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The Adriatic Beltway

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Transport Connectivity in South Adriatic Area

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REGIONE PUGLIA

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Background

The South Adriatic area between Puglia, Montenegro and Albanian coasts is very dense in trade exchanges, people-to-people mobility and other economic and business relations. For many centuries during the Roman Empire those areas belonged to the same geo-political entity. Nowadays, while Italy is a founding member of the European Union, Montenegro and Albania are firmly engaged towards full EU membership.

Based on their shared history and boosted by their common destiny, the three countries have enjoyed close cooperation, materialised by intense exchanges among private stakeholders and joint work among respective institutions. The institutional cooperation has been bilateral, multilateral or in the framework of regional agreements. It has covered almost all the sectors, from education to defence, also including transport, energy, social, business, climate, etc.

The transport sector is a concrete example where this cooperation has taken place. First both Albania and Montenegro are gateways to landlocked Western Balkans countries such as Kosovo, North Macedonia and Serbia. Moreover, given the amount of the exchanges among them – Italy is the first trade partner for Albania and top migration destination country - improving transport connectivity among them is a key factor for high growth, more jobs, increased trade, better education and intensified cultural exchange. It brings tangible and clear benefits for economies and citizens. It creates links and opportunities for businesses and people, and contributes to good neighbourly relations in this region and in the whole Balkans.

Apulia ports of Bari, Brindisi and Taranto play a strategic role in the connection with the Eastern shores of Adriatic Sea through Durres in Albania and Bar in Montenegro, closing the southern segment of the “Adriatic Beltway” by connecting TEN-T Scandinavian – Mediterranean with Western Balkans. Sea links between Bari port in Apulia and Durres / Bar ports on the Eastern shores complete the circular composed by 3 TEN-T (Bari – North of Italy, intersecting with the TEN-T Mediterranean in Slovenia – Croatia –, and with Rhine- Danube Corridor in Belgrade, and then intersecting with Orient-EastMed).

Ports of Bari and Brindisi are the closest TEN-T hubs to both seaboard WB6 countries – through which they can access TEN-T network and the EU market. South Adriatic maritime links also facilitate access up to Turkey and the Black Sea through formerly known Corridor VIII. In that context Italian port system is an important access gate for commercial flows from and to Europe.

But differences between connectivity infrastructures on both sides of Adriatic remain significant, and affect the fluidity of exchanges and the cost of mobility. While Puglia has a mature road transport infrastructure network supported by integrated logistics and a capillary rail infrastructure, new highways and road construction are underway in Albania and Montenegro. Rail transport in Albania is minimal, while in both WB6 countries there are challenges with last-mile integration.

Currently the three countries enjoy a high degree of political cross-border cooperation in transport sector, being it infrastructure or legislative measures harmonisation and policy-making cycle. Being both candidate countries and sharing a common land-border, Albania and Montenegro have adopted the same methodology in all three components above, which allows for optimal cooperation. They’ve set up similar mechanisms for planning, developing and implementing infrastructure projects; they operate joint border-crossing points; and inform each other, coordinate and harmonise with EU in the framework of Transport Permanent Secretariat structure. Italy - being a Member of the EU and a state with strong regions – has a different institutional framework and a policy-making mechanism. However even if the target of Albania and

Montenegro is the harmonisation of the acquis in the transport sector, we believe that more intense cooperation can be developed also in infrastructure planning and national policy-making cycle among three littoral countries

The number of bilateral agreements signed amongst Italy, Albania and Montenegro can illustrate the importance of transport in bilateral relations. Out of 104 existing Bilateral Agreements between Albania and Italy in 2019, 15 are in Transport (or 1 out of 7). Transport agreements represent 1 out of 5 (or 10 out of 48) of Albania - Montenegro cross-border cooperation.

Such a dense institutional framework requires adapted governance mechanisms that are legitimate and efficient. Being legitimate means that they respond to the preferences of their beneficiaries them being citizen, businesses, trade actors, supply and value chain partners, transport companies and other transport stakeholders. Being efficient means that they are well administered and deal with the cross-border and regional transport issues in an effective and efficient manner. In concrete terms they should govern well the whole regional transport exchanges in SAA so that their political decisions and the subsequent outputs are perceived to be in the interest of the citizen.

A summary assessment of governance elements in transport connectivity in the South Adriatic shows that not always there is a clear political vision to promote the SAA region at the service of three Adriatic Sea bordering countries, and consequently develop the adapted transport network. Our research has shown: (i) high territorial fragmentation of transport infrastructure at bilateral (i.e. railway) or multilateral (i.e. maritime), which constraints the potential for integrated territorial development and accessibility; (ii) low interoperability; (iii) lack of agreement amongst countries on the priorities to address / need for better coordination of development objectives of existing transport infrastructure and future investments on corridors (indicative extensions of the TEN-T core network in WB6, highest priorities on the PECI's list) and on methodology (e.g. applying the Union guidelines for the TEN-T); (iv) need for shared vision & political commitment of countries to the Connectivity agenda / willingness and capacity to implement high priority connectivity infrastructure & technical standards for efficient connectivity; (v) changing priorities for the beneficiaries of connectivity projects; (vi) low level of communication amongst stakeholders; (vii) local ownership, compliance and post-investment sustainability; and, (viii) increased presence other actors and competing stakeholders (Russia, China, etc.).

Moreover during the functioning of new regional institutional and implementation of cross-border joint initiatives appear many problems that directly impact their effectiveness, efficiency, transparency, accountability, and predictability. One can notice: (i) a detachment between policy-making level and technical / project implementation level: often initiatives that are deemed strategic at certain sector stop at the policy-level due to the competition from other sectors and other actors for scarce funding; (ii) need for joint vision, better planning, efficient coordination, responsive fund-raising, synergies among different connectivity coordination platforms such as EUSAIR, Berlin Process, TEN-T and NSPPs; (iii) and continuous institutional building and support for the improvement of skills and capacities of public and private transport actors, being them institutional or individuals.

Italian partners also need to reinforce and make sustainable the coordination that they have already build at technical level with their Western Balkans partners, and complement it with political support and financial clout so as to be able to prepare and implement winning connectivity infrastructure projects and increase the visibility of the South Adriatic Region the regional transport fora.

The common will to tackle the above, long experience of working together, participation in existing programs that have put the basis of cooperation, and an ever-increasing trade, people mobility and FDI among those countries, are the basis on which to build an successful cooperation. In that angle, the Connectivity Agenda (CA) is considered as one of the main EU assistance mechanisms to support economic growth in the Balkan countries and to speed up the economic convergence of the region with EU member states.

The CA is also one of the main priorities of the SEE6 countries. In practical terms it allows them to develop and finance concrete regional infrastructure investment projects in transport, energy, and digital connectivity, and on developing and adapting a legal and regulatory framework compliant with EU technical standards. As such it impacts directly the cooperation of three South Adriatic countries in the transport sector. In 2015, the European Commission earmarked 1 billion Euro in grants to be awarded from the Instrument of Pre-Accession Assistance (IPA) by 2020, in support of the connectivity agenda. These grants are expected to leverage between 3.2 and 4 billion Euro in investments and create more than 45,000 jobs.

The following study will present the situation of transport connectivity between Albania, Montenegro and Puglia / Italy mainly from the angle of good governance. It will present the institutional framework in each country transport sector as well as the main regional initiatives, the respective legislative context at national and regional context, the main infrastructure projects that connect or service the connections amongst the three neighbouring countries, and a short assessment of their economic profile and exchanges amongst them. A short part has been dedicated to the consequences of Covid-19.

This study is intended to transport connectivity stakeholders on both sides of Adriatic. The Italian partners will have the opportunity to find in one document the main actors, institutions, policies and procedures governing transport sector infrastructure projects and policies in Albania and Montenegro. Italian actors will also be able to obtain a synthetic overview of EU mechanism governing and financing Western Balkans transport infrastructure. Western Balkan colleagues will obtain a comprehensive view of main features of transport ecosystem in Apulia / Italy and, eventually, factor it in the overall design and development of relevant transport systems and respective policies.

I. CONNECTIVITY AGENDA IN WESTERN BALKANS

I.1 EU Connectivity Agenda: Transport sector

Connectivity Agenda (CA) in the Western Balkans is one of the pillars of the Berlin Process. From its beginning in 2014, CA has been linked to connecting physical infrastructure and energy systems" within the region and of the region with the EU. The Connectivity Agenda - will enhance the connectivity between the Western Balkans countries as well as with the EU network, with the facilitation provided by the EC. In the 2018 Enlargement Strategy, increasing connectivity in transport and energy is part of one of the six Flagship Initiatives.

Since 2014 CA has resulted in an increase of EU funding and support for the economic integration within the region and of the region with the EU. By end of 2019, CA consisted in 39 projects, for an investment value of €3.2 billion, including a grant value of €880 million, the remaining being loans. In this context, the transport sector has received funding for 32 projects out of 39, becoming the most important one. But the strategic objectives and guidelines for the development of the Western Balkan transport system, have included not just the transport development of the region but also economic and social development.

On 21 April 2015 in Brussels, European Commission and 6 Prime Ministers from WB6 agreed on indicative extension of TEN-T core network in WB6, including the coverage of the eastern part of South Adriatic. On the occasion of the Western Balkans Summit held in Vienna in August 2015, the leaders of Albania, Bosnia and Herzegovina, Kosovo, FYROM, Montenegro and Serbia (WB6) particularly welcomed the substantial progress achieved in the area of Transport Connectivity, notably the agreement by the WB6 Prime Ministers in Brussels in April 2015 on the regional core transport network, and the further agreement (in Riga in June 2015) on: (i) the extension of three TEN-T Core Corridors to the Western Balkans corridors (the Mediterranean, Orient/East-Med and Rhine/Danube corridors); the, (ii) the commitment to implement a list of pre-identified infrastructure projects and 'soft measures' by 2020; and, (iii) the appointment of corridor coordinators.

Figure 1. Closing the Adriatic Beltway

The EU Directorate-General Neighbourhood and Enlargement Negotiations (DG NEAR) has provided support to WB6 to design and put in place the basic elements of a transparent and efficient system for investment prioritisation and selection – the National Investment Committees (NICs) and the Single Project Pipelines (SPPs). These institutional and policy frameworks serve as a basis for any IPA funding of investment projects, via the Western Balkans Investment Framework (WBIF) or the national IPA envelopes programming, as well as for the national financing sources and other bilateral donors.

Each WB6 country established single project pipelines of priority investments, as preconditions for receiving IPA II support for investment co-financing. The next important engagement was the identification and dealing with all relevant measures such as regulatory issues, streamlining of border crossing procedures that could bring about immediate connectivity benefits for the WB6 participants and at a reasonable cost.

To achieve the goals of the Connectivity Agenda, the Western Balkan countries have recognised the importance of an efficient project implementation in cooperation with the concerned lead International Financial Institution. This is required in order to make full use of the approximately grant of EUR 1 billion from the IPA II programme available as potential co-financing for key connectivity related investments over the 2015-2020 period.

In the national context, for Albania and Montenegro (as per all WB6 countries) transport infrastructure projects are a part of the National Single Project Pipeline (NSPP). NSPP is a list of national projects ranked as per their maturity of preparation for financing. The top-ranked ones are supposed to fill all the conditions to be submitted by the governments to the WBIF for financing. EU supports regularly national governments during the phases of project preparation with technical assistance.

WBIF is the blending mechanism that brings together EU Commission grants, bilateral donors and different International Financial Institutions (IFI)[1]. WBIF blends EU grants (originating from IPA Multi-Country Programme) with IFI loans. WBIF provides funding to bring connectivity projects to maturity, and as of 2015 it can also co-finance the connectivity projects investment works. The technical preparatory work for connectivity agenda in transport infrastructure and in energy interconnection systems is also financed by WBIF.

Since June 2015, WBIF has launched official annual calls for applications for technical preparatory services and for investment works needed for connectivity projects. In those rounds, WB6 countries apply for co-financing grants to finance different phases of the investment works of connectivity projects. After WB6 countries submit their proposals, WBIF prepares a ranking of potential investment projects to be selected for their support. This list is presented to the partner IFIs and to bilateral donors during mid- year WBIF Steering Committee (the meetings happen in mid-June). The final list is politically endorsed in the upcoming WBS (usually a month after). The Connectivity Financing Decision is then officially adopted during end of year at the WBIF Steering Committee (always in mid- December of the same year). Overall, an investment grant (those that finance infrastructure works) procedure takes 18 months from the launching to the adoption.

[1] IFI partners are European Investment Bank, European Bank for Reconstruction and Develoment, Council of Europe Develoment Bank, KfW Bank aus Verantwortung. World Bank Group and AFD – Agence Francaise de Developpement cooperate as well with WBIF. Bilateral donors are: Austria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Polnad, Slovak Republic, Slovenia, Spain, Sweden, UK and Canada

Both Albania and Montenegro governments are active beneficiaries of EU Connectivity Agenda. Regarding the transport infrastructure projects, among many initiatives both WB6 countries profit from the WBIF financing of Adriatic - Ionian Corridor that goes through both countries.

Albania and Montenegro join the EU TEN-T network through Adriatic-Ionian Highway that intersects with the Mediterranean Corridor. This Trans-European Transport Network corridor crosses six EU member states (Spain, France, Italy, Slovenia, Croatia, and Hungary) for 6,000 km.

Lately regarding maritime connectivity, or "Motorways of the Sea", Albania has seen approved the WBIF financing (through EBRD) of the renovation of Quays 1 and 2 in the Port of Durres. This will allow to functionalize the connection of Albania with the TEN-T through the Scandinavian – East Mediterranean corridor, bringing TEN-T access point of Brindisi at 139 km from Albanian port of Vlora. Bari Port is at 270km from Durres and only 161 km from Montenegrin port of Bar.

I.2 Institutional cooperation in South Adriatic transport sector

The Western Balkans' transport network requires significant financing since a high percentage of the region's road and rail network need rehabilitation and upgrading. Non-physical barriers, affecting trade and traffic in the WB region are also to be addressed. The activities supported CA are either infrastructure projects or reform measures (reform measures are mainly the regulatory and normative legislation formerly known as "soft measures").

Transport Connectivity Agenda (TCA) aims to extend the Trans-European Networks (TEN-T) into WB6, and to bring the WB6 road network at the same level as the EU one. A corollary function of the TCA is to support WB6 growth by binding separate national markets into a bigger one. The TCA has initially been focused on road, rail and inland waterways. Lately the maritime connectivity has got a boost through the approval of the financing of the Quays 1 and 2 in the Durres Port. For the moment this is the only CA infrastructure project that targets the increase of maritime connectivity in the Adriatic.

Since Albania and Montenegro are EU candidate countries, the European Commission (EC) and all its related bodies dealing with transport – in particular, the European Commission of Directorate General for Mobility and Transport (DG MOVE) – play a major role in the identification of road networks and in the definition and development of the EU transport policies, which subsequently need to be adopted or implemented by Albania and the rest of the Western Balkan countries.

In addition to the above, on top of regional cooperation amongst six WB countries - the main outcome of the regional cooperation in transport field is the signing of the TCT in 2017 - Albania and Montenegro are part of several regional cooperation programmes and initiatives, including:

i) Adriatic Euro regions, an international association of local (territorial) governments of the Adriatic Sea (regions or municipalities of Italy, Croatia, Slovenia, Bosnia-Herzegovina, Montenegro, and Albania) with the aim of promoting and supporting cooperation and development programmes in the Adriatic area. Founded on 30 June 2006 in Pula (Croatia), the association is a non-profit legal entity.

ii) Mediterranean Action Plan, a regional cooperative effort involving 21 countries bordering the Mediterranean Sea as well as the EU under the auspices of the United Nations Environment Program (UNEP).

Its legal framework comprises the Barcelona Convention adopted in 1976 and revised in 1995, and six protocols covering specific aspects of environmental protection. Under the MAP, the Priority Actions Programme/Regional Activity Centre (PAP/RAC) in Split (Croatia) is globally recognized as a leader in Integrated Coastal Zone Management (ICZM).

iii) Adriatic-Ionian Initiative (AII), composed by 7 countries: Albania, Bosnia and Herzegovina, Croatia, Greece, Italy, Slovenia and Serbia and Montenegro. Its aim is to bring together coastal countries to cooperate on the following themes (Round Tables): environmental protection and sustainable development, combating illegal activities, transport and maritime cooperation, economy, tourism and small & medium enterprises cooperation, culture, education and inter-university cooperation. On 14 December 2012, the European Council gave mandate to the Commission for the presentation of a new EU Strategy for the Adriatic and Ionian region before the end of 2014 (EUCO 205/12).

iv) EUSAIR Strategy. The European Union Strategy for the Adriatic and Ionian Region (EUSAIR), has been released in 2014. It sets outs the needs and potential for smart, sustainable and inclusive growth in the Adriatic and Ionian Region. When it comes to Transport, EUSAIR highlights that the Region has significant infrastructure deficits, notably between long-established EU Member States and the other countries, resulting in poor accessibility. According to the assessment made by EUSAIR: a) WB6 road and rail network, in particular, needs urgent rehabilitation, removal of bottlenecks and missing links, intermodal connections, traffic management systems and upgrading of capacity; b) Maritime traffic congestion is increasing, while surveillance and coordination capacity needs upgrading; c) excessive waiting times and procedures at borders further impede movement; and, d) Multi-modal transport is little developed.

v) In the context of the *Regional Cooperation Council (RCC),* the South-East Europe 2020 Strategy (SEE 2020) has set up some ambitious targets for the transport sector, including: (i) decrease of the cost of transport per unit of transport service for 20%, and decrease in TEU transport costs to the EU average ; (ii) improve transport infrastructure utilization rates to over 40% of designed capacity; (iii) higher energy efficiency by decreasing energy consumption per unit of transport service for 20%; and (iv) increase railway/ waterborne share to country specific targets to be defined in the national Action Plans and (v) facilitate air transport.

vi) Transport Community Treaty signed by the Prime Ministers of Western Balkan countries at the WB6 High Level Summit, on 12 July 2017, in Trieste, can be considered as the biggest achievement in the transport sector at regional context, regarding sector governance. It clearly demonstrates the political will of all WB6 countries to start the implementation of the TCT, such a milestone in the region cooperation and an added commitment for the future of WB6 to the European Union. The Treaty aims the establishment of an integrated market in the transport sector, and enhances further transport operations within the region and with the EU. By promoting working together and cooperation infrastructure and in reform measures, it will support the accession process of the WB6 countries to the EU.

At the same time, TCF aims at harmonizing national legislations of the Western Balkan countries with the *Acquis*, as regards transport and relevant environmental and social policies, thus providing us with a consistent and common framework for moving forward on the transport Acquis in the region. In parallel with this process, the Development of Core network by 2030 and Comprehensive by 2050 as per TEN-T guidelines remain a priority for both the Albanian and Montenegrin authorities. In this framework, both governments have prioritized the transport infrastructure projects through the Single Sector Project Pipeline process, thus identifying and approving the national and regional short-term and mid-term goals, related to national transport network.

Italy, being a member state follows a completely different process in the identification and prioritisation of both investment and relevant sector legislation. Moreover, there is a clear definition of the separation of competencies between the national and the regional level of the member state, as we will see below.

I.3 Transport Connectivity Reform Measures

All WB6 have agreed on a number of measures to improve management of infrastructure, trade facilitation and establish more open markets. In the transport sector, road-building investments are to be accompanied by improvements in border crossing procedures.

Among the most relevant regional connectivity measures we can mention:

i. Implementation of rail reform strategy including Rail market opening on the pilot basis on the Orient/East Med Corridor and Definition of a framework for implementation of EU Freight Corridors, extended to the Western Balkans;
ii. Improvement of road safety (targeting the reduction of fatalities by 20% compared to reference year 2014) (2020 goal); Adoption of Road Safety Inspection (RSI) guidelines and curriculum and delivering of trainings o Prepare three-year RSI plan for the core and comprehensive network and pilot RSIs on high accident sections;
iii. Trade and Transport Facilitation (2020 goal) focusing on Effective cross-border road transport; and,
iv. Intelligent Transport System (ITS) deployment on the Core Network (2020 goal).

All of these measures should help attract the investments needed to build infrastructure in the region, complementing the EU's own contribution.

Even more important is that by working together in transport and energy connectivity infrastructure projects and initiatives, national institutions are placed in and function in a regional network establishing what we call "institutional connectivity".

The cross-border cooperation in connectivity is in line with the Berlin Process. Also, according to the EUSAIR Annual Progress Report of 2015 of Pillar 2 "Connecting the Region" covering Transport networks, EUSAIR governing structures already decided to promote a synergic interaction with the "Berlin process" and to work on the accomplishment of connectivity harmonization.

I.4 Criticality of Destination Nod as rationale of South Adriatic connectivity

In its definition, World Bank examines how trade, investment, migration, and other linkages among countries drive economic growth in one region and in between regions[2]. This multilayered approach brings in the notion of "criticality of destination nod" and of its impact on the overall design of transport network in a certain area, and between different countries. The way the transport network interacts, depends from and

[2] World Bank Group, David Michael Gould (2018): Critical Connections. Promoting Economic Growth and Resilience in Europe and Central Asia.

influences trade, investment, people mobility, supply and value chains, etc, impacts directly the process of prioritization of different connectivity infrastructure projects, their form (rail, road, maritime or air), and the very weight of transport as compared to investments in other sectors of economy.

The value of an investment in transport infrastructure depends also on the place of the nod in the global value chain and / or transport network. The existence of Regional and Global Value Chains along connectivity corridors, and the cooperation among countries where those corridors go through, bring up the issue of the profitability during the operation phase of the infrastructure project. The more solidly one nod is grafted in, or contributes to the value chain, the bigger the exchanges among nods is, and the higher the return on investment of the respective infrastructure networks. Basically the largest the exchanges, the bigger the number people and freight tonnage, the higher the income generated by the infrastructure investment and so its Return on Investment (RoI).

This reasoning brings to the fore the strategic role of Italian ports of Puglia for the access of Albania and Montenegro to the TEN-T through the Scandinavian –Mediterranean corridor. Bari Port becomes a crucial nod in the connectivity strategy of both Western Balkans Countries with European markets. Moreover taking into account the internationalization potential of Bari Port (including *hors* EU), Puglia and its transport network can become a logistic and dispatching hub for an important part of Albania and Montenegrin operators interested in Nord Africa and further markets.

In this approach, the contribution of each connectivity channel and / or nod to local growth is likely to be affected by the strength of other channels. The interaction and mutual impact between road, rail, maritime or air in the transport sector is one illustration of intra-sector multi-layered feature. Each transport vector can be visualized as a thread that connects two different nods. In a context of scarce resources – from financial to land to human resources – it is obvious that the prioritization of one transport vector will affect the rest of them. For example the current Adriatic – Ionian Corridor investments in road will have a certain impact on the investment in rail between Montenegro – Albania. Also Aeroporti di Puglia investments in disaster management and fire-fighting capacity can be used to increase resilience of Albania and Montenegro coastal areas, and avoid double-costing for those countries.

Connectivity also impacts the category of incoming FDI. "Multi national companies (MNC) that primarily seek access to natural resources care more about preferential access to and land they wish to explore. MNCs that are market-seeking tend to go for bigger and richer markets. Efficiency- seeking FDI, which is most prevalent in the non-MS and WB countries, values more the quality of labor, good infrastructure, policies that facilitate trade, and lower production costs"[3].

SA Area is an important area crisscrossed with transport networks and infrastructure. As mentioned before, to face the need for shared vision, better coordination, and technical harmonization, a number of cooperation structures have emerged. However there is still need to bring partners together: (i) policy-makers; with (ii) project managers & technical specialists; and (iii) other stakeholders such as NGO, etc at a cross-border context.

The strategic prioritization of the connectivity projects falls under a strictly governmental competence in Albania and Montenegro. They define their priority strategic projects and put them in their Sector-, and then in National Single Project Pipeline (NSPP). But they must be part of the Comprehensive and Core Network,

[3] Jirasavetakul, L. B. F., & Rahman, J. (2018). *Foreign Direct Investment in New Member State of the EU and Western Balkans: Taking Stock and Assessing Prospects*. International Monetary Fund, pp. 13.

and fulfill criteria that include CB cooperation. Until now the concept of criticality of destination nod (or similar) has not been used if only generally by mentioning “access to EU market”.

The concept of destination nod and of multilayered connectivity has been used extensively in the following part of this study. In each of the three country chapters, the purely sectoral components of infrastructure and reform measures have been complemented with data on the socio-economic context of the selected countries and region, including p2p mobility, FDI, foreign trade indictors, etc.

II. ALBANIA

The development and modernization of Albania's transport infrastructure has been and remains one of the top priorities of the Government of Albania. The aim has been: i) to create the preconditions for the development of other sectors of the economy, ii) to increase the accessibility of freight and passengers in trade and service delivery, and iii) to significantly contribute to overall economic growth and development of the economy.

The strategic priority is to accelerate the integration of Albania's transport system and the establishment of an integrated market comprised of transport infrastructure by land (road and rail), by sea and by inland waterways. Despite significant investments especially in improving road infrastructure, the transport sector has yet to become a significant promoter of economic development in Albania. The timely and adequate funding of annual and medium-term programme investments remains problematic. Further, the quality of transport related public works is still not yet up to EU standards.

The Government of Albania considers the multi-dimensional development of the transport sector as a key priority in its path to the European Union Integration. Aligning Albania's transport policy with the European Transport Policy and coordinating its transport infrastructure with its neighbouring countries – the Western Balkans countries comprising Albania, Bosnia and Herzegovina, the Republic of North Macedonia), Montenegro, Serbia, and Kosovo - have become two must-do's for Albania's transport decision-makers.

II.1. Transport connectivity: institutional and legal framework, and policies

II.1.1 Institutional framework

Ministry of Infrastructure and Energy (MIE)

The central government institution in charge of Transport policy is the Ministry of Infrastructure and Energy (MIE). MIE has as its mission the drafting and implementation of the general state policy, in the field of planning and urban development, in the sector of infrastructure and transport, in the telecommunication and postal sector, in the energy sector, in the use of energy resources and mining and industry sectors.

MIE in compliance with its organic law supports, cooperates and coordinates its activity with the main subordinate bodies, respectively for the Transport sector: Albanian Road Authority (ARA), General Directorate of Transport Services, Albanian Maritime Administration (AMA), Albanian Civil Aviation Authority (ACAA) and Albanian Railway.

The Albanian Road Authority (ARA) is a public, budgetary institution created by Law nr. 10164 of 15 October 2009 "On the Albanian Road Authority" and on the DCM No.276, dated 16.05.2018, "*On the approval of the organization, structure and statute of the Albanian Road Authority*". ARA is the main agency for the management of the national road network. It also functions as the main asset manager of the national road network and ensures road maintenance through performance-based contracts with private economic operators. Amongst its responsibilities, ARA is responsible for: i) implementing the MIE program related to construction, rehabilitation and maintenance, as well as preservation of the national road network in

compliance with the strategic documents and funds allocated; ii) to carry out studies, researches, and tests related to the efficiency, traffic, circulation and road safety; and iii) for the management of the national road network. It will also function as the main asset manager of the national road network and ensure maintenance through traditional and performance-based contracts using Property Management System Road (SMPR).

