This report has been prepared based on main outputs of first two Working Packages of ADRIPASS project: Transnational action plan for transport facilitation in the Adriatic-Ionian Region and ICT Action plan for improving multimodal transport in ADRION Region as well as collection of strategic national documents and direct communication with stakeholders. As the main output of WPT3 dedicated to Institutional Cooperation, this document has been prepared by Chamber of Commerce and Industry of Serbia in collaboration with Intico doo and with the contribution of ADRIPASS project partners and associated partners.

TRANSNATIONAL STRATEGY FOR THE IMPROVEMENT OF MULTIMODAL TRANSPORT AND ACCESSIBILITY IN THE ADRION REGION

ADRIPASS Deliverable DT.3.2.2

Version FINAL
10 2020

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1. Introduction

"ADRIPASS– Integrating multimodal connections in the Adriatic-Ionian region" project, co-funded by ERDF and IPA funds in the framework of the Interreg ADRION Programme 2014-2020, is implemented by a group of 11 partners from Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Montenegro, Serbia and Slovenia. The project was approved under the Programme priority 3 – Connected Region under specific objective to Enhance capacity for integrated transport and mobility services and multimodality in the Adriatic-Ionian area. The project is dedicated to identifying the lack of efficient maritime - hinterland connections, mainly caused by the existence of various bottlenecks at border level and to propose solutions and tools for these bottlenecks reduction and mitigation of their impact on transport.

ADRIPASS' project activities are grouped into five "Work Packages":

- WPM - Project management;
- WPT1 - Integrated multimodal transport;
- WPT2 - ICT tools for improving multimodal transport (pilot actions);
- WPT3 - ADRION transnational institutional cooperation;
- WPC - Communication

The identification and analysis of the existing obstacles along the main TEN-T Corridors sections in the ADRION region is the main subject of WPT1 of the project, entitled "Integrated multimodal transport". This WP comprises the data collection preparation and performance, on which the Corridors' analysis was based in view of serving as a feeder of the Trans-national action plan for transport facilitation, anticipated as final deliverable of the same WP, as well of the other WPs of the project and specifically of:

- WPT2 "ICT tools for improving multimodal transport" (in defining and implementing Information and Communication Technology (ICT) pilot actions and an ICT Action Plan, and
- WPT3 "ADRION transnational institutional cooperation" (in elaborating the Strategy for improving multimodal transport in ADRION region).

The "transnational strategy for the improvement of multimodal transport and accessibility in the ADRION region" (hereinafter mentioned as "Strategy") represents the final output based on the combination of a bottom-up (from research and implementations in WPT1 and WPT2) and a top-down (direct communication with Associated Partners as policy makers) approaches.

Beside this project approach, the Strategy takes into account all relevant and related international territorial and political subjects, organizations and initiatives, creating the multilevel framework and complex environment for transport development and regional connectivity.

The EUSAIR, as an EU macro-regional strategy, constitutes an integrated framework, endorsed by the European Council, in order to address common challenges in a given geographical area where both EU Member States and third countries are situated. The objective is to strengthen cooperation in order to achieve economic, social and territorial cohesion. EUSAIR Pilar 2 - connecting the Region is in synergy with the ADRIPASS project, whose main goal is integrating multimodal connections in the Adriatic-Ionian region. The Adriatic-Ionian Region, as defined by the Programme, covers both the Adriatic and Ionian Seas and their hinterlands to the west-northwest and to the east-southeast, respectively. This region, which virtually defines the area of ADRIPASS project whilst perfectly matches with the EUSAIR region, is presented in Figure 1.

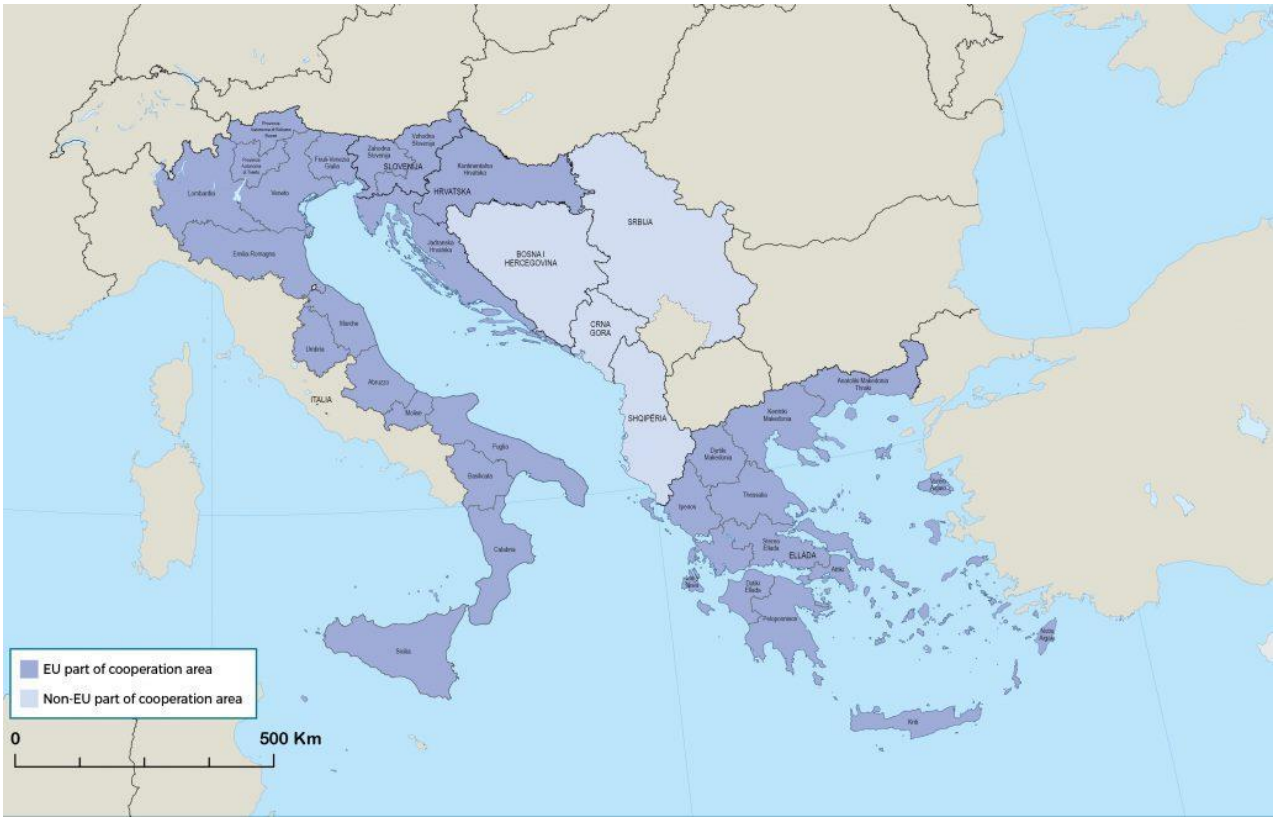


Figure - 1 ADRION and EUSAIR region

Source: EUSAIR website - http://www.adriatic-ionian.eu/about/the-adriatic-ionian-region

The Adriatic-Ionian Region extends its geographical area from the Northern Adriatic Sea to the Ionian and Greece, where the Piraeus port is located (Figure 2) that serves the biggest volumes of containers - more than 5,000,000 TEUs and is a crucial nodal point for all the containers entering and leaving the Mediterranean in relation to the Silk Route and the Far East. The most important multimodal hubs in the in the Northern Adriatic area are

ports Koper (Figure 3), Trieste (Figure 4) and Venice (Figure 5) with more than 600,000 TEUs.

The ports represent the most important link of the logistic chains being developed through the EU corridors.

Figure - 2 The Piraeus port, container terminal

Source: CORPORATE RESPONSIBILITY REPORT for 2018, The Piraeus port

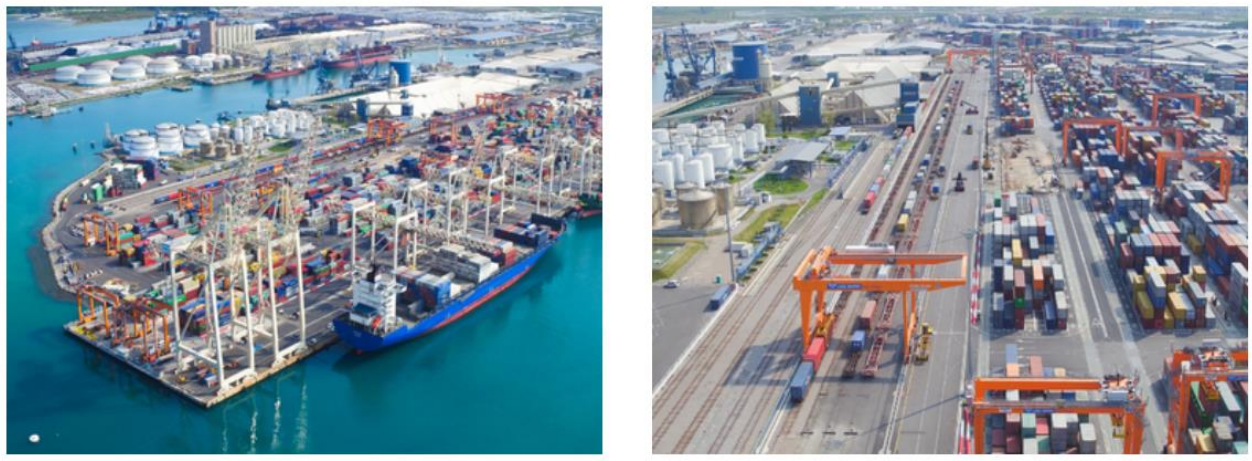


Figure - 3 The Port of Koper

Source: https://luka-kp.si/eng/

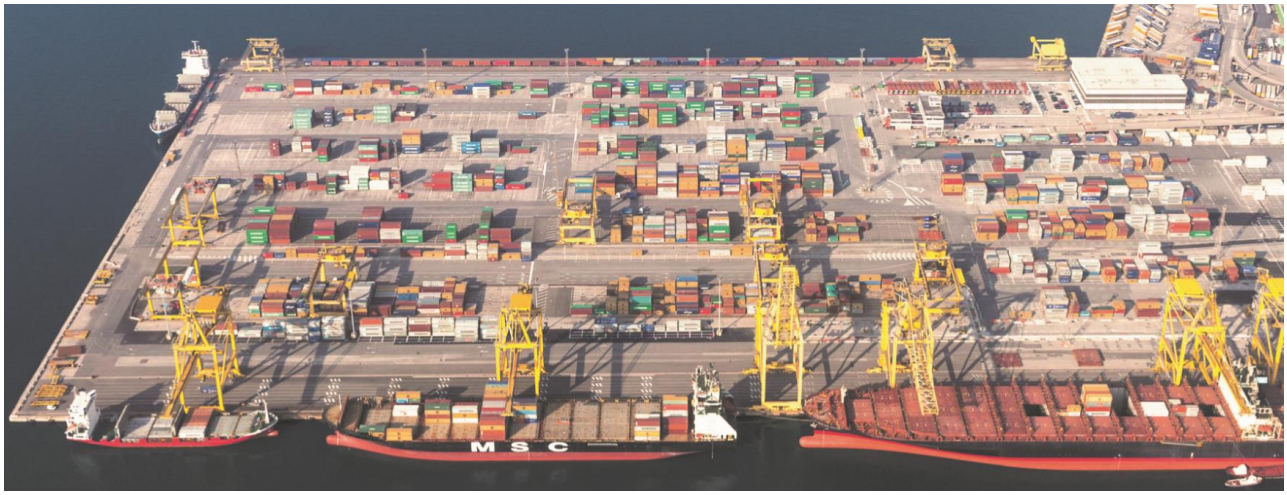


Figure - 4 The Port of Trieste

Source: https://porto.trieste.it/

Figure - 5 The Port of Venice

Source: https://port.venice.it/en/the-new-container-terminal.html-0

Since ADRIPASS must deal with the extension of the core TEN-T corridors in the ADRION region (including WB6), multimodal corridors important for this region are:

- **Orient East-Med** – it connects large parts of Central Europe with ports of the North, Baltic, Black and Mediterranean Seas. In the ADRION region it crosses Greece, North Macedonia, Kosovo*, Montenegro and Serbia;
- **Mediterranean** – it crosses six EU countries (Spain, France, Italy, Slovenia, Croatia and Hungary). In the ADRION region it crosses Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Serbia, Albania and Greece;
- **Baltic - Adriatic** - it runs from the Baltic seaports to the Adriatic ports, crossing Poland, Czechia, Slovakia, Austria, Slovenia and Italy. In the ADRION region it crosses Italy and Slovenia;
- **Scandinavian - Mediterranean** - it is the longest of the TEN-Core Net Corridors and starts at the Finnish-Russian border and Oslo in Norway, and goes via Denmark, Sweden and Germany to Austria, Italy and Malta. In the ADRION region it crosses Italy;

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

- **Rhine – Danube** inland waterway network - tracing its route along the Danube River, it connects Strasbourg and Southern Germany with the Central European cities of Vienna, Bratislava and Budapest, before passing through Romania to culminate at the Black Sea port of Constanta. In the ADRION region it crosses Serbia, Bosnia and Herzegovina and Croatia.

Almost 90% of the EU's external freight trade is sea-born. In this regard, ports represent an essential link between the connection of industrial, transport and commercial hubs. Ports are strategic points, as they play an important role in relations between countries, as well as interconnections of different cultures and logistical hubs between land and maritime transport. This is the reason why particular attention has been given to ports during the analyses mentioned previously.

The potential of the Adriatic-Ionian Region is remarkable and has seen a steady increase in the previous period when talking about multimodal transport development. The main ports in the Adriatic-Ionian Region have greatly intensified connections with the Far East, as they represent an important window in the centre of Europe for both export and import of all kinds of goods. Furthermore, China is currently opening up to the world with its "One Belt, One Road" initiative, and is looking for foreign markets that will boost the economy in addition to domestic consumption, with the biggest ports in Adriatic-Ionian Region becoming the hubs for transhipment in fast-growing trade between Asia and Eastern Europe.

The Adriatic-Ionian Region, after the EU three last enlargements (2004-2007-2013) has been subject of intensive cooperation among its partners and continuous support from the European Commission. Especially regarding connectivity, through the Berlin Process initiated in 2014 and the consequent Summits, the indicative extension of the Comprehensive and Core TEN-T in WB6 that had been included in the TEN-T Regulation 1315/2013 of the European Parliament and of the Council on Union guidelines for the development of Trans-European Transport Network (see Figure 6 extract from the EC DG Mobility and Transport online interactive mapping tool TENTec).

