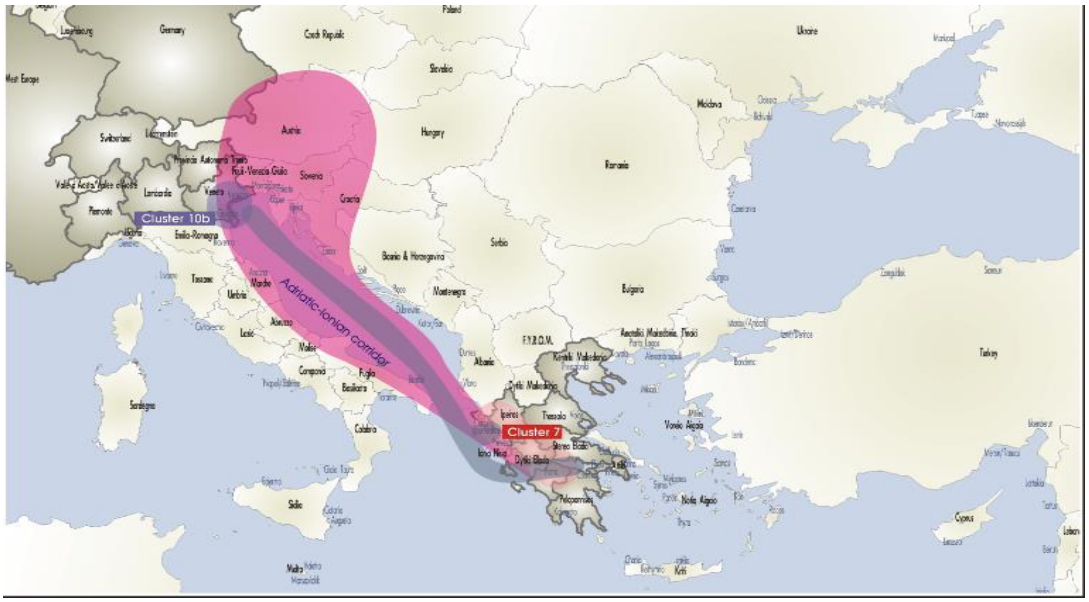
The project enabled technical equipment necessary for the Slovenian Maritime Administration to be able to participate in Vessel Traffic Services Projects implemented in the AI Region and thus promoting maritime safety and cooperation in the region.

Project is currently completed and in operational phase.

2. Motorways of the sea Venice-Patras

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	*X*
ITALY	*X*
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	



PROJECT DESCRIPTION

The MoS Venice-Patras project aimed at upgrading the existing maritime link connecting the TEN-T core ports of Venice and Patras. It included port investments to concentrate freight flows in viable, regular and reliable MoS link and enhance its integration in the Core Network Corridors (Baltic-Adriatic and Mediterranean Corridors in Venice and Orient-East Med corridor in Patras).

The project improved the efficiency of the logistic chain among the ports of Venice and Igoumenitsa/Patras, by expanding ports capacity and optimizing the management of cargo flows.

MoS Venice-Patras was labelled as EUSAIR project because its scope and objectives are fully coherent with Pillar2 Connecting the Region, as it aimed at upgrading the existing maritime link connecting the TEN-T core ports of Venice and Patras.

Among EUSAIR promoted initiatives, there are:

- Enhancing MoS services across the Adriatic-Ionian area ("Connecting the Region")
- Relevant "infrastructure element "of EU transport system Connecting South-East European regions with Central Europe Countries

The MoS Venice-Patras project indeed provided an enhancement of MoS traffic thus reducing the Co2 emissions brought by the road transport by completing the 2^ basin along with the safety and security system of the MoS Terminal in the port of Venice and providing functional restructuring together with construction and positioning of mooring buoy in the port of Patras.

The MoS maritime operations related to the link Venice-Patras are defined as follows:

TONN.	**2021**	**2022**
ANEK	612.458	543.705
GRIMALDI	1.144.150	1.372.113
MINOAN	-	-
NEPTUNE	12.123	17.527
MCCL		-
TOTAL	1.768.730	1.933.345

N. SHIPS	**2021**	**2022**
ANEK	128	124
GRIMALDI	132	163
MINOAN	-	-
NEPTUNE	24	24
MCCL	-	-
TOTAL	388	410

In the **port of Venice** the project allowed the completion of the construction and dredging of the new ro-ro Terminal located in Fusina, in particular the outstanding capital dredging works, up to -10,50 m depth, functional to the operations of the 3rd and 4th docks of the South basin and the installation of a safety and security upgrading system for a safer management of the terminal. The following main tasks were executed:

- Excavation of the residual portion above medium sea level;
- Dredging works up to 10.5 m;

- Landfill disposal of the sediments.

The dredging of the South basin portion was necessary for the practicality of the 3rd and 4th berths to reach a draft of 10.5 m, consequently, a total amount of 500.000 m³ of sediments were removed.

It is relevant to underline thath the MoS terminal is equipped with diretc railway connection to the port network for a full multimodal transport service for the Central Europe area.

In the **port of Patras** the projects ensured the increase of safety and operational capacity during handling operations. The implementation of the investments envisaged for new infrastructures and facilities indeed resulted in improved efficiency and removal of bottlenecks in the logistic chain along the MoS corridor Venice-Patras. The specific link, as already presented above is one of the main services for the Port of Patras, and hence its fast-efficient and safe operation is of utmost importance to the strategic development of the port.

In details the project in the port of Patras included the following works:

- Construction and positioning of three square blocks of type C20/25. These blocks were positioned on level bottom at a distance of 60m between them and of 70m from the borderline of the Pier A.
- Positioning of the sinker in ordet to ensure the safe deployment of mooring and installation of the anchor chains.
- Placement of metal strip in each of the anchor chain to prevent chafing and finally
- The positioning of the mooring buoy.

The investments envisaged for the upgrading of the existing infrastructures and facilities in the ports of Venice and Patras improved efficiency and removed bottlenecks in the supply chain along the Adriatic-Ionian transport corridor (as part of the East-Mediterranean MoS Master Plan), as well as fostered considerable modal shift to maritime, rail and intermodal transport with consequent socio-economic and environmental benefits.