The Institute of Transport (IT)

IT is a "Service Unit" depending on the minister responsible for transport and has as main tasks: i) Update and maintain National Transport Plan; ii) To act as a National Resource Center Data Transport; and iii) to undertake projects and studies in the transport sector, as required by the government with its own sources or by entering into contracts with third-party public or private.

With regard to research, analysis and planning, further institutional strengthening may be required with a view to the future development of the sector, including extension of and support for the existing structure of the Albanian Institute of Transport.

General Directorate of Service Road Transport (GDSRT)

GDSRT is an executing agency delivering services on road transport for private and public subjects. It monitors the market of the road transport and controls the implementation of the legal framework. For that it cooperates with the Department of Road Traffic in the General Directorate of Police, the Local Government Units with the Albanian Carrier Associations (ANALTIR), for caring out road controls and inspections of the transport operators, documentation, economic use of the vehicles etc. The Directorate is now responsible also for the issuing of the certificates of the vehicles that make international freight and transport of dangerous goods. The Directorate also offers training courses and issues professional competence certificate for the leaders of transport enterprises for passengers and freight.

MIE being in charge of the elaboration of transport maritime policies and the monitoring of their implementation, it supervises both the General Maritime Directorate and the Port Authorities; and works in coordination with other bodies involved in the implementation of maritime and port related strategies.

The General Maritime Directorate (GMD)

GMD is in charge of conducting and administering ship's registry for Albanian vessels, executing flag state and port state control functions, directing harbour masters and monitoring in-port navigation, implementing maritime and port security rules and regulations, issuing and accrediting statutory certificates for seafarers and marine personnel, licensing maritime service companies, and representing Albania in the IMO and other relevant international organisations.

Port authorities (PA)

Albania's port system is made of four major port authorities: Durres, Vlora, Shengjin and Saranda. However, only Durres operates as a landlord port authority with a full financial autonomy and concession based terminal operations.

The other three major ports[4] are still being managed under the traditional public service port model. Elsewhere, three private terminal facilities, the oil terminal of Porto Romano (Durres) MBM Port and the oil terminal of Vlora Bay (Vlora), operate under concession agreements with the GoA for the handling of oil and liquid bulk cargoes.

Albanian Civil Aviation Authority (ACAA)

ACAA is an independent regulatory Authority with financial autonomy under the supervision of the MIE; set up under the Albanian Law No. 10233, date 11.02.2010, as revised, and with financial autonomy under the supervision of the MIE; is tasked with: the regulation of the industry; the safety and security oversight and monitoring of the stakeholders in aviation; the certification of airlines, airports and air navigation service providers, and other operators involved with statutory tasks as laid down in the aviation regulations, including airports providing services for international flights, providers of aviation training for pilots, maintenance engineers, air traffic controllers and cabin crew personnel and specialist aviation subject courses. ACAA is responsible for the implementation of the Air Code of Albania, as well as for the certification and approval of aviation stakeholders such as airlines, airports, service providers such as air navigation service providers, maintenance organisations and training establishments. In the air sector, MIE is responsible for civil aviation policy making.

The *Tirana International Airport (TIA)* is the only international airport in Albania. It acts as a Public Private Partnership (PPP) under new management since in 2005 when the Tirana International Airport ShpK company was granted a concession for 20 years - until 2025 - under a Build-Own-Operate Transfer (BOOT) modality. However, the Concession Agreement has an exclusivity clause that forbids international flights to operate to and from other airports in Albanian territory for a period of 20 years, which is the duration of the concession agreement. The exclusivity clause in the Concession Agreement has been changed and approved by the Albanian Parliament in May 2016.

II.1.2 Inter-institutional structures

At central government level, the Connectivity Sectoral Steering Committee is supported by a Thematic Group that covers transport. The Committee aims to monitor strategy implementation and address any issues that arise.

The PM's order no 157, dated 22.10.2018 "*On taking measures for the implementation of the sectorial/intersectorial broad approach as well as the establishment and the functioning of the integrated sectorial/intersectorial mechanism*" stipulates that the role of the Integrated Policy Management Group (IPMG) for the transport sector is played by the Connectivity Sectorial Steering Committee. This Committee

[4] in June 2020 the port of Limjon in Saranda has been given in concession to a consortium of private investors.

is supported by the Thematic Group on Transport and its Technical Secretariat, established by the Orders of the Minister of Infrastructure and Energy, as follows:

- Order no. 77 dated 19.02.2019 "On the establishment of Technical Secretariat of the Connectivity Sectorial Steering Committee and of the Technical Secretariats of the Thematic Groups on Transport, Energy and Telecommunication and Broadband";
- Order no 78, dated 19.02.2019, "On the composition of the Thematic Groups on Transport, Energy and Telecommunication and Broadband".

Since its establishment, the Thematic Group on Transport and its Secretariat has held several meetings during which the preparation of the Second Monitoring Report of the Strategy was discussed. The Report aims to measure the progress in the implementation of the Strategy Action Plan during 2018, as well as to identify the challenges that are faced by the on-going projects and planned activities in 2019-2020.

II.1.3 Policy framework

In the transport sector, Albania aims to boost all the efforts based on the: i) Transport Sectorial Strategy 2016 -2020, and on the, ii) Second Review of the National Transport Plan. Currently the Ministry of Transport and Infrastructure is planning with several IFIs the preparation of the following strategies:

- The Transport Sectorial Strategy 2021 - 2026, and
- The Strategy for the Deployment of ITS in Albania and the Action Plan 2021 – 2026.

The main strategic documents in the transport sector are the following:

National Strategy for Development and Integration 2014-2020. The objective of NSDI is: (i) accelerating the integration of the transport system, and (ii) the establishment of an integrated market, consisting of transport infrastructure by land, by sea and inland waterways that efficiently support transport demand.

Transport Strategy and its Action Plan 2016-2020. The Government of Albania adopted the Sectorial Strategy of Transport (SST) and Action Plan 2016 - 2020 through the Decision of the Council of Ministers, No. 811, dated 16th of November 2016, "For the approval of the Transport Strategy and Action Plan 2016-2020", which meets the strategic vision of the GoA as well as the European Transport Policy.

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 present "National Sector Strategy for Transport 2016-2020" has been aligned with the National Strategy for Development and Integration, which defines Albania's vision for its national social, democratic and economic development over the period 2015-2020.

Second review of Albanian National Transport Plan. The main objective of the ANTP is to enhance the economic and social development fostered by an efficient transport sector within the comprehensive policy framework and: i) create a regulatory and legal system which promotes the optimal operation of the transport system; ii) support the development of the economy; iii) ensure equitable accessibility to transport throughout the country causing an improved balance in the country's regional development; iv) reduce traffic bottlenecks; v) promote integration with the European Union and meet the transport demand of the

Southern Balkan Region; vi) improve safety, quality and reliability of the transport system; and, vii) provide enhanced focus on passengers and freight shippers as customers and users

The preparation of the Second Review of the Albanian National Transport Plan (ANTP3), funded by the EU started in January 2018 with for a duration of 12 months. The document ANTP3 was completed and was presented to the Ministry of Infrastructure and Energy and all stakeholders on 15 January 2019. The Strategic Environment Assessment (SEA) of the ANTP3 was completed as well, in accordance with the Law No 91/2013 of 28.02.2013 "On the strategic environmental assessment". After the issuing of the Environmental Statement from the Ministry of Tourism and Environment, the Ministry of Infrastructure and Energy prepared the draft Decision of Council of Ministers "On the approval the National Transport Plan". The draft Decision was submitted for opinion to line ministries in September 2019. The second review of the Albanian National Transport Plan (ANTP 3) was approved by the Order of Minister of Infrastructure and Energy No 40 of 21.01.2020 "On the approval of the second 5-year review of the National Transport Plan".

At the regional level, we can mention the Transport Community Treaty signature by the Prime Ministers of Western Balkan countries at the WB6 High Level Summit, held on 12 July 2017, in Trieste. This can be considered as the biggest achievement in the transport sector at regional context, which clearly demonstrates the political will of all WB6 countries to start the implementation of the TCT, such a milestone in the region cooperation and an added commitment for the future of WB6 to the European Union.

The Transport Community Treaty aims the establishment of an integrated market in the transport sector, and enhances further transport operations within the region and with the EU. It will support the accession process of the WB6 countries to the EU.

At the same time, it aims at harmonizing national legislations of the Western Balkan countries with the Acquis, as regards transport and relevant environmental and social policies, thus providing us with a consistent and common framework for moving forward on the transport Acquis in the region. In parallel with this process, the Development of Core network by 2030 and Comprehensive by 2050 as per TEN-T guidelines remains a second key priority for Albanian Government. In this framework, we have prioritized our transport infrastructure projects through the Single Sector Project Pipeline process, thus identifying and approving the national and regional short-term and mid-term goals, related to our transport network.

II.2. Major infrastructure projects

Regarding the Trans – European transport networks, Albania has actively participated in all the regional and European instruments. Several projects are prepared and submitted for financial support to the Western Balkans Investment Framework. Currently, several important projects are under way in the road transport infrastructure taking into account the extension of the TEN-T Comprehensive and Core Networks to the Albania Core Transport Network. These projects will aim simultaneously to improve the road safety and reduce the number of road accidents and fatalities.

II.2.1. prioritisation of transport projects and respective investments: NSPP and NIC

The production of a single project pipeline for priority investments is a precondition to receiving EU funding through IPA II support for co-financing investment in infrastructure. The EU will finance the projects

presented by the Albanian government[5] only if they are part of that list, and ranged by order of strategic importance. This precondition is crucial for both EU and Albania in order to prioritize the earmarked financial support and support their allocation as per the long-term development and integration strategy of the country.

Five sectors - transport, energy, digital, environment and social infrastructure - have its own list of priority projects which are then compiled and put under one multi-sectorial list. The Albanian transport single project pipeline (SPP) is a flexible instrument aiming to support the implementation of the National Strategy for Development & Integration (NSDI II) 2015-2020, by linking investments planning in transport (transport SPP) and program budgeting (Mid-Term Budget Planning instrument MTBP). It also aims to avoid an ad hoc approach to planning, preparation and implementation of transport infrastructure projects, by enabling systematic and timely planning of resources.

The institutional context has been completed in Albania by the establishment of the National Investment Committee (NIC) as per EU requirements. Albania NIC was established through the "Order of the Council of Ministers (CoM)" No.18, date 22.1.2014 "On the Establishment of the Strategic Planning Inter-Ministerial Committee" and through the Order of the CoM No. 113, date 26.08.2015 "On some amendments to the Order of the CoM No.18, date 22.1.2014 on the Establishment of the Strategic Planning Inter-Ministerial Committee". The later Order clearly attributes to the already existing Strategic Planning Inter-Ministerial Committee the role and functions of the National Investment Committee.

In this context and with the same methodology NIC is being supported by the General Secretariat (Department for Development and Foreign Aid, Strategic Planning & Development Unit), which is a very important structure, regarding the coordination of the day-to-day work and the support to NIC work.

The GoA has drafted for the first time a national Single Project Pipeline (SPP) in 2015 covering initially four strategic sectors: transport, energy, environment and social infrastructure. It also aimed to complement the wider regional investment projects part of the Berlin Process.

The National Investment Committee in December 2015, approved the first NSPP – 39 projects - and presented to both EU and WBIF. It contained 15 regionally relevant projects (or projects pertaining to WB6 Connectivity Agenda) and 24 national relevant projects (impacting Albania only). The total financing needs topped EUR 1.899 billion

The SPP is supported by a Methodology whose aim is to define clear procedures/criteria for the administrative and technical process of the preparation of Single Project Pipeline. The Methodology includes a list of activities to be implemented and a set of templates that need to be filled in so that a specific project can be included in the Single Project Pipeline. Actually the NSPP list is reviewed on yearly basis.

II.2.2. Major projects in Core / Comprehensive TEN-T extension

In it transport strategy, the main midterm objective is the integration of Albanian core network rail and road corridors to the 9 European TEN-T Corridors; upgrading Adriatic – Ionian Highway/Expressway to the EU

[5] for the six Western Balkan countries EU finances only projects that are part of national list of priority projects, or NSPP.

Motorway Standards; and qualifying railways Vora-Hani Hotit and Durres-Pogradec-Lin as indicative extensions of Orient/East Med TEN-T rail corridor.

The main transport projects that directly contribute to connectivity between Albania with Montenegro and Italy / Puglia are:

In the road sector

Feasibility Study of the Adriatic – Ionian Highway/Expressway, (Route 2b/Corridor VIII/ Route 2c), part of the Indicative Extension of Mediterranean Ten-T Corridor to Western Balkans, financed by WBIF with €2.5 million, is in its final phase. The project is implemented by WBIF-Infrastructure Project Facility 5, a WYB consortium.

This highway/expressway in the Albanian territory includes the following projects:

Construction of Lezha Bypass, 4 km, estimated cost is 24.6 million euro. The ToRs for the Feasibility Study for the construction of the Lezha Bypass in Albania and Environmental and Social Impact Assessment (ESIA), funded under WBIF, with a grant of 350,000 euro, are prepared. According to the decision of the WBIF Steering Committee (SC), ToRs will be revised. Implementation of the grant has been put on hold pending revision of the ToRs;

- Construction of Tirana Bypass, 22 km, estimated cost is 109 million euro. The Preliminary Design is completed and the ToRs for the Detail Design (DD) are approved. Kick off meeting for the preparation of the Detailed Design - a grant of €1.4 million financed by WBIF - was held on 5 February 2019. After DD GoA will apply to WBIF for a grant to 20% of the investment needed for the construction of Tirana Bypass motorway. Total investment is estimated €146 million. The project is implemented by WBIF-Infrastructure Project Facility 5, WYB consortium
- Upgrade of Thumana – Kashari, 20.4 km. Feasibility Study and Preliminary Design are completed, estimated cost is 169.3 million euro;
- Construction of Tepelena Bypass, 3.5 km, estimated cost is 38 million euro. Technical status: The works started in July 2018, financed by the Albanian state budget and the contract duration was 22 months. The road has opened to traffic in July 2020;
- Construction of Gjirokastra Bypass, 8.7 km, estimated cost is 14 million euro. Technical status: Feasibility Study, Detailed Design and Environment Impact Assessment are completed.

The status of the other major road infrastructure projects relevant for the connection with Italy and with Montenegro, is as follows:

Fieri Bypass (Part of the North – South Corridor) is under construction. Project was completed in June 2020. The contract was awarded to a Combined Group of undertakings for a value of 37,944,221.56 euro. Currently the road is open and in use for traffic;

Vlora Bypass is under construction. Only 6% of the project is completed. The new tendering of the remaining part of the project was completed and the contract was awarded to JV Gener2 & Mantovani, for a total value of 35,874,357.40 euro. The contractor has made the mobilisation and already started the works;

In the *Tirana – Elbasani road (Segment* 1), it is required the postponement of the completion deadline, extra financing and deferment of the loan. The physical realisation is 94%. Closing date of the project (which was 28 December 2018) was recently extended till 17 May 2019;

In Qukësi – Qafë Plloça road segment, the works continue in the Lot 1 (physical realisation of the project is 74.82%), Lot 2 (physical realisation of the project 65.2%), and the Lot 3 (physical realisation of the project 68%). The revised deadline for the completion of works in Lot 1 is June 2019 whereas for Lot 2 is September 2019.

In the rail sector

The implementation railway strategy reforms is ongoing and includes the: establishing the new railway bodies; opening rail market in the TEN-T corridor and RFCs rail freight corridors as well as; planning deployment of the ITS/ERTMS.

The Parliament of the Republic of Albania approved the Law No 142/2016 of 22.12.2016 "The Railway Code of the Republic of Albania", published in the Official Journal 265 of 12.01.2017. It is in force one year after its publication, on 12 January 2018. In its transition provisions, as already approved, the railway package is to be completed with implementing acts accruing by it. The new code is partially aligned with the SERA directive for establishing the single EU rail area, and certification of train drivers machinists as per the TDD and EU directives of technical pillar from the 4th railway package on railway safety and interoperability within the EU, as well as it has also transposed several EU regulations on public transport services and PSOs.

The main rail projects part of the South Adriatic Connectivity concept, are:

- the Rehabilitation of Railway Tirana – Durres and *new railway link to Tirana International Airport*, part of the core railway network WB6 TCT, is currently in the Final Tender Stage and the start of works is expected in the first half 2020. The Detailed Design for the extension of the railway from the Public Transport Terminal to the Tirana Central Station (4 KM) is being started.
- The Project (WBIF Grant €4.5 million) for the *Detailed Design of the Rehabilitation of Vora – Hani Hotit railway* is under preparation and it is expected to be finished in Nov 2020. After that GoA will apply to WBIF for a grant of about 50% of the investment (€140 million). The project is progressing under the WBIF/IPF6 Consortium SUEZ
- The railway *Durres - Rrogozhinë - Pogradec - Lin – North Macedonia border-crossing point*, (Pan European Corridor VIII) is part of the Comprehensive Network of WB6 Countries and we are working to qualify it up as Core Network by 2023 with the prospective of the indicative extension of Orient/East Med TEN-T Corridor. The Feasibility Study for the reconstruction of this railway corridor and the Preliminary Design for the railway Durres - Rrogozhinë (€720,000) are over and GoA applied to WBIF and won a grant for DD of the railway segment Durres-Rrogozhine (€1.75 million). An application to WBIF for grant to 50% of the investment (€64 million) will follow. With a grant from EIB of about €1.7 million GoA will carry out the Preliminary Design for the Reconstruction of Rrogozhinë – Pogradec – Lin railway and Detail Design as well. Application to WBIF for grant to 50% of the Investment (€ 300 million) will follow. *The Detailed Design of the Tirana bypass project is progressing under the WBIF/IPF6 Consortium SUEZ*

- A Prefeasibility Study for the Railway Connection Albania - (Kapshtica/Kristalopigi) - Greece as part of the Adriatic-Ionian Corridor is being implemented within INTERREG CBC Programme Albania – Greece. The project will be finished by the beginning of 2021 and a application for TA to WBIF for Feasibility Study and Detailed Design will follow.

In the maritime sector

In the maritime sub-sector, Albania aims to continue the approximation of the national legislation with the EU acquis and to fulfill all the obligations, in order to be member of the Paris Memorandum of Understanding. Each advance in this sub-sector contributes directly to the SAA connectivity, being it in infrastructure or in reform measures.

The main initiatives underway in maritime connectivity are:

- The MoIE is working on improving the quality of the vessels under the Albanian Flag. With the order of Minister, no 342, 17.09.2019 a Working Group was established to analyse and take measures to improve the performance of the Albanian Maritime Fleet. Since then 3 working group meetings have been organised. One of the conclusions was the necessity for audit missions to be carried out in the Albanian Register of Shipping (ARS) and General Maritime Directorate (GMD) for the assessment of their procedures. In this respect, 3 audits have been conducted in the ARS and GMD. The Working Group is now evaluating all the documents collected from these Authorities. The Working Group will elaborate a set of recommendations and a specific Action Plan to improve quality of Albanian flag vessels which will be shared with relevant national institutions.
- Under WBIF, in 2018, one investment grant under the Connectivity Agenda for the reconstruction of Quays 1 and 2 on the Western Terminal of the Port of Durrës – the largest seaport in Albania (€27.7 million EU grant / project value €62.5 million) was approved.
- VTMIS phase 1. With reference to the VTMIS, the Agreement between the Government of Albania and the World Bank for the project: “Provision of support to introduce the ITS on the maritime transport through the deployment of a VTMIS including but not limited to a) preparation of a Feasibility study; b) support to implementation of the VTMIS along the whole coastal sea”, value 5.6 million euro, was signed on 19 June 2019; this was ratified by Parliament with law 62/ 2019 “Facilitation of trade and transport in Western Balkans with a multi phases programme approach” which approved the loan for three projects, including the VTMIS project - totaling 17.6 million euro.

In the air transport

In the air transport sub-sector, Albania is prepared for the assessment visit for the fulfillment of the first phase of the European Common Aviation Area Agreement.

- A new Air Code is being finalized, fully aligned with the EU acquis. The ECAA entered into force in December 2017. By EC Decision no. 1/2019 (31 July 2019) Annex I to the Agreement was updated. Albania is in the process of fulfilling its obligations under this Annex, which is part of the 1st phase of the Agreement. The process of meeting the conditions for

completing the first phase of the Multilateral Agreement on the Establishment of the European Common Aviation Area (ECAA) is ongoing due to the changes in the Annex.

- As regards to the finalization of the first phase of the ECAA Agreement, the evaluation visit of the EC will be carried out after the approval of the new Air Code, which is approved by the Government and is expected to be further discussed and then approved in the Parliamentary Committees.

Over this period, Albania is committed to advancing infrastructure projects in the south of the country; Vlora Airport and the potential tourist airport of Saranda. To this end, MIE together with AAC prepared the ToR for the "Feasibility Study of an airport in the south of the country". This Feasibility Study is finalized in March 2018, yielding Vlora as the most favorable location; on this regard a PPP procedure for the construction of Vlora Airport is at the negotiation phase.

Also, in order to develop the northern part of Albania, in March 2018, a PPP proposal was submitted, for the operation of Kukësi Airport, and the procedure is ongoing, according to the Albanian PPP Law.

Conclusion

Up to 31 December 2019, Albania has received financing support for four infrastructure projects in the framework of this initiative. These projects - totalling EUR 300 million - cover road and rail transport, energy, digitalization, and maritime connectivity.

However, by the end of 2019 the execution of works had not commenced in any CA WBIF financed infrastructure project. Long procurement procedures - similar to other countries in the region – are the main explanatory variable. For example the tendering procedure for Tirana-Durrës-Rinas Rail approved in 2016, has been postponed for nearly a year, and March 2020 was the new deadline for the completion of tendering procedures and the commencement of works (similarly, the Albania - Northern Macedonia (I) energy interconnection line: the Albanian section approved as a project in 2015, is still in the tendering phase, while works have already commenced for the Macedonian section).

In some cases the implementation pace has been slowed down by the requests to make changes to already approved projects. The project for the rehabilitation of Quays 1 and 2 (cargo) in the Port of Durrës - approved in 2018 and considered of high significance for Albania - is still in its initial phases because the Albanian Government is considering a change of destination towards the rehabilitation of passenger quays 3 and 4.

Another important project still in its initial phases is the Adriatic-Ionian Highway with an estimated budget that varies between EUR 2.4 and 2.7 billion, excluding VAT. There are two main considerations regarding this project. First, the cost of some segments planned to be contracted through Public Private Partnership (PPP) format, is 30 to 40 percent higher than the initial feasibility study projections financed by EU. One of these sections has now been contracted in this format, causing donors to withdraw the grant they had approved for the feasibility study of the section in question. Second, to date there is no detailed analysis on those sections' economic impact to the territory they cross, or on their contribution on the competitiveness to priority sectors.

Having in mind all recent development in transport sector and referring to the above information, some conclusions come out as follows;

- In this moment, Albania is likely to start the negotiations process for entering in the EU, and this requires a commitment of all the Albanian structures in setting up the investment priorities in line with European priorities and Connectivity agenda,
- Albania should continue implementing connectivity reform measures on transport with the aim of improving road safety and of addressing transport infrastructure maintenance issues; it should pursue the implementation of the plan for road safety inspections and audits,
- Preparation of the Strategic Framework for Intelligent Transport solutions (ITS) including transposition of the relevant EU Directive into national legislation is a priority needs to be completed,
- Updating the NSPP list is necessary (announced to be published before the end of 2020),
- Monitoring of the implementation of transport investment is an on-going process and has an important role to play in the management of all the EU funds and other donors' funds, including the CBC programmes.
- Better evaluation of unitary costs and of risk-distribution during the planning and tendering of PPP contracts, is needed.

II.3. Connectivity Measures

Albania is working hard to fulfill all the obligations foreseen in the Connectivity Reform Measures Plan (CRMP). The main CRMP National measures can be resumed as below:

- Adoption of Road Safety Inspection (RSI) guidelines and curriculum and delivering of trainings. This includes:
    - Prepare three-year RSI plan for the Core and Comprehensive network and pilot RSIs on high accident sections – This measure completed.
    - Albanian Road Authority (ARA) have signed the contracts for road safety improvements (road marking and vertical signalling) for 137 km in North Albania and 144 km in South Albanian Region including the road sections as per RSI Reports. For all these projects the audit process was carried out before their implementation. This measure is in progress
- Carry out road safety audits as per the Directive 2008/96/EC on all projects on the core and comprehensive network. This measures is completed by CONNECTA project.
- Establish a national system for continuous road crash data collection (by 2018) - CONNECTA TA has been completed.
- The Roadmap for the improvement of the existing national system for the road crash is being implemented with the assistance of the World Bank. The project started in January 2019 with duration period of 21 months. As per the Initial Report of Database Improvement a new system on Road Data Crash needs to be developed.
- Effective cross-border road transport facilitation. The Minister of Infrastructure and Energy issued the Order of Minister of Infrastructure and Energy No 848 of 7.12.2018 "On the establishment of the Working Group for drafting the Joint Action Plan for the border crossing points between the Republic of Albania and Montenegro". The working group is being completed with the experts of line ministries involved in this process. Once the working

group will be fully completed, it will start the collaboration with the Montenegrin counterparts in order to draft the Action Plan by following the ConnecTA recommendations. To this purpose, on 1 February 2019, the Ministry of Infrastructure and Energy has officially requested from the Albanian Ministry for Europe and Foreign Affairs the start of negotiations with the Montenegrin side for the development of the joint action plan with Montenegrin counterparts taking into account the recommendations of ConnecTA.

- In addition, a Prime Minister Order No. 14, dated 25.10.2019 has been issued "On establishment of the Inter-institutional Working Group for drafting and negotiation of the Agreement, between the Council of Minster of the Republic of Albania and Government of the Republic of North Macedonia on the establishment of the one stop shops in the Border Crossing Points between two countries". This working group (two representatives are from the Ministry of Infrastructure and Energy) is responsible to prepare and negotiate the Governmental Agreement for Qafë Thana / Kjafasan BCP.
- Definition of strategic framework for implementation of ITS on the Core Road Network includes:
    - Definition of strategic framework for implementation of ITS on the Core Rail Network - CONNECTA TA completed
    - Definition of strategic framework for implementation of ITS on the Core Maritime Network-
- VTMIS will be financed as per the Loan Agreement approved by the Parliament between Republic of Albania and IBRD for the project on facilitation of trade and transport in Western Balkan. Currently the PIU is in the process of being set up at the Ministry of Finance and Economy.

Other measures include: i) Adoption of Maintenance plan for 2019-2023 for the entire Core Network- Road Maintenance Plan- CONNECTA TA completed; ii) Adoption of Maintenance plan for 2019-2023 for the entire Core Network- Rail Maintenance Plan. This measure is in progress; and, iii) Implementation of the border crossing agreement between Montenegro and Albania as a part of Adriatic – Ionian Initiative project. This measure is completed.