The total amount of €13.5 billion has been invested to the Indicative Extension of the TEN-T Comprehensive and Core Network to the WB6 during the period 2004 - 2017. Investment in road infrastructures prevail but recently there is a change in the trend towards more rail investments. In terms of shares of sources in project financing the biggest share at 38% is financed through IFI loans, followed by the National Budgets with a share of 29%. Extending the TEN-T core network corridors to the WB6 ensures closer integration with the EU as well as the basis for leveraging investment in infrastructure, such as EU support through the Western Balkans Investment Framework (WBIF) and the Connecting Europe Facility (CEF). Improving connectivity within the Western Balkans, as well as between the Western Balkans and the European Union, is a key factor for growth and jobs and will bring clear benefits for the region's economies and citizens.

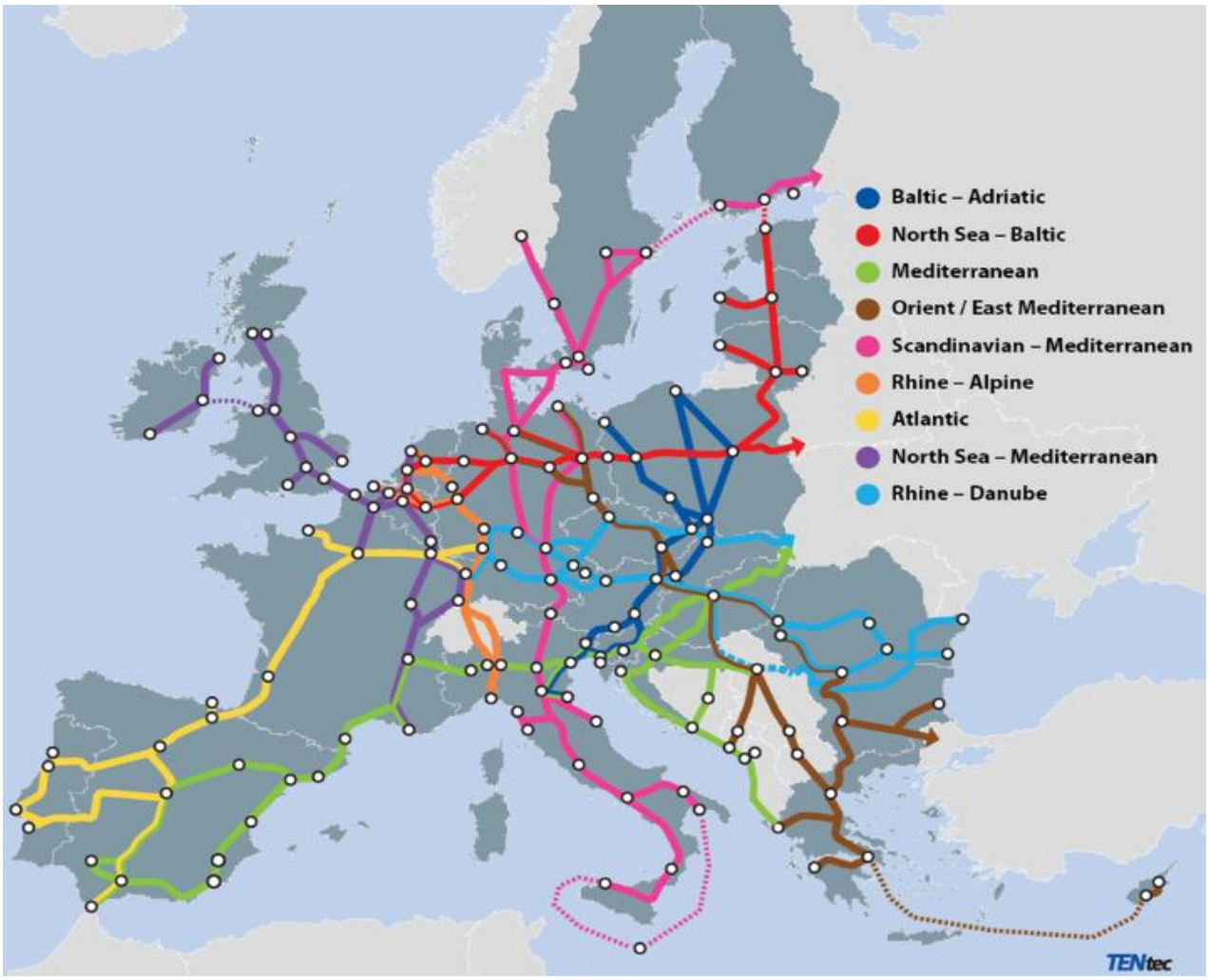


Figure - 6 TEN-T core network corridors

Source: European Commission, Directorate-General for Mobility and Transport, TENTec Information System

In the process of the indicative extension of the Comprehensive and Core TEN-T in WB6, The Transport Community (The Transport Community Treaty signed in Trieste in July 2017) should play a crucial role. Its key objective is to extend the EU transport market rules, principles and policies to the Western Balkan through a legally binding framework. The Transport Community is based on the progressive integration of transport markets of the Western Balkan into the EU transport market on the basis of the relevant acquis. The Permanent Secretariat of the Transport Community – based in Belgrade - acts as a Transport Observatory to monitor the performance of the indicative TEN-T extension of the comprehensive and core networks to the Western Balkans and supports the implementation of the WB6 Connectivity Agenda aiming to improve links within the Western Balkans as well as between the region and the European Union.

Indeed, infrastructural lacks and/or geomorphological constraints cannot be resolved through solutions developed in single/specific/local areas and with small financial contributions. For this reason, emphasis in this document is placed on not-so-expensive

but effective soft solutions for the enhancement of multimodal transport efficiency in the Adriatic-Ionian Region.

The contribution to the success of project's activities provided by the project partners was huge. All efforts were focused on collecting the necessary data, analysing the current situation at regional level and defining the lacks, needs and proper solutions, to be developed in line with the current infrastructural, geographical and political situation in the countries in the Adriatic-Ionian Region.

Quality pre-prepared documents within the ADRIPASS project, which were the starting point for the preparation of this document, with comprehensive research and recommendations provided the necessary information for the preparation of the Strategy.

The different types of contributions were provided by all partners in different ways (studies, questionnaires, pilots etc.), in order to achieve the global objective of the project, which is to improve multimodal transport and multimodal connections between countries in the Adriatic-Ionian Region.

2. Overview of the current situation of multimodal transport in the Adriatic-Ionian region

2.1. Overview of strategic and policy documents in the field of multimodal transport

In order to define recommendations on multimodal transport, it is necessary to consider the current strategic framework defined in relation to multimodal transport, both in the EU and in the Adriatic-Ionian Region in particular.

2.1.1. Overview of European Union strategic and policy documents

The negative consequences of transport such as pollution, climate change, noise, congestion and traffic accidents pose problems to the economy, health and well-being of European citizens. Freight transport continues to grow and road freight transport, in particular, is projected to increase by almost 40% by 2030 and by almost 80% by 2050. The EU transport policy aims therefore at reducing road transport towards less polluting and more energy efficient transport modes.

Four types of actions support greater use of multimodal solutions, as an environmentally friendly transport mode:

- The internalisation of external costs in all modes of transport, with a view to send appropriate pricing signals to users, operators and investors. The social and environmental costs of transport should be paid in line with the “polluter pays” principle.
- More targeted investments into physical infrastructure, aimed at better interconnections between the single modal networks.
- Better use of information.
- Direct support as provided by the Combined Transport Directive (Council Directive 92/106/EEC), which aims to increase the competitiveness of the combined transport (defined as intermodal transport with a strictly limited road leg).

Of particular importance are the following two documents, the findings of which were used in the preparation of this Strategy:

a) the White Paper on Transport and

b) the European Green Deal.

In March 2011, the European Commission adopted the White paper on Transport, a comprehensive strategy of 40 concrete initiatives for the next decade to build a competitive transport system that will increase mobility, remove major barriers in key areas and fuel growth and employment. At the same time, those proposals would dramatically reduce Europe's dependence on imported oil and cut carbon emissions in transport by 60% by 2050. This White paper performs as an umbrella strategic document in the field of transport, thus encouraging the creation of a competitive and sustainable transport system.

The key goals set to be achieved by 2050, would include:

- No more conventionally-fuelled cars in cities.
- 40% use of sustainable low carbon fuels in aviation; at least 40% cut in shipping emissions.
- A 50% shift of medium distance intercity passenger and freight journeys from road to rail and waterborne transport.
- All the above mentioned key goals would contribute to a 60% cut in transport emissions by 2050.
- A reduction of EU's CO2 emissions from maritime bunker fuels by 40 % (if feasible by 50 %) by 2050.

The strategic goals for the enhancement of multimodal transport efficiency and competitiveness of the transport sector in the Adriatic-Ionian Region are in line with the main benchmarks defined in EU's White Paper.

Becoming the world's first climate-neutral continent by 2050 is the greatest challenge and opportunity of our times. To achieve this, the European Commission presented the **European Green Deal**, the most ambitious package of measures that should enable European citizens and businesses to benefit from sustainable green transition. Measures accompanied with an initial roadmap of key policies range from ambitiously cutting emissions, to investing in cutting-edge research and innovation, to preserving Europe's natural environment.

The European Green Deal is an integral part of this Commission's strategy to implement the United Nation's 2030 Agenda and the sustainable development goal. Transport accounts for a quarter of the EU's greenhouse gas emissions, and still growing. To achieve climate neutrality, a 90% reduction in transport emissions is needed by 2050. Road, rail, aviation, and waterborne transport will all have to contribute to the reduction. Achieving sustainable transport means putting users first and providing them with more affordable, accessible, healthier and cleaner alternatives to their current mobility habits. Supported by investments in green technologies, sustainable solutions and new businesses, the Green Deal could be a new EU growth strategy.

In accordance with that, multimodal transport needs a strong boost, since it will increase the efficiency of the transport system. As a matter of priority, a substantial part of the 75% of inland freight carried today by road should shift onto rail and inland waterways. This will require measures to manage better, and to increase the capacity of railways and inland waterways, which the Commission will propose by 2021, according to the Annex to the Communication on the European Green Deal. Green Agenda for WB6, which will mirror the Green Deal in the WB region, will be launched in the next period.

2.1.2. Overview of national strategic and policy documents

The National Strategic Plan for Ports and Logistics in **Italy** (2014) set the priorities and activities at a national level, to optimize the added value of the sea, meant as a resource for the marine, port and logistics cluster, and for the entire economy in Italy. The Plan was meant to empower the transport sector and the general Euro-Mediterranean policies, in synergy with the priorities set by the European Union.

The National Transport Plan for Greece (2019) proposed concrete measures for improving multimodality, developing multimodal hubs and deploying ITS, safety and multimodal solutions. Also, this document identifies measures for fostering multimodality through the development of a platform of information on land transport services in Greece.

In **the Transport Development Strategy of the Republic of Slovenia** (2015), attention was paid to the - till that day - enacted documents and projects, both national and transnational (TEN-T projects and White paper). When it comes to goals directly connected to multimodal transport, attention was given to terminals. Aim was to provide access to terminals no matter of ownership. Hence, substantial number of stimulating measures are to be used for intermodal units and industrial trucks wherever it is economically justified.

The Strategy for transport development of Republic of Croatia (2017) for the period 2017 – 2030 stands out with its well-structured and connected matrix of goals and measures pointing out priorities and their benefits. This document is one with the most measures proposed. Croatia has recognized the need to monitor the connection between terminals and continuity of services in multimodal transport.

Traffic Development Strategy of Montenegro 2019-2035 is a well-structured and comprehensive strategic document, identifying all aspects of transport development. The focus is set to infrastructure development, but also to transport facilitation, border crossings efficiency, road safety, ITS and intermodality. The strategy identifies the need for improvement of intermodal connections of Port of Bar and construction of inland intermodal terminals. Intermodality is set as one of seven priority areas and one of specific objectives is to strengthen the creation of an efficient integrated transport system through intermodality.

Bosnia & Herzegovina Framework Transport Strategy 2016-2030 is the document similar to Croatia and the Montenegrin strategy, when it comes to goals' and measures' structure. Within the strategic goal to improve transport infrastructure, this strategy identifies specific objective to develop intermodality of road-railway-IWW transport. Moreover, the improvement of river Ports connectivity, construction of intermodal terminals and creating of legal framework for intermodal transport operations and incentives for intermodality are set as specific actions.

The Albanian National Transport Strategy and Action Plan 2016-2020 was released in 2016 and constitutes the most important transport policy in recent years since continues the previous national programs, is aligned with EU objectives and priorities, and is based on a comprehensive and detailed situation of the Albanian transport sector, considering infrastructure networks, regulations and financing instruments. The main goal of the strategy is to have an efficient transport system, integrated in the region and in the EU network, which promotes economic development and upgrades the citizens' quality of life. The Albanian National Transport Plan (ANTP 3), which has a projection for the development of all modes of transport up to 2038, was adopted in January 2020. Also, as a priority for the Transport System in Albania, the Multimodal National ITS (Intelligent Transport System) Strategy is under preparation.

Serbia recognizes intermodal transport as an independent sector. The document entitled **"Development Strategy for Railway, Road, Waterway, Air and Intermodal Transport in Republic of Serbia"** includes: a) role of the government and organizational measures, b) development guidelines and c) medium to short term development strategy for multimodal transport. This strategy is now outdated and replaced by the document entitled "Plan for Development of Railway, Road, Waterway, Air and Intermodal Transport in Republic of Serbia" from 2015 till 2020. Also, Serbia adopted a Master Plan for Transport Development in the Republic of Serbia for the period of 2009 till 2027.

It is important to emphasize that all countries in the Adriatic-Ionian Region recognize the importance and define plans and actions related to multimodal or intermodal transport in their national strategic documents, but at this point the consultant was not up to date on the level of implementation of goals identified in the strategic documents.

2.2. Overview analysis of multimodal transport in the Adriatic-Ionian region[1]

All previous documents identified the needs for actions aiming to reduce and if possible eliminate existing "bottlenecks" for multimodal transport within the transport network

[1] This part contains short analyses of the current situation in the Adriatic-Ionian region and the main problems that stakeholders face, and also builds on the analysis and implementation of the overall methodology of WPT3 and Concept for Stakeholders' involvement, the Transnational action plan for transport facilitation in the Adriatic-Ionian region (prepared in the framework of WPT1) and the Transnational Action Plan for Transport Facilitation in the Adriatic Ionian Region (WPT2 - based on the results of ICT pilots). Moreover, all relevant findings and inputs gathered through Stakeholders' Involvement Reports (prepared by each Partner based on dissemination events and/or other events held and bilateral meetings with relevant Stakeholders and Associated Partners) are presented.

throughout the Adriatic-Ionian region, improvement of process, simplification of cross-border transport of passengers and goods throughout the Adriatic-Ionian region and improvement of links among different transport modes.