Specifically, the Project addressed the maritime dimension and intermodal connection in the EUSAIR macro-region along with general and specific market, policy, customer/service user, as well as integrated transport service related needs and objectives of the operational partners, i.e.:

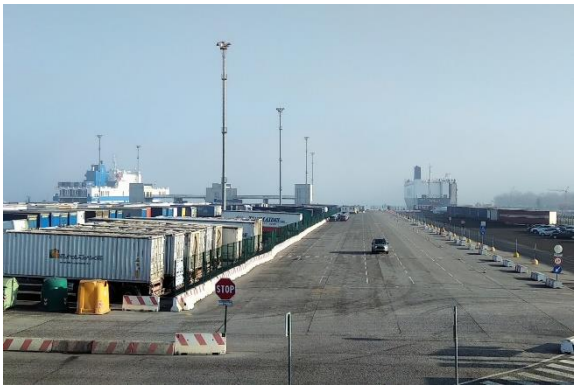
- Ensuring viability, sustainability and competitiveness of the regular and reliable long-distance and coastal-parallel maritime transport service connecting the Italian port of Venice to the Greek port of Patras and Igoumenitsa;
- Improving port accessibility and terminal capacities to increase cost-efficiency, and to guarantee schedule reliability;
- Reducing emission of green-house gas CO2 (and other pollutants) from transportation (intensified use of maritime operations);
- Supporting the sea-based maritime links as genuine alternatives to partly congested, high-risk and long-distance road-transport;
- Providing adequate long-term transport capacity to shippers and freight forwarders serving the trade between Italy and Greece;
- Improving the transport chain quality and interoperability;
- Integrating the MoS link into European transport chains and freight/TEN-T corridors

FUNDING SOURCES

Type of the funding source	EU funds
Name of the funding source	CEF
Share of funding sources	Total budget € 10.046.667,00 Total funding € 2.831.300,00 • 30% for port Authorities • 27,97% for Venice Ro Port MoS S.c.p.A

PROJECT STATUS

The project was closed on March 2021 with its full technical and operational completion both in Venice and Patras.



The initiative was promoted in several occasions as the MoS terminals both in Venice and Patras are strategic infrastructures.

In particular the project results were diseminated at the following conferences:

- 10/04/2018 Civitavecchia – conference "Shaping the port of the future";
- 04/05/2018 Varna – conference "European Shipping Industry Forum";
- 22/06/2018 Igoumenitsa (SYvota) – conference "The Sea of synergies, the land of multimodality";
- 05/07/2018 Brussels – onference "MoS Detailed Implementation Plan and MoS study presentation";
- 07/02/2019 during the visit of the Sciences PO delegation in Venice;
- 14/03/2019 during the visit of a delegation coming from Qatar, in Venice;
- 19/10/2019 during the Urban Promo convention in Milan;
- 11/12/2019 during meetings in Brussels with INEA and DG Move;
- 16/01/2020 at a meeting with Italian Transport Ministry in Rome

The full proper promotional campaign was hampered by the Covid-19 outburst as from March 2020

RESULTS

The Action has reached its full scope and objectives, the Ro-Ro and Ro-Pax traffic in the ports of Venice and Patras is increasing acting as a financial and economic leverage for a broad enhancement of the Adriatic-Ionian region economy.

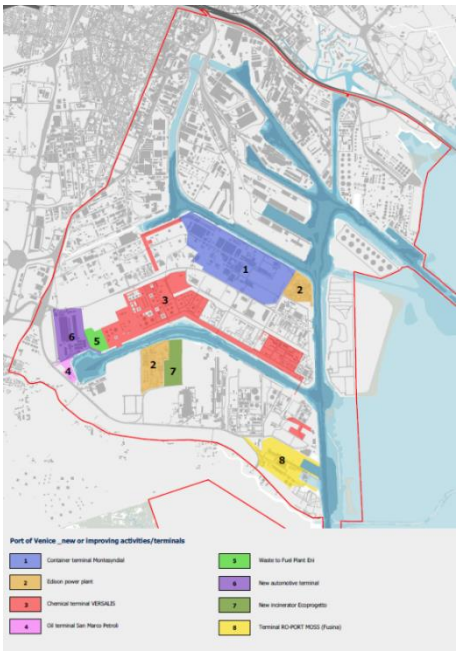
The outcome foreseen in Venice was the South basin draft of 10,50 m: this goal was achieved within the scheduled deadline of 31/03/2021. Docks, safety and security system were technically tested on 31/05/2021.

The outcomes forseen and achieved for the port of Patras, were the completion of four piers and the construction and positioning of the necessary concrete blocks in order to put in place the Mooring Buoys, to increase the operational capacity, the efficiency and the safety of the Port

In the port of Venice there are several other initiatives on going with the scope of supporting the MoS and rail transport modal shares both public and private.

Among the public intervention, see here below copied the port of Venice investments plan (Three-year-Operational-Plan - POT) which foresees investments for € 1 billion for the overall adjustments of rail and road connections to the port of Venice, in particular considering to the ongoing expansion of logistics/industrialized/port field in the southern part where the MoS Terminal is located (see picture below):

	N.	Project description	Responsible Partner	Works budget - Euro
Short term 2020-2022	1	Upgrade of rail terminal Venezia Marghera Scalo	RFI	1.000.000
	2	New Railway bridge over industrial West Channel	NASPA	8.000.000
	3	Upgrade of rail/road accessibility to commercial port area	NASPA	n.a.
	4	Consolidation of Via Elettricità	NASPA	12.000.000
	5	Malcontenta Node Phase 1	NASPA	16.000.000
Medium term 2022-2024	6	Upgrade of rail system of Parco Breda e Marghera Scalo	RFI	20.000.000
	7	Rail overpasses on via Elettricità	NASPA	56.000.000
	8	Via Elettricità – Montesyndial, Consolidation of railway line and rail overpass	NASPA	23.000.000
	9	Intermodal platform	NASPA	90.000.000
	10	New railway depot and workshop	NASPA	3.700.000
Long term 2024-2026	11.1	New road and railway last-mile link: Malcontenta node - Phase 2	NASPA	30.000.000
	11.2	New road and railway last-mile link: New motorway link road to the port of Venice	CAV	159.000.000
	11.3	New road and railway last-mile link: New railway terminal inside port area and last mile-link connection to the rail National network	RFI	596.000.000
	12	Road Tunnel to connect Northern and Southern bank of Porto Marghera	CAV / NASPA	85.000.000
			Total	**1.099.700.000**



Venice - Porto Marghera Southbound ongoing development activities

For many of the interventions above listed NASPA (together with RFI, CAV and Veneto Region) participated to the 2^ CEF2 call with two proposals (Venice Green Link and ITAL4PORTS rail Proposals) to seek financial support.