The main deliverables of CRMP can be grouped in the following table:

DELIVERABLE	STAKEHOLDER	DEADLINE	20 May 2020	Bottlenecks / barriers	Legal acts
Improve the existing national system for continuous road crash data collection in line with recommendations of the report of ConnecTA Consultancy.	MIE	End of 2020	The WB TA has carried out an initial analysis focused on identifying the main needs of all the Albanian stakeholders involved in the Road Traffic Crash (RTC) data collection, management and analysis. The main sources of information on RTC data in Albania are the Albanian Traffic Police (for data collection in the field) and Ministry of Health (for collection of information on injured persons). Currently, most RTC information and data are collected and maintained by the Traffic Police. The Traffic Police utilizes a standalone MS Office Access database. Database seems very limited in its capability to expand. It also lacks a data linking capability with other databases existing in Albania. The TA Consultancy of WB project recommends a new TRC information system. The new national database should be hosted at the Internal Ministry since other important databases used by Traffic Police are hosted there as well. Traffic Police is the main entity dealing with data collection and can be supported by health services (especially emergency centers) to complete the information about injury severity. The form to be used by Traffic Police will especially be compliant with the minimum set of standardised data elements of the Common Accident Data Set (CADaS) recommended by European Commission. In order to fulfil that measure MIE proposed to Internal Ministry to take the responsibility for establishing and administering the new Road Crash Data System with an official letter. So far, there is no reply from Internal Ministry.	Based on Road Code and its sub laws the Road Crash Database is administered by Traffic Police. The lack of human and financial resources was the reason that the implementation of Roadmap to improve the existing national system of Road Crash Data Collection was requested to be carried out by TA of the World Bank Project (3 sub-components). TA is ongoing.	None

Prepare and agree the joint action plan with Montenegrin counterparts taking into account the recommendations of ConnecTA	MIE	End of 2019	After the 1st meeting of the Inter-Institutional Working Group Albania – Montenegro held on 15 March 2019, MIE prepared the first draft of the Action Plan for establishing joint BCPs with Montenegro. This draft of the Action Plan has been sent on 17.05.2019 to the Montenegrin partners, to be discussed and approved in the next joint meeting, foreseen within 2019. In March 2020, it was foreseen a meeting of the Inter-institutional Working Group between Republic of Albania and Montenegro, in order to discuss the joint Action Plan for the Border Crossing points between Republic of Albania and Montenegro, in accordance with the Connectivity Reform Measures Plan, developed within the framework of the Berlin Process / Connectivity Agenda.	The Montenegrin side answered to our contact point and proposed the 2nd meeting of the Inter-Institutional Working to be held on March 2020. Due to the Covid-19 pandemic, it was postponed for another date, in 2020.	
Draft and approve the joint action plan with the Montenegrin counterpart	MIE	End of 2019	After the 1st meeting of the Inter-Institutional Working Group Albania – Montenegro held on 15 March 2019, MIE prepared the first draft of the Action Plan for establishing joint BCPs with Montenegro. This draft of the Action Plan has been sent on 17.05.2019 to the Montenegrin partners, to be discussed and approved in the next joint meeting, foreseen within 2019. In March 2020, it was foreseen a meeting of the Inter-institutional Working Group between Republic of Albania and Montenegro, in order to discuss the joint Action Plan for the Border Crossing points between Republic of Albania and Montenegro, in accordance with the Connectivity Reform Measures Plan, developed within the framework of the Berlin Process / Connectivity Agenda.	The Montenegrin side answered to our contact point and proposed the 2nd meeting of the Inter-Institutional Working to be held on March 2020. Due to the Covid-19 pandemic, it was postponed for another date, in 2020.	
Fact-finding report for the BCP facilitation study and cost/benefit analysis	MIE	Completed	Done		
Rehabilitation of Hani Hotit / Bozaj	MIE	Completed	Done		
Support the implementation of the WB Trade & Transport	MFE	Ongoing	The project is under the responsibility of the Albanian MFE.	The signing of the Government Agreement between both countries is pending and affects the	

Facilitation project from the World Bank, especially component 2 focusing on enhancing transport efficiency and predictability.			The PIU of the World Bank Transport and Trade Facilitation Project was established in January 2020. One of the components pf this project is the Upgrading the BCP Qafe Thane /Kjafasan. Currently PIU has revised the procurement plan, which was sent to the World Bank for *no objection*.	proceeding of the Project component 2 - *Upgrading the BCP Qafe Thane /Kjafasan*	

At the regional level, with the signing from all WB6 Ministers responsible for Transport of three declarations, the work currently is more focused of the Development of a Regional Rail Strategy, Road Safety and Border Crossing Facilitation[6]. In order to follow up all the obligations three Technical Committees (TC) are established, composed by the experts of WB6 countries, responsible on these issues. *Two expert from each country are members of the TC.*

In order to develop a new rail strategy to bring the Western Balkans into the main EU network and market, the Technical Committee have prepared an Action Plan (AP), focusing on market opening, governance and Interoperability. This AP has specific actions and deadlines to be fulfilled in a due time.

Regarding the Road Safety, Albanian institutions are working to improve the existing national system for continues Road Crash Data Collection, in line with the CONNECTA Recommendations. The Roadmap for the improvement of the existing national system for the road crash data has been foreseen to be developed and implemented with the assistance of the World Bank. This assistance stated its assignment on January 2019 with duration of 21 months (till October 2020).

Regarding the Border Crossing Facilitation, since July 2017, the joint railway station of Tuzi between Albania and Montenegro has been put into operation. The operation continues normally between authorities of both countries. In this Joint Railway Station, it was ensuring the continuation of transport of goods/foods during Covid-19 pandemic. The international rail transport was blocked only for two days from Montecargo (Montenegrin State Operator) and the normal operation restarted on 30th of March, 2020. The Common Rail Station of Tuzi was one of the best example in the WB region, but it needs substantial investments to bring the standards of a common rail crossing point.

There is an ongoing discussion with Montenegrin partners to develop the joint Action Plan for the Border Crossing points between Republic of Albania and Montenegro, in accordance with the Connectivity Reform Measures Plan.

The discussions were mainly focused on the possibilities for establishment of a joint BCP Bozaj / Hani i Hotit and the development of the One – stop – shop (OSS) for fright in Sukobin / Murriqani BCP. On that issue, Albania and Montenegro will establish an Inter-state working group to develop the concept and practical issues of establishing a joint Border Crossing Point/BCP at Hani i Hotit/Bozaj, based on the road map and cost-benefit analysis (CBA) which are being undertaken by ConnecTA. The Minister of Infrastructure and Energy issued the Order of Minister of Infrastructure and Energy No 848 of 7.12.2018 "*On the establishment of the Working Group for drafting the Joint Action Plan for the border crossing points between the Republic of Albania and Montenegro*". The working group is being completed with the experts of line ministries

[6] for updates see: www.transport-community.org/

involved in this process. Once the working group will be fully completed, it will start the collaboration with the Montenegrin counterparts in order to draft the Action Plan by following the ConnecTA recommendations. To this purpose, on 1 February 2019, the Ministry of Infrastructure and Energy has officially requested from the Albanian Ministry for Europe and Foreign Affairs the start of negotiations with the Montenegrin side for the development of the joint action plan with Montenegrin counterparts taking into account the recommendations of ConnecTA.

II.4. Main country features

As regards trade, 33% of the Albanian trade volume is done with Italy alone. In total, approximately 70% of the trade is processed at the Port of Durrës. In addition, Greece, Kosovo, Romania, and Bulgaria are among the 10 biggest partners of the country.

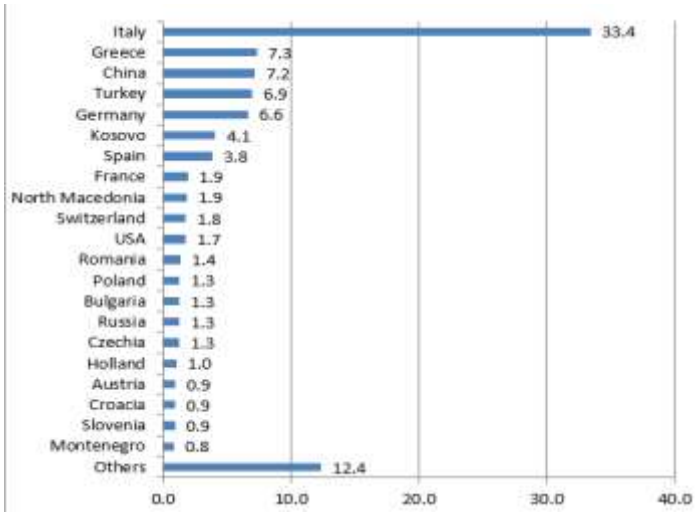

Figure 2. Trade volume by partner state, 2019 –

Source: INSTAT

From this perspective, the development of East - West transport routes is very important for the Albanian economy. This means that Corridor VIII should receive increased attention. Corridor VIII also includes the deepening and modernization of the Port of Durrës quays and the re-construction of the Durrës - Rrogozhina - Lin rail line.

The specialization and distribution of the value- and supply-chains in Albania prioritizes infrastructure investments along East-to-West routes, based on the rail connection with North Macedonia and maritime connection with Italy. From an infrastructure investment perspective, the closest and least costly connection nod to the EU TEN-T corridors for Albania, is the Port of Bari in Puglia, Italy.

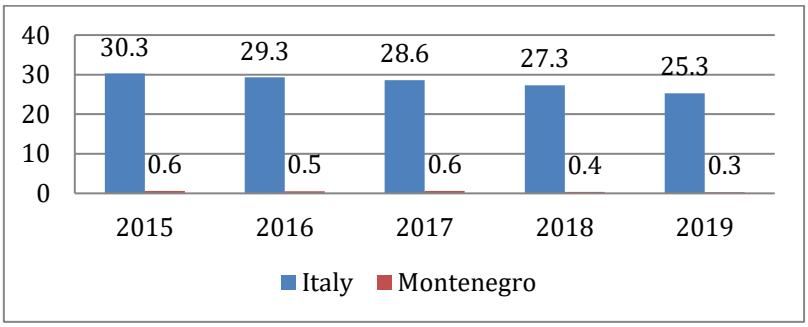

Figure 3. The weight of Albanian imports from Italy and Montenegro, as part of total (%).

Source: INSTAT

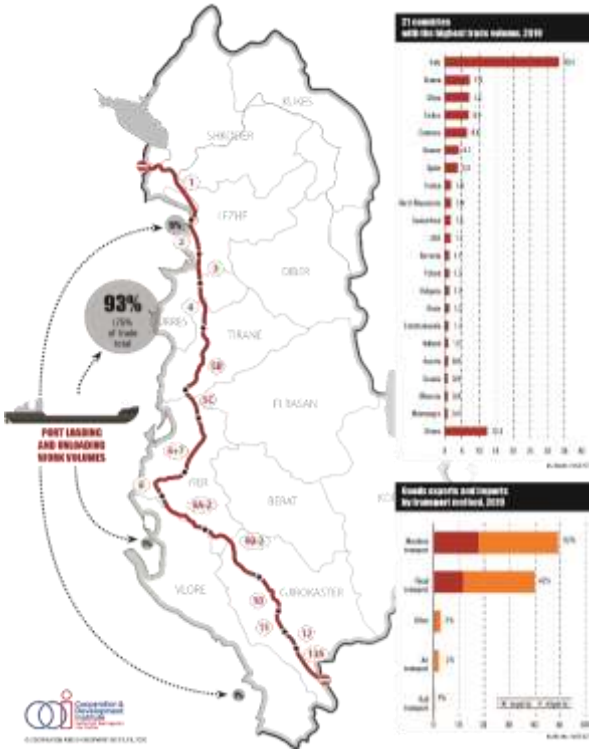

Figure 4. The weight of Albanian exports to Italy and Montenegro, as part of total (%)

* *Source: INSTAT and authors compilation*

The Adriatic-Ionian Corridor is of special importance for Albania's regional and European connectivity. However, in our assessment, prioritizing AIC investment should be better aligned with the country's budget capacities, production structure and the trade exchange structure of Albania with its partners. This can be achieved by prioritizing investments in sections that match the economic structure of the country and that offer quick investment return.

- The composition of value and supply chains in Albania justifies the prioritization of infrastructure investment in maritime connectivity projects with Puglia, enhancement of road and rail transport with MNE, and development of rail transport with North Macedonia;
- AIC is of strategic importance for the connection of Albania with regional and EU corridors. Given its high estimated cost (initially at EUR 1.2bn) this investment should take into account

the budgetary capacity of the country, its production structure and service sector composition, and of the profile of foreign trade and FDI.

- Using the critical nod logic, the closes access point of Albania with TEN-T is Bari Port in Puglia. There Albanian merchandises can access Scandinavian –Mediterranean corridor;
- Ministry of Transport and Energy can profit from the current dynamics of preparation of National Strategy for Development and Integration 2, to also coordinate with Puglia and MNE partners for the identification and preparation of priority projects in transport
- Albanian Authorities should maintain - and whenever possible accelerate - the pace of developing high-quality projects in search of funding. In addition, projects for which funding has been approved should be implemented at a quicker pace.
- Relevant state structures should profit from the 2020-2025 NSDI preparation moment to connect development and industrial policies, and the local economic development policies, with the Connectivity Agenda, especially regarding the planning and implementation of infrastructure, transport, energy, digital, and other infrastructure investments.

Adriatic-Ionian Highway/expressway (Blue Motorway)

The Adriatic-Ionian Highway or the Blue Motorway is one of the most important strategic project in the Southeast Europe. It stretches along the eastern shore of Adriatic and Ionian Seas, from Trieste in Italy to Kalamata in Greece. The estimated length of Blue Motorway is about 1,550 km. Total length of the Blue Motorway in the Western Balkans is approximately 450 km. Most of the route is two lane roads while approximately 110 km in Albania built as 4 lane highway. The project is implemented by WBIF-Infrastructure Project Facility 5, WYB consortium

In April 2015, in the framework of TEN-T days in Riga, the Ministers of Transport of the WB region together with the European Commission discussed and approved the indicative extension of the TEN-T core and comprehensive Network to the Western Balkan which was officially formalised by our PMs during the Vienna High Level Summit in August 2015. In these terms, the inclusion of the Adriatic – Ionian Highway/Expressway, in the Indicative Extension of TENT-T MEDITERRANEAN Corridor is one of the big achievements for Albania and other WB6 countries. On this regard, the grant WB14-REG-TRA-01 was approved at the 13th meeting of the WBIF Steering Committee (SC) in December 2015 for a total value of €3,500,000, as a result of a joint application of Albania and Montenegro to carry out the Feasibility study for Adriatic-Ionian Highway/expressway (Route 1 and Route 2). The Feasibility Study has started on 15.11.2017 and its duration is 18 months.

The Adriatic - Ionian along the Albanian territory will start in the Muriqan / Sukobin area (border crossing point) and from Lezha will continue south towards Vora-Durres-Lushnje-Fier-Levan-Gjirokastra and Kakavija, cross-border with Greece. This corridor passes mostly through the coastal zone, which is even the most developed area of Albania and covers a service area with more than 2 million inhabitants or about two thirds of Albania population.

The new Adriatic - Ionian Highway/expressway generally follows the North-South Albanian corridor except the northern section that connect to Montenegro at Muriqani/Sukobin (Albania-Montenegro Cross Border) instead of Hani Hotit (Northern Albania-Montenegro Cross Border) of the North-South corridor.

In June 2020 WBIF IPF5 published the Feasibility Study for the Adriatic-Ionian Road Corridor (Route 1 and Route 2) Montenegro and Albania. The 830+ pp document covers the legal context and regulations, technical fiche for the 13 segments in Albania, the environmental and social context, impact and mitigation, analysis of stakeholders, etc.

The project is expected to provide significant improvements in: Integrating the Albanian roads to the Core Transport Network and in the SEETO; Fostering economic development of Western Balkans through improved connections; Improving regional cooperation and economic stability of Albanian country; Increasing the quality of the transport services and enhancing the overall performance of the transport system; Reducing the road infrastructure maintenance costs; Accommodating the increasing traffic growth and minimizing congestion; Improving local environmental and social conditions; Improving traffic safety and achieving cost efficiency regarding environmental protection, accidents and congestions at border crossings and urban area near the existing road in comparison to competitive roads, and on Improving mobility of citizens and reduction of travel times.

Table 1. The sections for rehabilitation/new construction.

Sections	Length	Estimated Cost - €	Status in December 2019
Muriqani (Albania – Montenegro Cross-border) - Shkoder-Lezhë	35 km	89 million	Existing 2 lane road. To be constructed as 4 lane road as part of re-routing the corridor in Albania
Bridge across Buna River	1 km	40 million	Single lane bridge constructed, probably will be needed extension to double lane bridge
Lezhë By-pass	4 km	24 million	Non-existing section, part of the FS to define the options. ToR for the Feasibility Study are in preparation.
Lezhë – Milot	4 km	37.5 million	Existing road constructed as 2 lane road. Doubling to 4 lanes is needed.
Thumanë-Vorë	22 km	98 million	Non-existing section. Detailed Design and ESIA have been completed in 2017
Vorë – Durrës (Shkozet)	18.5 km	95 million	Constructed as 4 lane road. Needs to be upgraded to 6 lanes
Widening of Tirana – Durres Highway	38 km	204 million	New design is completed in 2017 and currently there is prevision to start the works in 2020
Tirana By-pass	22 km	109 million	Feasibility Study completed and preparation of Detailed Design will start soon.
Levan - Tepelenë	72 km	270 million	Completed as 2 lane road. Needs to be upgraded to 4 lanes
Tepelenë By-pass	3.5 km	38 million	Detailed Design is ready for 2 lane road
Tepelenë – Gjirokastër	22 km	72 million	Completed as 2 lane road. Detailed design is needed to upgrade to 4 lanes
Gjirokastër By-pass	10 km	14 million	Detailed Design is ready for 2 lane road. This project is considered mature and ready for financing.
Gjirokastër – Kakavijë	28 km	61 million	Completed as 2 lane road. Detailed design is needed to upgrade to 4 lanes

Expected impact

The main objective of the Blue Highway is to improve connectivity within the region as well as with the EU as a key factor for growth and jobs in the Western Balkans. The investment is essential for improving regional cooperation and economic stability as common tools for matching European standards and fulfilling the EU accession criteria.

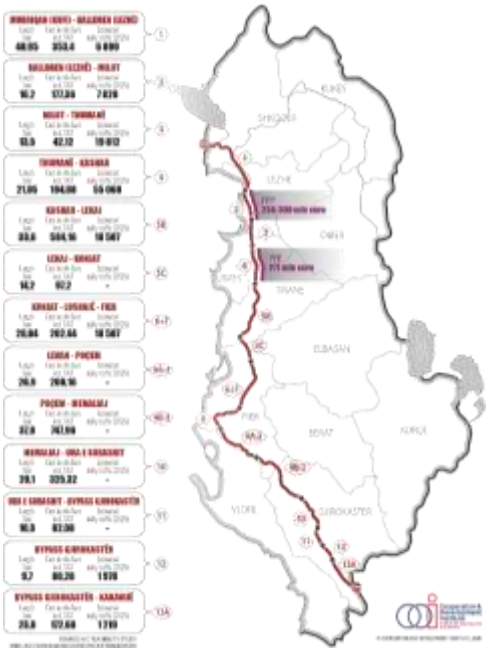

Figure 5. The Adriatic-Ionian Corridor route and costs per segment.

The project will contribute greatly in reducing the environmental effect cause by heavy road congestion, in reducing travel time and increasing road safety. The expected outcomes/results (benefits) to be achieved are:

- Significantly increasing the number of tourists visiting the Adriatic-Ionian coasts,
- Congestion: Reduced traffic bottlenecks, especially during summer tourist season
- Road safety: Reduced road accidents
- Environment: Reduced levels of noise and emissions
- Socio-Economic: Reduced vehicle operating costs and energy consumption plus reduced travel times leading to increased productivity. Contribution to better connections with neighbouring countries and sustainable urban development

The IPF5 team for this particular sub-project under WBIF, namely WYG consortium (composed of WYG International Limited / COWI A/S / WS Atkins International Limited / Ove Arup & Partners International Ltd / CeS COWI d.o.o. / COWI SPRL / COWI AB / Systema Transport Planning & Engineering Consultants Limited), was contracted in July 2016 as the executing agent for the mentioned sub-project.

III. MONTENEGRO

II.1. Transport connectivity: institutional and legal framework, policies

Institutional Framework

The Ministry of Transport and Maritime Affairs (MTMA)

MTMA is the lead Institution in the transport sector that has the overall responsibility for the development, management and coordination of the different transport modes. Organizational units under the umbrella of the Ministry are: i) Directorate for railway transport; ii) Directorate for road transport (under which there are three main offices: for public road transport of passengers and freight; for homologation of vehicles; and for inspection oversight in road transport); iii) Directorate for state roads (under which there are three main offices: for maintenance and safety on state roads; for infrastructure investments; and for inspection oversight of state roads); iv) Directorate for maritime transport and inland waterway navigation (under which there are four main offices: for implementation of maritime navigation safety standards; for implementation of standards for protection against sea pollution; for inspection oversight of maritime and inland waterway transport; and two local offices – Harbor Masters of Bar and Harbor Masters of Kotor; v) Directorate for maritime economy; vi) Directorate for air transport; vii)Directorate for international cooperation and EU funds.

According to its scope of authority prescribed by the *Decree on Organization and Method of Operation of State Administration* and by other regulation, *MTMA* is competent to conduct administrative affairs with regard to rail, road, air, maritime and inland waterway transport, maritime economy, as well as affairs related to international cooperation and EU funding in the area of transport.

With regard to these sectors, the Ministry deals with operations among which include: i) development of policy-making, monitoring of transport, preparation and proposal of economic development measures and impact analysis on a given transport sector; ii) keeping of records aimed at monitoring and influencing a given transport sector; drafting of legislation and international treaties; iii) drafting of memoranda and analytic papers related to specifics of a given transport sector; iv) monitoring and enforcement of legislation; v) inspection oversight and administrative operations for a given transport sector; safety and security affairs in rail, road, maritime, inland waterway and air transport; vi) monitoring of activities related to international transport and compliance with international cooperation obligations; vii)national and international passenger and freight transport; vii) alignment of domestic regulation with EU acquis; administrative oversight; other affairs from this department's scope of work.

Organizational units of MTMA coordinate their activities horizontally, which is one of preconditions of an orderly and efficient functioning of the department, with Directorate for international cooperation and EU funds having an important role in this regard.

Besides above stated affairs which fall under the competence of Ministry's directorates, there are specific competences of particular organizational units – directorates, main offices, departments, local offices etc. – related to preparation, coordination, monitoring and implementation of projects in transport sector which are financed by international institutions and other mechanisms, as well as preparation and informing on the process of Montenegro's accession to the EU and on further international cooperation.

The structure of state administration's transport sector lacks dedicated bodies for intermodality and co-modality, intelligent transport systems and interurban public transportation.

Public Structures

The *Port Authority* performs tasks related to construction, maintenance and management of the port; supervision of the operations of ports, providing of port services and other activities in ports. The functions of the state flag are performed by the Harbour Masters of Bar. The obligations of the Harbour Master Offices of Bar and Kotor are related to the implementation of administrative procedures for the registration of ships and boats and for issuance of certificates to seamen for international navigation in accordance with the International Convention on Standards of Training, Certification and Exercise of the Ship Guards (STCW Convention).

Bus and freight logistics companies operate under the Law on Carriage in Road Transport and multilateral and bilateral agreements. When it comes to monitoring of regular passenger transport, this area is regulated by the Law on Carriage in Road Transport, from the aspect of regularity of line maintenance and special conditions for vehicle used in road transport carriage. However, there is no dedicated regulatory authority for monitoring and supervising operations of the public interurban bus system. Timetables are proposed by the carrier and harmonized on the state level by Montenegro's Chamber of Commerce, after which the carrier gains the right to register said timetable.

The Limited Liability Company "Monteput" Podgorica was formed by a Decision of the Government of Montenegro from December 8, 2005 as a successor of the Directorate for Motorways Construction. Internal organizational units of Monteput are: Business unit for the management of construction of the Bar-Boljare motorway project (acting as independent unit), as well as various sectors and services.

Business unit for the management of construction of the Bar-Boljare motorway project manages the project of construction of the motorway Bar-Boljare. Basic activities of the unit are: engineering activities and technical counseling, expert construction supervision, design supervision, drafting of project documentation, preparation of tender documentation and other activities related to technical preparation, engineering, consulting and management.

Monteput is organized into the following sectors: i) sector for managing and maintaining Sozina tunnel and access roads, sector for technical preparation, ii) design and supervision, iii) sector for financial and accounting business activities and iv) sector for legal and general business activities.

Other stakeholders which have certain competences related to functioning of Montenegro's transport system are: Ministry of Interior, which is competent for areas of traffic safety, border crossings, drivers and vehicles records, emergency response; Office for European Integration adjacent to Prime Minister's Cabinet, which oversees the EU accession process and is tasked with horizontal monitoring of expenditures from pre-accession funding and from other EU instruments; Ministry of Sustainable Development and Tourism, which is competent for this field as it relates to spatial planning, environmental protection, accessibility of Montenegro as a tourist destination, etc.

Areas dealing with complex subject-matter necessitate inter-departmental coordination and cooperation, which a challenge of sorts when it comes to areas which require such approach, and are necessary for efficient undertaking of a given set of activities, which contribute to advancement of the transport system, which is all in the function of the general economic development of Montenegro (with respect to transport, this is related to facilitating better and faster flow of freight, passengers, goods and services).

Figure 6. Montenegro Transport System

* *Source. MOTMA*

Legal framework

Montenegro's transport sector is expected to undergo a gradual integration process in the EU transport market based on the relevant acquis, including the areas of technical standards, interoperability, safety, security, traffic management, social policy, public procurement and environment, for all modes of transport. Adoption of related legislation shall apply to the extent that they concern road, rail, inland waterways, maritime transport and transport networks, including airport infrastructure. This will be conducted according to the Treaty on establishing the transport community between the EU and South Eastern European Countries (of which Montenegro is a co-signatory).

It can be said that implementation of acquis within all areas of transport have been marked by moderate improvement.

In the *field of rail transport*, only part of the EU legislation has fully been adopted and implemented. Montenegro is expected to introduce further legislation to fully satisfy the Community Treaty requirements, namely in following areas:

- Market access,
- Train driver licensing,
- Criteria for the recognition of training centres,
- Criteria for the recognition of examiners of train drivers and criteria for the organization of examinations,

- Interoperability of the rail system and sub-systems (infrastructure, energy, rolling stock, control command and signalling sub-systems), safety in the railway tunnels, telematics applications for freight and passenger services, operation and traffic management,
- Railway safety, on the use of a common European format for safety, the validity of safety certificates, the certification of entities in charge of maintenance of freight wagons,
- Inland transport of dangerous goods, and
- Working conditions and working hours.

In the *field of railway regulation*, drafting of the new Law on Railway Transport is underway, with its adoption planned for 2019, which marks the beginning of implementation of package IV of directives for railways. In the field of railway safety, interoperability and licensing of machine operators, newly adopted Law on Safety and Interoperability aims to complete implementation of package III of directives, and its implementation will begin in 2019. Implementation will last for 5 years, given that substantial time is required for a satisfactory incorporation of all directives, regulative acts and decisions into the legal system of Montenegro.