Supporting multimodal transport terminals is a precondition for the development of modern transport and logistics centres. However, in the short-term period, priority should be given to further reforms in transport sector with a special focus on horizontal (soft) measures that complement the development of infrastructure and improve the quality of transport services. Taking these preliminary assumptions, what was initially identified is that significant bottlenecks are caused by:

- insufficient number of employees, officers and custom agents;
- infrastructural problems (missing links, electrification, traffic congestions, communication technologies, parking etc.);
- absence of ICT solutions and tools in the main multimodal nodes;
- problematic communication between Stakeholders due to insufficient digitalization;
- inadequate planning in order to face the problems;
- language barrier;
- insufficient equipment.

Specifically, while checking micro areas, the Northern Adriatic is “covered” by a significant number of maritime ports, all increasing their businesses and volumes year by year. Most of the business is made through the containerization of the transport, transported from and to their final destinations by road or railway.

Containers and cars are the types of cargo with the highest level of growth in the mentioned area and at this regard, the following figures show how containers’ and cars’ volumes were taken into consideration for the development of tools dedicated to the digitalization of solutions linked to the final goal, which is to better link ports and hinterland as well as to speed up procedures and processes on the logistic chain. The biggest ports in the Northern Adriatic have a constant growth of containers’ volumes during the last decade, which needed also some interventions at operational and technological level.

It was necessary for the ports to develop and upgrade their PCSs which means important interventions on the entire ports’ system for the adoption of solutions that will fit the needs not only of port’s operators but also of other Stakeholders involved in the logistic chain.

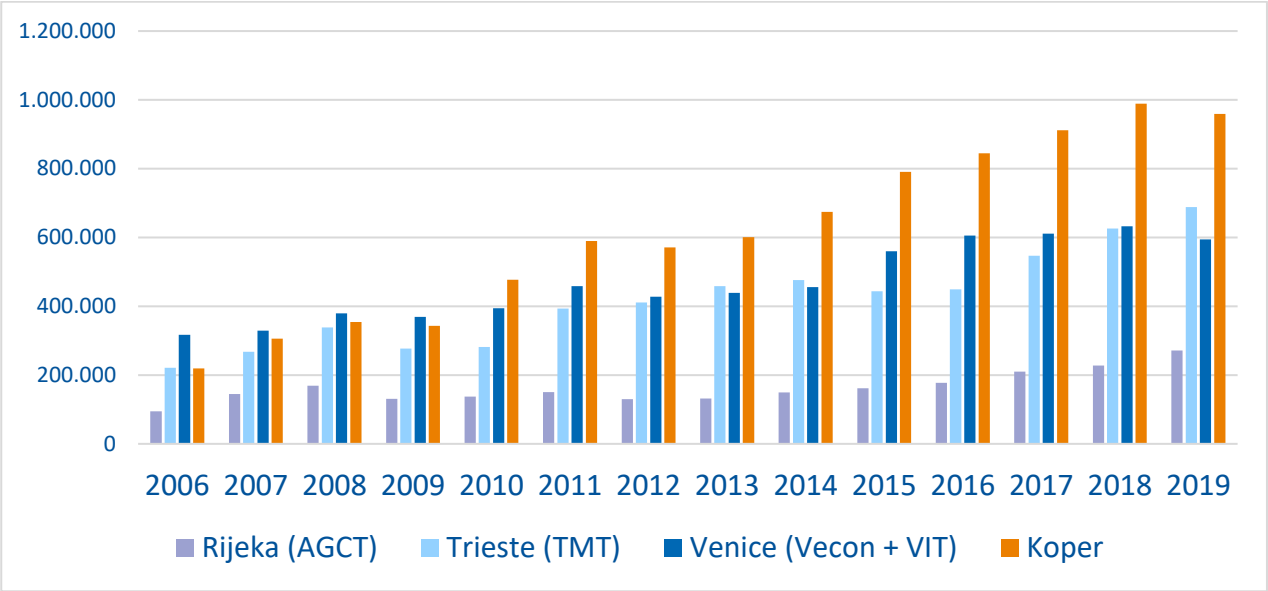


Figure - 7 Containers handled in the Northern Adriatic biggest ports, in the last decade

Source: Luka Koper, d.d. own elaboration

The solutions proposed and lessons learned through the analysis made for ADRIPASS ICT action plan for improving multimodal transport in ADRION region were based on comparing nodes from the ADRION region with nodes outside the region and specifically with the ports of Antwerp and Valencia. The data collected included the nodes in the areas of Patras, Piraeus, Ravenna, Venice, Thessaloniki, Trieste, Koper, Bologna, Padova, Ploče, Bar, Durres and all the hinterland links with BCPs at country level and at ports that are not listed here above.

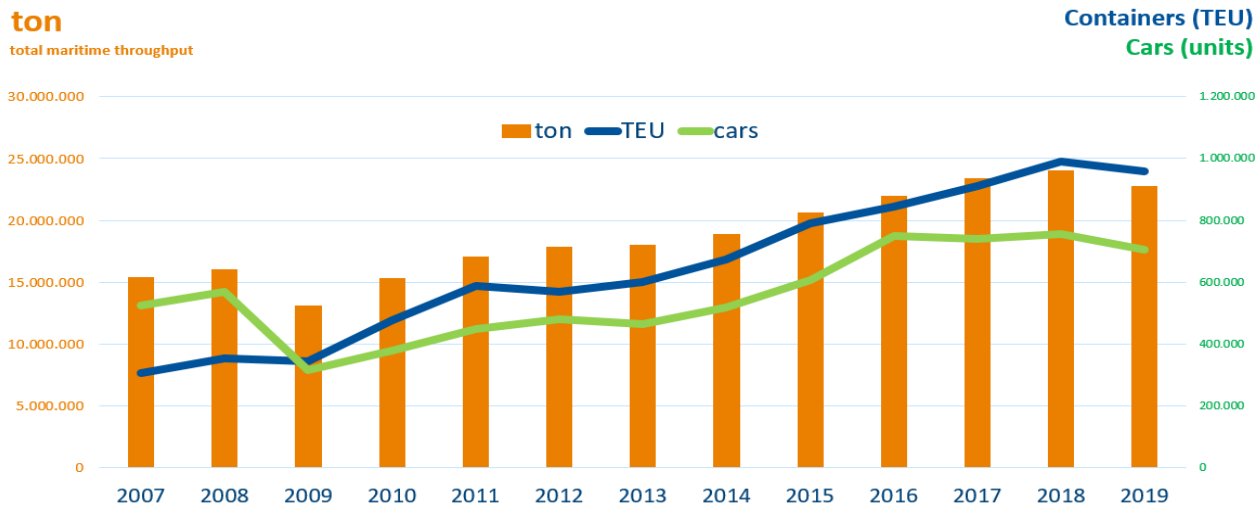


Figure - 8 Volumes of cars compared to the growths of containers and throughput in the port of Koper

Source: Luka Koper, d.d. own elaboration

While considering the lacks and issues identified at regional and national levels, what came out from the data collection and analysis regarding the ICT action plan for improving multimodal transport in ADRION region provided for other deliverables is that in the Balkan area the lack in infrastructure is significant and most of the transport is provided by road vehicles, which is also a significant factor for the sustainability of solutions to be adopted. The connection with hinterland is planned to be intensified on railways but the situation is still far to be changed and this is one of the reasons that road transport is dominating the scene. **In this sense, the solutions adopted in ports at pilot level were dedicated to all the types of cargo transported but mainly concentrated on the digitalization of the system at ports' gateways, terminals and the road network connecting the ports.**

2.2.1. The main observations based on Stakeholders consultation

An analysis of the Stakeholders consultation reports of the project partners has been performed. Generally, all project partners had certain difficulties in data collection and involving Stakeholders in project activities, especially taking into account the discretion regarding the confidentiality of business data. An additional difficulty was the fact that non-decision makers have been delegated by the companies to participate in the project activities. In line with the above, the information collected can be viewed as partial because most partners encountered, in consultation with Stakeholders, the reluctance of private operators to share information from their businesses. Bearing in mind that private operators represent entities with a wealth of experience and knowledge of how markets function, whose solutions would be adequate to overcome existing problems, their reduced participation was a significant obstacle to the research activities carried out.

Nevertheless, in the last period, the ADRIPASS project partners interviewed 185 Stakeholders in order to get a clear picture of the situation and problems they are facing in practice, as well as suggestions of Stakeholders to improve more efficient multimodal transport links in the Adriatic-Ionian Region. The structure of the Stakeholders interviewed is presented in the following figures.

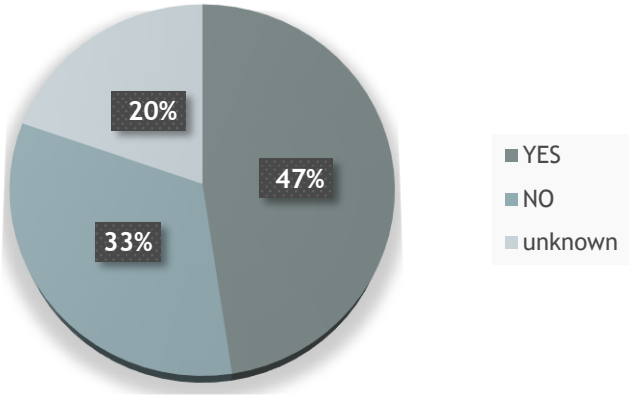


Figure - 9 ADRIPASS Stakeholders' mapping - Decision maker within organization

Source: own elaboration

EU Stakeholders have recognized the importance of ADRIPASS' project topics with an indication that project activities do not simply end with analysis/studies.

Also, several Stakeholders suggested potential solutions that must be primarily defined and adopted at the local level, to be developed through a transnational strategy or after successful implementation at the national level. Key Stakeholders highlighted the significant coordination of regional strategies in the ADRION region and recognized the ADRIPASS project as a viable project that guarantees results that can be applied in the development policy of the Adriatic-Ionian region.

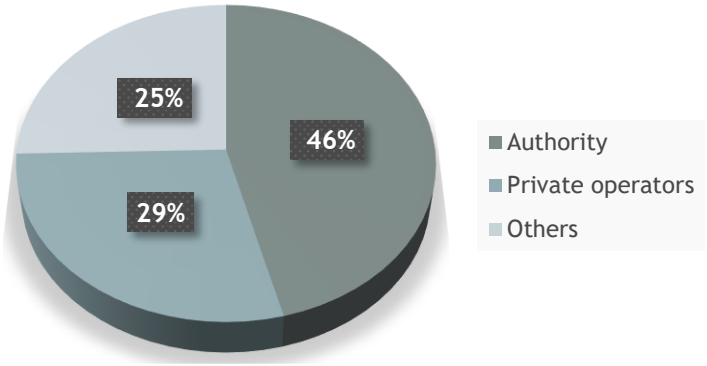


Figure - 10 ADRIPASS Stakeholders' mapping - Type of Stakeholders

Source: own elaboration

The results mainly indicated **that transport infrastructure is a precondition for economic development, regional cooperation and uniform functioning of the region.** It was stated that inadequate transport infrastructure in the WB countries as well as the

lack of modern railway infrastructure and poor level of equipment, results that transport of goods in these countries is mainly performed by road. Connecting the neighbouring countries of the Western Balkans is crucial for the development of a comprehensive European transport network. **It is also necessary to reduce and, if possible, remove non-physical barriers to achieve better flow of goods through the countries of the region**. Through the analysis, the Stakeholders highlighted problems/ difficulties that are acute and may appear as obstacles in the future:

- **insufficient communication between Stakeholders and weak data exchange between Stakeholders;**
- **no efficient and standardized way to collect valid, accurate and updated data;**
- **absence of unique database format at border crossings (for example, Orient East Med Corridor: out of a total of 27 nodes along the corridor, there are data just for 12 of them, out of which for 4 unofficial sources have been used - official data represent 44,5% of the total; Mediterranean Corridor: out of a total of 31 BCP along the corridor, there are data from official sources just for 16 of them - official data represent 51,6% of the total);**
- **decentralized management of the same data;**
- **insufficient or no communication between port/railway administrations and border police and customs;**
- **insufficient data exchange between different border crossings offices;**
- **data and filling forms not standardized;**
- **insufficient equipment and training of the border staff;**
- **inadequate equipment of border crossings, insufficient ICT support at border crossings.**

In addition to the above, the summary conclusion of the partners representing the ports is that **it is necessary to consolidate the system between all actors in the logistics chain**. The best solution is to adopt ICT tools that are developed with the contribution from all the users and for the common aim, which is represented by the reduction of bottlenecks, increase of multimodal transport, better links with hinterland and digitalization/ automation of procedures for the data exchanged accompanying the freights transported and handled through port's area.

According to the data collected, the general conclusion is that there is a lack of technology and a low level of established technological processes.

In addition to the analysis of the Project Partners contributions, the Consultant held consultation with representatives of the Permanent Secretariat of the Transport Community, outlining the structure of the future strategy and discussing current issues in the field of multimodal transport in the Adriatic-Ionian region:

- **Infrastructure in WB6 countries**:
  - The majority of the sections of the road network is in good and medium condition (about 72%), while only some 6.4% of the overall extension of TEN-T Core/Comprehensive to WB can be treated as "non-maintainable roads" (being in poor and very poor condition);
  - more than 30% of the sections of the Rail TEN-T Core and roughly 60% of the Rail Comprehensive networks are not electrified.
- **Implementation of the "Connectivity Agenda"** is ongoing at a rather slow pace, the difficulties being that some of the reforms in rail, ITS, Maintenance and BCPs require more profound reforms and national commitments.
- **EU allocates significant funds for the development of transport and transport infrastructure in WB6 countries**. The total amount of €13.5 billion has been invested in the Indicative Extension of the TEN-T Comprehensive and Core Network to the WB during the period 2004 - 2017. Investment in road infrastructures prevail but recently there is a change in this trend towards more rail investments. In terms of shares of sources in project financing, the biggest share (38%) is financed through IFI loans, followed by the National Budgets with a share of 29%.
  As a result of the WBIF platform, transport is the most active sector with the highest share of allocated grants (34.5%) and signed loans (52.3%) with road and rail sectors as the main beneficiaries. A total of 59 projects was supported starting with project preparation to continue with investment grants, amounting to total grants awarded of 664 m€, 23 transport projects are with signed loans amounting to 9.2 billion€.
- **EU funds could be used better**, if:
  - all parties take all necessary actions for faster procedures;
  - national procedures (for permits, land use, etc.) were faster;
  - the capacities of the implementing agencies (Project Implementation Units and involved stakeholders) were stronger;
  - the quality of the consultancy services was even higher.
- **The level of multimodal transport development in WB6 countries** is considered to be very low and considerably lower than the EU member states.
- **The digital and IT solutions are not widely used in transport operations** across the region. Some exchange information systems do exist for border agencies, like SEED, NCTS, TIR EPD and some are planned to be introduced like National Single Window, EDI for rails, etc.; some ports are using the Ports Information System.
- **Existing bottlenecks and identified problems have a negative effect on goods' flows** because the business operators and freight forwarding companies are guided by the principles of cost-efficiency of the delivery and time predictability, and then they choose ways/means of transport and routes with fewer bottlenecks, which offer better and more organized inspections at the borders and more integrated services between modes (at the terminals for example).