The Projects consist in designing the new overall multimodal last mile connection of the port of Venice to the TEN-T networks, following the Agreement signed among the project partners in 2021 for the achievement of the following objectives:

- Improved rail and road accessibility of Venice core port and its intermodal services: to overcome road bottlenecks, avoiding interferences with urban traffic, boosting rail traffic efficiency
- Improved environmental and socio-economic performance of Venice Port: removing road and rail traffic congestions for a better management of urban and rail passenger daily connections, contributing to the decarbonization of transport.
- Adequate standard of efficiency, safety and security of transport considering the expansion of logistics/industrialized/port field in the southern areas of the port of Marghera-Venice towards its "ecological" transition from a XIX century chemical and industrial port area to a green manufacturing, port and logistics area, will bring additional land traffic.

Development plans in the port of Patras

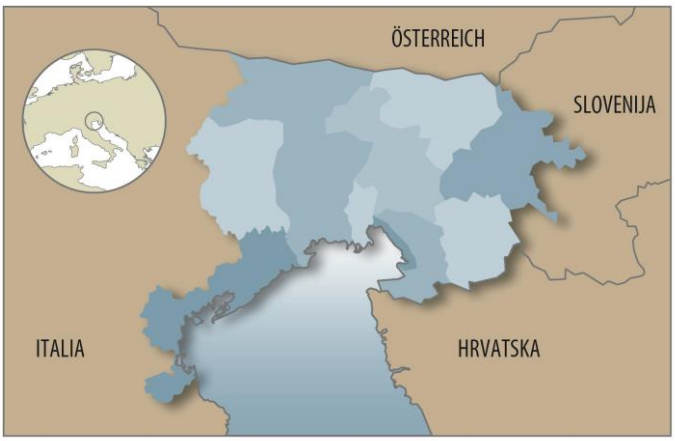
The construction of the four piers, is used mainly from tugboats, when their assistance is required and the fact that the fire fighting ship can use these piers either for docking, or as an intermediate station, undoubtebly increased and will increase not only the port efficiency but also sended a message for improved safety at the Port.

With the construction of the two boys, the Port succeeded to increase the docking length of Pier A, something that will attract larger ships in Patras Port.

3. CROSSMOBY

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	
ITALY	*X*
SLOVENIA	*X*
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	



PROJECT DESCRIPTION

The main project goal was the design, implementation and the assessment of new sustainable cross-border rail passenger services, exploiting the existing railway infrastructures along the axis Venice-Trieste-Ljubljana, overcoming the lack of connections for a sustainable and efficient mobility of people and tourists, hence to decrease CO2 emissions.

Three are the pillars which represent the three main project objectives: the development of a cross border action plan for a cross border sustainable mobility; the improvement of cross border mobility planning, improving the SUMP methodology on regional level; the re-activation of cross-border rail passengers services in the Italy-Slovenia cross-border area.

CROSSMOBY was labelled as EUSAIR Project because it is fully coherent with the Priority Action on Inter-modal connections in the macro-region, since it provides a tangible contribution on the passenger cross-border mobility, boosting rail public transport services as well as the intermodality bike&train.

Additionally, the project is fully in line with the priority Subaction endorsed by the TSG2-Transport SubGroup "Facilitation and implementation of rail services (passengers and freight) and simplification of crossing border procedures among Member State and non UE countries" -Action "Cross-border facilitation" of Topic 2. More precisely it represents a concrete implementation of the recommended measures/project proposals of macro-regional value identified by the SubGroup under the possible actions aimed at removing border crossing bottlenecks as the Italy – Slovenia – Croatia(rail) interoperability agreement .

Furthermore, CROSSMOBY meets the following specific criteria:

- Finalization of the infrastructural interventions on the TEN-T axis

- Interconnection between the main TEN-T axis and the nodes, with a particular attention to last mile connections
- Interoperability and intermodality between different modes of transport
- Promotion of green transport solutions (land and sea side)
- Safety and security solutions in transport

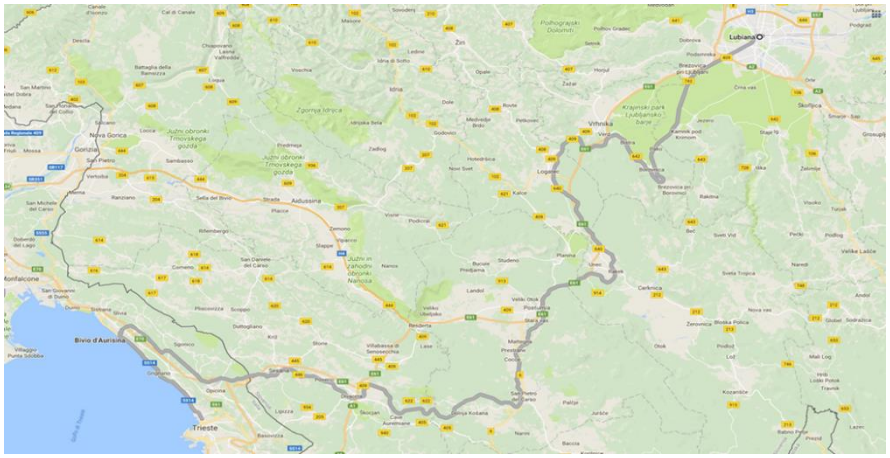
FUNDING SOURCES

Type of the funding source	1) European Regional Development Fund (ERDF) 2) National co-financing
Name of the funding source	Interreg Italy - Slovenia
Share of funding sources	Total Budget: euro 4.117.387,76 - 85% European Regional Development Fund (ERDF) - 15% National co-financing

PROJECT STATUS

The project was approved in the framework of the Interreg Italy-Slovenia territorial cooperation programme in July 2018 and started its activities on September 1st (the original overall duration was 36 months). On September 9th, 2018, the cross-border train passenger service, with 4 trains per day, connecting Ljubljana, Trieste and Udine, was launched with a cross-border event which took place in Trieste with the participation of the EU Commissioner for Transport Mrs. Violeta Bulc.