Montenegro has created regulatory and institutional preconditions for opening of the railroad market, partly in 2008, and finally in 2013, by adopting the Law on Railways and accompanying bylaws on licensing and certification of infrastructure managers and rail transport operators. No new operators entered the market due to a low level of freight transport. All stipulated licensing and certification procedures have been completed. New safety management concepts within transport companies have been approved. Harmonized approach directed by EU legislation is being conducted through regional coordination, while functional and operative Network statements have been made. Newly adopted Law on Railway Transport, Safety and Interoperability, which is expected to enter into force in 2019, will primarily harmonize regulatory affairs in accordance with Recast Directive 34/2012, which aims to promote a single European railway market and provides all actors with all necessary instructions.

This Directive especially stresses regulatory affairs and non-discriminatory approach to the public railway network for all providers. Safety and interoperability are fully implemented with directive from III package, although a more significant number of provisions are included in new 2016 directives (797 – interoperability, 798 – safety). Given that Europe is due to transition to a system of the single safety and authorization certificate of railway cars, issued by EU Agency for Railways, several years will be needed for WB6 countries to join it, i.e. to achieve the necessary political accord and technical readiness to free market competition with European operators. These directives may be implemented through mechanisms stipulated by TCT in the period between 2022 and 2025, when the next harmonization of the law is expected. Newly adopted Law on Railway Transport shall create a needed legal framework on the national level, which will allow for a total independence of operations of regulatory bodies (Railway Administration) starting from 2020, which is a criterion for closing of the Negotiation Chapter 14 – Transport policy.

Implementation of European regulation shall contribute to development of new subsidies model for road transport (Agreements on passenger transport obligations / PTO Agreements), as well as to valuation of railway infrastructure through issuing of routes and auxiliary services. PTO Agreements between the state and the operator are a major instrument of control of subsidy utilization, and are concluded for the benefit of passengers as well as for increase in quality of service.

With respect to road transport, Montenegro has adopted 49% of EU directives and regulations, although some are still only partially aligned. Montenegro is expected introduce further legislation to fully satisfy the Community Treaty requirements, which namely refers to the following:

- Certain aspects of vehicle tachygraphy, i.e. the requirements for the construction, testing, installation, operation and repair of tachographs and their components,
- Road worthiness with respect to roadworthiness tests for motor vehicles and their trailers and the technical roadside inspection of the roadworthiness of commercial vehicles
- Driving license, technical requirements with regard to driving licenses which include a storage medium
- Cross-border exchange of information,
- Clean vehicles and/or alternative fuels infrastructure,
- Standardization of ITS in urban areas, the framework of deployment of ITS in the field of road transport and for interfaces with other modes,
- Harmonized provision of an interoperable EU-wide e-Call
- The provision of information services for safe and secure parking places for trucks and commercial vehicles
- The provision of EU-wide real-time traffic information services,
- Interoperability of electronic road toll systems, and on type approval.

It is planned that adoption of all remaining laws and regulation in road transport field will be finished by the end of 2020. It is expected that this process will lead to full harmonization of national with EU legislation.

In road transport sector, adoption and implementation of EU legislation established common rules for conducting of road transport operations, common rules for access to the international freight road transport market, common rules for access to the international regular and tourist agency bus transport market, as well as for qualifications and training of drivers of certain road vehicles for public transport of freight and passengers. Adoption of EU legislation is important for companies operating freight and passenger transport, and for uses of such services, since defining of common standards for the entire EU territory removes a number of bureaucratic barriers and simplifies public transportation.

With respect to maritime transport, Montenegro has implemented 70% of EU directives and regulations although many are still only partially aligned. Montenegro has become a member of the European CleanSeaNet satellite detection system for sudden sea pollution and the EU LRIT Data Center for satellite monitoring of ships under the Montenegrin flag.

In 2017, the Montenegrin systems for training and certification of seafarers were recognized by the Commission through Commission Implementing Decision (EU) 2017/727 of 23 March 2017. As a result of this recognition, EU Member States may decide, with respect to ships flying their flag, to endorse seafarers' certificates issued by Montenegro and thus allow such seafarers to work on board their ships. Therefore, it is crucial for Montenegro that its systems comply with the requirements at all times in order to ensure the continuity of EU recognition.

Due to a lack of Montenegrin commercial fleet and Montenegrin maritime companies, Montenegrin seafarers are forced to enter the global market and sail on ships under the flags of EU or other countries. In order for this to be possible Montenegro has to fulfil standards of STCW Convention (The International Convention on Standards of Training, Certification and Watch keeping for Seafarers) in the field of education and training related to issuing maritime authorizations. It also needs to constantly maintain a good level of quality of issued authorizations for its seafarers. Control of these activities is conducted by a technical body of EC / EMSA (European Maritime Safety Agency). When EC confirms fulfilment of STCW Convention

standards through EMSA audit in a certain country, the body publishes the name of the country through an EC Decision and EC puts it on the White List of recognized states.

After renewing independence in 2006, Montenegro had to provide evidence of its right to be on the White List by proving it has an adequate educational and seafarer training system and proving that this is the same system which exists in EU member countries. Montenegro was given back its White List status by Decision of EC 2017/727 from March 23, 2017. The task of the maritime administration of Montenegro is to maintain this status in the coming years since being removed from the While List of EC would remove the possibility of further employment of Montenegrin seafarers on ships which sail under the flag of EU countries and would possibly bear the consequence of these seafarers losing the right to board ships under other flags. In this way, around 6500 seafarers would lose their jobs and, indirectly, the existence of maritime educational institutions would be brought into question since their staff would be unable to board ships in the future.

Further legislation should be introduced to satisfy fully the Community Treaty requirements on:

- Maritime policy, establishing a Program to support the further development of an Integrated Maritime Policy,
- Market access, the transfer of cargo and passenger ships between registers within the Community,
- Coordination of action to safeguard free access to cargos in ocean trades,
- Unfair pricing practices in maritime transport,
- Criteria to be followed in order to decide when the performance of an organization acting on behalf of a flag State can be considered an unacceptable threat to safety and the environment,
- Imposition of fines and periodic payments and the withdrawal of recognition of ship inspection and survey organizations,
- Liability of carriers of passengers by sea in the event of accidents,
- Ship-source pollution and on the introduction of penalties,
- Training of seafarers and mutual recognition of authorizations issued by member states;
- Social aspects, with respect to certain authorities of the flag state to conduct harmonization with the Maritime Labour Convention and its implementation;
- Establishment of a European Maritime Safety Agency,
- Establishment of a Committee on Safe Seas and the Prevention of Pollution from Ships,
- Besides this, Montenegro is expected to become a part of the European system of maritime safety as soon as possible, namely through:
- Full membership in the Paris MoU (ship inspections) and SafeSeaNet system (data exchange system on ships and freight on EU level),
- Establishment of the National Single Window System – national data exchange for ships aiming to sail to Montenegrin ports (Directive 2010/65/EC).

In order to ensure sustainability of maritime economy and the marine ecosystem of Montenegro, it is necessary for Montenegro to become a full member of the Paris Memorandum of Understanding in the field of state port control. There are numerous reasons for this: benefits of complete adoption of standards set in Paris MoU regarding ship control, continuous maintenance of good practices and development of new standards in accordance with changes in the field of maritime economy and business (including increased amount of maritime traffic), reduction of number of closed-off ships which do not fulfil conditions foreseen

in international conventions, as well as removal of substandard ships in the future, prevention of pollution of the environment, and prevention of sea and port related incidents.

This objective has been supported by the fact that Montenegro is one of only two countries which are not full members of Paris MoU. Besides this, it is important to highlight the fact that Montenegrin marine ecosystem is an integral part of Global Ocean, which means that strengthening of national legislation in accordance to international mandates, shall have positive implications on regional and global sustainability of the maritime economy.

In the field of maritime transport, it is necessary to adopt following legislation:

- Law on Rights of Passenger in Maritime and Inland Waterway Transport;
- Amendments to the Law on Maritime Transport Safety;
- Amendments to the Law on Protection against ship-source pollution.
- Said legislations aims to ensure navigation safety as well as protection against ship-source pollution, both in Montenegrin waters and from vessels navigating international waters.
- In the area of Inland Waterway Transport, EU legislation has not been adopted or implemented yet. Priority should be given to:
- Harmonization of the conditions for obtaining national boat masters' certificates for the carriage of goods and passengers,
- Technical requirements for inland waterway vessels,
- Access to the occupation of carrier of goods by waterway in national and international transport and on the mutual recognition of diplomas, certificates and other evidence of formal qualifications for this occupation.

It is important to note that an obligatory audit of maritime administration (IMSAS Audit) is expected to be conducted in November 2019 for Montenegro. Audit is conducted by IMO in all member countries, focusing on the essential inquiry into the further implementation of international safety standards, as well as those related to security and protection from pollution coming from vessels.

Although Law on Sea and Law on Maritime and Inland Waterway Transport contain provisions which regulate inland waterway transport, Montenegro did not implement these norms, as said legislation treated Skadar Lake, Crnojevića River and Bojana River as inland waterways, while other rivers in Montenegro were not considered navigable, but are suitable for activities such as rafting, while navigation is not conducted on lakes, other than by two boats on Piva Lake for the needs of hydro-electric plant company "Perućica".

For stated reasons, Skadar Lake is treated by Montenegrin legislation as a maritime waterway, but given that Montenegro will eventually have to implement EU acquis which will treat Skadar Lake and Bojana River as inland waterways, amendments to the current legal framework and establishment of a state authority in charge of inland waterway transport will be necessary.

With an aim of drafting relevant legislation, which will regulate inland waterway transport in Montenegro, in June 2015 a Study on inland waterways in Montenegro has been adopted, an undertaking financed by the EU. This study describes status of Montenegro with respect to inland waterways, development perspective on inland waterway navigation, organizational structure of the relevant government department, as well as project objectives related to future technical cooperation. When it comes to adoption and implementation of EU directives into the legislative framework of Montenegro which shall regulate inland waterway navigation, according to the findings of this Study, following directives are relevant for the subject matter:

- Directive 2006/87/EC, which stipulates technical requirements for inland waterway navigation,
- Directive 96/50/EC, on harmonization of the conditions for obtaining national boat masters' certificates for inland waterway navigation.
- Directive 2004/26/EC, which stipulates measures against gas emissions and engine pollution.

Adoption of the Law on Inland Waterway Navigation has been planned for IV quarter of 2020.

Finally, legislation on air transport and airports is fully compliant with EU directives and requirements, but there are still a few open issues under the first transitional phase of the ECAA that the country should address.

Full alignment with European regulation in the field of air transport assumes complete implementation of EU acquis as it relates to air transport through laws and other regulations.

A positive example of this practice is implementation of so-called One Stop Security standards in Montenegro, as a way for the EU to acknowledge security standards in non-member states.

This means that Montenegro has reached a high level of alignment with the acquis under the first transitional phase of the European Common Aviation Area (ECAA) Agreement and the Single European Sky. Montenegro has almost fully met the conditions required to complete Phase I of the ECAA Agreement. Only two issues remain open:

- adaptation of the Air Transport Act in order to fully implement the provisions of Regulation 1008/2008 required for Phase 1, on freedom of pricing and non-discrimination, as well as the adoption of penalties for violations of all provisions of Chapter IV of that Regulation;
- adaptation of the Labour Law to the relevant legislation laying down working time arrangements in order to fully and correctly implement several basic requirements of the Working Time Manual (Directive 2003/88/EC of the European Parliament and of the Council of 4 November 2003 concerning certain aspects of the organization of working time).

With the entry into force of the ECAA Agreement, Montenegro has yet to demonstrate that remaining open issues related to the first transitional phase can be solved imminently, in particular regarding those related to economic regulation. Legislation is aligned with the acquis on aviation safety and was further improved in 2017 with designations on safety controls of aircrafts and airports. In 2016, Montenegro adopted a rulebook laying down detailed rules for the implementation of air traffic management (ATM) network functions. The national airline company Montenegro Airlines is facing major sustainability issues, having accumulated significant financial debts. Montenegro has adopted regulations on airport capacity, schedule facilitation and slot allocation.

It is important to note that adopting and implementing EU legislation in all sectors in the process of Montenegrin accession to the European Union is not only a formal condition of accession but also a source of many benefits. Through the adoption of laws in the field of transport Montenegro is a step closer to the European Union membership - and the very accession to the EU brings about a series of political and economic benefits.

Political benefits of accession to the European Union relate to political stability and protection of national interests through EU political institutions. Member countries have the possibility of participating in the decision making process within the EU institutions and influence important decisions which affect them. On the other hand, countries without such privilege are in the position of having to accept already made

decisions. Positive economic effects for member countries are reflected in more intensive and liberalized trade, efficient resource allocation in the Union, accumulation effect, lowering of credit rates and multiplication of foreign investments. Source of these economic effects is free flow of goods, workforce and capital within the Union. Even though political stability and modern economic framework are the basic motivators for EU accession, financial aspects in the form of financial transfers from the EU budget are also important.

The main policy documents in the transport sector are the following:

- *Transport Development Strategy – Montenegro 2019-2035 with Action Plan 2019-2020, Ministry of Transport and Maritime Affairs of Montenegro,*

TDS lays out strategic and specific (operative) objectives for transport sector development, in order to ensure a basis for future development of this sector, in a manner which fulfills socio-economic needs of Montenegro, while being aligned with EU policy, TEN-T guidelines and standards. TDS determines current state in a variety of transport fields, defines development concepts of infrastructure and transport system, sets long-term objectives for transport infrastructure development and advancement of standards, including standards related to safety and security and environmental protection. Also, TDS helps with determining successive actions plans for implementation of said measures.

Harmonization of TDS with the key strategic national documents, both in its drafting and its future implementation, is essential for its successful implementation and ability of this document to contribute to economic and overall social development of Montenegro. Depiction of cooperation between Albania, Puglia and Montenegro will be presented as in TDS further in this document. It should be pointed out that there is no coordination (or minimal) with Italian side regarding: joint infrastructure projects / joint connectivity initiatives; neither with harmonization with EU policies of ESF, nor Cohesion Policies. There is cross border cooperation over cross border projects, and energy projects (energy cable under the Adriatic See).

With Albania, most significant are project on Adriatic Ionian highway and Railway between Podgorica and Tirana.

- The Railway Development Strategy for the period 2017-2027, Ministry of Transport and Maritime Affairs,

The field of safety in road transport was the subject of the Strategy on Improving Safety in Road Transport (2010-2019) in the previous period, which defined guidelines related to road transport safety in Montenegro with measures which need to be taken to implement given aims. The Strategy also defined development and functioning of road transport safety system in Montenegro. The current Strategy on Improving Safety in Road Transport was adopted towards the end of 2009 with a foreseen period of implementation starting in 2010 and ending in 2019. For the forthcoming period, Ministry of Interior Affairs is drafting a Programme on the Improvement of Safety in Road Transport for the period from 2020 to 2023. As a public policy document, the Programme will elaborate in detail the manner in which current issues in the field of safety in road transport are to be resolved.

- The Road Development and Maintenance Strategy “Strategija Razvoja I Održavanja Državnih Puteva”, Ministry of Transport and Maritime Affairs, 2010- Outdate

- Strategy for development of Maritime Sector 2020-2030 – In Draft
- Law on Air Traffic

This Law regulates the conditions for conducting air traffic in the airspace of Montenegro, conditions for safety and security of air traffic, air traffic management and other issues of importance for air traffic.

- Law on Railways

This law regulates the management of railway infrastructure and the performance of transport in railway traffic. The infrastructure, with the exception of industrial tracks, as public good, is state-owned and is available for use, under equal conditions, to all interested transport companies.

- Law on Roads

This law regulates the legal status, development, maintenance, protection, management and financing of public roads. Construction and reconstruction of public roads is carried out in accordance with the law. New Law on roads is in parliamentary procedure.

II.2. Major infrastructure projects

In the Road Sector

In recent past, several reconstruction and rehabilitation projects have been planned and/or implemented in the road sector, of a total length of approximately 110 km and at a cost of €110 million. These projects improved the quality of the country's state roads and enhanced their level of service and road safety. When it comes to the highway between Bar and Boljare and Adriatic-Ionian expressway coastal variant, these projects have only been in a planning stage, except for the Smokovac–Uvač–Mateševo section of the Bar-Boljare highway, which is currently under construction. Both projects are included in the country's pipeline of infrastructure projects (Single Project Pipeline – SPP) for the forthcoming years.

Montenegro is planning to develop a highway network in the forthcoming years. This includes the: i) Bar – Boljare highway; and the, ii) Adriatic-Ionian expressway coastal variant:

- Bar-Boljare highway (Route 4) should contribute to opening of many development opportunities and of further realization of northern region's potential, better and faster connectivity with central and southern parts of the country when it comes to internal integrated character of connecting, while providing safer and more efficient transport. Total estimated costs of the rest of the Bar – Boljare highway amount to 1.7 billion euros, which about 1 billion is needed for the expressway;
- Coastal variant of the Adriatic-Ionian expressway (Route 1) goes along the Montenegrin coast. It aims to improve connectivity within the region as well as of the region with the EU. Its completion will provide a high capacity corridor of high quality that connects central Europe and northern Italy with the Ionian peninsula through Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Albania and Greece. Part of the Adriatic-Ionian corridor that passes through Montenegro, from the border with Croatia to the border with Albania, is about 108 km. It consists of the bypass system around the coastal towns of Bar and Budva, Tivat, Herceg Novi and a high bridge crossing over the Boka Kotorska Bay– Verige bridge. Estimated cost of design, supervision and construction of the

expressway in its entirety in Montenegro is EUR 1.013 billion euros. Because of financing constraints, segmentation and phase construction of certain sub-branches is necessary, which has been identified in earlier documents. For this complete road section along Montenegrin coast a general project and a feasibility study have been conducted in 2008/2009.

Year	Road passenger traffic			Road freight traffic		
	Trips*	Veh – km	Veh- h	Trips*	Veh - km	Veh- hr
2015	40,924	3,921,870	101,360	3,430	355,462	5,299
2025	59,752	5,020,369	75,742	4,397	399,972	4,321
2035	74,763	6,527,882	109,961	5,027	462,751	4,977

1) Bar-Boljare highway

The Bar - Boljare highway, approximately 169 km long, will cross the entire country and connect it, from the Adriatic coast, through Podgorica to Serbia, and onwards, via highway Pozega - Belgrade, to TEN-T Corridor X, to Romania, and to Central Europe. It will link the ports on the Adriatic Sea to those on the Danube (Corridor VII and Corridor X) too. Moreover, this will be the shortest connection from Hungary and Romania through Serbia and Montenegro to Puglia and Albania.

The construction of the highway is planned under the Spatial Plan of Montenegro by 2020, and it will be developed in four phases:

- Phase I: Section Mokovac-Matesevo (41 km long, under construction);
- Phase II: Matesevo-Andrijevica and a bypass along the route Smokovac – Tolosi – Farmaci;
- Phase III: Andrijevica – Boljare;
- Phase IV: Podgorica – Djurmani.

The WBIF finances the preparation of the preliminary design and ESIA for the section Matesevo - Andrijevica, approximately 21 km long (12.43% of the total length of the highway Bar-Boljare), which extends across the mountainous part of Montenegro: between Matesevo (at an altitude of 1,200 m) and Andrijevica (at an altitude of 730 m).

The estimated period for the construction of the section Matesevo - Andrijevica in full profile (2x2) is three years and it will start once the preparatory stage is completed.

For the Bar – Boljare highway project, 85% of funding was secured through a credit arrangement with EXIM Bank, from China, based on a separate agreement.

2) Adriatic-Ionian Expressway will include approximately 108 km (with 4 X 3.25 m traffic lanes and calculated speed of 80 km/h) that will connect Croatia, Montenegro and Albania. A WBIF grant of €3,5 million (of which €1 million for Feasibility study for Montenegro) has already been approved for this project. Approximate costs of construction is €10,5 million/km.

The road running along the Montenegrin coast was built in the 1960s and runs through the three main coastal towns: Herceg Novi, Budva and Bar. Over the past 50 years the traffic volume has significantly increased and these three towns, being the main economic hubs, have similarly grown. International transit traffic has also increased, particularly from Croatia and Albania. The topography together with urban development does not allow adjusting the existing road dimensions to accommodate the current and future capacity. As a result, the road suffers from heavy congestion with particular disruption during peak summer months when traffic doubles.

In order to overcome these constraints, the Government of Montenegro, through the Ministry of Transport and Maritime Affairs, launched in 2007 the Programme for Elimination of Bottlenecks. The programme identified 27 projects countrywide: 18 projects for extension from two to three-lane roads and 11 projects for construction of new bypasses including the three towns of Herceg Novi, Budva, and Bar. These three planned bypasses will become part of the expressway while the Budva bypass will serve as a connection to it.

The WBIF is supporting this initiative through several technical assistance (TA) grants with a cumulative value of €5.1 million. The TA grants will develop a feasibility study, environmental impact assessment and preliminary design for the first priority bypass identified during the inception phase after assessing: i) Herceg Novi (8 km estimated length; located on border with Croatia); ii) Budva (6.5 km estimated length, connecting to Podgorica road), and; iii) Bar (10 km estimated length)

In December 2018, WBIF also approved a €42 MiO investment grant to support the construction of Budva Bypass: a segment of 8.5km of new motorway, 4km of access roads, and 2km interchanges.

The construction of road bypasses for Montenegro's main coastal cities and towns would contribute to a seamless connection between Croatia, Bosnia and Herzegovina, Montenegro and Albania, removing the bottlenecks on SEETO Route 1 along the Montenegrin Coast. The local population, tourists, transit traffic, as well as private businesses will all benefit from this important investment.

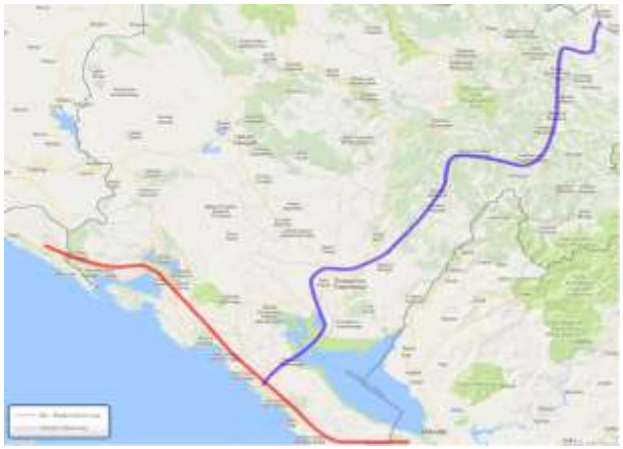

Figure 7. The Bar – Boljare highway and Adriatic-Ionian expressway coastal variant (in purple and red)
** Source: TDS*

In the Rail Sector

Since 2006, a total amount of EUR 123.1 million was invested in rehabilitation and modernization of Montenegro's railway infrastructure, focused on the overhaul and electrification of the Nikšić – Podgorica line and the overhaul of the (Belgrade)-Vrbnica-Bar line.

With respect to the Vrbnica-Bar line, so far, its northern part has been rehabilitated: i) Vrbnica-Kolašin (53.2 km), with additionally contracted overhaul; ii) Kolašin-Kos (10.9 km) and, iii) Kos-Trebešica (7.3 km, with secured financing) for a maximum speed of 75-80 km / h. Remaining works include the general overhaul of the line's remaining 96 km (Trebešica-Bar), preparation of the main project for rehabilitation of existing signaling in Podgorica station and concrete bridges (a total of 91 bridges), preparation of the main reconstruction and rehabilitation project for 106 tunnels, procurement of equipment for maintenance of railway infrastructure, (14 steel bridges, 91 concrete bridge, 12 slopes and landslides in a total length of 3km), reconstruction of the track and facilities at three stations, reconstruction of the existing signaling and contact lines along the line and modernization of the security system and video surveillance. The estimated duration of the project is 15 years. There is technical documentation for most of the phases of the project for the preparation of the tender or implementation of the tender procedure.

The SPP considers the expansion of the Podgorica – Nikšić railway line to Trebinje in Bosnia & Herzegovina, following the over 40 years abandoned narrow-gauge line corridor between Nikšić – Bileća and Trebinje (formerly known as Dalmatian and Zelenika railway).

Upgrade and electrification costs of the Podgorica – Nikšić Railway, during period 2006-2012, came close to 65 million euros, and were financed through a credit from Česká Exportní Banka (ČEB) (50 million euros), and the European Bank for Reconstruction and Development (EBRD) (15 million euros), From 2008, close to 68 million euros was spent for upgrades to the Bar – Vrbnica railway. These expenditures were financed from loans by EBRD (14 million euros), EIB (7 million euros), and ČEB (800 thousand euros), and by funds secured from the Balkans Investment Framework (3.5 million euros) and by IPA funds (43 million euros). Additional 2.5 million euros was secured from various state funds. Regular maintenance costs have remained relatively stable in the previous years (around 6 million euros per year). On the other hand, an increase in subsidies for railway sector was observed during that period (from 2 million euros in 2010 to almost 9 million in 2016). Subsidies were used for servicing of due payments of credit funds obtained for upgrading the railway network and covering revenue deficits relative to operative costs for operators of railway infrastructure (ZICG) and of railway passenger transport (ZICG-transport).

Figure 8. Route 4: Reconstruction and modernization of the railway Bar-Vrbnica- Border with Serbia
** Source TDS*

This project is part of the ORIENT-EAST MED CORRIDOR - Seeto Core Transport Network SEETO Rail Route 4: Reconstruction and modernization of the railway Bar-Vrbnica-border with the Republic of Serbia: General overhaul of the Trebešica-Bar railway line and modernization of the signaling and safety system on the Vrbnica-Bar line.

The purpose of this project is to get Route 4 to the design and modernize the signal security system. The project has been under continuous development since 2006, the annual investments of the state are from €10-14 million. Funds are being used from the loan (EIB, EBRD, CHEB, WBIF), grants (WBIF), IPA funds, etc.

This project is included in the latest SEETO Multi-annual plan. Total investment is estimated at €35 million and involves preparation of technical documentation; reconstruction of the rail track and modernization of structural facilities; modernization and reconstruction of signaling - interlocking devices and contact line; and reconstruction and adaptation of station buildings and border crossing point. An application was submitted from the WBIF Fund for the preparation of project documentation for the general overhaul of the superstructure, electrification of the complete line and modernization of the signaling and security system.

The extension of the Orient/East-Med Corridor into the Western Balkans along Route 4 is approximately 580 km long and runs from Vrsac (Serbia – Romania border) to Belgrade (Serbia) and then to Podgorica and Bar (Montenegro). Bar – Vrbnica (the latter at the Montenegro – Serbia border) is the most important section of the Montenegrin rail network, carrying about 20% of all passengers and about 60% of the cargo. Rail as a whole is an important part of the Montenegrin economy, accounting for almost 60% of all freight and 10% of passenger travel. The Bar – Vrbnica route opened to traffic in 1976 and since then there has been no major overhaul of the signaling systems nor of the numerous bridges and tunnels located on this route. Montenegro has however commenced planning for the rehabilitation and modernization of the entire railway track since the early 2000s, with assistance from the European Union, the European Investment Bank, and the European Bank for Reconstruction and Development.

The EU, through the WBIF and National IPA, has allocated more than €13 million to the preparation of concrete investment packages as well as urgent rehabilitation works along slopes in danger of landslides. In addition, under the Connectivity Agenda, the EU has allocated more than €20 million to cover 50% of the costs associated with the installation of modern signaling and telecommunication systems in and around Podgorica as well as the rehabilitation of 29 concrete bridges and 20 tunnels. Work on the signaling systems commenced in January 2018 while concrete bridges rehabilitation is currently under tendering.