- **The infrastructural bottlenecks affect both shipping companies and users**, choosing the routes that seem most favorable to them at the moment but lacking a strategy elaborate.
- **The general potential for development of multimodal transport in the Adriatic - Ionian Region** exists due to the presence of big ports located in the area, which are the important elements of the multimodal chains, but it will depend also on the market development, the volume of trade of goods, the position of the combined transport/ multimodal operators, logistic services providers, shippers and also how they are integrated and incentivized to act on the market.
- Examples of good practice in the region:
  - Albania/ Montenegro and Serbia/ North Macedonia joint border controls in road transport- one single check of vehicles and goods by the border agencies;
  - North Macedonia/ Serbia - joint rail border controls (to be yet operational upon the construction of joint border station);
  - Montenegro/ Serbia - signed Agreement regarding joint rail border controls.
- The proposals for **solutions to identified difficulties/problems are**:
  - Enhancement of the dialogue with the private sector, and assessment of their needs;
  - Implementation of the ADRIPASS action plan and the Transport Community Action Plans; both target enhancement of multimodality.

Consultations with stakeholders, as well as previous documents and analyses prepared in the ADRIPASS project, **identified three main directions for the more intensive development of multimodal transport in the Adriatic-Ionian region:**

- **Links with hinterland;**
- **Border crossing points;**
- **ICT technologies for the digitalization of processes and system operability.**

2.2.2. Links with hinterland

Except from EU member states (Italy, Slovenia and Greece) railway system with its connections between ports and hinterland, the lack in rail infrastructure is evident in the WB6 countries, where road transport is preferred and is by far the most used.

At regional level, it is worth highlighting the great challenge in the field of multimodality or railway transport, because in all countries higher costs for rail transport are identified, geomorphological characteristics don't allow transport to be performed as in Northern Europe (lower speeds, lower weights, lower lengths of trains, lower level of infrastructures with lack of electrification, different train gauges, different axis of wagons, slopes, , poor level of equipment and lack of modern tracks).

It's also clear that some countries have programs to support or apply special taxes for the railway, although railway operators' competition is low. All these factors have a direct influence on the prices and on the level of the service. This means that in practice without competition there is no need of foreseeing implementations, except in cases when the infrastructures are obsolete or EU regulatory aligns the level of services. This also includes the implementation of the technological part of the infrastructures.

It is necessary to adopt national programs in all Adriatic-Ionian countries for construction, reconstruction and modernisation of transport infrastructure with the dynamics of implementation and by focusing on projects reducing - and if possible eliminating bottlenecks - as per the provisions of AGTC[2] , AGC[3], AGN[4] and the TEN-T network, related to:

- Reconstruction and modernization of existing infrastructure in order to increase transportation capacity and optimal use (electrification of the rail connection between the main multimodal nodes and hinterland, implementation of the ITS/ ERTMS in the TEN-T corridor and RFCs rail freight corridors, installation of River Information Systems);
- Construction of the new transport links for better connection of the individual subsystems (e.g. in the case of lack in connection of terminals with a national transport network);
- Construction and equipping of terminals as places of crossing of transport modes and the creation of transport process;
- Construction/ modernisation of information centres for collecting, processing and distributing data for efficient development of multimodal transport and transport in general.

The detailed problems and proposed measures for road, rail and IWW networks were identified in DT1.2.4 "Transnational Action Plan for Transport Facilitation in the Adriatic Ionian Region".

Lack of infrastructure and geomorphological constraints is out of scope of the ADRIPASS project. It is noticed that facilitation measures for the promotion of multimodal transport in the Adriatic-Ionian Region are primarily related to telematic applications and ICT solutions aimed at solving operational and administrative, i.e. non-physical barriers at BCPs and logistics nodes, thus reducing waiting times or procedural times associated with border crossing operations, as well as administrative processes at ports and logistics terminals, and/or improve safety and security of logistics transport operations.

[2] European Agreement on Important International Combined Transport Lines and Related Installations.

[3] European Agreement on Main International Railway Lines.

[4] European Agreement on Main Inland Waterways of International Importance.

2.2.3. Border crossing points

The border crossing or any other loss of time, affects not only transport costs, but trade flows and value of goods as well. The border crossing points are mainly affected by problems linked to administrative procedures, language barrier and the fact that national policies vary from country to country meaning that, in some cases, the same documents must be provided for the same thing many times, again and again for each country. It is also important to point out that, in addition to speeding up the procedures, it is necessary to expand the capacities of some of the border crossings points (where there is a need, after a special analysis has been done) for road freight traffic.

Data collected through direct surveys and desktop research and analysed for the purpose of examining border crossing facilitation and improvement of the cross border road transport on the indicative extension of TEN-T Road Core/ Comprehensive Network in the Western Balkans, suggest that freight forwarders and road transport companies are suffering from lengthy waiting times in excess of 160 minutes (occasionally stretching to 280 minutes, during peak periods stretching to 280 minutes or even over one day) on the extended Orient-East/Med corridor (along the Pan-European Corridor X). This problem is especially acute in the Western Balkans region. Delays at crossings in the Western Balkans are five times longer than in many EU countries and – based on statistics of the World Bank - trucks spend some 26 million hours at crossings in the region each year.

The data are similar for railway border crossings, in which average times for border procedures are between 50 and 240 minutes. The Western Balkans Trade and Transport Facilitation Project (was approved by the World Bank in 2018) will help facilitate the movement of goods across the region by introducing a National Single Window (NSW) system, linking key agencies to reduce import and export times through digitalized customs, improving infrastructure at border crossings, and installing critical technology such as Intelligent Transport Systems (ITS) and Vessel Traffic Management and Information Systems (VTMIS).

The solutions found through ICT action plan for improving multimodal transport in the Adriatic-Ionian Region are in line with the national directives related to the so-called “Single Window”. Although its name varies among countries, the main concept remains the same. The problem upstream lies in the necessity to have, at least at national level, the same tool, the same IT solutions, the same frameworks, the same interface to follow the cargoes’ data and all the related information accompanying the freights during their trips through the different countries. The new solutions are providing also some data in advance, like the Estimated Time of Arrival (ETA) or the Estimated Time of Departure (ETD) which allow all the actors involved to know in advance some crucial data which will serve for the operational planning and they are fundamental for the:

- Reduction of waiting time: operators don’t need to wait for the documents;

- Reduction of costs: being served “Just In Time” means that costs for fuel, electricity, staff etc. can be reduced and redirected to other activities that can improve the level of the services;
- Optimization of personnel employed in specific jobs, while all the parties involved know the expected operations to be done and the distribution of work between the existing staff is better; and finally
- Reduction of pollution, which is indirectly linked with all the previously mentioned pluses, considering that if less trucks wait, less costs of energy consumption and optimization of work’s distribution are achieved and at the same time lower level of pollution in its different forms (light pollution, noise pollution, micro particles in the air etc.) is also achieved.

2.2.4. ICT technologies for the digitalization of processes and system operability

In the framework of the ADRIPASS project, which aims to develop ICT solutions for the upgrade of actual administration and optimization of operational efforts, the activities were mainly concentrated on developing tools able to improve the operational status of the links and optimize the flows between different types of transport nodes and the hinterland, supporting at the same time multimodality. It was basically a matter of local software and upgrade of systems, which are all linked to the local logistic network because they’re used by the other logistic operators and Stakeholders that work with ports (customs, inspection officers, forwarders, transport companies, railway operators, shipping companies etc.).

The crushing information about lacks and areas of intervention have been collected/ grouped in larger categories and catalogued as follows:

- deficiency of existing ICT technologies for the digitalization of processes and system operability;
- inadequate competences/ knowledge which needs to be very specific, if the staff uses specific and advanced technology to provide a specific service;
- lack or deficiency of the of the existing telematic applications for traffic management;
- lack or poor conditions of the basic utilities (telephone, internet, communication systems like ERTMS/ ETCS (European Rail Traffic Management System/European Train Control System), electrification in some cases, etc.).

These deficiencies have been specifically identified in non-EU countries in the Adriatic-Ionian Region, while the situation in Italy, Greece, Slovenia and Croatia is more favourable, but certainly needs intervention regarding ICT technologies for the digitalization of processes and system operability.

2.2.5. Concluding remarks about lacks and deficiencies

The identified lacks and deficiencies mentioned above are well known and aligned with data from most of the relevant studies and national plans, which are following the main objective foreseen for the integration and improvement of multimodal transport in the Adriatic-Ionian Region.

What is common in all the documents/ reports developed in the framework of ADRIPASS project is that there is a general lack of technology and technological processes. All over the world the automatization is something that is becoming real and daily. The main identified problems and proposals which can be helpful are presented in Table 1.

Table 1. Macro-categories of barriers/problems and proposed solutions/measures

Problem statement	Proposed measures
Deficiency of existing ICT technologies/solutions for the digitalisation of processes and system interoperability	Improvement/upgrade of the existing ICT infrastructure to foster transport digitalisation, the interoperability of communication and data sharing systems
Inadequate staff number and competences, lengthy and paper-based procedures, long waiting times of intermodal and border crossing procedures	Hiring of additional/specialised personnel and provision of training courses to increase the quality of the working staff; implementation of ICT solutions to solve Operational and Administrative problems
Lack or deficiency of the existing telematics applications for traffic management	Deployment or upgrade of telematics applications for traffic management to the EU standards
Lack or poor conditions of the basic utilities (internet, drinkable water, sanitary facilities, light, etc.)	Provision of basic utilities (internet, drinkable water, toilettes, etc.)
Lack of adequate equipment affecting the efficiency and effectiveness of processes at BCPs and transport nodes. This includes machinery, such as cranes weighbridges, x-ray scanners, etc.	Purchase and installation of equipment for the improvement of efficiency and effectiveness of processes at BCPs and transport nodes
Deficiency in the last-mile and hinterland transport interconnecting system (both inside and outside the node area)	Infrastructure improvement or expansion of the road and rail last-mile connections within and outside the node areas
Need of major infrastructure works and/or minor investments to remove physical and technical barriers, affecting operations and capacity of the infrastructure	New construction or modernization of existing infrastructure aiming to remove physical and technical barriers or to increase the actual capacity
Lack of alternative clean fuels supply facilities	Realization of alternative clean fuels supply facilities

Source: Transnational Action Plan for Transport Facilitation in the Adriatic Ionian Region (DT1.2.4)

In line with the main scope of the ADRIPASS initiative, the measures included in DT1.2.4 Report entitled "Transnational action plan for transport facilitation in the Adriatic-Ionian region" primarily refer to problems at BCPs and the main multimodal nodes. No measures concern the rail, road and IWW links of the Core Network Corridors where these nodes are located. In this respect, DT1.2.4 Report is however assuming the development of the rail, road and IWW links of the Core Network Corridors in line with the standards required in the TEN-T Regulation by 2030 as an implicit priority for the transport network in the Adriatic-Ionian Region.

In particular, the development of an interoperable rail network is considered essential for the promotion of multimodal transport in the Adriatic-Ionian Region, whereas the modernisation of both railway and IWW infrastructure are also deemed key to support sustainable transport of freights along the Core Network. As already stated, infrastructure links should be covered through national programs in all Adriatic Ionian countries for construction, reconstruction and modernisation of transport infrastructure with the dynamics of implementation and a focus on projects that are bottlenecks.

What matters for development of multimodal transport is the **efficiency of the logistical chain and the cost effectiveness of the transport operations**. This requires **more coordination between partners**, the adoption of common technical standards and rules based on the EU ones, and obviously a better infrastructure connectivity.

The removal of road safety "black spots", the improvement of border crossing operations through the promotion and implementation of border-crossing agreements, - a new impetus for rail to become a competitive alternative to other modes (like road) or to be part of a more CO_2 neutral transport offer, are all part of actions for all countries in the Adriatic Ionian Region and beyond.

The promotion of multimodal transport along the Core Network Corridors also requires fulfilment of the requirements set in the TEN-T Regulation in what concerns the deployment of the following telematics applications for traffic management along the rail, road and IWW links and nodes of the Core Network: ERTMS, VTMIS, RIS, ITS. For further development of intermodality between rail and other modes of transport in the Adriatic-Ionian region, one of the important issues is further development and cooperation within Railway Freight Corridors, especially the extension of EU Railway Freight Corridors to the WB.

3. Vision and mission

The main objective of Transnational Strategy is to further improve multimodal transport in the Adriatic-Ionian Region, while paying particular attention to the enhancement of the multimodal capacities within each of the partners.

The following documents were used as a basis for creating vision and the following main goal:

- Methodology for implementation of Work Package 3, containing (among other) the basic structure of the Strategy, main objectives and description of the strategy purpose;
- Concept of involvement of Stakeholders, containing (among other) what are expected inputs from partners and their meetings/events with associated partners and Stakeholders;
- Reports on meetings with Stakeholders;
- The transnational action plan for transport facilitation in the Adriatic-Ionian region (main output of WPT1) which shall be used as one of two main inputs for the Strategy;
- EU's Transport White Paper 2011;
- ICT Action plan for improving multimodal transport in ADRION regions and Reports on ICT pilots implemented within WPT2;
- European Green Deal 2019.

The vision and mission aim to improve the operability of multimodal transport as a catalyst for the economic and social development in the Adriatic-Ionian Region.

Based on the analysis of the above mentioned documents/ reports, as well as main results from consultations with Stakeholders, the ADRIPASS Strategy's vision and mission are defined as follows:

Vision

To become a region with high quality multimodal transport and logistics services

Mission

To ensure faster, safer, more efficient and more effective multimodal transport and logistics services and competitive cargo operations in the Adriatic-Ionian Region

The Mission of the Strategy is to contribute to the improvement of multimodal transport links in the ADRION region by strengthening the efficiency of stakeholders (port authorities, terminal/logistic operators, freight forwarders) and providing guidelines to policy makers at national level (ADRION national Ministries of Transport) to implement measures to multimodal transport facilitation on the TEN-T Corridors in the ADRION region.

Also, as a part of the ADRIPASS project, the Strategy envisages to increase the capacity of ADRION transport policy makers at European level (European Commission – DG MOVE, DG REGIO and DG NEAR – European Transport Corridor Coordinators, Transport Community) to plan transport facilitation measures in ADRION region, with a special focus on the recently extended TEN-T Corridors to the Western Balkans.