The established cross-border passenger rail service Udine-Trieste-Ljubljana is still running, after the stops during the most critical phase of the pandemic. The two couples of trains per day running along the axis Udine-Trieste Airport-Trieste-Ljubljana represent a pilot activity of CROSSMOBY and were made available since then, but the pilot service co-financed by the project budget lasted until December 31st, 2019. Trains are operated by Trenitalia S.p.A. in cooperation with SŽ - Passenger Transport Ltd. The CROSSMOBY project duration was then extended until December 2021. The final report of CROSSMOBY was submitted for approval on May 2023.



On November 25th 2021, Friuli Venezia Giulia Region hosted in Trieste the project final conference, jointly organized with BIKENAT project (Interreg Italy-Austria), promoting the sustainable intermodal solutions successfully tested within both projects.

RESULTS

Being focused on the sustainable mobility between Slovenia and Italy, in particular between the Slovenian region of Zahodna Slovenija and the Italian region Friuli Venezia Giulia, the project provided its contribution in linking the cities of Ljubljana, Trieste and Udine, as well the new train stop ''Trieste Airport'' and its intermodal pole (active from March, 19th, 2018). Thus improving the sustainable mobility options at cross-border level for the benefit of citizens and tourists.

The impact on the Adriatic Ionian region is high in terms of a better connectivity and accessibility exploiting existing rail infrastructure, representing a best practice bound to be taken into account in other cross-border areas of the AI region.

The project responds to the European policies of railway transport and allows to seize the mutual opportunities related to the connection of the main cities of the area. Besides, the ecological vocation of the railway services meets the needs of environment protection and resources consumption reduction required by the current national and EU regulations.

The cooperation established in the framework of the Interreg project, led to the setting up of two permanent thematic working tables between Friuli Venezia Giulia Region and the Republic of Slovenia, active since May 2021: one related to the CROSSMOBY train and one related to the design of future cross-border rail passenger services between Gorizia and Nova-Gorica.

Further areas of future development are mostly related to the promotion of the new rail passenger services, in agreement with Tour Operators, in order to create travel packages that may include train tickets, tours, bus connections to other city centers, promoting and enhancing train transport eco-sustainability.

d. Studies and design

1. COMOBILION

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	*X*
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	*X*
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	
SAN MARINO	
SERBIA	
TOTAL	*2*

PROJECT DESCRIPTION

COMOBILION was designated as an EUSAIR project because it is fully consistent with the priorities of the Macro Strategy, having the potential to contribute to the development of intermodal connections in the macro region, such as the development of the Western Balkans and South-East Europe transport network and further facilitation through improved cross-border crossing infrastructure.

In parallel with the existing border crossing points of Kakavia-Pika Kufitar and Krystallopigi-Kapshticë, the COMOBILION project aims to upgrade the western Greece-Albania cross-border crossing at Sagiada – Quafe Bote. The main objective of this project is to improve the connectivity and accessibility among the road transport networks of South Albania and Northern Greece through the completion of the cross-border road axis Igoumenitsa - Sagiada - Saranda. This axis is particularly important since it connects the road network of Greece, through the Egnatia Motorway and Ionia Odos (TEN-T axes), with the system of road axes in the southern regions of Albania and the Western Balkans, through the links to the Pan-European Axis VIII.

The project of a total budget of approx. 7,55 million euros is funded by the Program Interreg-IPA II CBC Greece Albania 2014-2020.

It comprises of two main actions:

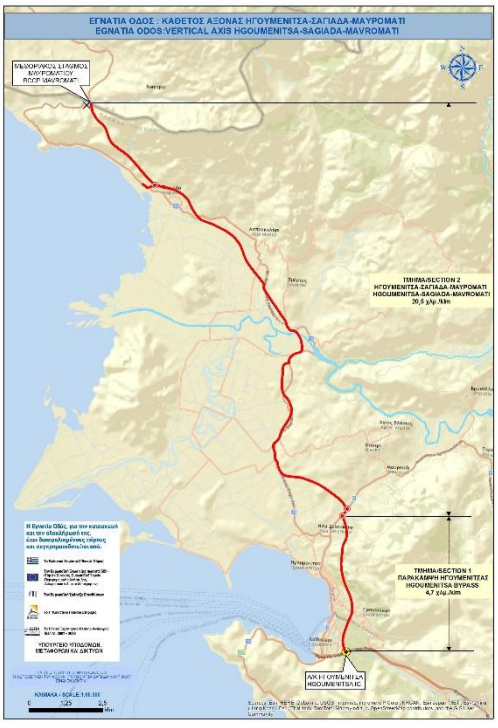
- **Lead Beneficiary "Egnatia Odos SA'** is responsible on Implementing of Technical Design for the construction of the road section "Igoumenitsa-Sagiada-Mavromati GR/AL Borders" (ISM – map section 2) with the Bypass of Igoumenitsa town (IBP – map section 1), of a total length of 25 km. This road is a new alignment that includes the Vertical axis of the Egnatia Motorway connecting the port of Igoumenitsa with the

Cross Border Crossing Point Sagiada –Quafe Bote. The construction of this road section is listed into the National Master Plan for the Transport after the maturity of the Designs.

- Upgrading of the infrastructure in the BCCP of "Qafe-Bota" (Saranda)", in order to provide more efficient control and customs services. **Project Beneficiary 3 - "Albanian State Police"** is responsible for the construction of new buildings, reconstruction of existing installation and interventions in the surrounding area of the customs**. Project Beneficiary 4 – "Albanian Directorate General of Customs"** is responsible for the supply of new equipment.