According to the Agreement on border control in rail transport between Montenegro and Serbia, reconstruction of the Bijelo Polje station is planned, in order to make it a joint station for border control.

Year	Rail passenger traffic			Rail freight traffic	
	Trips*	Passenger - km	Passenger- hr	Freight Volumes*	Ton – km
2015	11,725	204,680	2,558	2,705	387,351
2025	16,778	297,580	3,710	3,788	542,943
2035	22,863	405,758	5,059	5,063	665,948

Rail route 2. Tuzi rail Station.

Agreement between the Government of Montenegro and the Council of Ministers of the Republic of Albania on organizing rail border transport was signed in Podgorica, on August 3, 2012. Aim of this Agreement was to simplify border transport and to lower transit times by conducting a country's border crossings operations on another country's territory; by establishing rules under which officials of one country will conduct border control on moving trains on another country's territory; by defining on which home state's stations may the neighboring install border control posts, and in which zones the border authorities of the neighboring country may conduct border control at train stations and on moving trains, in both direction, on the home state's territory.

Based on this Agreement, the Zone includes border train stations Tuzi (in Montenegro) and Bajze (in Albania), as well as the railway between these stations. Tuzi train station has been designated as the joint border station for the purpose of this Agreement.

Border control agreement between Albania and Montenegro made sufficient advancements, given that it was signed together with all relevant protocols, although its implementation is yet to come, such as in the field of border staff training. Formation of a joint border train station in Tuzi shortened transit times for trains for at least 60 minutes.

The upgrade and modernization of the Podgorica – Tuzi railway line has been included in Montenegro's single project pipeline (SPP) for the next 15 years. However, no detailed technical studies or relevant works have been initiated so far. Any progress on that project is directly related to actions undertaken by the Albanian side. The Podgorica-Shkoder railway, which extends to Tirana, has been used exclusively for freight transport. There are plans to reconstruct the railway and introduce passenger traffic between Montenegro and Albania. the railway connection with Albania needs major upgrade on Albanian side in order to be able to handle passenger traffic. Main problem is in present state of railway from Albanian side. There is a lot to be done and significant amount of money needed to do it. Government of Albania possibly did not put too much effort in this part of railway line considering that other very important infrastructural projects had a priority. Possible solution would be for Municipalities nearest to the border to apply for some funds together with Ministries and for two countries to apply for joint funds.

In conclusion, both projects are also ad-hoc project-based co-operation cases. Differently from Italy they involve governments. But in the same way they entail also some co-operation on the harmonization of legislation on both sides of the border.

In the Air Transport sector

The Government of Montenegro plans to make an analysis with the cooperation of the International Finance Corporation (IFC) to define a model for the future development Tivat and Podgorica airports, which combined are expected to serve a record 2.5 million passengers in 2018. The Government's intention is to publish two tenders at the same time for detailed project and for construction.

Investments in Montenegrin airports in recent years are valued at around 37 million euros. Projected costs for airport modernization are 150 million euros (95 million euros for Podgorica Airport and 55 million for Tivat Airport), as stated in SPP. Air transportation in Montenegro is facilitated by two international airports (Podgorica and Tivat).

The Government of Montenegro has engaged the International Finance Corporation (IFC) as part of the World Bank Group with specific experience in finding private financing to be the lead advisor for modelling structures at Tivat, Podgorica and Berane airports. The preparation of tender documentation for the realization of investments at Tivat airport can be expected in 2019. The planned financing model for the realization of this investment is through PPP (finding a strategic partner / private investor investment) where the minimum obligation of the state (through capital budget or borrowing) will be to cover the costs of expropriation.

Tivat Airport (IATA: TIV; ICAO: LYTV) is an international airport located right next to the city of Tivat, 8 km (5 minutes) from the city of Kotor, and 20 km (12 minutes) north-west of Budva. Its 2500 m x 45 m single runway (14/32) ends just 88 m from the coastline of the Kotor bay. The main passenger terminal underwent an extension and refurbishment in 2006. The airport is expected to be expanded and equipped for night landings. The project includes reconstruction and expansion of the manoeuvring area and apron at Tivat Airport (Construction of new Terminal Building and Reconstruction of the existing Control Tower). Preliminary design is done by SPEA Engineering with the EBRD grant. Tivat Airport exhibits incomplete compliance with international regulations with respect to its runway protection zone. It has an ICAO 4D classification and is noted for its challenging approach and landing procedures, due to hilly terrain around the airport, and prevailing strong crosswinds. The airport facilities include 2 taxiways, 7 aircraft stand (5 for Code C aircraft + 2 for Code D aircraft), 12 aircraft stand for general aviation aircrafts (wingspan ≤20m), a 4050 m² passenger terminal, 12 check-in counters, 6 gates and 2 baggage claim carousels.

Podgorica Airport (IATA: TGD; ICAO: LYPG) is an international airport located in Golubovci, approximately 12 km (8 miles) south of Montenegro's capital. It has eight departure and two arrival gates, and can handle up to one million passengers per year.

This airport has a single 2500 m x 45 m runway with a North-South orientation (runway 18/36). Under ICAO classification, category of this airport is 4E ILS Cat I. However, ILS landing is possible only on runway 36 (from the south), as northern approach to runway 18 is visual only, possible under perfect visual meteorological conditions. This is due to proximity of Dinaric Alps in the north. The airport also has 14 taxiways, 6 aircraft stands for Code C aircraft, with a possibility to park Code D aircraft on stands 5 and 6, and 3 aircraft stands for general aviation aircrafts (wingspan ≤20m), 1 aircraft stand on technical apron for Code C aircraft, a 5500 m² passenger terminal, 8 check-in counters, 8 gates (two for arrivals and 6 for departures) and 2 baggage claim carousels.

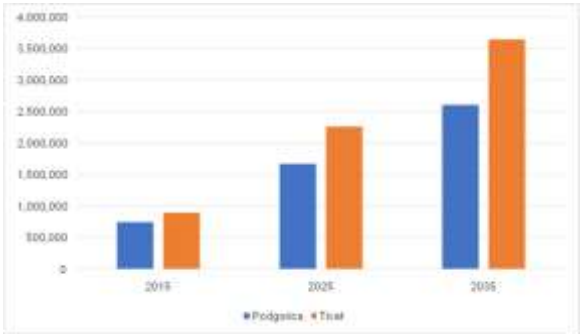

Figure 9. Annual Passenger traffic forecasts for Montenegro Airports

**Source:Transport Model Outputs*

Future projects for Podgorica Airport include the extension of the passenger terminal, the improvement of the manoeuvring area and apron, the expansion of air cargo facilities, and the relocation of the airport's fuel farm and energy station. Podgorica Airport is not included in the urban planning document of the Podgorica Municipality. Therefore, the company "Airports of Montenegro" demanded that the Municipality produce a Local or National location study document for the Podgorica Airport. Until such planning document enters into force, "Airports of Montenegro" are unable to undertake any of the stated development projects.

As for Tivat Airport, its capacity is already insufficient to handle demand during summer peak season and therefore an expansion is required. A concept design for modernizing Tivat Airport has been prepared, which includes the following projects:

- The existing terminal building (4,050 m2) will be reconstructed and a new terminal building will be constructed (13,000 m2) and will be connected to the existing terminal building.
- Part of the old terminal will be refurbished to become the new General Aviation and VIP terminal; all functions for these facilities will be located within the old terminal.

A new airside concept design for the airport will include:

- the rehabilitation of the airport manoeuvring area pavements, including the runway,
- the widening of the commercial aviation apron, its link taxiways to the runway, new proposed taxiway and utilities,
- the displacement of the runway thresholds in order to comply with international safety regulations and (4) the relocation of the Tivat - Ostrvo Cvijeća road.

In the Maritime Sector

Rehabilitation of Volujica quay construction (length of 554m) and construction of Volujica quay extension (166m) in Port of Bar

Port of Bar JSC possesses: (a) Grain Terminal, with a 30,000 t capacity silo and a 250 m long closed transport conveyor belt, running parallel and directly along the railway lines, designed for loading/unloading of grain to/from the silo, (b) a General Cargo terminal with closed storage and cold storage areas, (c) a Ro–Ro terminal designed to accept, store and dispatch Ro–Ro cargo units (complete road trucks or units of truck-trailers and semitrailers), and (d) a Passenger Terminal with five berths for passenger ships and ferryboats, as well as terminal for liquid cargo for the reception and dispatch of oil and oil derivatives.

In the Port of Bar, an extension of the coast at the passenger terminal is planned. The project involves extending the existing coastline at the passenger terminal for 432.85 m in length and a 30 m in width, and its implementation would eliminate the existing limitations associated with low water depth along the existing operational coast (the maximum water depth is currently at the berth 54 - 5.9 m) and it would enable the acceptance of medium and large passenger ships (including combined ships for both passengers and cargo), as well as cruise ships.

There is a plan to extend the operational part of the coast at the terminal for dry bulk cargo for 166 m. Through the project Second Phase of Quarry Volujica in the Port of Bar, it is planned to permanently rehabilitate the northern slope of Volujica hill in order to protect infrastructural and supra-structural objects

which are located in the base of the hill, and in order to secure a new zone of 7.8 ha for transhipment and storage of dry bulk cargo.

Figure 10. The Port of Bar

** Source TDS*

The project, basically, implies implementation of activities that may be systematized within the following three components:

- Project 1 Component: Rehabilitation of the Volujica quay construction with the length of 554m, according to the Main project of rehabilitation - elimination of existing damages at operational quay construction, provision of allowed workload of 6 t/m^2 and installing cathodic protection of the quay construction;
- Project 2 Component: preparation of project documentation and execution of works on the Volujica operational quay extension for 166 m (width of 30 m); designing and installing cathodic protection system of the operational quay construction; designing and construction of open storage in hinterland of the operational quay with dimensions 116 m x 50 m; designing and construction of needed infrastructure (electrical energy, water and sewage, railway rails); deepening of aquatorium with the operational quay extension, with the width of 100 m, and up to 14 m in depth, and all in accordance with elements of Spatial-planning documentation for the Port area;
- Project 3 Component: designing and installing overthrow dust sweeping system from stored dry bulk cargoes at Volujica quay (in the complete zone, in hinterland of the operational quay of length 720 m (554 m + 166 m); designing and installing collection and treatment system of surface waste waters at whole open storage area, in hinterland of the operational quay of length 720 m (554 m + 166 m) Without project documentation that provides reliable basis for specifying expected project implementation costs, but based on available data that relate to similar projects, the value of expected Project implementation costs has been determined in the amount of 13.150.000,00 €. Expected key effects of the project are:
- Elimination of risk for people and existing material goods due to damage in the construction of built part of Volujica quay;

- Capacity increase of Dry Bulk Cargo Terminal for cca 30 % and establishing foundation for attraction of new cargo flows and enabling Dry Bulk Cargo Terminal development into a terminal of regional importance;
- Revenue increase of "Port of Bar" H. Co, and at the same time revenue increase for subjects that are direct participants in the port operations (agents, forwarders, shipping companies, road carriers, railway carriers, ...), as well as revenues of municipal budget (based on increased surtax on tax, property tax, ...) and State budget (revenues from the quay use fees, taxes and contributions on employees` wages, ...); etc. The Port of Bar is a node in the SEETO Core Seaport Network.

Port of Adria JSC, located next to Port of Bar JSC possesses a Container Terminal with an operational quay which is 330m long and depth of 12m, with a modern 40t gantry crane and open storage for 2500TEUs and 180 refrigerated containers. It also possesses two General Cargo Piers equipped with portal cranes and closed and open storage of 7,6ha and 5,1 ha respectively, a Timber Terminal with a covered storage space of 5,86 ha, as well as a terminal for transshipment of wood and wooden products with storage space.

Port of Kotor JSC specializes in cruising tourism since 2006, enjoying the reputation of one of the busiest destinations in the Mediterranean. Located in Bay of Kotor, attractiveness of the site exhibits dynamics for developing a sustainable business trend.

The adaptation, reconstruction, construction and equipping of the Port of Kotor is planned in order to carry out the activities of a commercial port open to international traffic with emphasis on tourist-passenger segment. Also, there is a plan to increase capacity of vessel reception on the berth in Port of Kotor and to secure cruise ships at anchorages by installing temporary buoys for berthing of the ships. Such a conceptual development plan of the port must be compatible with the development of the City of Kotor, because the port is incorporated into its area through its location.

When it comes to the *maritime fleet*, Montenegro started the revitalization of the commercial fleet in 2009. At the end of 2009 Crnogorska plovidba JSC Kotor contracted the construction of two bulk cargo ships from Shanghai Shipyard Co., Ltd China via company POLY from China. These ships are "handy" bulk carriers with the capacity of 35,000 tons, 179.90 m long, 28.40 m wide, with 5 warehouses, four cargo devices/cranes 30 tons each. Usage of the first ship Kotor started in January 2012, while the usage of the ship Dvadeset prvi Maj started in August 2012. Ships were certified by the previously selected Bureau Veritas organization.

The company Barska Plovidba JSC from Bar, working in cooperation with the Chinese company Poly Technologies Inc., has contracted the purchase of two boats of new bulk carrier "seahorse" type of 35.000 tons (eco type), which fully meets the needs of today's maritime market with its technical characteristics and capacities. Usage of ships began on September 18, 2014 with the boat Bar, and continued with the usage of ship Budva at the beginning of October 2014.

Maritime companies "Crnogorska plovidba" AD and "Barska plovidba" AD plan to further revitalize the Montenegrin merchant fleet by acquiring new ships as soon as the market conditions permit, and above all through the increase in fares - cost of ship's charter. Also, in order to further develop shipping in Montenegro and the traditional connection between Montenegro and Italy, it is necessary to renew the maritime line Bar - Bari - Bar with a new Ro - Ro passenger boat which is one of the imperatives of the maritime company "Barska plovidba" AD.

Skadar Lake

Skadar Lake covers part of the territories of two countries, Montenegro and Albania (about 2/3 belongs to Montenegro, 1/3 to Albania). It is the largest lake in the Balkans, about 44 km long and 13 km wide at the middle, with a mean water depth of 5 m, and an area of 350 to 510 km2 depending on the season. Skadar Lake Region is a National Park dominated by aquatic and wetland ecosystems.

When it comes to Skadar Lake, the valorization of this area is planned through the construction of adequate infrastructure in the Port of Virpazar aimed at conducting international water transport, fulfillment of conditions for the establishment of a maritime route between the Port of Virpazar and the Port of Skadar in the Republic of Albania. Moreover, in cooperation with the other state bodies in Montenegro and state bodies in the Republic of Albania, establishment of a navigation route on river Bojana is planned, as well as the finding of an adequate model for the protection of the river Bojana estuary from the depositing of sedimentation from the sea and river sides.

When it comes to Port of Virpazar, within the framework of INTERREG IPA CBC AL MNE programme – Thematic Project Transport, Ministry of Transport and Maritime Affairs is a partner in the project Albania, Montenegro Italy – multimodal transport connectivity – ALMONIT, in which the lead partner is Albanian Development Fund while other partners are the Region of Puglia and the Region of Molise.

On July 3, 2018, the Government of Montenegro signed an agreement with the Council of Ministers of the Republic of Albania on opening of a joint border crossing Ckla (Montenegro) – Zogaj (Albania) for international road and Lake Passenger traffic. Joint border crossing will be constructed on Montenegrin territory, in the town of Ckla, on the road corridor Bar – Ostros – Široka – Shkoder. Exact location of the crossing and its technical parameters shall be determined by a joint commission. Border crossing will be open 24 hours per day for passenger transport.

Other projects / reform measures / initiatives

1. *Directive 2002/59/EC* on establishing EU vessel traffic monitoring and information system (*VTMIS*) was fully implemented into Montenegro's legislation till 01.01,2017. when VTMIS started to work. Institutional aspect of VTMIS system is covered by the Ministry of Transport and Maritime Affairs. Parts of the Directive 2010/65/EU on the Maritime Single Window system are envisaged to be implemented during 2016 and are implemented as planned. To fully implement the Directive, investments are needed to implement the Maritime Single Window information system.

The first phase of VTMIS was implemented in Montenegro with the support of EU. Sensors were installed on three sites along Montenegrin coast. Data from sensor sites is distributed to the Control Centre, from which, maritime data is being exchanged with other systems in Montenegro and abroad (MARES, EMSA, etc.). Costs of implementation of the first phase of VTMIS on Montenegrin coast were 1.8 million euros.

The second phase will include installation of additional CCTV sensors on existing VTMIS locations, new sensor locations in Lake Skadar and Boka Bay and the implementation of the "Single Window" information system (EU Directive 2010/65). Estimated costs for introduction of first two actions amount to 1.6 million euros and for the third action 500,000 euros. Also, with the support of the EU, VHF telecommunication coverage of the navigation of vessels on the Skadar Lake is planned and the introduction of the so-called AIS base stations to monitor the movement of passenger boats on the lake.

Montenegro participates in MARES system for exchanging AIS (Automatic Identification System) data for vessel positions. EC and EMSA has invited Albania to join this system and is ready to support Albania to make necessary studies and procurement to build National AIS network and latter to join to Mares. For that purpose EMSA has invited Montenegro AIS experts to share their experience and expertise with Albanian colleagues to achieve this goal.

2. CleanSeaNet expert working group of EMSA (European Maritime Safety Agency) related to satellite oil spill detection at sea. Montenegro's participation is permanent since 2014. EMSA has recognized that Montenegro experience could be beneficial for Albania in implementing CleanSeaNet service. Albania has signed CoU (Condition of Use) for CleanSeaNet service with EMSA but more effort will be needed for proper implementation. EMSA has invited Montenegro experts to share their experience with Albanian colleagues.

3. Montenegro is a part of EU LRIT (Long Range Identification and Tracking) Data Center, and participates *EU LRIT* expert working group of EMSA (European Maritime Safety Agency) related to satellite long-range and identification of vessels. Montenegro's participation is permanent since 2015. Similar to the CleanSeaNet system, Montenegro experts can share their experience with Albanian colleagues to join the EU LRIT Data Centre. So far LRIT is not yet implemented in Albania for vessels with Albanian flag.

4. SafeSeaNEt expert working group of EMSA (European Maritime Safety Agency) related to maritime safety data exchange. Montenegro's participation is ad-hoc since 2016. Pls clarify if ALB and MNE experts are part of it amd if they cooperate & how. Similar to the CleanSeaNet system, Montenegro experts can share their experience with Albanian colleagues to participate in SafeSeaNet

5. IMS (Integrated Maritime Services) expert working group of EMSA (European Maritime Safety Agency) related to Integrated Maritime Services. Montenegro's participation is ad-hoc since 2017

II.3. Connectivity Measures

Ten-T days, a high-level European conference was held in April 2018, a ministerial conference for the Western Balkans and Turkey was held, where support was given to the Western-Balkans Declaration on Road Safety. This Declaration aims to further strengthen road safety guidelines, considered during Bulgarian presiding over the EU, on a meeting held in Sofia, in April 2018, by transport ministers of Albania, Bosnia and Herzegovina, Macedonia, Montenegro, Serbia and Kosovo*. This Declaration stressed an ever-present high level of road fatalities a serious injury, and it recognized that such outcomes may be prevented by appropriate activities. With that in mind, a readiness to intensify national and regional actions of all relevant subject was confirmed, as well as the need for a European-level coordination aimed at implementation of effective policies and road safety measures, and adoption of a “zero vision” as a future perspective aimed at lowering the level of road fatalities and injuries.

With the aim of enhancing road safety, Declaration calls for a number of actions systemically places in 5 groups: actions aimed at strengthening road safety management; actions aimed at promoting a safer infrastructure; actions for promoting protection of road users; actions for promoting use of safer vehicles and actions for furthering cooperation and exchange of experiences.

By identifying the most important activities within measure actions aimed at strengthening road safety management (such as: giving an adequate level importance to this issue within a general political agenda, good coordination of all relevant subjects, securing of financial means to support such activities, further work on development of national strategies and action plans on road safety, high-quality data collection on traffic accidents and investigation of their causes as well as adoption of goals for lowering number of road fatalities and serious injury, in accordance with EU-implemented goals), a framework was established, which must be further elaborated, according to capabilities, resources and capacities of each individual country, but also within a multilateral platform.

Signing of TCT is also aimed as the field of road safety, which at the same time represents a European agenda of Montenegro's obligations, as well as of other JIE countries.

Within Actions aimed at promoting a safer infrastructure, a need for recognizing the following issues was recognized: identifying the most dangerous parts of the road network, implementation of road safety principle in road designing, construction and maintenance; enhancing of safety inspections through establishment of necessary procedures and regulatory framework, as well as through conducting a number of activities related to further development of both physical and soft infrastructure aimed at raising all levels of road security. Among Actions aimed at strengthening road safety management for WB countries, a Management plan for reforming (soft) measured 2016-2020 is being implemented (package adopted at the Vienna Summit 2016-2020).

Actions for promoting protection of road users stipulate development and promotion of a road safety culture and of adequate roadside behaviour through continuous education, as well as conducting of measures to ensure an efficient aid and response after car crashes.

Actions for promoting use of safer vehicles are aimed at an overall enhancement of vehicle safety, through ensuring that they meet all necessary EU standards, but also through promoting procurement of vehicles equipped with advanced technologies and systems for avoiding accidents.

Finally, actions for furthering cooperation and exchange of experiences stipulate a number of activities aimed as furthering cooperation in vehicle safety among signatory states and the EU, through exchange in know-how and experience.

Since heavy vehicle traffic will increase, some state roads will undertake heavier loads. Apart from reconstructing the road network to cope with additional traffic, monitoring of heavy vehicle traffic will be required. Instrument-assisted monitoring of heavy vehicle traffic in state roads is missing. Therefore, there is no available clear data on the actual loads imposed in Montenegro's state road network.

For railways, over 48% of Montenegro's rail infrastructure has been rehabilitated in the recent years and overhauling work on remaining segments is either ongoing or planned. Public rail network is almost fully electrified (225 km out of 250 km or 90%), which is significantly higher than the EU average, which is 52%. Maximum allowable speeds remain low and range between 50 km/h and 100 km/h. The fact is that the railway has single rail lines reduces its transporting and pass-through capacities. Geometry restrictions and signalization deficiencies reduce rail network capacity, travel times and reliability. Improvement of railway infrastructures will enhance rail efficiency and can attract additional ridership.

Montenegro is well placed with respect to the road and rail coverage with respect to the country's population, compared to other enlargement countries and the EU. Indeed, relevant figures of 13.8 km of

road and 0.40 km of rail per 1000 inhabitants are respectively larger than and close to the EU average values. Road spatial density is higher than that of other enlargement countries (624 m per km2).

When it comes to the quality of the maritime transport network, connectivity of Montenegro with EU countries, it should be noted that in 2015 it was 50 years of existence of the maritime line Bar-Bari-Bar which was maintained by Ro-Ro passenger ships Sveti Stefan, Sveti Stefan II, Prekookeanske plovidbe Bar which is now Barska plovidba JSC Bar.

In December 2016 ship Sveti Stefan II was not able to extend the statutary certifications and was sent to slitting, and line Bar-Bari-Bar was temporarily closed until the summer of 2017 when it was renewed through the engagement of the ship Dubrovnik of the river Jadroline from the side of Barska plovidba JSC.

Cooperation with Italy and Albania

There is an apparent interconnectivity among several projects within SSP and projects realized by neighboring countries. All activities on railway improvement in the Podgorica – Tuzi rail line must be in line and coordinated with improvements in its Albanian counterpart. Similarly, the success of the Bar – Boljare highway is related to the completion of the highway between Boljare and Belgrade, in Serbia, so that a complete highway corridor is eventually formed between Belgrade and the Adriatic coast. The same considerations apply for the Adriatic-Ionian expressway coastal variant and the railway extension to Bosnia & Herzegovina.

As such, the government of Montenegro should: i) coordinate plans and establish agreements with neighboring countries, with respect to the commitment of both sides in developing and/or upgrading common corridors; and, ii) seek (in cooperation with its neighbors) joint processes and financing schemes for projects expanding in both sides of the borders (for example, joint concessions for highways expanding in two countries).

Until now, liabilities and indebtedness (national co-financing) for cross-border projects have been secured within the budget reserve, of which the Ministry of Finance is informed annually. The money was withdrawn in accordance with the dynamics of the projects. With regard to current and future cooperation initiatives overlapping with transport connectivity, below is an overview of the total budgets related to the implementation of cross-border projects in which the Ministry of Transport and Maritime Affairs participates. Except for ALMONIT (no. 5) national contribution is in-kind (salaries already received by civil servants participating in the project are counted as national contribution).

1. ADRION program INTERREG IPA, Ministry of Transport and Maritime Affairs will participate as a partner in the implementation of the project "SEctor Adaptive VIrtual Early Warning System for marine pollution", acronym *SEAVIEWS*, which refers to the thematic area 2. 2: Improving capacity in transnational addressing environmental vulnerability, fragmentation and conservation of ecosystem-related services in the Adriatic-Ionian area, which aims to improve the management and prevention of diffusion of pollution caused by various sources (marine and oil spills) waste in general, among others) and developing models to support waste management / recycling.

The aim of the project is to connect partners from Greece, Albania, Croatia, Slovenia, Italy and Montenegro and raise cultural awareness about port pollution. The leading partner in the project is the National Technical University of Athens (GR). The total budget for MTMA is 259.590 euros, of which the national contribution is

45. 810 euros. National contribution is in-kind (salaries already received by civil servants participating in the project are counted as national contribution).

2. ADRION program INTERREG IPA, Ministry of Transport and Maritime Affairs will participate in the role of a partner in the implementation of the project "Enhancing COoperation in WAste management from VESsels in ADRION ports", acronym *ECOWAVES*. The project aims to increase capacity for transnational environmental threat management, fragmentation and protection of ecosystems in the Adriatic-Ionian area, especially management and prevention of pollution by developing models for waste management and recycling in port areas.

The leading partner in the project is the Administration of the Ionian Sea Port Network - Port of Taranto, Italy (AUTORITA 'DI SISTEMA PORTUALE DEL MAR IONIO - PORTO DI TARANTO). The total project budget is 490,000 euros. Budget of this project for the Ministry of Transport and Maritime Affairs 90. 000.00 euros where the national contribution is 13. 500.00. The total project budget is 490. 000.00 euros. National contribution is in-kind (salaries already received by civil servants participating in the project are counted as national contribution).

3. in the MED program, the Ministry of Transport and Maritime Affairs will participate as a partner in the implementation of the project (Eng. Mediterranean governance for Strategic Maritime Surveillance and Safety issues), acronym *MED Osmosis*, which refers to thematic area 4. 1: Support the process of strengthening and developing a multilateral framework for coordination in the Mediterranean and jointly responding to common challenges. The aim of this project is to develop a number of modules / applications related to maritime surveillance activities and to facilitate the exchange of information that will support the further development of a regional / local smart support allowance supporting sector interoperability, providing their regional, available and operational system., wherever there is a need in the Mediterranean and the Atlantic Ocean. It will explore the application of current guidelines and the capabilities of the ongoing development of the CISE data exchange model.