4. SWOT analysis for improvement of multimodal transport in the Adriatic-Ionian region

SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis is a simple but powerful tool for assessing resource capabilities and weaknesses, strategic opportunities and external threats to the future improvement of multimodal network in the Adriatic Ionian Region. SWOT analysis is a key prerequisite for defining policies, targeting the best opportunities, and defending against identified threats.

Following the above analyses, an analysis of the main Strengths, Weaknesses, Opportunities and Threats for development multimodal transport in the Adriatic-Ionian region is presented in Table 2 and Figure 11.

Table 2. SWOT Analysis

Strengths	*Weaknesses*
• **Well-structured and comprehensive strategic framework in all countries in Adriatic-Ionian region;** • **The large functional area with great potential of the market and more than 70 million people;** • **The big seaports located in the Adriatic and Ionian area, representing the important elements of the multimodal chains;** • **The ports in the north of the Adriatic Sea represent natural gates to Central and Eastern Europe;** • **Qualified labor force in the field of logistics and multimodal transport;** • **Existing potentials for development of multimodal transport in the Adriatic - Ionian Region are almost limitless.**	• Weak competitive edge to successfully integrate in the single European market; • The level of multimodal transport development is the countries of the Western Balkans is low and comparatively much lower than the EU MS. • Lack of technology and a low level of established technological processes; • Inadequate transport infrastructure in the WB countries, as well as the lack of modern railway infrastructure; • Poor level of IT equipment / Low level of implementation of ITS in multimodal transport and logistics sectors; • Inadequate equipment of border crossing stations; • Insufficient or no communication between port/ railway administrations and border police and Customs; • Incomplete data exchange between different Customs offices and different border crossings/ Forms of data are not standardized; • Weak input of R&D to multimodal transport development.

Opportunities	*Threats*
• **The Adriatic-Ionian region has a strategic geographical location and enormous potential for growth in the transport system with constant growth of multimodal transport;** • **The main ports to became a strong regional hub for multimodal transport;** • **Enhancement of the dialogue with the private sector, and assessment of their needs;** • **Four countries in Adriatic-Ionian Region are EU MS, three are candidate countries and one is a potential candidate country, but neighbouring countries are EU member states;** • **To further integrate EU strategies and legislation for economic welfare and sustainability;** • **Transport projects reducing pollution, consumption, accidents;** • **The interest of international institutions and major players for financing/co-financing of logistics infrastructure;** • **The implementation of the Action Plan for developing a Regional Rail Strategy in the Western Balkans (Transport Community).**	• Economy-related threats leading to lose of qualified staff; • Existing bottlenecks and identified problems have a negative effect of goods flows; • Countries need to get involved in financing and completing infrastructure work; • Inability to efficiently use IFI and European funds, develop PPP projects and implement large scale projects; • Unconsolidated system between all actors in the logistics chain; • Involvement of private operators in regional strategic cooperation; • Non-physical barriers; • Poor logistics infrastructure and Customs procedures could create bottleneck in supply chains crossing the region; • Low competitiveness in global supply chains due to inadequate logistics centres and underdeveloped multimodal transport chains; • Digital and IT solutions are not widely used in transport operations across the region; • The business operators and freight forwarding companies are guided by the principles of cost-efficiency of the delivery and time predictability and they use ways/means of transport and routes with less bottlenecks; • Slow implementation of development programs and legislation.

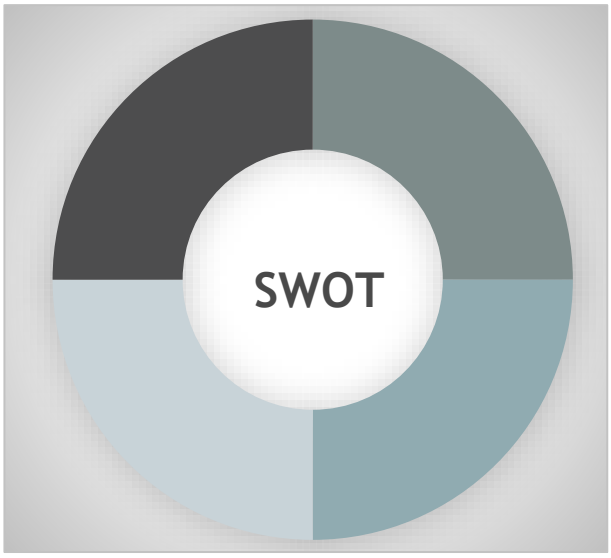
Source: own elaboration

STRENGTHS

- The large functional area and more than 70 million people;
- The big seaports located in the Adriatic and Ionian area
- Qualified labor force in the field of multimodal transport;
- The potentials for development of multimodal transport.

OPPORTUNITIES

- The main ports to became a strong regional hub for multimodal transport;
- Enhancement of the dialogue with the private sector
- To further integrate EU strategies and legislation for economic welfare and sustainability;
- Transport projects reducing pollution, consumption, accidents.



WEAKNESSES

- Low level of technological processes;
- Inadequate transport infrastructure in the WB countries
- Poor level of IT equipment and equipment of border crossings;
- Insufficient communication between all participants in the multimodal chain.

THREATS

- Countries need to get involved in financing and completing infrastructure work;
- Non-physical barriers;
- Low competitiveness in global supply chains due to inadequate logistics centers and underdeveloped multimodal transport chains;
- Slow implementation of EU legislation.

Figure - 11 SWOT analysis summary

5. Strategic goals and measures

The strategic goals illustrated in Figure 12 are in line with the main benchmarks defined in the aforementioned ADRIPASS project results and in European White Paper of 2011. It is proposed to focus on these strategic goals by 2030:

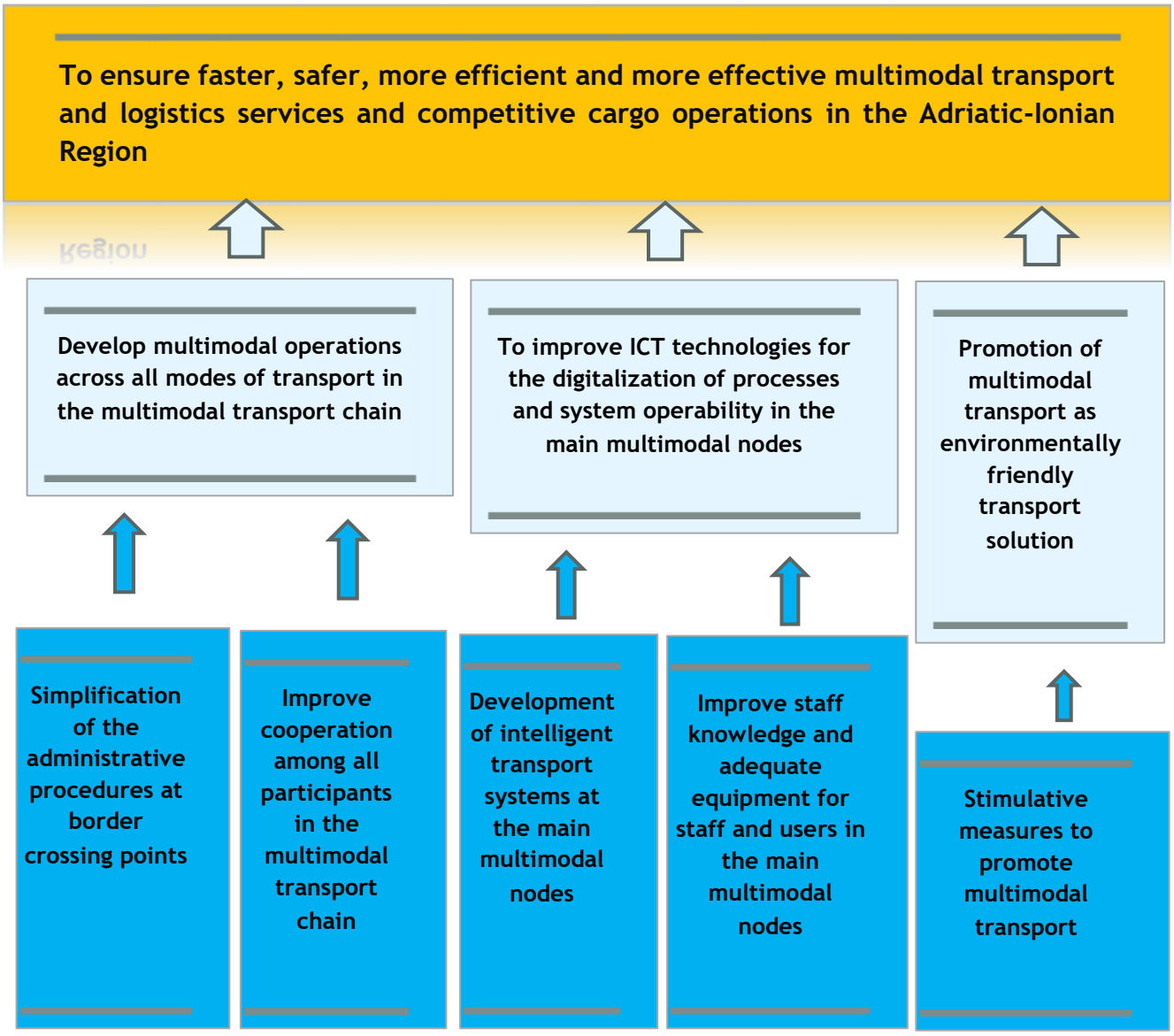


Figure - 12 Strategic goals and measures

Source: own elaboration

In the following text, the elaboration of identified goals and measures is given, as well as indicators so that achievement of the measures and their goals is monitored.

When identifying the goals, the ***SMART*** approach is applied:

Specific - for a specific area;

Measurable - to be able to monitor the achievement of the goal;

Achievable - goals are set to be achievable;

Realistic - they are realistic; and

Time-based - they are time-defined.

Indicators are selected by respecting ***RACER*** principle:

Relevant - given for a specific goal;

Available - to confirm feasibility;

Credible - depicts a specific goal;

Easy to monitor - we can easily get to specific data; and

Robust - strongly depict the achievement of a specific goal.

Indicators are defined in the time period when they are expected to be realized.

Competitiveness of multimodal transport

Strategic goal 1: Develop multimodal operations across all modes of transport in the multimodal transport chain

This strategic goal aims at increasing the quality of logistics service through better effectiveness of all transport modes by simplifying the administrative procedures on the border crossing points, usage of modern technologies, highly educated experts, procurement of necessary equipment, etc. For this to happen, consideration of socio-economic benefits (Cost Benefit Analysis) prior to project implementation should be performed at all levels, for all transport modes, and taking into account all requirements and goals of Stakeholders involved in the logistics processes.

At the same time, there is need for strengthening intermodal transport for orientation of transport demands towards more socially acceptable modes (railways and IWW) of transport and better use of combined transport, to apply intelligent solutions for intermodal transportation, based on intermodal data collection, provision of real time transport data, documents processing, border crossing facilitation.

Also, it is necessary to stimulate the efforts of Stakeholders in the multimodal transport market and stimulate the regulation of business in multimodal transport at the micro regional and international level. Considering the focus of the ADRIPASS Initiative on telematics applications and ICT measures aimed at solving operational and administrative barriers for the promotion of multimodal transport, synergies also exist with the activities under development by the Rail Freight Corridors, focussing among others on the improvement of the attractiveness of international long distance transport by railway for freight.

Deadline for achieving the goal: 2025.

Measure 1.1: Simplification of the administrative procedures at border crossing points

Based on the analysis of previously prepared documents within the ADRIPASS project, as well as many studies and projects on the improvement of procedures at border crossings, the effects of the improvement are especially visible by applying the following solutions:

- Improving the cooperation between the national Customs Authorities;
- Submission of preliminary information, finalisation of the complete electronic data, the use of New Computerised Transit System (NCTS), Declaration Management System (DMS), Excise Movement and Control System (EMCS), Import Control System (ICS), Export Control System (ECS) etc. and next-generation components like Automated Export System (AES), Automated Import System (AIS), Single Electronic Access Point (SEAP) and Single Window (SW) provided by IBM (IBM, 2015; EC, 2014);
- Harmonisation of the control procedures and organisation of joint control with the neighbouring countries;
- Revise the documents into electronic documents, in accordance with EC Directives and regulations (oblige-enable their application);
- Hiring of additional/ specialised personnel and provision of training courses to increase the quality of the staff performance.

As the majority of procedures currently undertaken at BCPs require human presence and autonomous equipment is rarely used, most of them are staff dependent. In accordance with that, it is necessary to pay special attention to staff at BCPs through manning, education and training, as measures to ensure sufficiency of the working staff in terms of number and level of education and training into new technologies, systems and practices. Also, the number of the staff must be increased in order to upgrade the provided services.

Efficiency of staff can also be improved by establishing operational guidelines or handbooks describing working procedures, workflow objectives for risk analysis, including the regular flow and exchange of information and gathering relevant information and contributing to review/ evaluation.

Also, it is necessary to purchase and install equipment for the improvement of the efficiency and effectiveness at BCPs.

Measure 1.2: Improve cooperation among all participants in the multimodal transport chain

One of the main problems for the development of multimodal transport is related to operational issues, which comprises weak coordination and cooperation among Stakeholders in the transport chain, as well as a lack of policy initiatives by governments for multimodal transport organization. It is necessary to improve cooperation between all market players and how they interact: providers of services, customer groups and other market participants. To make it possible, it is necessary to make space for well informed and educated staff in the area of logistics together with other staff from other areas so that everyday business could be improved.

Creation of networked and efficient intermodal clusters development within the Adriatic-Ionian Region will be very important for the promotion of multimodal and intermodal transport.

Poor company practice, as one of the main problems, is composed of irrational use and allocation of resources, lack of cooperation among companies and inefficient choice of supply, railway operators which still do not have the right role in relation to road transport companies. Improvement of cooperation between companies will be a mitigating circumstance for organizing multimodal transport. As consolidating the flows and concentrating the companies in one place (for example in freight villages combining with free zones) attract flows, there is the possibility of different way for helping and resource sharing and avoiding the duplication of resources and areas. In this way, companies would get used to and recognize the mutual interest of entering the market from a single shared space. In accordance with this, one of the recommendations will be founding association for a multimodal services marketplace on national and regional level, where companies can find all the necessary information about the available flows in one place.

It is necessary to identify everyday problems in multimodal transport. For instance, lack of terminals or infrastructural links. Institutions can play a significant role regarding coordination on both national and transnational level, thus boosting the use of multimodal transport and facilitate market access. Without institutions behind it, multimodal transport and logistics interests can be left out from government decisions.

Indicator 1.1: The average score for the 8 countries in the Adriatic-Ionian Region participating in ADRIPASS is 50, based on the list of Logistics Performance Index rankings by 2025.