The following COMOBILION Project Goals are fully coherent with the Strategy and the Criteria to which the project was labelled by EUSAIR:

- Improvement of the connectivity and accessibility in the Cross-border area Greece-Albania
- Improvement of the connection of the TEN-Ts with the Pan European Corridors, especially those that pass through **Western Balkans and South-East Europe**
- Enhancement of multimodal transport through facilitating the interconnection of the ports of **Igoumenitsa, Saranda, Vlore** and the airports of **Ioannina, Kastoria and Tirana**.
- Improvement of the mobility of people and goods in the border area
- Support of the traffic volumes in the inter-border region, which are steadily increasing due to the intense activity of small-scale businesses and the increased tourist influx observed mainly in the summer
- Improvement of the quality of life of the population due to the better road safety.Creation of a new potential and basis for new dynamics in the fields of tourism and commerce in regions where low income and growth rates are recorded



Greek Territory: Map of Road Axis section 1 - Igoumenitsa Bypass & section 2 - "Igoumernitsa – Sagiada- Mavromati"

FUNDING SOURCES

Type of the funding source	1) European Regional Development Fund (ERDF) 2) IPA II funds National co-financing
Name of the funding source	Program Interreg-IPA II CBC Greece Albania 2014-2020
Share of funding sources	Total Budget: 7.556.848 € - 85% European Regional Development Fund (ERDF) or IPA II Funds - 15% National co-financing

PROJECT STATUS

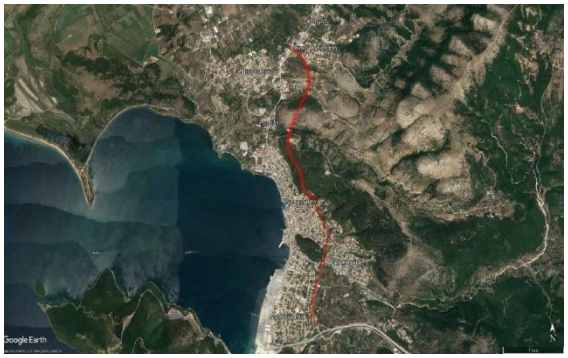
The project is in progress as follows:

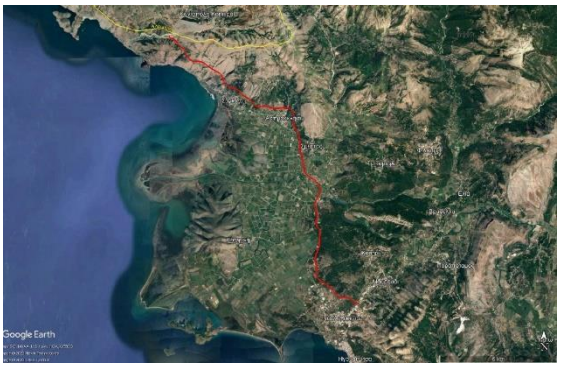
1. Design contracts maturing the road section from Igoumenitsa to Sagiada

Almost all design contracts have been assigned. The remaining Design Contracts will be assigned up to the end of June 2023. The design works will be completed by the end of 2023 and the related Road Section will be ready for construction.

2. Reconstruction of the border station between Greece Albania "Qafe-Bota" (Saranda)"

The Reconstruction of BCP Qafë Botë and the Rehabilitation of around Area has been completed by Albanian State Police (PB3). The procurement of the equipment for BCP QafeBote by PB4 under the responsibility of Directorate General of Customs (PB4) is still pending (three (3) out of six (6) tender processes).





RESULTS

COMOBILION Project has made the effort to establish an enlarged cooperation network, by involving institutional stakeholders (Related to Road Construction - “Egnatia Odos SA”, Albanian State Police & Albanian Directorate General of Customs) that can have the interest and the power to sustain the concept of a permanent transnational network, even larger than the cross-border one Greece-Albania.

This approach is fully compliant with the vision of EUSAIR Strategy, that sustains that facilitates an effective level of cooperation between people and institutions to build a common understanding of cooperation for a harmonized, integrated and sustainable region.

COMOBILION will facilitate the fulfilment of this scope, by maturing the studies of the road connecting the border station on the Greek-Albanian border, the construction of this road section is listed into the Greek National Master Plan for the Transport and the Improvement of the connectivity and accessibility in the Cross-border area Greece- Albania will be achieved. Consequently, the connection of the TEN-T with the Pan-European Corridors will be improved, especially those passing through the Western Balkans and South-Eastern Europe.

2. Railway connection between the main passenger station in Skopje with the airport in Skopje

PROJECT IDENTIFICATION

EU Countries	
CROATIA	
GREECE	
ITALY	
SLOVENIA	
Non-EU Countries	
ALBANIA	
BOSNIA HERZEGOVINA	
MONTENEGRO	
NORTH MACEDONIA	*x*
SAN MARINO	
SERBIA	
TOTAL	

-Figure: Skopje International Airport accessibility with Trans-European Transport Network

Figure: Official operation places for passenger and freight trains in North Macedonia