The leading partner in the project is the Ministry of Maritime Affairs and Insular Policy (GR). The total budget for MTMA is 82. 000 of which the national contribution is 12. 300 euros. National contribution is in-kind (salaries already received by civil servants participating in the project are counted as national contribution).

4. INTERREG IPA CBC Italy-Albania-Montenegro program, the *SAGOV* (South Adriatic Connectivity Governance) project aims to achieve transport links between Albania, Montenegro and Italy and is supported by the European Commission as part of the Interreg IPA CBC program covering these three countries. The project aims to increase the efficiency of existing co-ordination mechanisms and to introduce new ones. Furthermore, conditions will be created to implement an integrated connectivity management approach that takes into account all platforms; e. EUSAIR, the Berlin Process, TEN-T, bilateral agreements as well as national priorities. The partnership includes central and regional bodies, NGOs and research institutions that have a role to play in connecting more effectively. This approach targets the context in which connectivity projects are essential, through greater involvement of local actors, shared vision and interaction. The implementation officially started on 01. April 2018.

Apart from the Ministry of Transport and Maritime Affairs of Montenegro, the project is being implemented by the Institute for Co-operation and Development from Tirana, the Ministry of Infrastructure and Energy of the Government of Albania, the European Movement in Montenegro and the administration of the Region

of Pula from Italy. The total budget for SMEs is 80. 000 euros and the national contribution is 14. 313 euros. National contribution is in-kind (salaries already received by civil servants participating in the project are counted as national contribution).

5. INTERREG IPA CBC Italy-Albania-Montenegro program, project Albania, Montenegro, Italy multi modal transport connection (*ALMONIT*). The expected results of the project are the improvement of multimodal maritime traffic mobility between the Molise region and Montenegro; promotion of multimodal maritime transport mobility between the Regions of Puglia, Montenegro and Albania; improvement of lake traffic between Montenegro and Albania by establishing the Virpazar-Shkodra line as well as the construction of the first phase of the Port of Virpazar. It is expected that the implementation of the project will establish the maritime lines Bar-Bari-Shengjin and Termoli-Bar. The project area is transport with the overall goal of improving cross-border accessibility, promoting sustainable transport and improving infrastructure.

The leading partner of the project is the Albanian Development Fund. Other project partners are: Puglia Region, Molisa and the Ministry of Transport and Maritime Affairs. The associated partner in the project is the Municipality of Bar. The total value of the project is 7. 000.000,00 EUR for all project partners while the budget of the Ministry of Transport 2. 440. 000 euros where 366. 000 euros is national co-financing. This is not just about in-kind contributions through the salaries of officials working on the project.

II.4. Main Country Features

Montenegro can be considered as “Gateway to the Balkans”, thanks to its favorable geographical location at the Adriatic / Mediterranean Sea (convenient access for trade via Port of Bar, good railway and road connection to Eastern and Central Europe) and stimulating business environment. It has a geographical location with good accessibility – 2 international airports with year round and seasonal flights with most European capitals and towns and increasing number of flight connections with different regions of the world. Its maritime connectivity offers popular nautical / cruising / yachting destination (Port of Kotor, Port of Bar, Porto Montenegro, Marina Budva, Marina Bar, Luštica Bay...), etc.

Montenegro profits from access to a market of around 800 million consumers thanks to WTO membership and free trade agreements with EU (Stabilization and Association Agreement), CEFTA, EFTA, Russia, Turkey and Ukraine. It offers a business-friendly environment (ranked 42 out of 190 countries in the 2018 World Bank Doing Business Report – improved by 9 places compared to the 2017.

Coastline, proximity to EU markets and educated workforce present great potential for Montenegro to overcome its size limitations. But Montenegrin firms are relatively poorly integrated into the global economy[7]. Only 7 percent of firms export their goods compared with 18 percent in the Balkans and 29 percent in Estonia, and they are less likely to have purchased a technology license from a foreign-owned company.

Trade in goods with Serbia, Croatia and Slovenia accounted for two-thirds of total trade in 2015 which doubled since 2006. The slowdown in economic activity in the EU27 zone seems to have impacted Montenegro’s exposure to that block which contracted from two thirds in 2006/07 to slightly more than one

[7] data in this sestion have been plucked from: “Montenegro: Achieving Sustainable and Inclusive Growth amidts High Volatility – Systemic Country Diagnostic”, IBRD, March 2016

quarter. A large portion of this is explained by the sharp contraction of exports to Italy. One of the biggest destination markets for Montenegro's total services exports is Russia. The country's top 10 export partners accounted for 37 percent of total services exports according to a new World Bank database on bilateral services trade. Yet Russia accounted for over 27 percent of services exports.

Throughout the XX century Montenegro saw mostly emigration, with Montenegrins moving to the richer republics of Yugoslavia. Following independence, Montenegro became a country of net immigration. As a consequence of shortages for particular professions and sectors, there has been a significant inflow of seasonal, mainly low skilled workers during the last ten years. According to data from the national employment agency, these numbers reached its peak of 64,150 seasonal workers in 2008, dropping to 17,108 seasonal workers in 2009 when the country was hit by the global crisis.

According to UN data, net migration rate went from large negative (-6.9 percent) in the 1995-2000 period to -1.1 percent in 2005-2010 with higher net migration rates among the population of working age and better educated thus worsening the trends. Internal migration of the population in Montenegro was very intense in the last two decades mainly from rural to urban places and from an underdeveloped northern region to the more developed central and coastal regions.

Lack of, or low, quality infrastructure is one of the key problems in further development of entrepreneurship. That includes poor roads, high prices and market entry barriers.

IV. APULIA – ITALY

Apulia's logistic system comprises a strategic network of connections characterized by an ever-more efficient inter-modal transport scheme of connecting roads, railway lines, ports and airports. The region's geographic position means it is also a European gateway for other Mediterranean countries and the Western Balkans. Its 865 km of coastline means that cultural and commercial exchanges have always been part of the region's life.

Apulia today benefits from an excellent transport infrastructure both inside and outside the region's borders. It comprises:

- 12.000 km of road network that includes 2 important motorway hubs;
- 1.528 km of railway lines;
- A port system with 3 major ports (Bari, Brindisi, and Taranto);
- 6 minor ports (Manfredonia (FG), Barletta (Ba), Molfetta (Ba), Monopoli (Ba), Otranto (Le), Gallipoli (Le);
- 1 interport;
- 4 airports including 2 international (Bari and Brindisi), 1 domestic (Foggia) and 1 cargo (Grottaglie Taranto);

The logistics and transport network is divided into two inter-dependent levels: the first comprises the large intermodal centers whose purpose is to manage the flow of goods in and out of the region, whilst the second is dispersed across the territory and is an integral part of the functionality of the logistics of the region's productive business clusters.

Infomobilty is another aspect of this sector. Of all Apulia's most important projects in fact, SITIP – the integrated computerized information system of Apulian ports – represents the first step towards an integrated network of logistics services. SITIP also provides online access to the various services linked to all port activities involving the traffic of goods. Technology is used in the sphere of public transportation to bring together operators and services whilst also providing users with information. Public transport is also an area in which the regional government is committed to developing networks of multi-modal and integrated (road-rail-air-sea) services and to bring about a common regional tariff.

The innovative interpretation the regional government wants to assign to the logistics sector involves the integration of services and the creation of a single system truly able to compete on the international market.

Apulia Logistic Business Cluster (ALBC)

The Apulia Logistics Business Cluster was born with the objective of creating added value through action in the entire regional logistics system. It gathers companies, research centers, universities and associations for development specific to the sector. The Cluster Development Program outlines five macro-projects guided by three key strategies: competitiveness; innovation; internationalization.

Apulia's strategic position guarantees to the Logistics Business Cluster a top role in any transport and passenger traffic related to the Mediterranean Sea. The cluster includes 158 Companies, 3 Universities (University of Bari, University of Salento, Bari Polytechnic), 2 Research centers CC-ICT Sud (Southern ICT

Competencies Center), Southern Transport Innovation Center, National Research Council, 34 Government agencies, business/professional/academic associations and unions.

The Airport System

- **Bari AIRPORT.** The 'Karol Wojtyla' International Airport of Bari is the most important in Apulia for volume of traffic, with 5.5 million arrivals and departures in 2019 (+12,4% than in 2018). The airport has been upgraded remarkably, with newly developed infrastructure, greater accessibility, and construction of a railway spur line for intermodality. These developments have made the Bari Airport one of the most important in the Italian system, as indicated by its inclusion in the National Airports Strategy. The airport is served by the most important national and international companies, including low-cost lines, thus ensuring that Bari and its surrounding territories are served by regular connections with all the most important European markets.
- **Brindisi AIRPORT.** The Salento Airport, near Brindisi, is Apulia's second-ranked airport for passenger traffic (roughly 2.7 million passengers in 2019). It provides access to a territory that includes the provinces of Brindisi, Lecce and Taranto. In the strategy of transport systems integration, the Salento Airport is in the unique position of having seaport facilities immediately adjacent, so that in fact the airport and port compose a single complex. Data from recent years show how the airport is continuing to register strong growth in both international line and charter traffic (+8.9% than in 2018).
- **Foggia AIRPORT.** The Foggia Airport serves a basin of traffic with strong potential, particularly in the tourist sector. In recent years the terminal has been enlarged and improved through a series of interventions. The airport currently serves primarily for helicopter flights to the nearby Tremiti Islands. Planning for a project to lengthen the main runway is currently well under way, with the objective of providing still greater capacities, particularly for service in the tourism market.
- **Grottaglie AIRPORT.** 'Marcello Arlotta' Airport at Grottaglie is situated only a few kilometers from Taranto. This is one of Italy's most important cargo airports, closely linked to the aerospace sector. The main runway length is 3,200 meters, making it one of the longest in the country. This means it can service the massive B747 LCF planes used in transshipment of Boeing 787 Dreamliner products, manufactured in Apulian factories. The airport is currently the focus of a series of interventions for enlargement and additional infrastructure, with strong support from the regional government in agreement with Aeroporti di Apulia SpA and the major companies in the region. The aim is to provide Italy with infrastructure of European level, for the support of research and production activities in the aerospace sector. Grottaglie is also a test-bed for Drones and the sole Italian Space port site, one of the few in Europe.

Bari Dry Port (Interport)

Apulia Regional Dry Port, strategically situated at less than five kilometers from Bari, from Karl Wojtyla International Airport and the nearest superhighway is the biggest of Apulia's dry ports and one of the largest in southern Italy. Bari Dry Port's strategic position makes it the only Mediterranean

structure capable of managing traffic both towards the Balkans area and along the by Bari-Varna (Bulgaria) Trans-European Corridor 8, as well as into Greece and Turkey.

BARI Dry port has 500,000 m2 total yards and floor-space; hosts 27 Companies; proceeds 1300 Arrivals and departures daily (all vectors) and 1 million tons of cargo per year; and it manages 4 Direct -line rail connections to other major Italian intermodal hubs.

Apulia Seaports

The Apulia port system consists of the three major or "national-level" ports of Bari, Brindisi and Taranto and six secondary (regional provincial) ports: Manfredonia (Foggia), Barletta (Bari), Molfetta (Bari), Monopoli (Bari), Otranto (Lecce) and Gallipoli (Lecce).

- **The port of Bari.** The Port of Bari is the main access node to the Bari-Varna (Bulgaria) Trans-European Corridor 8, which connects the entire south of Italy with the Black Sea regions to the east. The port is strategically situated, with excellent connections to the main urban, industrial and agricultural areas of the entire south, and is heavily used for both goods and passengers.
- **The port of Brindisi.** The Port of Brindisi, is another multi-use node, serving commercial, industrial and tourist traffic. The port plays a central role in connections to Eastern Europe, especially to the Baltic nations, Greece and Turkey. The facilities are developed in three separate basins, as a whole considered one of the safest ports in the lower Adriatic.
- **The port of Taranto.** The Port of Taranto is the third-ranked in Italy for goods shipment. The fact of the surrounding lands, free of urban concentrations, has permitted major expansions to support a full range of functions. The port is still developing and growing, with a strategy of achieving a greater role in traffic for the entire Mediterranean.

The railway system

The territorial network totals 1,200 km of lines, primarily in north-south corridors. Over half of this is managed by the main national company, Trenitalia. The oldest of the remaining four companies is Gargano Railways, founded in 1931: one of the first companies in Italy to shift from steam to electrical-powered locomotives. South-East Railways, also founded in the early 1900s, is the second-largest private rail company in Italy, at 474 total km of track. The remaining two companies, "North Bari" and "Appulo-Lucane" were founded somewhat later.

The road system

Apulia regional network, now counting 313 km of superhighways, 1.600 km of national highways, and finally 1.400 of regional and 8.200 km of provincial roads. This dense network, plus the presence of two important national superhighway nodes (Bologna-Taranto and Naples-Canosa di Apulia) ensures excellent road transport directly into continental Europe. A number of upgrading projects are currently under way to increase the road network, and particularly to improve the urban and rural-highway connections with superhighways.

Apulia region with its transport infrastructure is the main node connecting Italy (and then EU) with South East Balkans and Black Sea region.

IV.1. Transport connectivity: institutional and legal framework, policies

The programmatic context of the transport and logistics infrastructure sector in Italy is characterized by extreme fragmentation caused by the existence of a plurality of regulatory and programmatic tools, at Community, national and regional level. The reform underway aims at a strong coordination between European sectoral policies, national planning instruments, Community programming and national and regional instruments for programming and allocating resources.

Programmatic framework at the national level:

- **General Plan of Transport and Logistics - Connecting Italy**

With the national document "Connecting Italy" (Infrastructure Attachment to DEF 2016), the Ministry of Transport and Infrastructure has launched a process of reform of infrastructure planning and programming in Italy, starting from the definition of objectives, strategies and lines of action for continue the structural reforms of the sector, and implement the policies necessary for the implementation of the Vision of the Transport and Infrastructure System by 2030.

In an increasingly globalized economy, Italy's competitiveness is strongly linked to the ability to establish adequate transport and logistics connections and services with Europe and the Mediterranean, to allow full mobility of people and goods to reach markets and job opportunities.

Targets of “Connecting Italy” programme foresees:

- + 30% of the population served by high speed rail by 2030
- maximum 2 hours to access ports and airports of the Core network
- + 50% rail freight transport by 2021

Figure 11. Objectives of transport policy in Italy
** Source: Connecting Italy (DEF, 2016)*

Transport and logistics infrastructures must first of all represent the tool through which accessibility to the main nodes of the country-system is guaranteed: i) first, the main urban and metropolitan areas, in which the majority of the population is concentrated; ii) then, the manufacturing centers and the tourist and cultural centers, which represent the backbone of the national economic system.

It is essential for infrastructure policies, while focused on the connectivity of the main nodes in the country, to guarantee the minimum levels of accessibility even to the most peripheral areas. At the same time, it is crucial to ensure the connection of the national infrastructure system with the Europe and the Mediterranean area.

Regarding the European TEN-T networks, the completion of the Core network is scheduled for 2030. This deadline requires Italy to make a specific effort to support the commitments undertaken at European level, especially referring to the efficiency of rail connections and road, and the completion of last mile connections to ports and airports of the Core network.

As far as accessibility to the Mediterranean is concerned, an area rich in economic opportunities especially in terms of commercial exchange, the strengthening and improvement of maritime and air connections to the countries of the Mediterranean area is crucial.

- **National Operational Plan (PON) Infrastructures and networks 2014-2020**

The 2014-2020 Infrastructure and Networks PON was approved by the European Commission with Decision C(2015) 5451 of 29 July 2015 for a total of 1,8 billion euros; and financed by the European Regional Development Fund (ERDF - 1,3 billion euros), and by the National Revolving Fund (around 0.5 billion euros). It targets the less developed regions in Italy and intervenes in Basilicata, Calabria, Campania, Apulia and Sicily. PON supports interventions in three transport sub-sectors: railway infrastructures, port infrastructures and intelligent transport systems.

In particular, PON is focused on two priorities:

- support the creation of a single European multimodal transport area with investments in the TEN-T;
- develop and improve environmentally sustainable, low noise and low carbon transport systems, including inland waterways and maritime transport, ports, multimodal connections and airport infrastructure, in order to promote sustainable regional and local mobility.

Both PON priorities are shared by Albania and Montenegro ongoing transport strategies.

PON "Infrastructure and Networks" represents a contribution to the efficiency of the infrastructure system of the less developed regions, operating - in an integrated programmatic context - together with other national programs aimed at increasing the productivity and resilience of enterprises (as PON Enterprise and competitiveness).

Therefore, in order to ensure a complete and structured governance, the Program strategy is implemented through five "Integrated Logistic Areas" (ALI of Apulia and Basilicata interest in Apulia region), to be understood as key points of articulation of a wider strategic-relational set that aims streamlining the programmatic and implementation procedures of the interventions.

Figure 12. The five Integrated Logistic Areas
* Source: Ministry of Transport and Infrastructure (MIT)

The programme promotes the triangle of Bari-Brindisi-Taranto specialized ports, including the Regional Interport of Apulia (Dry Port), as the connectivity nod between the peninsular Italy and the Mediterranean basin. In this sense, multimodality must be the characteristic feature of this area, both in terms of infrastructures for the transport of people and goods, and in terms of the network system.

- **DEF (Economic and Financial Document) 2019 - Infrastructure Annex VII**

DEF (Economic and Financial Document) 2019 – Infrastructure Annex VII is the document that summarizes the government's strategies in a large and complex sector such as that of transport and logistics infrastructures.

The transport sector is undergoing a deep transformation, mainly driven by technological innovations and the impact that digitalisation is making on the habits, needs and preferences of passengers and businesses. On the one hand, digital technology has radically changed the logic of offering mobility services; on the other, the it has generated a progressive thinning of demarcation lines between different sectors.

It is therefore highlighted how the definition of infrastructure strategies today looks at the country's needs in terms of completing connections, improving traffic conditions, infrastructure and travel security, environmental sustainability, improving quality of life, and supporting competitiveness of companies.

Environmental and climate policies are also an essential element in the planning of transport infrastructures.

The "*Report on strategic and priority infrastructures*" presented on 12 February 2020, prepared by the Chamber of Deputies' Study Services, in collaboration with ANAC and the Cresme research institute, analyses the progress of strategic and priority infrastructures, updated to the monitoring as of 31 October 2019.

These are interventions included in the planning of strategic infrastructures in the period 2001-2014, starting from the so-called "Objective Law" (Law no. 443 of 2001) which was repealed by the Public Contracts Code

("*Codice dei Contratti*"; Legislative Decree 50/2016), as well as the priority infrastructures identified by the annexes to the Economics and Finance Documents (DEF) of 2015, 2017 and 2019.

The framework takes into consideration infrastructure needs, the cost of which amounts to 273 billion euros. 80% of the cost of the strategic and priority infrastructures, approximately 219.006 billion, relates to the priority interventions and programs identified by the Ministry of Transport and Infrastructure (MIT) starting from 2015 with the Annexes to the DEFs 2015, 2017 and 2019.

Railway and road infrastructures are part of the priority programs and interventions. In fact, 48% of the cost of these interventions concerns railways and 34% of roads and highways, while urban systems (rapid mass transit systems for metropolitan areas) account for 13%. This cost includes interventions already planned in past years and new interventions identified with the attachment to the DEF 2019.

The cost of the strategic and priority infrastructures already planned is equal to EUR 210 billion, while the cost of the new priorities of the annex to the DEF 2019 instead amounts to about EUR 9 billion.

The progress as at 31 October 2019 shows that 50% of the costs of the priority infrastructures concern lots in the planning phase, 21% lots in progress and 11% lots completed.

The remaining 20% of the cost of the strategic and priority infrastructures, equal to almost EUR 54 billion, is instead attributable to strategic non-priority works included in the Infrastructure Annex of the DEF 2013, approved with the CIPE resolution no. 26 of 2014.

Programmatic framework at the regional level:

- **Regional Operational Program POR Apulia 2014-2020**

The POR FERS FSE Apulia European funds for the period 2014-2020, approved by the European Commission on August 13, 2015, intend to contribute to the general objective of smart, sustainable and inclusive growth.

The strategy of the program is based on a smart approach, as suggested by the European strategy for growth "*Europe 2020*", to generate intelligent and integrated policies, requires a long and inclusive look, tends to improve the quality of life, to the future.

Through the European funds to the 2014-2020 Regional Operational Programme, the Apulia Region finances various development projects, paying attention to infrastructure projects envisaged in the VII priority axis of the programme.

Figure 13. Strategies of POR Apulia 2014-2020
** Source: Apulia Region*

Coherently with the strategic guidelines of "Europe 2020", the POR Apulia 2014/2020 contributes to the implementation of the EUSAIR Macroregional Strategy and the related Action Plan.

In particular, the VII priority axis "Transport systems and network infrastructures" identified in the POR Apulia 2014-2020 expressly refers to the consistency and integrability of the objectives with the EUSAIR strategy. For further details please refer to the next section.

Table 2. POR Apulia 2014-2020 and the EUSAIR strategy

Specific objectives POR Apulia 2014-2020	Coherence and integrability with the EUSAIR Strategy	Role and aims of the Apulia Region
Specific objective RA 7.1 *Enhance the railway offer and improve the service in terms of quality and travel times.*	EUSAIR Pillar 2 - Topic 2 - Intermodal connections with internal areas strategy.	The evolution of the railway system thus triggered will allow Apulia to be able to rely on "interconnected" railway infrastructures capable of recovering the capacity margins necessary to allow operating models increasingly adhering to the actual typicality of the movement demand, ensuring faster access times. at the nodes of the regional railway network and urban centres of reference.
Specific objective RA 7.2 *Increase the competitiveness of the port and interport system.*	EUSAIR Pillar 2 - Topic 1 - development of ports and infrastructural and operational port interfaces.	The Apulia Region intends to ensure that commercial traffic (goods and passengers) is growing in ports classified as regional and in interports and that new maritime connections are promoted in the Adriatic-Ionian macro-regional area. To this end, the Region intends to redevelop the infrastructure of the ports, including the seabed, in addition to integrating the port and retroport areas by redeveloping their "connection areas".

Specific objective RA 7.3 *Strengthen the regional railway system, modal integration and the improvement of multimodal connections with the main productive and logistic urban nodes and the central, global and local network*	EUSAIR Pillar 2 - Topic 2 - Reform of the railway structure strategy.	The intervention aims to reorganize the railway system on the most saturated routes, through the necessary modernization of the infrastructure so that it can reconvert to the surface underground with the help of new generation rolling stock.
Specific objective RA 7.4 *Strengthen the connections of the secondary and tertiary nodes to the TEN-T network*	EUSAIR Pillar 2 - Topic 2 - Intermodal connections with internal areas strategy.	The Apulia Region identifies as indispensable the promotion of territorial cohesion aimed at multiplying the success factors of relationships - active, intelligent and inclusive - between communities. With this, it is considered necessary to strengthen the system of accessibility of the internal areas to the over-structured regional networks, for their integration with the social, commercial and knowledge spaces (schools, universities, cultural spaces, etc.).

** Source: Own elaboration based on the POR Apulia 2014-2020*

The Apulia Region, in recent years, has actively participated in the structuring process of the Adriatic Ionian Macro-regional Strategy. Through the operations of the Mediterranean Service (DGR 2180/2013) it entrusts the Mediterranean Service with the governance of regional participation in the Cooperation Programs. The region structures administer the consultation process that supported the European Commission in drafting the EUSAIR Action Plan.

Furthermore, the Apulia Region, recognizing the importance of active participation in the Adriatic-Ionian Macro-region for an effective and coherent mobilization of regional funds in favor of large-area development policies, has been participating since 2007 in initiatives affecting the area, such as the Adriatic Ionian Euroregion.

Specifically, the regional program identifies, in each axes, specific objectives and related actions, elements of consistency for the implementation of actions identified in the EUSAIR Action Plan, which therefore, in addition to finding forms of financing in the regional program, through appropriate governance activities expressed at regional level by the Mediterranean Service also find financial opportunities in:

- National thematic programs
- CTE programs
- IPA II programs (i.e. CBC IPA II program Italy, Albania, Montenegro, whose function as managing authority is entrusted to the Economic Development Department)
- CBC ENI MED program
- Directly managed programs of the European Commission (i.e. LIFE, Horizon 2020, COSME)

The Apulia Region, therefore, promotes the creation of the conditions that provide the basis to interregional and transnational cooperation interventions. The implementation of these cooperation interventions also passes through a regional governance system that consolidates and strengthens the link between the Coordination of International Policies and the regional Services involved in the management of the individual Axes of the Program.

- **Regional Transport Plan (PRT) 2015 – 2019**

The Apulia Region implements mobility and transport policies and actions through integrated planning and programming tools. In particular, it includes the implementation of the Regional Transport Plan which by law has a five-year duration approved by the Regional Council on 23.06.2008 with LR n.16.

The unitary approach adopted puts the vision and objectives of Europe 2020 at the center of the new programming, promoting the development of a regional transport system for smart, sustainable and inclusive mobility.

- *Smart*, in relation to innovation in the conception of new infrastructures, technological equipment and organization of services, the extensive use of Intelligent Transport Systems (ITS), the promotion of training and information for operators and users;
- *Sustainable*, from an environmental point of view for its ability to reduce externalities through: the promotion of collective transport and intermodality, the dissemination of virtuous practices a preferential option for less polluting modes of transport including, primarily, cycling impulse to renew the vehicle fleet favoring low emission vehicles; but also sustainable from an economic point of view by looking for the most efficient solutions in terms of financing methods for construction and / or management in infrastructure choices and in the organization of services;
- *Inclusive*, for the network effect it intends to create in support of balanced accessibility on the regional territory and to the advantage of the development of traffic between Apulia and the Euro-Mediterranean area.

The goal is to help ensure a correct balance between the right to mobility, socio-economic development and environmental protection.

The subsequent programming for the next five-year period 2020-2024, currently being drafted, will have to propose an approach that consider the sector's financial endowment and the critical issues registered in the past programming cycle of European and national funds, with priority given to completion infrastructure projects under construction.

II.2. Major projects

The strategic priority projects in the transport sector are foreseen in the so-called programming cycles:

- *Programming cycle 2007-2013*

The 2007-2013 Programming Cycle is supported by dedicated community and national resources, and is implemented through Plans, Programs and projects within the National Strategic Framework, a reference document that defines the strategic priorities in the use of cohesion funds for this cycle.

The 2007-2013 community programming envisaged the implementation of 52 Operational Programs co-financed in Italy from the two Structural Funds: the European Regional Development Fund (ERDF), and the European Social Fund (ESF). The ERDF co-finances 21 Regional Programs (POR), 5 National Programs (PON) and 2 Interregional Programs (POIN) in addition to the European Territorial Cooperation Objective Programs, while the ESF co-finances 21 Regional Programs (POR) and 3 National Programs (PON).

For the Apulian Region, the Programming cycle 2007-2013 has planned investments for transport infrastructures of 3.8 billion euros with 398 projects.

- *Programming cycle 2014-2020*

The 2014-2020 Programming Cycle sees the progressive definition of plans, programs and projects supported by dedicated community and national resources.

The 2014-2020 Community Planning provides for the implementation of 75 Operational Programs co-financed in Italy from the 4 European Structural and Investment Funds: the European Regional Development Fund (ERDF) and the European Social Fund (ESF) which co-finance 39 Regional Programs (POR) and 12 National Programs (PON), the European Agricultural Fund for Rural Development (EAFRD) which co-finances 21 Rural Development Plans (RDP) and 2 National Programs (PON) and the Fund for Maritime and Fisheries Policy (EMFF) which co-finances 1 National Operational Program (PON).