The current average score for these 8 countries in the Adriatic-Ionian Region is 61.25 based on the list regarding Logistics Performance Index rankings. For EU countries (Italy,

Slovenia, Greece and Croatia) the average score is 38, while for non-EU countries in Adriatic-Ionian Region (Serbia, Bosnia and Herzegovina, Montenegro and Albania) is 86.5.

Table 3. LPI Rank 2012-2018 for countries in the Adriatic-Ionian Region

Country	LPI Rank	LPI Score	Customs	Infrastructure	International shipments	Logistics competence	Tracking & tracing	Timeliness
Italy	21	3.73	3.44	3.82	3.55	3.68	3.84	4.09
Slovenia	39	3.29	3.21	3.25	3.16	3.17	3.3	3.65
Greece	44	3.19	2.88	3.19	3.13	3.02	3.25	3.67
Croatia	48	3.12	3.01	3.02	2.99	3.1	3.08	3.51
Serbia	68	2.83	2.53	2.59	2.89	2.78	2.86	3.32
B&H	78	2.76	2.62	2.52	2.7	2.73	2.75	3.2
Montenegro	94	2.65	2.49	2.46	2.68	2.55	2.55	3.11
Albania	98	2.62	2.33	2.24	2.74	2.56	2.52	3.24
Average LPI:	61.25							

Source: https://lpi.worldbank.org/international/aggregated-ranking for 2012-2018

Indicator 1.2: Identifying one association for a multimodal services marketplace on regional level and one for each country at national level by 2025.

Optimizing the performance of multimodal logistic chains

Strategic goal 2: To improve ICT technologies for the digitalization of processes and system operability in the main multimodal nodes

Digitalization and automation have the potential to change the way traffic flows are organized and managed. Moreover, they generate business opportunities and open the way for innovation, new services and business models. They enable cooperation between all actors, real-time management of traffic and cargo flows, simplification and reduction of administrative burden, and allow better use of infrastructures and resources, thereby increase efficiency and lowers costs. The digitalization of transport and transit procedures creates significant efficiencies for the industry and governments. Real-time access to critical data and information is helpful on making mobility and transport more effective and also provides a more predictable and transparent business environment.

This measure will support national authorities analyzing the current situation in the transport system and determine the needs for the implementation of digital technologies. The goal is to foster growth, competitiveness, jobs and the internal market, in particular through making better use of the opportunities offered by digital technologies.

Specifically, in the transport sector, such tools could improve the use of existing resources.
In view of supporting process of digitalization and improving interoperability in passenger and freight transport across all transport modes, it is necessary to develop a comprehensive digitalization strategy for the transport sector. The integration of maritime and hinterland goods transport requires smooth information flows between ports and chain actors via electronic forms. In this scenario, the integration of the technologies among ports and hinterland nodes, between ports and the business players or institutions can benefit from the development of cloud solutions, augmented reality, big data, robotics, cyber security to establish and develop technological and functional communities that involve more nodes, corridors and networks at the regional, national, and international scale supporting the development of a single European transport system.

Deadline for achieving the goal: 2030.

Measure 2.1: Development of intelligent transport systems in the main multimodal nodes

This goal aims to upgrade of the current IT systems and/or implementation of advanced IT solutions (Augmented Reality, Internet of Things, Cloud Computing, Big Data Analysis, etc.) at multimodal nodes through:

- Improvement of the interoperability of IT systems and solutions at node level including the development and improvement of Port Community Systems (PCS);
- Improvement of the interoperability of PCS and ICT technologies and solutions at regional or national level;
- Integration of ICT technologies and solutions at BCPs or between BCPs and the central administration;
- Implementation of ICT solutions to trace and/or monitor freight train operations;
- Improvement of security level by instalment of IT systems and solutions (e.g. CCTV).

The ADRIPASS Report on the Transnational best practices concerning ICT tools for improving multimodal transport in ports and at BCP know-how transfer proposed some of concrete measures/ solutions for intelligent transport systems in multimodal nodes presented in Table 4.

Table 4. Measures/ solutions for intelligent transport systems in multimodal nodes

Main area of applicability	*Solutions*
Maritime Transport	Data exchange with National Maritime Single Window
	Integration of LogIS and SEEMARINER
Intermodality and Interoperability	Corridor Strategic Planning and Monitoring - CoSPaM
	Cluster Community System - CluCS
	LOGICAL (transnational LOGistics Improvement through Cloud computing and innovAtive cooperative business modeLs)
	ACAR hybrid truck announcement for vehicles at car terminal
	Antwerp Port Information and Control System (APICS)
	PCS Railway Services
	Port Collaborative Decision Making (PortCDM)
	Algorithms for the optimization of container storage and intermodal operations
Inland Traffic Management	Integration of LogIS and SAFE (Security and Facility Expertise)
	Integration of inland terminal with PCS (e.g. Hinterland node of Trieste)
	Gate automation
	Barge Traffic System (BTS)
	Virtual Lanes
	VBS (Vehicle Booking System)
	Full automation of rail operations (Manifesto Merci Treno - CH30)
	Interoperability with RFI
	Interoperability with RCA
	Free circulation by rail between free zones (Manifesto Merci Treno CH30)
	Free circulation by road between free zones and Gate Automation
eMaritime & Customs Administration	Integration of LogIS and AIDA
	VGM (Verified Gross Mass) Self Service for the automation of traceability and business processes
	Fast Road Corridor
	Fast Rail Corridor

Source: Report on the Transnational best practices concerning ICT tools for improving multimodal transport in ports and at BCP know-how transfer

Measure 2.2: Improve staff knowledge and adequate equipment for staff and users in the main multimodal nodes

This measure is in relation to Measure 2.1 bearing in mind that new IT technologies need trained employees to make the system fully operational.

These are new technologies and it is considered critical to train employees to meet the requirements in the right way. It is precisely the level of knowledge of IT technologies that employees have (in the previously prepared ADRIPASS documents) that has been identified as a problem and requires special attention in the coming period.

It is necessary to hire additional/ specialised personnel and acquire the necessary equipment as well as to provide training courses to increase the quality of the working staff in the main multimodal nodes.

Manning, education and training of staff are some of the measures to ensure sufficiency of the working staff in terms of number and level of education and training into new technologies, systems and practices, a process that it is considered of high importance. Efficiency can also be improved by establishing operational guidelines or handbooks describing working procedures, workflow objectives for risk analysis, including the regular flow and exchange of information and gathering relevant information and contributing to review/ evaluation.

Indicator 2: Installed and operational ICT tools in accordance with the recommendations presented in the Report on the Transnational best practices concerning ICT tools for improving multimodal transport in ports and at BCP know-how transfer by 2030.

Mitigation of risks and externalities

Strategic goal 3: Promotion of multimodal transport as environmentally friendly transport solution.

Local public or private companies do not recognize the advantages of multimodal and container transport. Multimodal stimulation measures are well known in many EU countries - such stimulation measures provide subsidy to operators, stimulating fiscal and economy policies, tariff policy, simplifying border procedures (time, technicalities and costs), open access to the terminals etc.

This goal aims at developing the transport system in the Adriatic-Ionian Region in line with principles of sustainable development, environment protection (decrease of air pollution, noise and causes of global warming) and social responsibility. Freight and transport flows should be shifted to more environmentally friendly transport modes (such as rail and waterborne transport) and more intensive application and popularisation of multimodal transport with the aim of reducing the negative impacts of road transport. Better connecting transport modes, different types of logistics centres and logistics services (e.g.

multimodal nodes, integrated information platforms for transport operators, cooperative ITS) will enable integrated logistics solutions.

In order to promote multimodal transport, it is necessary to take concrete organization and/or administrative and/or financial stimulative measures.

Deadline for achieving the goal: 2025.

Measure 3.1: Stimulative measures to promote multimodal transport

In order to secure functioning on higher levels from which support, promotion and knowledge should come from, institutional framework aligned with the national and European legislation should be set up. Various bodies and associations can be incorporated, people from different areas of work, addressing institutional problems that set limitations to transport, e.g. for trucks not allowed to pass on certain days, as a leftover measure from previous era, or not allowed above a specific length. In that way carriers can be pressured to carry more tours and not be able to divide it avoiding congestions and delays.

In certain countries stimulating measures are introduced as well as some limitations and benefits to multimodal operators. It is obvious how all Adriatic-Ionian countries should incorporate stimulating measures for multimodal transport in national legislation. Some of the practices relate to stimulating long distance transport (by improving the connectivity), stimulating construction and use of industrial tracks (where it is economically justified), stimulating equipping of the multimodal nodes (for example co-financing procurement of reloading machinery in multimodal and intermodal terminals, modern ITC technologies and other) and stimulate the efforts of railway operators in the multimodal transport market. One of the actions should be to define the activity of multimodal transport as an economic activity of special interest, which will enable implementation of incentive measures.

The main goals of multimodal transport promotion are:

- Persuading potential customers and demonstrating the benefits of shifting to other modes of transport, based on presenting a solution from the practice;
- Achieve a change in the mindset of the operators and intermediary companies that may have prejudice about the opportunities offered by change of the mode of transport;
- Pooling and opening information portal to facilitate the transition to potential multimodal transport users who may have problems with a strategic reorientation with other modes of transport.

It is necessary to coordinate the work of multimodal promotion centres at the level of Adriatic-Ionian region participants. It is important to create a master centre for promotion

of multimodal transport called “Multimodal promotion and development centre” at the level of Adriatic-Ionian region participants.

Indicator 3: Stimulative measures for multimodal transport incorporate into the national legislation until 2025.

6. Horizontal measures

In many cases, obstacles and bottlenecks occur, especially at borders, due to the lack of policy and administrative interoperability and harmonisation. Common market rules that reflect the best international practice and seamless logistic processes are important for the development of international trade and exchanges and the implementation of the priority axes and projects.

The Permanent Secretariat of the Transport Community drafted Transport Facilitation Plan with set of horizontal measures for transport intermodal/multimodal facilitation in WB6 region. These measures can be mapped to the entire Adriatic-Ionian region in order to enhance multimodal transport, although identified for the WB6 region.

In accordance with the above drafted Transport Facilitation Plan, the following horizontal measures may contribute to the multimodal facilitation in the Adriatic-Ionian region (and which are not identified earlier in this document):

1. ***Legislative, regulatory and administrative measures*** - Regulation (primary and secondary legislation) is necessary to prescribe:
   - Conditions of competence for accreditation (licenses, concessions, permits) in carrying out the activity of all transport services in intermodal/multimodal transport;
   - Alignment with the Council Regulation 1262/84/EEC concerning the conclusion of the International Convention on the Harmonization of Frontier Controls of Goods;
   - Mandatory use of the e-consignment notes and other e-customs documents.
2. ***Technical standards:***
   - Harmonizing the standards and rules on transport vehicle dimensions, reloading equipment and transport units, as well as terminals and terminal equipment (in line with the Combined Transport Directive);
   - Gradual development of the fleet (means of transport for Ro-Ro, Ro-La, PIGGY BACK technologies) according to transport demand and promotion of the use of technologies that help the transition from one mode of transport to another.
3. ***Human resources, social dialogue and strengthening institutional capacities:***
   - Adaptation of the parts of the education plans and programmes of secondary schools and universities to the needs of intermodal/multimodal transport systems;

- Defining the vocations and professions in the sector of intermodal transport and prescribe mutual recognition of vocations, professions and diplomas;
- Promoting business and technical cooperation with scientific and professional institutions, as well as enabling continuous partnership with associations of carriers and freight forwarders;
- Capacity building (trainings and on-job guidance) for all involved relevant institutions' personnel regarding the regulation in force and for all the organizational issues of transport systems.

6.1. Environmental protection

New political challenges regarding the environment have emerged in recent years. Climate change, energy policy, air quality legislation and the difficulties of tackling congestion are just some examples. **The objective now is to enhance mobility while at the same time reducing congestion, accidents and pollution in European cities**.

It is well known that emissions and energy intensity of road transport are higher when compared to other transport systems. In an effort to reduce the emissions of pollutants from transport operations in the Adriatic-Ionian region, multimodal transport will have a better chance to evolve.

Also, further environmental benefits include less use of paper through digitalization.

6.2. Energy efficiency

Energy efficiency is the set of measures and actions in all areas, the objective of which is to reduce energy consumption, provided that the quality of transport and life remain the same or are improved. This does not mean mere savings, but energy efficient use, which will lead to a higher level of quality of life, decreased costs, and maintenance of transport infrastructure and rolling stock, and consequently improving the quality of services and the sustainability of transport.

Two major facts define Europe's future in energy: an increasing uncertainty in energy supply combined with the development affecting speedy environmental pollution. The only way to reduce these negative impacts and influence positively sustainable development is efficient use of energy at all levels. In this way, energy safety of Adriatic-Ionian Region within it will increase, since the reduction of energy consumption in the transport sector while at the same time increasing the traffic volume will make Adriatic-Ionian Region less sensitive to global changes in prices and geopolitical occurrences, generating shortage, and thus will directly influence the reduction of pollution and improvement of quality of life of all users of transport and citizens in general.

Reducing maintenance costs of all infrastructure systems in the multimodal transport chain, is a difficult, yet, implementable task. It can be achieved via gradual introduction, for example, through mandatory installation of energy saving light bulbs or LED bulbs in all newly constructed or renovated nodes. Additionally, it is necessary to support by subsidies and tax reliefs the use of solar panels, wherever possible, for equipping multimodal transport nodes in the Adriatic-Ionian Region.

6.3. Covid-19 Pandemic impact on transport sector and emerging challenges in the region

The recent Covid-19 pandemic outbreak affects Europe in many and different ways. As of March 13th 2020, the World Health Organization (WHO) considered Europe as the active centre of the Covid-19 pandemic. In their fight against the spread of Covid-19 ever since, EU governments introduced temporary restrictions to border traffic of various degrees ranging from border controls to outright closure. In several cases this had a severe impact on freight traffic as border controls led to tens of kilometres of traffic congestion, such as between Poland and Germany. Deutsche Bank Research on its website presented a map regarding traffic jams at border across Europe (see Figure 13).

The Western Balkan countries have, in the meantime, also taken some restrictive – and often uncoordinated - measures for travel and transport of goods which combined with those taken by the EU Member States are increasing the congestion at some border-crossings, with long queues and long delays to pass the border, with potentially adverse effect on the sanitary situation but also on the supply of essential goods.

The crisis also resulted in social impacts where professionals including truck drivers, customs and border officers often got stuck for days in a row at border clearance posts, exposed to possible COVID-19 contagion given the often precarious infrastructure and sanitary situation at many land border crossings across the region.

However, despite the sanitary emergency, the flow of goods and, above all, of goods of primary needs (food - animal feed – medicines – medical equipment) must not be interrupted.