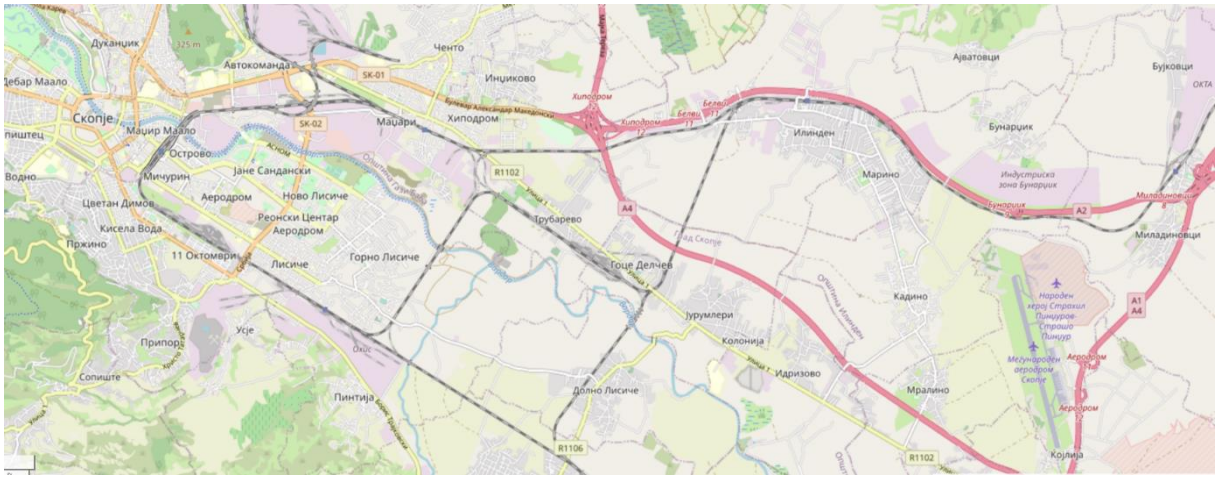
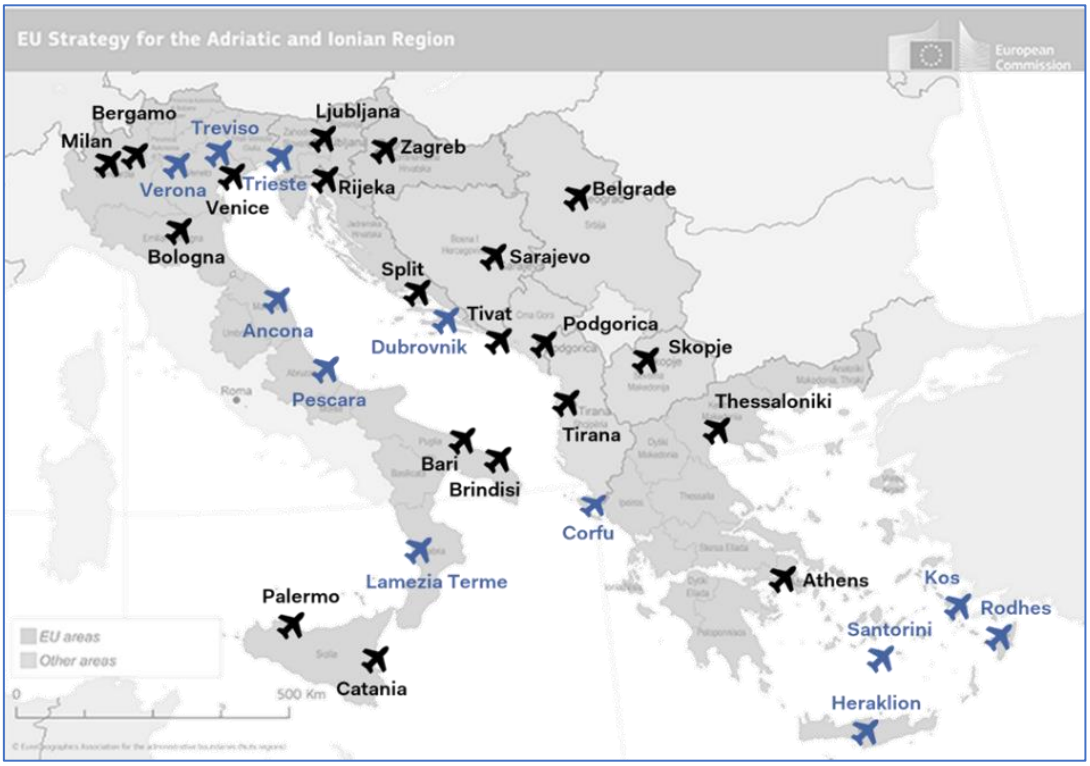


Figure: Airports connection - EU Strategy for Adriatic and Ionian Region

Figure: Skopje (far left) – Skopje International Airport (far right); existing railway track in black and grey



PROJECT DESCRIPTION

General

Skopje International Airport is the larger and busier of the two international airports in Republic of North Macedonia, with the other the St. Paul the Apostle Airport in Ohrid which is located 170 km southwest from the National Capital Skopje.

Skopje International Airport won Airports Council International' Airport Service Quality (ASQ) Best Europe Award for 2018, 2015, 2013 and 2012, in the category of airports under 2 million passengers. Skopje International Airports was listed among top 10 best airports in Eastern Europe for 2016 and 2015.

Construction of a railway from Skopje to Skopje Airport would create a seamless inter-modal connection, allowing passengers and freight to easily transition between air and rail transportation. This integration would provide passengers in particular with more flexible and efficient options for reaching their destinations, benefiting both domestic and international passengers.

The project would improve the transportation connections among the EUSAIR nations. Passengers traveling from different airports in the area would have a greener, more convenient access to and from Skopje by connecting the airport with the main rail network. This increased connectivity would encourage regional trade, tourism, and economic growth.

The railway connection would make it easier for passengers from a larger catchment area (in North Macedonia) to access Skopje Airport. Passengers from towns and areas outside of Skopje would be able to quickly and easily take the train to the airport. Increased accessibility would draw more passengers, which could lead to an increase in the number of flights and locations the airport serves.

The development of the railway connection would have a positive economic impact on the region. It would create employment opportunities during the construction phase and generate long-term benefits by attracting investments, boosting tourism, and facilitating trade. The improved transport connections would enhance the competitiveness of the region and contribute to its economic growth.

This project also aligns with sustainability goals by promoting a greener mode of transport. Trains produce fewer emissions compared to individual vehicles, contributing to improved air quality and reduced carbon footprint.

Development of Project documentation

The primary mode of transportation for passengers and freight to the Skopje Airport is by road. Passengers typically use taxis and private vehicles to reach the airport while freight is usually transported by trucks.

The A1, A4, and A2 highways provide access to the road network that runs from the city center to the airport in Skopje. These roads offer a straightforward and largely effective connection between the city and the airport.

However, the current road infrastructure and transportation system face several challenges and limitations.

- Congestion: The existing road network can experience significant congestion, especially during peak travel times. This congestion can lead to delays and unpredictability in travel times for passengers and freight.
- Limited transportation options: Presently, passengers and freight transporters rely fully on road transport which might not be the most convenient or cost-effective options for all travelers. A railway connection would provide an additional mode of transportation, offering more choices for passengers and freight transporters.
- Sustainability: A railway project would greatly contribute to reaching the sustainability goals of the region by promoting environmentally friendly transportation options. Trains are a greener mode of transport compared to individual vehicles, reducing carbon emissions and air pollution.