For the Apulian Region, the Programming cycle 2014-2020 has planned investments for transport infrastructures of 1.7 billion euros with 85 projects. Funds in Transport sector by spending category in the Apulia Region are presented in Table 2 for both programming cycles.

- *Programming cycle 2021-2027*

On March 27, 2019, work began on the programming of cohesion policy in Italy for the period 2021-2027 involving all subjects of the institutional and economic-social partnership of the country. The work of the Tables takes into account the "*Guidelines on investments financed by the 2021-2027 cohesion policy for Italy*" which represent as many challenges that Italy must face in order to contribute to the achievement of the European objectives.

The cohesion policy 2021-2027 renews the ambition to re-launch attention on major European goals summarized in an evocative way by the titles of the five major policy objectives proposed – a smarter, greener, more connected, more social, closer to Europe citizens. In this context, the policy maintains its multi-thematic characteristics and, through the declination of the specific objectives of the Fund regulations (ERDF and ESF +), presents a wide field of potential interventions.

Table 3. Funds in Transport sector by spending category (in million Euro) - Apulia Region

398 projects	**Programming cycle 2007-2013**	**1,276**	**340**	**370**	**1,073**	**222**	**979**	**3,891**
	Rails	738	203	236	658	142	862	2,603
	Rails (TEN-T)	44	21	-	-	-	-	66
	Railway assets	35	6	-	15	10	-	66
	Ports	38	4	13	-	3	100	145
	National roads	102	34	85	6	-	6	148
	Regional/local roads	130	21	-	331	39	8	529
	Multimodal transport	51	9	19	-	15	-	75
	Airports	-	-	16	64	-	3	67
	Intelligent transport systems	122	38	0	-	8	1	169
	Urban transport	10	2	-	0	3	-	15
	Bicycle paths	6	1	0	-	2	-	9
85 projects	**Programming cycle 2014-2020**	**182**	**12**	**-**	**969**	**31**	**106**	**1,299**
	Rails (core network RTE-T)	30	9	-	-	2	3	44
	Other rail networks	34	0	-	46	10	22	113
	Mobile railway infrastructure	22	-	-	-	7	15	44
	Ports (RTE-T)	14	-	-	17	-	36	66
	Other ports	4	-	-	-	1	3	9
	Multimodal transport (RTE-T)	1	0	-	-	-	-	1
	Other rebuilt or improved roads	3	-	-	5	1	2	11
	Infrastructure and promotion of clean urban transport	12	2	-	-	3	4	21
	Intelligent transport systems	62	0	-	-	3	21	86
	Not specified		-	-	901	4	-	904

Notes: PAC - Action Plan for Cohesion funds are included in the EU funds.

The major projects that concerned the Apulia Region in the transport sector are mainly the construction of new infrastructure works and maintenance of the existing infrastructure. The Regional Operational Program POR Apulia 2014-2020 is the main strategic document that brings to live the investment needs of the Apulia region. The program recognizes through the Priority Axis VII - *Transport systems and network infrastructures* with its five specific objectives (as shown in Table 1) the Coherence and integrability of transport infrastructure investments with the EUSAIR strategy**.**

Hereafter are presented the major transport infrastructure projects under construction and their strategic relevance in increasing the connectivity within the region and beyond.

Rail subsector projects

1. Railway doubling - Section Bari S. Andrea – Bitetto

The project is part of the Infrastructure Strategic Railways defined by *"Legge Obiettivo"* No. 443/01. The railway line in question passes through a territory characterized by high indices of productive and social dynamics, given the conspicuous presence of productive and commercial activities with positive employment dynamics. Therefore, it is possible to deduce a strong demand for mobility of goods and people.Also, the project is part of the Bari-Taranto connection, which is included in the TEN-T Scandinavian-Mediterranean Corridor III. The intervention consists of doubling the "Bari S. Andrea - Bitetto" railway section (10.5 km), situated along the "Bari - Taranto" route. The Bari S. Andrea - Bitetto section is the last section needed to complete the doubling of the Bari-Taranto rail line, essential for the full development of rail transport both at regional level and for the connection between productive and commercial areas of Apulia and Calabria to the rest of Europe.

The total investment cost is estimated to be 427 million euros and the works started in 2013 and are expected to end in 2020. The intervention as a whole pursues, in summary, the following objectives: train speed changes (increase in the maximum line speed from 135 to 150 km/h) and the potential capacity of the network changes (from 80 to 120 trains/day); reduction in travel times; increasing of performance standards (limit shape, axial weight elimination of crossing points); upgrading, technological modernization and homogenization of the network.

Figure 14. Geo-location of Section Bari S. Andrea – Bitetto
* *Source: Uniontrasporti on Google Maps*

2. BARI SUD (Bari Centrale - Bari Torre a Mare)

Strategic relevance

The project is part of the program for the construction of the Naples-Bari HS/HC route, which is part of the framework of strategic infrastructure investments envisaged by the *"Sblocca Italia"* law, and was identified as a priority at national level, relating to the Naples - Bari – Lecce - Taranto, included in the Scandinavian Corridor - Mediterranean of the Trans European Network (TEN-T). The project is included in the Annex 1 of the "Urban Systems" Program - Bari intervention - Railway junction and Underground; in the RFI Program Agreement 2007 - 2011 - 2009 Update, approved with CIPE resolution of 13 May 2010, n. 27; in the Institutional Development Contract, for the construction of the Naples-Bari-Lecce-Taranto railway line signed on 2 August 2012 between the Ministry for Territorial Cohesion, the Ministry of Infrastructure and Transport, the Campania Region, the Basilicata Region, the Apulia Region, Ferrovie dello Stato S.p.a. and Rete Ferroviaria Italiana S.p.a.

The intervention consists of the construction of a variant of the railway line from the Bari Centrale station towards the south, in the Bari Centrale - Bari Torre a Mare section. The variant joins the route of the South East Railways to reach the extremes of the municipal area, returning to the existing line near the Bari Torre a Mare station.

The intervention, which has a total length of 10.2 km, involves the construction of underpasses and overpasses within the city, in order to eliminate 3 level crossings still present in the south of Bari. Two new stops will also be built: Campus and Triggiano, and the new Executive station. In the first section of the new route, between the Bari Centrale station and the Executive station, a 4-track line will be built, all owned by RFI. The Executive station will be a branch station between the two single-track lines of the South East Railway, which continues towards the Bari Mungivacca station and the double-track line of the RFI network to Lecce.

3. Railway doubling Ripalta - Lesina

The project is included in the Infrastructure Annex to DEF 2017, Appendix 2 - Interventions, table of Priority Interventions - Railways, within the "Adriatic-Ionian Route" named Adriatica: Speeding up Bologna-Foggia-Bari -Lecce (AVR). Ripalta – Lesina railway section is the first lot of the of the Termoli-Lesina section of the Pescara - Bari railway line, with a maximum total cost limit of the project of 549 million euros, while the first lot Ripalta-Lesina estimated cost is of 106 million euros. The project is in the tender phase for the award of the integrated contract for the executive design and execution of the works. It is expected to start by the end of 2020 and will last approximately 2 years.

The project aims at encouraging the connection of the productive areas and urban systems to the main networks, increasing the synergies between the territories and the logistic nodes and improving the accessibility of the peripheral areas: improving transport services at the regional level and promoting sustainable methods.

The project includes a new route for doubling the Ripalta - Lesina section of 6.844 mt. It will be possible to have trains from 740 to 1050 mt travelling at 100 - 120 km/h. This will eliminate the bottleneck on a route of strategic importance, both for passenger transport and for freight transport. With the completion of the

doubling will increase the performance of the entire Adriatic Director: possibility of circulating more trains, greater travel speed and increase in the regularity of the train service.

4. Naples-Bari route – Apice - Orsara doubling section

The project, as part the Naples-Bari HS/HC route, concerning the Naples-Bari-Lecce-Taranto line, which is included in the Scandinavian - Mediterranean Corridor of the Trans European Network (TEN-T), aims at ensuring interconnection and interoperability in the area of the TEN Trans-European Corridors and to allow the integration of the railway infrastructure of the South-East, and in particular of Apulia and the inner provinces of Campania, with the lines of connection to the North of the Country and with Europe, in order to favor the socio-economic development of the South of Italy.

Thanks to this work, the European corridor (TEN - Trans European Network) number I (Berlin-Palermo) will be connected with the corridor number VIII (Bari-Varna), and therefore the Tyrrhenian and Adriatic sides; the ports of Naples and Bari will thus be able to play a strategic role in the Southern Europe's natural logistics platform for traffic with the Far East and other Mediterranean countries.

The main objective of the infrastructure project is the speeding up of the current connection and the improvement of accessibility to the service in the areas crossed, both for national long-distance services and for regional and freight services. The intervention is included in the *"Sblocca Italia"* decree n. 133/2014 converted into Law n. 164/2014.

The project involves the construction of a new dual-binary infrastructure with a total length of approximately 47.4 km, completely different from the historic single-binary line, where the section Apice – Orsara has a length of 18.7 km with increasing of speed up to 200 - 250 km/h and freight lines running trains from 105 up to 650 m. The total investment cost of the Naples – Bari route is estimated to be 2.7 milliard euros, while the Apice – Orsara section of 923 million euros.

The area of the project Naples-Bari HS/HC route interests a population of 2,350,000 inhabitants. Thanks to this expansion, instead, Rome will be reachable from Bari in just 3 hours, with a saving of 1 hour and a half, and Naples from Bari in less than 2 hours, with a saving of 1 hour and 40 minutes.

National and regional rail connections to the region will also be increased: are expected 54 trains per day (44 more than today) on long journeys and 144 trains per day (118 more than today) on the connections between Naples, Benevento, Caserta, Capua and Foggia. Services will also be greatly increased for the goods: on the Naples/Bari/Bologna route, it will go from the current 8 to 20 trains per day.

The upgrade of the NA-BA line as a whole will allow an increase of 15 thousand passengers (for a total of 20 thousand) and 6 thousand tons of goods transported per day. Impacts also on environmental sustainability: almost 89 thousand tons less carbon dioxide emissions per year and 306 tons less per year than emissions of nitrogen oxides.

5. Municipality of Brindisi - Shuttle Airport of Brindisi-Railway

The Regional Transport Plan (PRT), referred to in Regional Law 16/2008, recognizes the strategic role that air transport plays for long-haul passenger connections originating from and destined for Apulia, serving both tourism and the demand generated by the regional socio-economic system. To implement the strategies for

air transport, the PRThas identified as the first action to be undertaken the implementation of the infrastructural interventions necessary to guarantee full multimodal accessibility to the Bari and Brindisi airports. The 2010-2013 Implementation Plan of the PRT confirmed this vision and proposed the promotion of a systematic action of "networking" of the Apulia airports, between them and with the remaining multimodal network, with the aim of maximizing accessibility to air transport from all over the regional territory, considered to be of strategic interest for the entire Apulian community.

Brindisi is primarily intended to cover that of *"Porta del Grande Salento"*, its natural traffic basin, but also as a complementary stopover and, in extraordinary cases, even substitute, at Bari airport serving the network of national and international routes.

The objective of the project is the creation of an efficient, integrated, flexible and safe transport system which aims to reduce private traffic in the city of Brindisi by exchanging with a series of infrastructures in an integrated transport system, to reduce travel times in the city in order to speed up the connections between the city center and the airport, while for the port area the use of boats, in line with international standards and the regulations concerning urban mobility.

The project allows users from the other provinces and the internal port of Brindisi to reach the airport without using any private means. The project involves the construction of an Automated People Mover (APM) shuttle system connecting the terminal to the RFI network at the confluence of the Adriatic line and the Taranto-Brindisi line at the point where the RFI stop at the Perrino Hospital for 6.4 km rail line.

6. Railway Connection of the Port of Taranto with the National Network (1st Function Phase N. 2 Lot: Cagioni and Logistica Plate -Taranto)

The intervention aims to provide port and inland areas with an efficient rail link in terms of reducing travel times, increasing access points, transport costs and safety. Being a port infrastructure, it aimed at creating a model of integrated logistics platform in the various transport segments no longer divided by mode (sea, land, air), conceived, however, as phases of a single process, the same will constitute a center interchange between two or more modes of transport (road - rail - sea) in an area with adequate direct connections to the national rail and road network (intermodal transport).

The project concerns the railway connection of the different areas of the port (Polisectorial Pier and Logistic Platform) with the national network for 7.6 km and, in particular with the Bologna-Bari-Taranto line and with the Potenza-Naples and Lecce-Brindisi-Reggio Calabria lines.

7. New railway connection between Retroportual Area of Brindisi and the new Tuturano Freight Park

The project represents a strategic action within the PIT (Intregrated Plan of Protection) N. 7 - Brindisi "*Development of an integrated system of logistics and distribution services able to favor the connection between the north-south axis inside the region and the communication with the other international corridors lines n. 8 and n. 10*". The project responds to the objective of improving accessibility to strategic ports of regional interest, (for which no interventions are foreseen in the context of the PON Networks and Mobility) guaranteeing high safety standards and service levels, favoring where possible the modality rail than road. he project is also included in the PO FESR 2007-2013 Axis V.

The project consists of the construction of the direct railway connection from the industrial-port area to the RFI line (Tuturano station) and specifically the new line branches off along an area located in the south-east of the city for about 9 km, in addition to 3 km of tracks necessary to equip the take-over area aimed at the composition of the trains to be entered on the national road. at

In particular, the project consists of four phases: the construction of a section of railway track from the ASI network to the new RFI station, where the goods can stop; the construction of a new RFI elementary station with four railway tracks for arrival / departure with a 750-meter module; the construction of a section of track of the new elementary station up to the bypass on the national road SS 613 for Lecce; the section of track from the bypass on highway SS 613 to the junction with the RFI line, towards the north, via a crossroads in line.

8. Construction of a railway network between the Costa Morena Est quays

Through the new railway transport line that will connect directly to the national railway network of RFI, the goods landed in the port of Brindisi and those produced by companies operating in the industrial area will, in fact, have the opportunity to reach the rest of Italy and Europe, with a safe, rapid and economic transport mode.

The activity include two distinct intervention phases:

1) the redevelopment of the connection fitting existing between the pick-up and delivery beam and the ASI railway line, for which the 50 UNI tracks are expected to be replaced with crossbars and rails of 60 UNI;

2) the construction of the connection between the existing pick-up and delivery bundle and the protruding part of Costa Morena Est through the construction of a new track approximately 400 m long, which can be traveled at a maximum speed of 30 km/h, starting from the square of Costa Morena and crossing the current access road to Costa Morena, reaches the protruding.

The total investment cost of the intervention is of 1 million euros. The project has been concluded and soon the connection of the new port tracks to the national railway network will proceed.

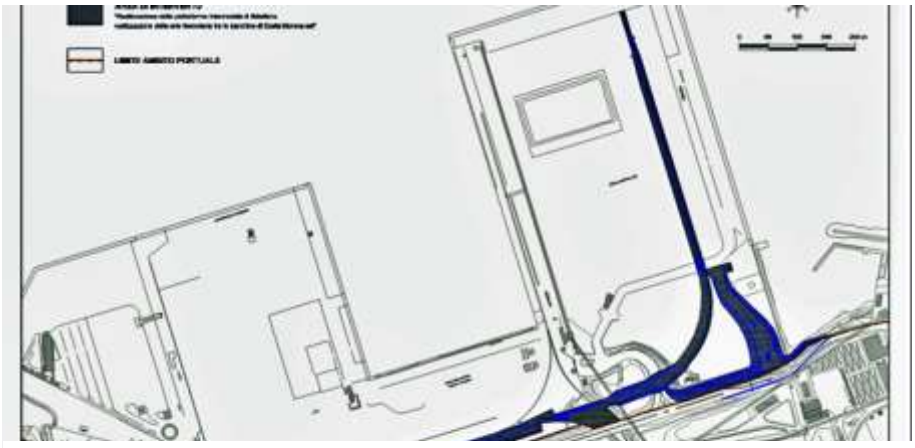

Figure 15. Railway network between the Costa Morena Est quays
** Source: Port of Brindisi*

Road subsector projects

1. "Porta del Levante" Road (Camionale di Bari)

"Porta del Levante" road project is part of the European TEN-T program (Trans-European-Networks Transport) which aims to integrate the Bari transport network with the European road networks as it represent one of the most important commercial ports of southern Italy and at the same time the center of connection to Eastern Europe and the Middle East.

project meets the new expectations of the city, quickly connecting the Port of Bari to the motorway network. The new road network aims to unite the logistic needs of the Port of Bari, the Interport and the freight yard in an efficient infrastructural system and to optimize the area of the reclaimed area of Marisabella with the construction of a car park for the exclusive use of trucks. The project is included in the Apulian Regional Plan of Transport 2009-2013. The total cost of the intervention is estimated at 210 million euros, financed with MIT/CIPE funds, Pact for Bari and Pact for Apulia. Contracting works will start once the detailed design and the relative permits will be approved.

The project includes: a new motorway exit, 10.5 km of roads, partly of new construction and partly with the requalification and modernization of the existing one. This new artery connecting to the port will eliminate the heavy disturbance that heavy traffic generates in the San Cataldo district, Fiera area and Trieste village, will directly connect Porto, Interporto, ASI area, airport and highway and will create direct access to the A14 through a new motorway exit.

Physical achievement indicator the length in km of the intervention has the final target at 2023 total length of new roads 3.0 km, of which TEN -T 3.0 km and total length of rebuilt or renewed roads of 3.3 km. The reduction in traffic volumes to and from the port on the ordinary municipal road network is taken as an indicator, where the current basic values are: 270,000 cars, 5,500 busses and 205,000 trucks per year. The expected values for the year 2023 subtracted from the ordinary road network will be: 540,000 cars, 4,950 busses and 184,500 trucks.

2. S.S. 7 Ter – Bradanico Salentino Route - S.S.V. Taranto – Grottaglie – Manduria, III Lot, Strals 2-3

The completion of the Bradanico - Salentino route is considered a fundamental strategic backbone to connect the two provincial capitals, Taranto and Lecce. Currently a large part of the S.S. 7 ter has a single carriageway and only one lane in each direction, except for the Manduria - San Pancrazio section.

The project highlights the ability to improve service levels and traffic safety, by separating traffic flows along the S.S. 7 ter from urban ones and consequently reducing travel times. The whole area would benefit from a generalized improvement in accessibility to the Taranto-Lecce line and to the Ionian destinations adjacent to it. The project tends to reuse existing roads due to the need to reduce soil consumption and to minimize the environmental impact caused to the surrounding areas.

The Bradanico-Salentina SS 7 ter connects Taranto to Lecce through the territories of San Giorgio Ionico, Monteparano, Fragagnano, Sava, Manduria, San Pancrazio Salentino, Guagnano and Campi Salentina for a total of 78 kilometers. The first lot is the one that connects Manduria with San Marzano passing through Sava, while the second lot joins San Marzano with Grottaglie up to the intersection with the highway to Taranto.

3. External Polygonal of Bari - Connection between the S.P. 92 Bitritto - Modugno and the S.P. no. 224 - conjunction between the S.S. n. 96 and the S.P. no. 1.

The Bitritto-Modugno section is part of the "Bari External Polygonal". The solution identified will make it possible to strengthen the hierarchization of the road system by channeling traffic flows to individual sections based on their functional and level characteristics. Furthermore, the planned road section will improve the network connection of the entire road system of provincial interest through connections to the interfered provincial roads.

The project aims to realize an effective connection, with geometric characteristics of type C according to the regulations in force, which, starting from the S.P. 240 arrives, connecting to the network with the existing road system, to the strategic areas to the north of Bari (Airport, Industrial Zone, S. Paolo Hospital) and from these to the S.S. 16 at Giovinazzo. The route includes the improvement and expansion of existing roads for 4.8 km.

4. (PAC) Binary pick-up and delivery tracks - Interport of Bari

The project contributes to the objective of common EU interest as the modal shift from the transport of goods by road to other environmentally friendly modes of transport. The services that will be provided in the Interport of Bari will bring benefits especially to SMEs in the Bari area. The Interport will create synergies with the TEN-T corridor no. 21 "Motorways of the Sea" and the TEN-T corridor no. 5 (Helsinki-Valletta). n estimated increase in traffic absorbed by the railway, compared to the road, from the current share of 67% (road) versus 33% (rail) to a future 51% (road) against 49% (railway) within two years of completion of the works for the expansion of the intermodal infrastructure.

The Interport hosts about 27 companies operating in the transport and logistics sector and has a total workforce of 900 units. Its activities occupied 85% of the almost 90,000 square meters of covered area available and has an area of 470,000 square meters in total. About 1,300 vehicles with national and international destinations transit daily at the nterport, for a total annual traffic volume of up to 3.5 million tons/year of goods. With this infrastructure investment project, the annual transport volume is expected to

increase by 1.8 million tons/year by 2023he cost-benefit analysis (CBA) indicates that the project is not financially sustainable without public support.

The Interport Bari is an integrated complex of logistic, railway and road infrastructures for the transport of goods, connected directly to the railway and highway network. The objective of the project is to expand the freight terminal by acquiring and modifying the adjacent areas, currently occupied by a public railway terminal, called Scalo Ferruccio, for the construction of four railway line bundles of 0.6 km each for delivery of freight trains. This investment project would guarantee a greater modal diversion from road to rail transport. The total investment cost arises 16 million euros and the expected ending date was by 2019. The works have not yet been completed, since reporting problems of expenses has incurred, and withdrawal of the loan was approved with the Apulia Region Executive Act no. 54 of 08.07.2016.

** Source: Regional Interport of Apulia (IRP)*

Figure 16. Regional Iterport of Apulia - Bari

5. Industrial Area connection axis - S.S. 16

The project aims to accelerate the creation of an efficient, integrated, flexible, safe and sustainable transport system to ensure logistic and transport services that are functional to development. It contributes to the creation of a national logistics system, supporting the construction of a national network of transport and logistics terminals, integrated, secure, interconnected and homogeneous.

The project is divided in 2 Lots. The works consist in the construction of the 1st section of the axis road linking the Industrial Zone with the Fesca district with total estimated cost of 3.5 million euro.

Maritime subsector projects

1. Brindisi Port - Costa Morena Est quay completion

The project contributes to promote the development of an effective and efficient logistics system as key infrastructures of EU and national interest. The intervention is included in the Triennial Program of OO.PP. 2012-2014 and in the National Operational Program 2007-2013. The Costa Morena quay is equipped to

receive panamax-type ships (approximately 60,000 DWT) for coal transportation and "aframax" type ships (approximately 80,000 DWT) for transporting fuel oil. Through the implementation of the project the capacity to process large tonnage ships will increase and consequently traffic also will increase.

The project involves the completion of the Costa Morena Est quay. The new infrastructure, once tested, will guarantee the availability of new berths for ships of large tonnage, for a linear development of docks of about 800 m with seabed of 14 m and will have 280,000 m^2 of yardswill complete the structural equipment necessary to make the docks fully operational.

Figure 17. Completion of port infrastructure through docks and the construction of a sediment tank between Pontile Petrolchimico and Costa Morena Est.

** Source: AdSP MAM*

In addition, the completion of important works (railway connection between the docks of Costa Morena Est and the construction of the intermodal platform of Costa Morena Est) allows the start of port operations also in the container sector, with significant interest from international investors. This will allow at the same time to optimize the "Motorways of the Sea", that is a central policy of the European Union not only aimed at avoiding road traffic but also at developing connections with third countries by sea, such as with Balkan countries.

The connectivity of the port with road and rail networks is suitable, where the time taken from the quay to the highway does not exceed 15 minutes. This makes Brindisi a true intermodal traffic port, being also the only port in the world to have an airport practically inside the port, capable of meeting the demand expressed by the pan-European corridors that refer to the southern Balkan area and the eastern quadrant of the Mediterranean.

The European Union has by now identified the port of Brindisi among the eleven strategic Italian ports, in the broader context of the 57 European ones, which constitutes the natural intermodal transfer from the Tyrrhenian to the Adriatic, and vice versa, guaranteeing a direct connection with the Balkans. In essence, this is the much desired "Corridor VIII" that starts in Durres and ends in Varna. As a possible extension of the pan-

European corridor VIII in Italy, consideration should be given to the construction of the new Naples-Bari high-capacity railway line which must be completed by 2026.

2. Port of Taranto - Interventions for the dredging of 2.3 mmc of sediment in the multi-sector pier area for the construction of a first lot of the reclaimed trough functional to the extension of the protruding V of the Port of Taranto

The project promotes the development of an effective and efficient logistic system as fundamental infrastructures of EU interest and improvement of the competitiveness of the port and inter-portual system. The intervention is considered strategic for the re-launch of the Ionic port as per the Agreement for the Development of Containerized Traffic in the Port of Taranto and for overcoming the socio-economic-environmental state of emergency, signed on June 20, 2012.

The intervention in question provides for the dredging of approximately 1.8 million cubic meters of sediment in the Multi-sector dockyard of the port of Taranto, for the purpose of port infrastructure, and the construction of a sedimentation basin, in extension to the protruding V, intended to accommodate dredged sediments. Expected material removed (dredging) amounts to 1.776.445 m^3.

Air transport subsector projects

1. Restoration of the Brindisi square of aircraft and its related transport

This project aims to accelerate the creation of an efficient, integrated, flexible, safe and sustainable transport system to ensure logistics and transport services functional to development.

It aims at upgrading the runways of Brindisi airport and expanding the general aviation apron. The runways currently have reduced distances with consequent limitation of the type and weight at full load of the aircraft taking off/landing. The intervention will guarantee the ICAO and RESA requirements. The apron will be sized for aircraft of code A and B and the flooring will be at the service of the hangar. The expected traffic is of 2.3 million pax/year.

2. (PAC) Bari Palese airport - flight infrastructure adjustment and track extension - return adjustment

The project contributes to the creation of a national logistics system, supporting the construction of an integrated, secure, interconnected and homogeneous national network of transport and logistics terminals. The intervention represents the completion of the 1st phase works already performed within the general executive project “Flight Track Extension and taxiway T”, approved by ENAC with note prot. 32611 / DIRGEN / APS of 05/22/2008.

The yield adjustment processes envisage the acquisition of new safety areas (RESA) in correspondence with head 07, which will make it possible to bring the available length in landing to 3,000 meters. The path of light approaching the runway 07 (Bitonto side - precision instrumental head) will also be extended, which will go from the current 720 meters to 900 meters, and the new light axis will be created that will allow take-offs even with poor visibility. The acquisition of the areas outside the grounds and the elimination of obstacles (natural

soil) puncturing the take-off surface TOCS RWY 25 and the Approach Surface 1:50 for RWY 07, with the protection of the internal and external traffic, with the adaptation to the ENAC Regulation of RESA for RWY 25 and the completion of the plant part for the extension to 900 meters of the luminous approach path for RWY 07.

Some considerations and future development attended of transport infrastructures in Apulia

The timing of implementation of infrastructural interventions in Italy is long and often complex, exceeding the duration of 10 years for larger projects with an estimated cost greater than 20 million euros, considering the final design, procurement, and execution of the work processes.