As this sanitary emergency will last for a certain time, beyond the consequences in terms of loss of human lives, the overall economy of the continent (as well as worldwide) and its trade component might be heavily affected. Western Balkan regional partners have expressed their fear that there could be a disruption of cargo traffic which could lead to shortage of essential goods affecting the life of millions of citizens in the region.

Two main periods characterised by different reactions of competent authorities were recognized:

- Beginning and during the crisis – period focused to sanitary emergency and closing
- Crisis easing and post-crisis – period focused to economy recovering and opening

6.3.1. Beginning and during the crisis – period focused to sanitary emergency and closing

The Transport Community Treaty Permanent Secretariat (TCT) began to monitor the travel restrictions set up by the different SEE partners, including Member States. In cooperation with the WB countries, TCT provides a daily update and particularly regarding the situation at borders.

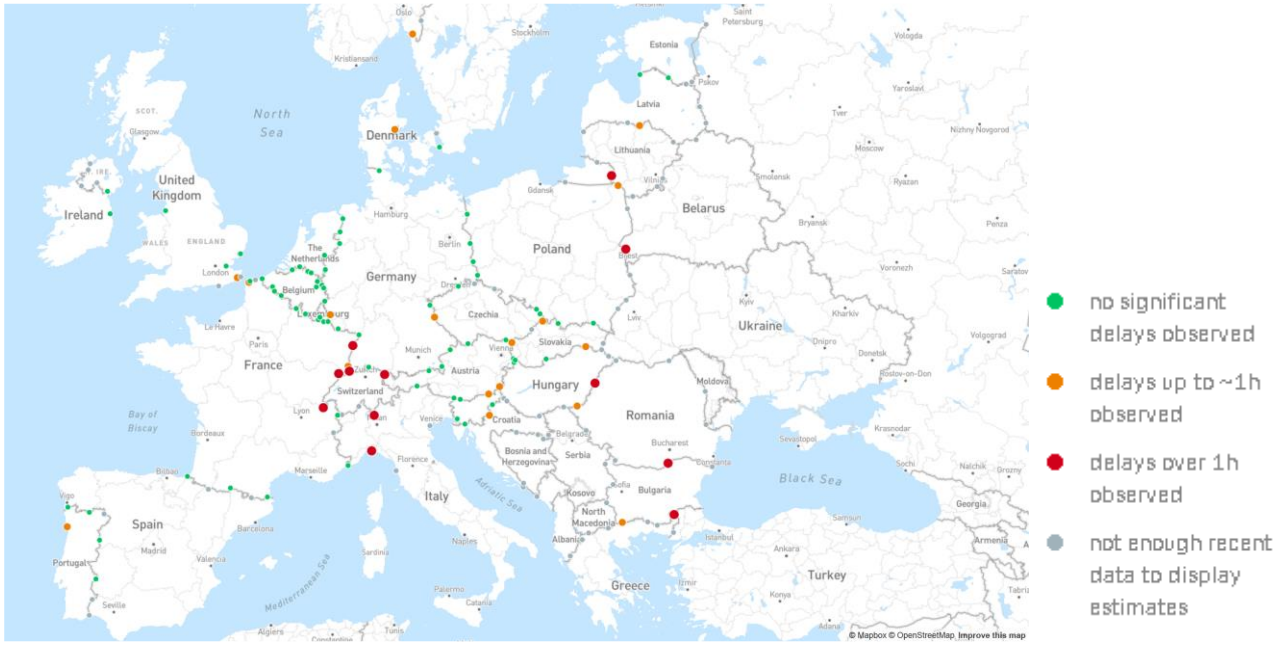


Figure - 13 Traffic jams at border across Europe – Truck border crossings

Source: https://covid-19.sixfold.com – update 27/4/2020

Following the European Commission's Guidelines for border management measures to protect health and ensure the availability of goods and essential services published on March 16th 2020 and New Practical guidance to ensure continuous flow of goods across EU via green lanes presented on March 23rd 2020, On March 25th 2020, the TCT presented a joint proposal with CEFTA to facilitate transport and trade for essential goods within the WB region. Among other proposals, one was the definition of "Green" priority Corridors on which free flow of goods of first necessity should be granted. These comprised

a) Branch B of Corridor X from Hungarian border to Belgrade, Skopje, Pristina and Greece, Route 4 from Romanian border to Belgrade, Podgorica and Port of Bar;

b) Corridor V to Banja Luka, Sarajevo and Port of Ploce, Corridor X from Croatian border to Belgrade, Nis and Bulgarian border, border of Serbia with Bosnia and Herzegovina to Sarajevo and Banja Luka and further to Montenegro and Kosovo*;

c) Corridor VIII from Port of Durres to Tirana, Skopje and Bulgarian border, Port of Durres to Greece, Route 7 from Albania to Pristina and border with North Macedonia and the link from Albania to Podgorica.

"Green" priority border/ common crossing points were proposed as well, where "green priority lanes" should be established dedicated to traffic of primary importance. Then, since March 27th 2020, the TCT announces the situation at border crossings on a daily basis, including publication of the registered waiting times.

Meanwhile, in order to ensure that EU-wide supply chain continue to operate, EU Member States were asked to designate, without delay all the relevant internal border – crossing point on the TEN-T as 'green lane' border crossings. The green lane border crossings should be open to all freight vehicles whatever goods are carrying. The press release emphasized that **"Crossing the border, including all checks and health screening, should not take more than 15 minutes"**.

This recommendation of 15 minutes is related to internal borders between EU Member States, where was no checks at all before COVID-19 outbreak. Situation is quite different when it's about Western Balkan internal borders and EU/WB borders.

Thanks to Transport Community Permanent Secretariat monitoring efforts, Figures 14 and 15 showing the average waiting times at main border crossing points in the period from the beginning of COVID-19 crisis.

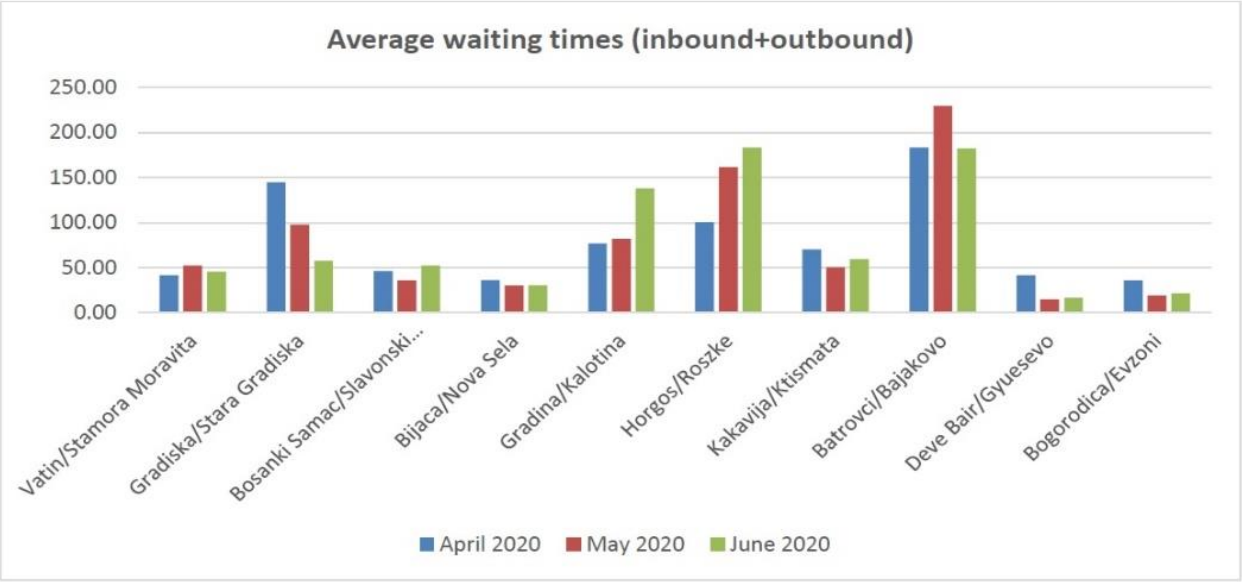


Figure - 14 Average Waiting times at EU/WB BCPs during Covid-19 Pandemic (in mimutes)

Source: Transport Community Permanent Secretariat (https://www.transport-community.org/2020/07/09/monitoring-waiting-time-at-at-western-balkans-eu-member-states-borders-quarterly-assessment-of-the-post-covid-19-trends)

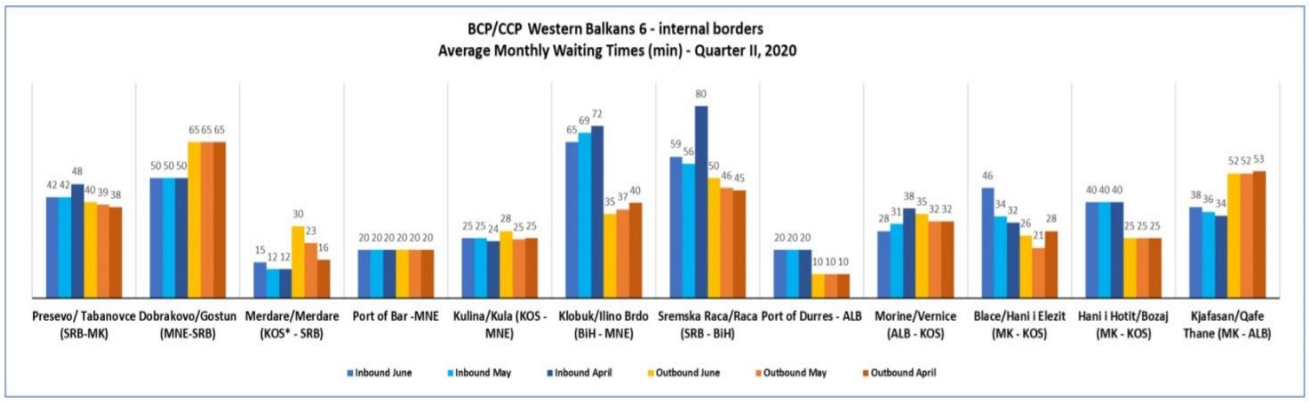


Figure - 15 Average Waiting times at Western Balkans 6 internal BCP/CCPs (in minutes)

Source: Transport Community Permanent Secretariat (https://www.transport-community.org/wp-content/uploads/2020/07/Waiting-times-intra-WB6-June-2020.pdf)

Commissioner for Transport said that *"The EU's transport network connects the whole of the EU. Our guidance document is intended to protect the EU's supply chains in these difficult circumstances, and to make sure both goods and transport workers are able to travel to wherever they are needed – without delay. A collective and coordinated approach to cross-border transport is more important today than ever before. The green lanes are also specifically designed to protect transport workers at the frontline of this crisis. This set of recommendations will ease their already stressful mission and it will bring more safety and predictability to their work."* The procedures at green lane border crossings should be minimized and streamlined to what is strictly necessary.

According to a European Commission's press release on the 23rd of March 2020, checks and screenings at border crossings should be carried out without drivers having to leave their vehicles, and drivers themselves should undergo only minimal checks. Drivers of freight vehicles should not be asked to produce any document other than their identification and driving license and, if necessary, a letter from the employer. The electronic submission/ display of documents should be accepted.

Here, it must be noted that according to the collected data through the questionnaire based survey addressed to the authorities of road BCPs implemented in the framework of WPT1 of the ADRIPASS project, in 13 out of 28 road BCPs the Customs Declarations can be electronically submitted (partially of fully). Furthermore, in 5 out of 28 the supporting documents could also be submitted electronically. However, it must be noted that the majority of the road BCPs did not provide the required data (11 out of 28 for the Customs Declarations electronic submission and 15 out of 28 for the electronic submission of the supporting documents).

Moreover, the President of the European Commission, in her video statement on March 23rd 2020 stated that the European Commission would seek the close cooperation with the government of the countries in Western Balkans in this issue.

This intensive period of sanitary emergency and closing, revealed sharply the extreme vulnerability of international transport systems to outbreaks of communicable diseases.

6.3.2. Crisis easing and post-crisis – period focused on economy recovering and opening

On April 29th 2020 the Commission adopted the Communication (COM(2020) 315 final) in view to propose priority actions with financial support for WB countries for economic recovery after Covid-19. In view of the Zagreb Summit of May 6 the TCT Secretariat presented its potential contribution to the conclusions of the Summit in the form of a Working Paper, which concludes to a proposal of four priority pillars:

• **Priority 1:** ensuring a smooth and coordinated removal of the existing temporary transit restrictions affecting traffic and trade flows between EU and Western Balkans, developing reliable cross-border traffic monitoring systems (like the Galileo app.);

• **Priority 2:** consolidating to good practices set up within Western Balkans (the "Green Corridor" initiative") and capitalizing it in view to ensure an (almost) free flow of goods within the WB in line with the objectives of the Multi-Annual Action Plan for a Regional Economic Area in WB coordinated by RCC and adopted at the Trieste Summit in July 2017;

• **Priority 3:** setting a joint EU-WB action plan to remove all unnecessary obstacles existing at EU-WB borders (inadequate infrastructure – redundancy in the proceedings – developing new IT/Digital solutions – strengthening the cooperation mechanisms – developing information and monitoring mechanisms);

• **Priority 4:** identifying projects ("quick win") on infrastructure improvement or soft measures beyond those already submitted at the last WB6 summit, which could provide benefits within 12 to 18 months as well as longer-term investments improving the road and rail connectivity between EU and WB. A first list should be ready on time in view to be submitted at the next WBIF call.

On May 13th 2020, the European Commission issued the document - Communication from the Commission COVID-19: Guidelines on the progressive restoration of transport services and connectivity. The main focus of the "communication" is to advise on ways of ensuring freight and passenger transport services can operate safely, with appropriate protections and social distancing requirements. Understandably, the document is largely dedicated to passenger transport, but two articles clearly set out guidelines for freight transport. Several key messages[5] are that:

[5] C(2020) 3139 final - Communication from the Commission - COVID-19: Guidelines on the progressive restoration of transport services and connectivity

- Transport of freight should continue to be safeguarded to ensure that supply chains are functional.
- The Joint European Roadmap indicated that "in the transition phase, the efforts to maintain an unobstructed flow of goods and to secure supply chains should be reinforced".
- Starting from the current maximum 15 minutes for crossing green lane borders, the controls performed should gradually be eased in a coordinated way, using established coordination channels such as the national transport contact points for COVID-19.
- During the gradual transition, and following public health authorities' recommendations, health checks should be reduced gradually, systematic quarantines (i.e. applied irrespective of symptoms displayed or any test results) should be lifted, convoys should be abolished, driving bans could be reintroduced.
- Transport hubs, service providers and operators should apply business continuity principles to ensure continuous safe operations in consultation with social partners. This also means that transport workers should be adequately consulted, equipped, trained and instructed on how to carry out their duties while minimising risks to their own health, that of their families, and also the health of their co-workers and passengers.