Some examples for rail connections from airports to the cities in EUSAIR countries:

- Leonardo da Vinci-Fiumicino Airport (Rome, Italy): Rome's main international airport, Fiumicino Airport, is connected to Rome's city center by the Leonardo Express, a direct train service that operates between the airport and Roma Termini, the city's main railway station.
- Athens International Airport (Athens, Greece): Athens International Airport, located in the suburb of Spata, is connected to the city center by the Athens Metro Line 3. The metro line provides a direct connection between the airport and various metro stations in Athens.
- Ljubljana Jože Pučnik Airport (Ljubljana, Slovenia): Ljubljana Airport does not have a direct railway connection, but it is located near the Kranj railway station. From Kranj, frequent train services connect to Ljubljana, providing access to the airport.

Development of project documentation for connection of International Airport Skopje with Main Rail Station in Skopje will give additional value with regard to transport connection and it will be more than favorable for safe and better inter-modal connection of the EUSAIR countries.

Current passenger and freight monthly flow (2022)[6].

		Total passengers carried	Total freight and mail loaded/unloaded, in tonnes
2022M01	Skopje International Airport	112 735	200
2022M02	Skopje International Airport	88 859	218
2022M03	Skopje International Airport	126 258	224
2022M04	Skopje International Airport	151 035	199
2022M05	Skopje International Airport	169 034	275
2022M06	Skopje International Airport	213 029	237
2022M07	Skopje International Airport	259 795	188
2022M08	Skopje International Airport	266 617	200
2022M09	Skopje International Airport	235 054	195
2022M10	Skopje International Airport	198 350	227
2022M11	Skopje International Airport	148 050	236
2022M12	Skopje International Airport	166 172	236

The geographic location of the country is at the crossroads of South-Eastern Europe, as an important transit route for land traffic between Central Europe, Ionian and Adriatic Sea, the Aegean Sea, the Black Sea and further with Asia. The favourable landlocked geographical location of the country has contributed to the development of international traffic on two Trans National Axes: North-South (Corridor X) and East-West (Corridor VIII), both part of the indicative extensions of the Trans European Transport Networks towards the Western Balkan Region.

Since the Skopje airport is located on the cross road of Corridor X and Corridor VIII, development of the project also will have an impact on developing the Western Balkans transport network and TEN-T, as well, with better and safe transport connectivity in accordance with EU standards and policies, and within regard of Sustainability and Environmental protection.

FUNDING SOURCES

Type of the funding source	IPA Program 2023-2027
Name of the funding source	IPA, National co financing
Share of funding sources	To be defined

[6] https://skp.airports.com.mk/en-EN/media-centre/press-releases/page/pressrelease2022skpohdresultsslug#:~:text=TAV%3A%202.4%20million%20passengers%20travelled%20through%20Skopje%20and%20Ohrid%20airports%20in%202022,-TAV%20Macedonia%2C%20the&text=statistics%20for%202019-,Skopje%20International%20Airport%20and%20Ohrid%20St.,or%20a%20total%20of%202.371.

PROJECT STATUS

Preparation of study and project documentation for establishing railway connection between the main passenger station in Skopje with the airport in Skopje not started yet, for that purpose it is necessarily to prepare:

- Pre - Feasibility study
- Feasibility study
- Cost benefits analyses
- Idea Design with initial Bill of Quantities
- Environmental and social impact assessment study

RESULTS

Create synergies and foster coordination among all territories in the Adriatic-Ionian Region and to connect the Region with better and safe transport.

The railway connection would enhance the existing multimodal transport networks by integrating rail as a key mode of transportation. It would provide an additional option for passengers and freight to move efficiently and seamlessly between the airport, city, and other parts of the region. The rail link would complement existing road, air, and maritime connections in the EUSAIR region, offering a more comprehensive and interconnected multimodal transport system.

The railway connection would facilitate efficient movement of people and freight within and beyond the EUSAIR region. Passengers would have a convenient and sustainable mode of transport between Skopje Airport and the city, allowing for easier access to and from the airport. Additionally, freight transport could benefit from the rail link, enabling the efficient movement of goods, reducing congestion on the road network, and improving logistics and supply chain operations.

Strengthened Regional Integration: The rail connection between Skopje Airport and the city of Skopje would contribute to strengthening regional integration within the EUSAIR region. By providing a reliable transport link, it would facilitate transport across national borders, fostering closer economic and cultural ties between neighboring countries. This improved connectivity would support regional cooperation, trade, and tourism, enhancing the overall integration and development of the EUSAIR region.

Facilitated Economic Cooperation: The railway connection would play a crucial role in facilitating economic cooperation within the EUSAIR region. It would create opportunities for businesses to expand their operations and engage in cross-border trade. The efficient movement of goods and people would enable easier access to markets, encourage investment, and foster economic growth and development in the region thereby contributing to the overall economic cooperation and prosperity of the EUSAIR countries.

The railway project hugely contributes to the development of two of the four EUSAIR pillars, namely:

Connecting the Region: The focus of this pillar is on improving connectivity and transport infrastructure in the region. It aims to enhance multimodal transport networks, including road, rail, air, and maritime connections, to facilitate efficient and sustainable movement of people and goods within and beyond the region. This priority seeks to strengthen regional integration and facilitate economic cooperation.

Environmental Quality: The environmental quality pillar aims to protect and enhance the natural and cultural heritage of the region. It focuses on preserving biodiversity, promoting sustainable tourism, and addressing environmental challenges such as pollution, climate change, and natural resource management. The goal is to ensure a clean and healthy environment that supports sustainable development and quality of life.

The addition of a railway connection would enhance **multi-modal connectivity** by providing passengers and freight with an efficient and sustainable transportation option. It would integrate the airport into the existing rail network, allowing for easy transfers between different modes of transport. Passengers and freight could easily transition between trains, taxis, buses, and other modes, creating a comprehensive and interconnected transportation system.

The introduction of a railway would likely result in a **modal shift**, with a portion of passengers and freight transporters opting for rail transport instead of relying solely on road-based options. Trains have a much larger capacity and higher efficiency in moving both passengers and goods. This shift from road to rail could greatly alleviate congestion on the road transport network.

Rail transport is a more **environmentally friendly** mode of transport compared to road-based vehicles. Trains have lower carbon emissions and energy consumption per passenger or unit of freight transported. By promoting rail travel for passengers and freight, the railway project would contribute to reducing greenhouse gas emissions, improving air quality, and mitigating the overall environmental impact of transportation.

The railway connection would **facilitate the movement of freight** between Skopje and the airport in a more efficient and cost-effective manner. Trains are capable of carrying larger volumes of goods compared to trucks, reducing the number of individual freight vehicles on the road. This shift to rail freight can lead to improved logistics, reduced transportation costs, and a more sustainable supply chain.

The railway project would enable **seamless intermodal integration**, allowing for the efficient transfer of passengers and freight between different modes of transport. For example, the railway station at Skopje International Airport could be linked with freight terminals, trucking hubs, or logistics centers, enabling a smooth interchange of goods and facilitating intermodal freight transport. This integration enhances the overall efficiency and effectiveness of the transportation system.

3. Annex: classified list of transport EUSAIR labelled project

a. INFRASTRUCTURE PROJECT LIST

	ID	Name	Responsible Country	Railway	Road	IWW	Other
Linear infrastructures	29	Multimodal Central Adriatic Corridor	Italy	X	X		
	30	(Upgrading) Palermo - Catania - Messina railways	Italy	X			
	13	Railway missing link between Greece and Albania (section Florina-Pogradec)	Greece	X			
	12	(Upgrading and reconstruction) Railway line Beograd Bar (E79)	Serbia	X			
	38	(Upgrading and Reconstruction) Railway line Beograd-Zagreb	Serbia	X			
	14	2nd Railway track Divaca – Port of Koper	Slovenia	X			
	28	Multimodal Northern Adriatic Corridor	Italy	X	X	X	
	2	Last mile (Heavy vehicle) road connection of the Port of Bari and intermodal terminal	Italy		X		
	10	Highway E-761 Pozega-Uzice-Kotroman (Bosnia and Herzegovina border) –Visegrad /SEETO Route 3	Serbia		X		
	11	Adriatic-Ionian Highway/expressway	Montenegro+ other concerned Countries		X		
	37	Motorway E-763 Pozega-Boljare (Montenegro Border) -Bar	Serbia		X		
	39	(Construction) Motorway Niš-Merdere-Priština	Serbia		X		

		31	Improvement of the connections between the Po river navigation network and the Adriatic Sea	Italy			X	
		7	Hydro-technical and dredge excavation on critical sectors on the Sava river	Serbia			X	
		52	Messina Strait Bridge (Ponte sullo stretto di Messina)	Italy	X	X		
		53	Construction of railway section of corridor VIII Kicevo – Border with Albania	North Macedonia	X			
		57	Modernisation of Zagreb Kustošija – Zagreb West Station – Zagreb Main Station	Croatia	X			
		58	Modernization of Railway line M604 Oštarije - Knin - Split	Croatia	X			
Nodes		**ID**	**Name**	**Responsible Country**	**Rail**	**Road**	**Sea**	**IWW**
	Maritime Ports	1	(Upgrading) Railway infrastructures of the Port of Trieste	Italy	X		X	
		40	Port of Koper Pier I – core network: accessibility and intermodality	Slovenia	X	X	X	
		41	Port of Koper Basin III – MoS: accessibility and intermodality	Slovenia	X	X	X	
		42	Port of Koper Basin II – core network: maritime accessibility	Slovenia			X	
		44	Port electrification - providing electricity to ships while berthing at port of Koper	Slovenia			X	
	Inland Waterway Ports	16	(reconstruction and upgrading of) functional facilities in the Port of Brčko	Bosnia and Herzegovina	X	X		X
	RRT	-	-	-				

b. SOFT MEASURE PROJECTS LIST

Services, studies, pilot projects, EU Territorial Cooperation	ID	Name	Responsible Country	Railway	Road	Sea	IWW	Other	Maritime Ports	IWW Ports	RRT	Urban nodes
Soft-Active Mobility	32	ADRIATIC-IONIAN Cycle Route (ADRIOCYRO)	Italy					X				
Studies and Pilots	8	AWATRAIN	Italy				X					
	3	ADRIPASS	Italy	X	X				X		X	
	45	NEWBRAIN	Italy						X		X	
	6	LNG NET MED	Italy						X			
	22	ADRIATIC/IONIAN SMALL PORTS NETWORK	Greece						X			
	35	Sea Lighthouse (Fari di Mare)	Italy						X			
	46	SUSPORT	Italy						X			
	34	DNA Link	Italy			X			X			
	47	PROMARES	Italy						X	X	X	
	48	INTESA	Italy			X			X			

	49	MIMOSA	Italy	X	X							
	50	ICARUS	Italy	X	X							
	51	DGSEA	Italy									
Services/ Facilities	23	ADRIATIC-IONIAN PORT OBSERVATORY	Greece						X			
	43	SMA Vessel traffic monitoring centre upgrade	Slovenia			X						
	5	EUREKA	Croatia			X						
	9	Motorways of the sea Venice – Patras	Italy			X			X			
	33	CROSSMOBY	Italy	X	X							
	36	ECO-ROUTES	Italy						X			
Studies and design	21	ADRIETA – Adriatic/Ionian Multimodal Corridor	Greece	X	X	X	X		X	X	X	X
	19	COMOBILION	Greece		X							
	20	COMOBILION+	Greece		X							
	4	MULTIAPPRO	Croatia	X	X				X		X	
	54	Preparation of study and project	North Macedonia	X				X				X

		documentation for establishing railway connection between the main passenger station in Skopje with the airport in Skopje										
	55	Reconstruction of railway section Okučani – Vinkovci	Croatia	X								
	56	Upgrade, renewal, construction of second track and construction of new double-track line on sections of railway line Dugo Selo - Novska	Croatia	X								

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