In his address at UNECE WP.5 Informal Multidisciplinary Advisory Group Meeting on Transport Responses to the COVID-19 Crisis held on 9 June 2020, the Deputy Director General of Directorate General Mobility and Transport, concluded with the following remarks:

- To ensure necessary safety conditions for transport (for both passengers and transport workers).
- Provisions should be transparent, proportionate, non-discriminatory and coordinated.
- "Real time" flow of data and information on traffic/mobility situation and safety conditions is crucial.
- Lifting of restrictions & Recovery: support businesses, but at the same time protecting passengers' rights.
- International coordination: necessary involvement of multilateral technical organisations.

Even this strategy is related to ADRION region, the COVID-19 is the global issue and findings from different international organizations are mentioned here below:

United Nations Economic Commission for Europe Inland Transport Committee - Working Party on Transport Trends and Economics on June 29th 2020 issued a document "Taking stock of the resilience of the inland transport sector to pandemics and international

emergency situations"[6]. The document provided key lessons learned and recommended further actions.

- Lessons learned for international inland transport include:
    - The importance of immediate coordination in response to the outbreak and the effective ongoing coordination at regional, national and international levels.
    - The importance of efficient supply chains and keeping goods moving.
    - The need to collect and feed evidence and data into decision making.
    - The digitalization of processes has made them contact-free and safer and more efficient.
    - The need for clear communication to the public and to operators on changes to procedures and new rules.
    - Engagement across sectors (e.g. health, transport, customs, and business) has been crucial in using an evidence-based approach to decision making.
- Lessons learned for customs/ border management include:
    - Need for enhanced preparedness – use of electronic services, risk management (selectivity and profiling before conducting physical checks), non-intrusive inspection (NII) equipment, availability of disaster response/ mitigation plans and business continuity plans.
    - Need for enhanced coordination – use of a whole of government approach, Coordinated Border Management (CBM), coordination with neighbouring countries and/or at regional levels.
    - Streamlining and simplifying Customs procedures – green lanes for freight traffic.
    - Transparency of documentary requirements – all necessary information should be publicly available.

Some of actions recommended by the same document are:

- At the level of existing legal instruments/ UNECE Conventions:
    - Introduction of electronic certificates for crew and/or passengers, such as in the existing UN transport conventions (TIR, Harmonization Convention; Railway Passenger Convention) administered by ECE.
    - Rules for transiting and cooperation among transport authorities in case of pandemics/cross-border emergencies, such as amendments to the Harmonization Convention.

[6] Note by the secretariat of Working Party on Transport Trends and Economics

- At the level of digitalization:
    - Support for transport/trade digitalisation: raise awareness globally and if possible, accelerate the digital implementation possibilities of various of the already existing transport legal instruments in the inland transport sector: TIR/eTIR, CMR/eCMR, the URL/eURL consignment note for rail transport etc. A focus on digitalisation and automation could turn out effective pandemic mitigation tools as direct human contacts in clearance processes are no longer needed.

Another point of the mentioned UNECE document is that back in 2005, in response to the exponential increase in international travel and trade, and emergence and re-emergence of international disease threats and other health risks, 196 countries across the globe have agreed to implement the International Health Regulations (IHR, 2005). This binding instrument of international law entered into force on June 15th 2007. The stated purpose and scope of the IHR are "to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade."

Based on international labour standards, International Labour Organization (ILO), defined four key pillars to combat COVID-19:

Pillar 1 – Stimulating the economy and employment, including Active fiscal policy, Supportive monetary policy and Financial support to specific sectors.

Pillar 2 – Supporting enterprises, jobs and incomes, including Extend social protection for all, Employment retention measures and Financial/tax and other relief for enterprises.

Pillar 3 – Protecting workers in the workplace, including Strengthen of occupational safety and health measures, Adapt work arrangements (e.g. teleworking), Prevent discrimination and exclusion, Provide access to health care for all and Expand access to paid leave.

Pillar 4 – Relying on social dialogue for solutions, including Strengthen the capacity and resilience of employers' and workers' organizations, Strengthen the capacity of governments, Strengthen social dialogue, collective bargaining and labour relations institutions and processes.

6.3.3. The day after

The reflexes of the EU, of the TCT, of the countries of the region and of the transport sector itself have been tested violently as response to the recent urgencies offers a new opportunity of cooperation, based on real-life pilot implemented. This dramatic event proved inter alia that updated or real-time exchange of information and data is achievable and that there could be fast wins that could have been achieved already years before and were able to be achieved within two months or in the short term.

In this framework, the Covid-19 pandemic outbreak, beside the problems that created, could also perform as a chance to develop coordinated strategies promoting cooperation and synergies among the governments of the countries not only in the Western Balkans but worldwide, as there are lessons learnt or yet to learn. The ADRIPASS project, based on its objective and activities performed, calls the policymakers to develop a framework, by taking into consideration the guidelines of the European Commission, which will be the basis for addressing issues occurred by urgent conditions and circumstances, promoting the implementation of ICT tools and strategies aiming to facilitate freight transport. The technical details of this framework are beyond the scope of the ADRIPASS project. However, the knowledge and experience collected and developed in the framework of the project could be helpful for the policymakers.

7. Monitoring and revision

Monitoring system should be based on a 3-year reporting period concerning the progress analysis and adjustment measures if needed.

The result of such monitoring activity will be the development of a network of logistic operators working on platforms, using tools and adopting measures which will be common in the Adriatic-Ionian Region and will allow the alignment of procedures, data exchange and documentation provided, in order to speed up operational procedures, reduce transit times, upgrade systems, allow data exchange at multimodal level and allow the logisticians to dispose of the information necessary for the successful transport and delivery of goods.

The revision of the Strategy should be useful after 6 years (second reporting period), based on prior evaluation of the performances of the implementation, the results and impacts of the ongoing policies, at least at each major goal level, and evaluate the general relevance of the measures.

There will be at least one mid-period revision, not affecting the strategic goals (unless absolutely necessary) and with the purpose of:

- set in accordance the effective rhythm of implementation of the measures and the general timeline of the strategy,
- take in account the current economic context and the availability of funding,
- take in account the changes in the transport regulation and technical standards, at regional, European and international level, and finally
- reviewing, if necessary, the measures/ projects pipeline and confirm the relevance of any measure according to the first implementation years and the new environment.

8. Concluding remarks

Multimodality is considered to be one of the prime requirements for economic development and growth and finally for territorial cohesion. It facilitates the movement and interaction of people and the exchange of goods and ideas. All these aspects are of immense importance in the Adriatic-Ionian Region. Existing networks in Adriatic-Ionian Region are in most cases heavily fragmented or face inwards mainly serving single states and regions. In some cases, these networks are of inferior quality, with a high congestion level of existing infrastructure but without the development of viable alternatives, and cannot cope with the constant increase in transport needs. Given their position both on the cross-roads of east-west and north-south axes of Europe, the Adriatic-Ionian Region constitutes an important transport route for goods and passengers transport as well as energy.

Several countries in Adriatic-Ionian Region depend heavily on the ports of the macro-region for their exports and imports. The competitiveness of those ports depends, amongst others, on their capacity to enhance interoperability of transport modes by integrating sea-borne, inland water-borne and land transport, including TEN-T, and to adapt towards resource efficient and environmentally friendly management models. The Motorway of the Sea of South East Europe exemplifies efforts to provide a viable, reliable and competitive transport service of goods and passengers through a trans-European multimodal transport system.

Through all the documents prepared so far under the ADRIPASS project, there are four basic directions that need to be taken in order to strengthen multimodality and links in the Adriatic Ionian Region:

i. Improvement of connections of basic multimodal hubs with hinterland, both infrastructural, administratively and operationally;

ii. Use of modern ICT technologies in the main multimodal nodes;

iii. Promotion of multimodal transport as an environmentally friendly mode of transport;

iv. Support constant cooperation and dialogue among transport stakeholders and policy makers as to improve the overall efficiency of the transport sector in the ADRION region.

Certainly, upcoming activities at both regional and national levels are not easy, but - also considering the extraordinary measures implemented during the current COVID-19 emergency - the first steps must be taken as soon as possible. After the first step, it is certain to expect that the tangle will begin to unfold and that a chain reaction will be initiated.

Because multimodal transport is not only environmentally friendly, it is also a “driver” towards establishing unbreakable links between countries in the region. Namely, once a product has found an effective direction, policymakers have little influence on changing it. No matter what, multimodal transport chains will survive and contribute to overcoming potential problems and differences.

Abbreviations

ACROSSEE	SEE/D/0093/3.3/X_ACROSSEE project, Transnational Cooperation Programme South East Europe
AIS	Automatic Identification System
BCP	Border Crossing Point
CEFTA	Central European Free Trade Agreement
CMR	International Carriage of Goods by Road
CONNECTA	Technical Assistance to Connectivity in the Western Balkans
COVID-19	Corona Virus Disease of 2019 (as designated by World Health Organisation)
CRM	Connectivity Reform Measures
EDI	Electronic Data Interchange
EPD	Electronic Pre-Declaration
eQMS	Electronic Queue Management System
ERTMS	European Rail Traffic Management System
ETCS	European Train Control System
IPA	Instrument for Pre-accession Assistance
IT/ ICT	Information and Communication Technologies
ITS	Intelligent Transport Systems
IWW	Inland Waterways
MED	Mediterranean (corridor)
NCTS	New Computerised Transit System
PCS	Port Community System
RIS	River Information Services
SEED	Systematic Exchange of Excise Data
SEETO	South East Europe Transport Observatory
TA	Technical Assistance
TCT	Transport Community Treaty (Permanent Secretariat)
TEN-T	Trans-European Network – Transport
TIR	Convention on International Transport of Goods

TSI	Technical Specifications for Interoperability
UNECE	United Nations Economic Commission for Europe
VMS	Variable Message Sign
VTMIS	Vessels Traffic Management and Information System
WB6	Western Balkans 6 Regional Participants
WP	(ADRIPASS) Work Package
WPL	(ADRIPASS) Work Package Leader

Bibliography – References

- Accessibility Improved at Border Crossing for the Integration of South East Europe – ACROSSEE, https://doi.org/10.1016/j.trpro.2017.05.445
- ADRIPASS: Concept on how to involve relevant Stakeholders in the participating ADRION regions and beyond, 2019
- ADRIPASS: Deliverable T1.2.4 – Final transnational action plan for transport facilitation in the Adriatic-Ionian Region, 2020
- ADRIPASS: ICT action plan for improving multimodal transport in ADRION regions, 2020
- ADRIPASS: Overall methodology for implementation of WPT3
- ADRIPASS: Reports from bilateral meetings with relevant Stakeholders and Associated Partners regarding ADRIPASS project, 2019
- ADRIPASS: The Report on the Transnational best practices concerning ICT tools for improving multimodal transport in ports and at BCP know-how transfer
- ADRIPASS: Stakeholders involvement Reports
- C(2020) 3139 final: COMMUNICATION FROM THE COMMISSION - COVID-19: Guidelines on the progressive restoration of transport services and connectivity, Brussels, 13.5.2020
- Connectivity Agenda, Co-financing of Investment Projects in the Western Balkans, July 2018, European Commission
- Connectivity Networks Gap Analysis, Mott MacDonald – IPF Consortium, 2016
- CORPORATE RESPONSIBILITY REPORT for 2018, The Piraeus port
- Draft Transport Facilitation Plan, The Permanent Secretariat of the Transport Community, 2020
- https://covid-19.sixfold.com
- https://ec.europa.eu/transport/themes/strategies/2011_white_paper_en
- https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_20_510/IP_20_510_EN.pdf
- https://ec.europa.eu/commission/presscorner/detail/en/ip_20_510
- https://www.reuters.com/article/us-health-coronavirus-eu-borders/eu-urges-nations-to-unblock-borders-let-freight-cross-in-15-minutes-idUSKBN21A2S3
- https://www.transport-community.org/wp-content/uploads/2020/05/Contribution-of-the-Permanent-Secretariat-to-the-Commission-Communication-on-WB.pdf
- https://luka-kp.si/eng/
- https://port.venice.it/en/the-new-container-terminal.html-0
- https://porto.trieste.it/
- https://worldbank.org/en/news/press-release/2019/04/18/lower-trade-costs-and-increased-transport-efficiency-in-western-balkans-with-help-from-world-bank

- Joint proposal prepared by the Permanent Secretariat of the Transport Community and the CEFTA Secretariat to facilitate the transport and trade of essential goods within the Western Balkans,
- Monitoring waiting time at Western Balkans/EU Member States borders (April - May - June 2020) Quarterly assessment of the post-COVID 19 trends, Transport Community Permanent Secretariat, Belgrade, July 2020
- Sectorial Strategy of Transport & Action Plan 2016-2020, First Monitoring Report, Ministry of Infrastructure and Energy, Albania, 2018
- Study of intermodal transport users' needs in the Danube Region, June 2018
- SEETO Multimodal Flagship Axes initiative, SEETO, 2014
- Strategic Framework for implementation of ITS on TEN-T Core/ Comprehensive Network on the WB6, TA to Connectivity in the Western Balkans EuropeAid/ 137850/IH/SER/MULTI, CONNECTA-TRA-CRM-REG-03, Mott MacDonald CONNECTA Consortium, 2018
- Study for border crossing facilitation and improvement of the cross-border road transport on the indicative extensions of TEN-T Road Core/ Comprehensive Network in the Western Balkans, FACT FINDING & SWOT ANALYSIS FOR ONE STOP SHOP & EQMS – INTERIM REPORT (FINAL), CONNECTA – TRA-CRM-REG-04, Mott MacDonald CONNECTA Consortium
- TA to Connectivity in the Western Balkans, EuropeAid/137850/IH/SER/MULTI, CONNECTA-TRA-CRM-REG-04, Study for border crossing facilitation and improvement of the cross-border road transport on the indicative extension of TEN-T Road Core/ Comprehensive Network in the Western Balkans, Fact Findings & SWOT Analysis for One Stop Shop & EQMS – Interim Report (Final), June 2018, Mott MacDonald CONNECTA Consortium
- Taking stock of the resilience of the inland transport sector to pandemics and international emergency situations, UNECE Inland Transport Committee - Working Party on Transport Trends and Economics, Geneva, Switzerland, June 2020
- The European Green Deal, European Commission, https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en
- The General Transport Master Plan for Serbia 2009-2027, 2009
- The National Strategic Plan for Ports and Logistics in Italy, 2014
- The National Transport Plan for Greece TA2017028 GR GRS, Final Transport Plan Report, 2019
- Port of Trieste brochure: Trieste Your Rail Port in the Heart of Europe, 2017
- Transport in the European Union: Current Trends and Issues, 2019
- Western Balkans Intermodal Study, Support to the Transport Dimension of the SEE 2020 Strategy, 2016
- White paper 2011, European Commission