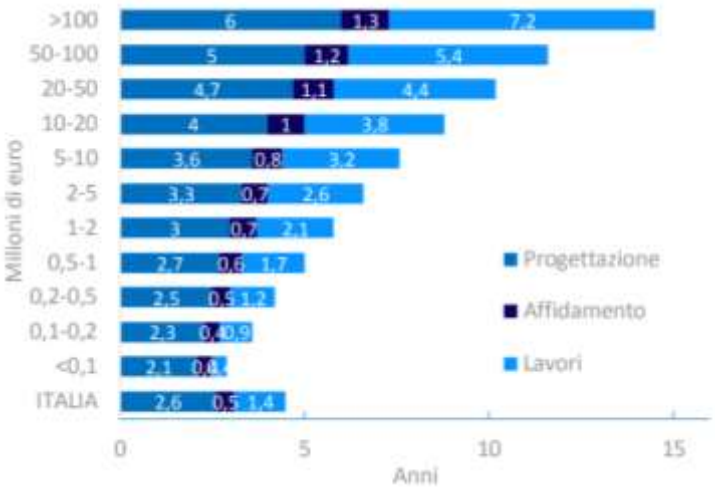

Figure 18. Timing of implementation of infrastructural interventions by cost clusters and phases - Italy
** Source: Ministry of Transport and Infrastructure (MIT)*

At European level, the current priority is to ensure the continuity of the TEN-T corridors. In this regard, Italy has expressed the need, for the infrastructure development of the country, to incorporate the axes considered strategic in the context of the National System of Transport Infrastructures (SNIT) and currently excluded from the core network in the corridors. This requirement, following a consultation launched by the European Commission and aimed at gathering information from the Member States about the infrastructural investment priorities along the trans-European networks and corridors for the period 2021-2027, partially came into the proposal for a Regulation establishing the Connecting Europe Facility (CEF 2.0 Regulation - Connecting Europe Facility), published by the European Parliament in June 2018 2019. For the period 2021-2027, the European Commission proposes the total budget of €42.3 billion in current prices (for EU-27 countries, while the first CEF 2014-2020 had about €30 billion for EU-28) to support infrastructure projects connecting regions within the EU (the trans-European networks), in particular cross-border ones with high added value. Compared to the first CEF, the new proposal seeks to speed up the de-carbonization and digitalization of EU economy by better integrating the transport, energy and digital sectors, and to help achieve EU climate objectives. It should also support jobs, economic growth and the deployment of new technologies.

In transport, the focus shifts to de-carbonization and making transport connected, sustainable, inclusive, safe and secure. The proposed transport budget consists of three parts. As in the first CEF, there is the general transport envelope of €12.8 billion and €11.3 billion earmarked in the Cohesion fund, to be implemented under the CEF on projects in EU countries eligible for cohesion funding. An additional €6.5 billion, earmarked

in the security and defense budget, is also to be implemented under the CEF. The digital envelope of €3 billion should improve digital connectivity by creating very high capacity broadband networks as a basis for better digital services.

The further Italian proposals may find space in the next revision of the networks expected for 2021. In particular, the Italian government represented a need for investments aimed at integrating national strategic projects into the layouts of the trans-European networks including, in particular, the Adriatic axis between Ancona and Bari (on the *Baltic-Adriatic Corridor*), on which the volumes of passenger and freight traffic are continuously growing. This will complete the TEN-T central network with a "missing link" and will strengthen the competitiveness of Europe and in particular of the Ionian Adriatic Region. The next beneficiary will be the , strengthening horizontal maritime connections with the Balkan area. At the moment only the section up to Ancona is included in the route of the Adriatic Baltic Corridor.

Motorways of the Sea in AI Region

EUSAIR strategy based on the "Maritime Strategy for the Adriatic and Ionian Seas", three of the four core network corridors affecting Italy concern the Adriatic-Ionian macro region.

Motorways of the Sea play a key role in the AI Macro Region in terms of inclusion and accessibility of the Macro Region focused on:

- giving more attention to the south-north traffic flows and to the connections with the countries opposite to the Adriatic shore and to the Balkan area whose economy is growing;
- strengthening the role of ports as an interconnection point between maritime transport and other transport modes and restoring the role of Adriatic ports as natural access points to the east and west;
- reducing the distances by ensuring the connection to the main corridors of the TEN-T network.

The ports in the Eastern Mediterranean and Black Sea area are the European Union's door to the neighboring countries in the South East where the regular connections are predominantly short-sea connections. Notably, five out of nine CNC ports have no direct deep-sea services at all.

In the Eastern Mediterranean, there are three major Ro-Ro routes: Adriatic Sea to Greece, Greece to Turkey and connections in the Near East (Egypt, Turkey and Cyprus). With regard to container traffic, many ports benefit from being close to the main Europe Asia trade route through the Suez Canal. Some of them have established themselves as hub ports for transshipment, while the Ro-Ro traffic among neighboring countries in the Eastern Mediterranean is quite extensive.

* Source: ISL based on MDS Transmodal and AIS ship movement data (Motorways of the Sea (MoS) – Detailed Implementation Plan of the

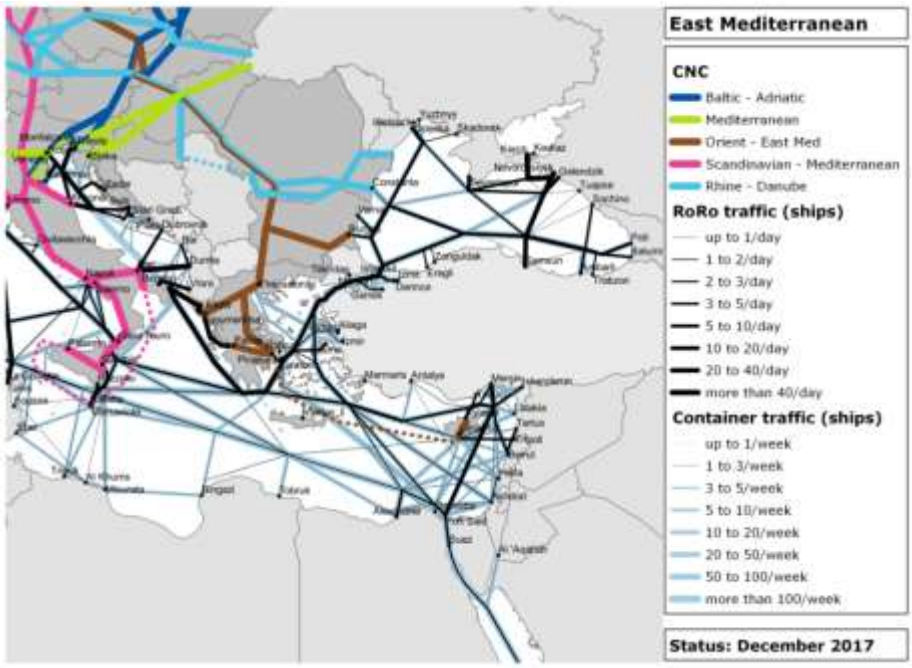

Figure 19. Connections in the Eastern Mediterranean and Black Sea
European Coordinator, 2018.

MoS should be seen as the instrument supporting the development of complementary efficient logistics chains in the Mediterranean, Black Sea and Eastern neighbouring countries. It has a role to play in the context of macro-regional strategies and seek synergies with transport initiatives developed by the Union for Mediterranean.

II.3. Apulia equivalent of Connectivity Measures

Interconnecting nodes through network strategy

The interconnection of the two networks EU-Western Balkans is one of the objectives within the framework of the EU enlargement. Italy, particularly the Apulia region with its *core* and *comprehensive* ports and airports, is the nearest door for WB countries like Albania and Montenegro to have access to the TEN-T network.

Port and airport specializations are the strategies for the Apulian infrastructure nodes to enhance the activities and to strengthen business and commercial relations with countries and regions. This strategy is particularly relevant for developing the transportation network and to avoid double infrastructure. Individual

nodes must now be seen in a complementary perspective among them and not as in the past in terms of competition among different ports or airports.

The ports of the southern Adriatic Sea are designed as nodes, within the same system, that will increasingly have to be qualified as the main modal exchange points and natural reference basin of the entire Apulian production system, favoring exports in particular by focusing also on the internationalization of enterprises that has been made possible by strengthening and qualification of infrastructures.

The last ten years have seen a transformation in the world of shipping and port management that is absolutely not comparable with that which occurred in previous years. This certainly following the "frenzy" due to the evolution of technology and the rapidity with which there have been changes at a global level, both in political, economic and infrastructural terms.

Development objectives are given by the system strategy of the Italian ports. On the basis of the identification of the vocations of the individual nodes, therefore, the strategic planning that aims to generate development balances of the various ports and to guarantee a sustainable growth over time, based on the criteria of resilience, collaborative competition and synergy.

In this sense, the Ports of the Southern Adriatic constitute a single logistic system, in which each performs a pivot role for the fulfillment of one or more primary functions deemed essential for the socio-economic development of the territory. This does not mean that a port must renounce the development of some activities, but, more simply, recognize the specific vocation of each according to its characteristics (geographical, extent, inter-modality, etc.) and defining the conditions of mutual support between individual ports.

On this aspect, the **Apulian ports** are widely varied with respect to their characteristics and vocation:

- Bari: passenger, passenger and freight function, commercial;
- Brindisi: industrial, commercial, passenger and freight function;
- Taranto: commercial (container hub);
- Manfredonia: commercial, industrial, fishing function;
- Barletta: commercial, fishing, tourist and pleasure boats;
- Monopoli: commercial, tourist and pleasure boats, fishing.

Also, **Apulian airports** is the only airport network designed by the Ministry of Infrastructure and Transport of Italy in compliance with European directives. The four airports have different vocations following the best practice of business models in the airport sector, which are:

- Bari Karol Wojtyla International airport: business, passenger and tourism traffic;
- Salento airport: tourism traffic;
- Foggia airport: logistic base for Civil Protection Services for emergency, fire defense, seismic and other emergency services;
- Marcello Arlotta airport: aeronautic and aerospace industry

These successful practices and strategies that have made possible double-digit percentage increases in traffic are models that Albania and Montenegro can replicate in their transport systems. These strategic partners for Apulia have at the same time varied transport infrastructures. Albania, with the ports of Durres, Sarandë, Vlor and Shëngjin, in addition to Tirana international airport, Vlora airport approved for construction and Kukës airport, Montenegro with the main port of Bar with different small ports and Tivat Airport and

Podgorica Airport, in addition to other small airports, can be an adequate basis for integrating into the Southern Adriatic integrated system with Apulia and expanding cooperation between interconnected nodes.

The most conspicuous strategic advantage of the Adriatic-Ionian region can be defined through the typical characteristic of the region which is placed at the active confluence of three regions – the Balkan peninsula, Caucasus and Asia, which are all very close to the growing market of Middle East. The Adriatic region has a favourable geo-strategic position for attracting air traffic in over-flights and regarding the projection of traffic growth, both for passengers and freight, between Northwestern Europe and the Mediterranean and the Near East.

With this in mind, new air links within the Adriatic-Ionian region could considerably improve mobility and accelerate economic integration and cooperation processes. However, the problem of intraregional connectivity prevails, where majority of destinations from and to the Adriatic-Ionain airports are in the Western Europe and minor of all air transport operations in the region are realised within the Adriatic-Ionian network.

Also, small size of national aviation markets in the Adriatic-Ionian countries and the geographical location of many airports positioned close to national borders have impact on air traffic volumes in the region as well as on intraregional air transport connectivity. For this reason, the competition among the airports with overlapping hinterlands can be fostered by improving road and rail links and cross border procedures through creating an integrated regional airport system, while the cooperation among airports nodes with same vocations is crucial.

The Southern Adriatic Integrated Airport System between Apulia, Albania and Montenegro represent the best possible scenario following the development trend of interchanges of goods and people that passes through the AI region form South East Asia. It could be possible due to the characteristics required in order to become for an airport an hub and spoke node: (1) a central geographical position in relation to the market to serve with significant demand; (2) an adequate length of the runway and a single terminal for the air carrier that chooses an airport as a hub; and (3) the proximity to a port with an adequate infrastructure.

Despite of Apulia, Albania and Montenegro fulfill all these requirements, mainly for the latter two countries, further investments on transport infrastructures are required to improve airport nodes integration within the entire intraregional transport system.

Italy, and the Apulia region, given the strategic importance of the two partners, Albania and Montenegro, are able to assist and to guide the two countries through institutional collaboration to achieve the pre-accession requirements to the EU. The common interest in further integrating the transport infrastructures of the three regions by creating networks among them to foster their competitiveness, to attract more foreign investments, making this collaboration profitable also in view of the Belt and Road Initiative involvement. To achieve these objectives, the development of projects of common interest is required, by integrating and aligning the objectives and policies between the countries.

Road safety strategy and actions

From the early 1990s, European countries have changed the structure of the road network, expanding the overall length of the highway by more than 30%. This choice has increased the volumes of traffic of people and goods, has reduced the distance between peoples but has also multiplied the problems of road safety.

In Europe the deaths caused by road accidents have exceeded one hundred thousand units per year with more than 2 million bruises, whose average age does not exceed 25 years.

It is argued that the Regions can play a decisive role in road safety policy. They constitute a permanent discussion, evaluation and cooperation table of all the institutions operating at local level. The decentralized government system is called upon to carry out a decisive role, because it is at this level that road safety policies find concrete implementation.

The Region of Apulia carries out for the prevention of road accidents, firs of all by devoting large part of investments in the Apulia region for the safety of primary and secondary roads, also statistical reports on road accidents prepared by the Regional Mobility Agency, the activation of policies in favor of safe mobility (*Discobus project*; *Direzione Sicurezza*; registration in the *European Safety Charter Road*), and indications on road safety training and education throughout the region (*Guidelines for road safety education; Investigation of the mobility habits of the Apulian teenagers*).

Reducing the number of road accident victims and securing the road network of the Apulian territory are some important objectives of Apulia region by adhering to the European Road Safety Charter. To achieve these purposes, Apulia region has set up a Regional Road Safety Monitoring Center (CReMSS), established with regional law 18/2004, which collects, catalogs and analyze all information on road accidents.

From 1 July 2009 the Regional Mobility Agency in Apulia region, by virtue of the memorandum of understanding for the coordination of the activities relating to the statistical survey on road accidents between ISTAT, Ministry of the Interior (Traffic Police service), Ministry of Defense, Ministry of Infrastructure and Transport, Conference of Regions and Autonomous Provinces, UPI and ANCI has joined, for the period 2011-2014, the decentralized management of the detection of road accidents owned by ISTAT and is responsible for the collection of aforementioned information. All activities are carried out by the Road Safety Monitoring Office of the Regional Mobility Agency in the Apulia region.

This preventive analysis of the safety of the roads in operation allows to identify the situations that need interventions capable of improving or solving a possible safety problem. To this end, inspections are the cornerstone of a road network management. The results of road inspections are used to achieve the classification of roads from the point of view of road safety and for the definition of interventions and their control during the execution phase.

The policy framework for efficient road safety refers to all these variety of measures which, together, form the basis for implementation of safety measures in all fields of road safety, are valuable resources, which if implemented by the partner countries of the Balkans, can serve as guidelines and bast practices to significantly improve the number of road accidents.

II.4. Main Apulia Region Features

Growth prospects and the impact of the pandemic

The COVID-19 pandemic and the respective necessary protection measures are severely impacting economic activity. As a result of the pandemic, the global economy is projected to contract sharply by –3 percent in 2020 according to the new forecasts of IMF in April 2020, much worse than during the 2008–09 financial crisis. In a baseline scenario--which assumes that the pandemic fades in the second half of 2020 and

containment efforts can be gradually unwound—the global economy is projected to grow by 5.8 percent in 2021 as economic activity normalizes, helped by policy support.

Not only the advanced economies, but also the emerging markets, like Albania and Montenegro, are impacted by COVID-19 pandemic through an unprecedented mix of domestic and external shocks whose combined effects are very hard to predict.

Table 4. Growth projections (real GDP, annual percent change)

				PROJECTIONS	
	2017	2018	2019	2020	2021
World output	**3.9**	**3.6**	**2.9**	**-3.0**	**5.8**
Advanced economies	**2.5**	**2.2**	**1.7**	**-6.1**	**4.5**
European Union	**2.9**	**2.3**	**1.7**	**-7.1**	**4.8**
Italy	1.7	0.8	0.3	-9.1	4.8
Emerging market and developing economies	**4.8**	**4.5**	**3.7**	**-1.05**	**6.6**
Albania	3.8	4.1	2.2	-5.0	8.0
Montenegro	4.7	5.1	3.6	-9.0	6.5
China	6.9	6.8	6.1	1.2	9.2

** Source: World Economic Outlook (IMF, April 2020)*

Italian society and economy are experiencing the most serious crisis in republican history. Completely unexpected, of an exogenous nature, by the faster propagation times between markets and countries, by the impacts on the deeper levels of economic activity and work, more concentrated over time and more pervasive between sectors and territories compared to the last major crisis that started at the end of 2008.

The pandemic storm has swept the recovery forecasts: the first forecasts of Unioncamere are very negative, the Svimez confirms and estimates a loss of GDP of 5.6 percent only in the first two months of *lockdown* (a drop of -8.4% of GDP for Italy, -8.5% in the Center-North and -7.9% in the South in 2020).

Growing exports, falling unemployment and GDP, the gross domestic product, increasing. It was the rosy economic picture that was coming out of the forecast for the first three months of the year. The arrival of Covid-19 pandemic has swept away these forecasts. Now it is continuing to wreak havoc on the world economy. In this context, the South will be the area of the country that will lose the most and Apulia will not be able to escape these trends where the risk of default for medium and large enterprises in the South is higher together with the effects on unemployment and inflation rates. Apulia expects 20,000 businesses and 69,000 fewer employed workers by the year 2021, providing a recovery time of around 5 years.

Also, Albania and Montenegro, due to their closeness to the most affected countries, were highly impacted by the pandemic *lockdown* with negative projections of the real GPD for 2020, -5% and -9% respectively, while China, despite the sharp drop of the output, maintains a potential growth rate, albeit low of 1.2%. What

we must hope for is a rapid recovery that will have to be supported by the governments and EU with investment programs and the allocation of funds for businesses and citizens.

Movement of people, migration and tourism

Analysing the structurality of the migration's phenomenon in Italy and in Europe, foreign residents in Europe are 39.9 million and in Italy they are more than 5,2 million (8.7% of the resident population) in 2018, while the foreign citizens residing in Apulia are 138,811, 3.4% of the Apulian population, an almost stable figure for the last years.

Apulian foreigners are a very young population. only 3.9% are over 65 years old, and a substantial gender balance at regional level where women represent 49.6% of the total migrants.

There are 168 countries of origin of foreign citizens resident in the region, but migration to Apulia is mainly European: over half of the residents originate in fact from countries of the Old Continent: Romania and Albania, followed by Morocco and China.

Table 5. Foreigners residing in Italy and Apulia by nationality (Albania, Montenegro and China)

	Italy			Apulia Region		
	2016	2017	2018	2016	2017	2018
Albanian	448,407	440,465	441,027	22,639	22,904	22,733
Montenegrin	2,298	2,044	2,031	392	467	412
Chinese	281,972	290,681	299,823	5,570	5,876	6,108
TOTAL	**5,047,028**	**5,144,440**	**5,255,503**	**127,985**	**134,351**	**138,811**

** Source: Istat (2020).*

Albanian citizens residing in Italy rank second with 8.4% of the total of foreigners, while in Apulia they represent 16.4% of the total, second only to Romanians. Montenegrin citizens are much less in number representing only 0.3% of the total immigrants in Apulia. The number of Chinese citizens is growing at more than 3% per year placing them in fourth place compared to the total number of immigrants, both at national and regional level.

Table 6. Foreigners residing on 1st January 2019 in the Apulia Region, by sex and provinces.

	Men	Females	TOTAL
Apulia Region	**69,909**	**68,902**	**138,811**
Bari	21,469	21,589	43,058
Foggia	16,612	15,097	31,709
Lecce	13,106	13,540	26,646
Taranto	7,167	7,279	14,446
Brindisi	6,049	5,712	11,761
Barletta-Andria-Trani	5,506	5,685	11,191

** Source: Istat (2020).*

In 2018 there was a 9.8% growth in the number of acquisitions of Italian citizenship compared to 2017. The children of foreign citizens born in 2018 represent 5.2% of all new born in Apulia. The foreign workers are around 57.000, 4.7% of the total of the Apulian employed, 44.1% of whom are women, while 84.8% are employees and 15.2% self-employed. The majority are employed in domestic services, in the services and commerce sectors. In 2018, 5.1% of the companies active in Apulia are managed by citizens born abroad, for a total of 19,321 companies: 8.8% of the owners are born in China.

Tourism

According to the latest Istat regional data of 2018, Apulia ranked eighth in terms of overall attendance with a share of 3.54% of the national total, surpassing regions such as Sardinia. Sicily and Liguria.

Tourist arrivals are 4.2 million in 2019, of which 1.2 million international arrivals, with an average stay of 3.7 nights. The internationalization rate of tourists in Apulia reached 28% for arrivals and 25% for presences/overnight stays, registering an increase in the incoming internationalization rate of 7% compared to 2015.

The centrality of the tourism sector in the regional economy can be summarized in three data in 2019, with a constantly positive trend since 2015:

- Tourism in Apulia impacts EUR 6.5 billion on final consumption (12.3% on total consumption);
- 9 billion in terms of added value (13.6% of the total);
- 135,000 employees (15.4% of the total) directly and indirectly involved in the tourist supply chain made up of 52,000 companies (38% of the total).

According to Bankitalia, international tourism spending also increased by + 3% from January to September 2019.

2019 was a record year for Apulia airports exceeding 8 million passengers: historic milestone for Bari airport, with 5.5 million passengers and Brindisi with 2.7 million. Other 14 new routes have been announced for 2020 with the definition of agreements for international connections to the USA and China.

These goals are the result of the implementation of the Strategic Plan to 2028, and functional to the infrastructure qualification project and the development of connections.

Increases in number of passengers were recorded from and to the two main airports in the region, reaching Apulia both via international and domestic flights. 2.4 million passengers (+ 17% compared to 2018) traveled with international flights from Bari airport and 3 million through national flights (+ 4.5% compared to 2018), while passengers from Brindisi airport were respectively 717 thousand (+ 18%) and 1.9 million (+ 6%).

The top 10 destinations of arrival remain London, Budapest, Paris, Bucharest, Amsterdam Zurich, Geneve, Frankfurt, Berlin and others. At the same time, both countries, Albania, Montenegro and China, are not ranked in the top 15 foreign markets list of Apulia (Figure 4).

From what emerges from Istat, in the period of July-August 2019, Albania ranks fourth as a destination with 7.1% of the total number of holiday trips made abroad. Among the trips to this destination are mainly those of foreign residents who during the summer return to the countries of origin.

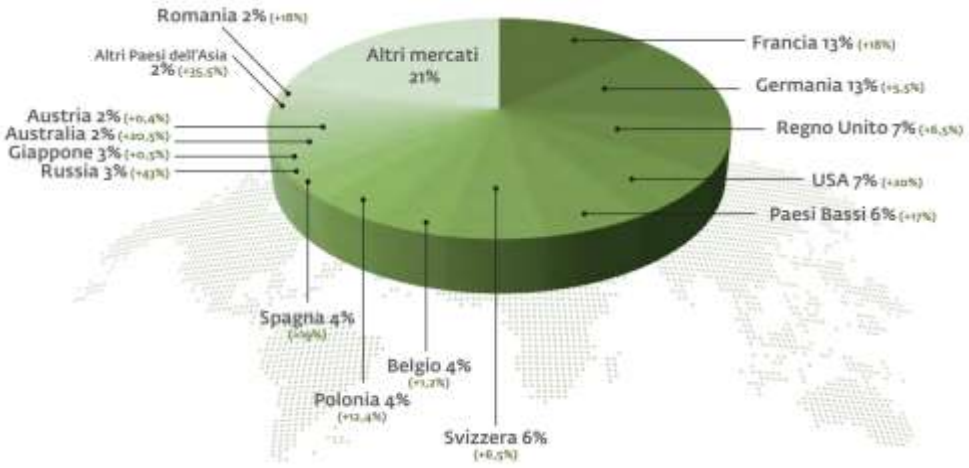

Figure 20. International tourism: Top 15 foreign markets in Apulia
** Source: National tourist observatory. Processing on Istat/SPOT data.*

Also, in Albania tourism is increasingly becoming an important sector for the country's economy, representing a real competitor of Apulia region, thanks also to its tourist offer at lower costs. There were 6.4 million foreign tourists who chose Albania as their destination country, making 2019 another successful year for the sector, which grew by 8.1 percent, compared to 2018 and doubling compared to 2014. Approximately 468 thousand were tourists from Italy and 367 thousand from Montenegro, ranking respectively fourth and fifth as tourists' countries of origin.

In support of the tourism sector in Albania, the European Union and the European Bank for Reconstruction and Development (EBRD) are going to finance an innovative program aimed at rebuilding the roads and aqueducts in the tourist areas of the country. The future of the tourism in Albania is promising.

Tourism remains the driving sector also of the Montenegrin economy. According to the latest data published by Monstat in June 2019, there was an 11.4% increase in tourist arrivals compared to the same month of the previous year. The largest number of overnight stays in collective accommodation was made by tourists from Russia (18.7%), Serbia (11.6%), Great Britain (7.7%), France (7.3%), Germany (6.2%) and Poland (5.7%) while it remains a destination still to be discovered by Italian tourists.

The increase in the degree of internationalization of the Apulia destination was guaranteed, among other factors, by the development of air traffic, in particular low-cost traffic. The intense activity carried out by *Aeroporti di Apulia* has made it possible to establish strategic partnerships with the main flight companies, including Ryanair, Air Dolomiti and Turkish Airlines.

The *Strategic Tourism Plan 2016-2025* aims to implement the tourism growth by looking to the future, integrating all modes of transport. The contribution of Trenitalia, Anas and the promoters of soft mobility, which requires pedestrian and cycle spaces, will be decisive. A specific focus is also had on the most relevant Apulian ports (Bari and Brindisi) in addition to the tourist ports of the entire region.

As part of the promotion of the tourist destination, one of the strategic assets is represented by infrastructure. The Region is in a delicate phase of the development process of the Apulia destination. After the intense promotional activity necessary to establish the Apulia brand in the international scenario, it is now necessary to start a second phase that points to the qualification of the offer, of which the infrastructure network is a decisive component. In this way it is possible to guarantee the sustainability of the life cycle of the Apulia territorial product and avoid that in a few years it can be overcome by more competitive regions on these aspects.

The last few years have been marked by a notable effort by the Regional Administration to equip Apulia with a modern infrastructure system capable of guaranteeing citizens' right to mobility and the competitiveness of the Apulian economic system, including primarily the tourism sector, reducing the effort of mutual accessibility between our region and the main national and international markets with tangible and irrefutable results as the data also show.

Trade between Apulia and Montenegro, Albania and China as a major actor in the Mediterranean Sea

The maritime trade

In the central scenario of the International Transport Forum, international trade, which today represents 50% of global GDP, is expected to increase by 350% by 2050. Trade patterns will be destined to change geographically, driven mainly by changes in distribution of income, in the structure of consumption and in its productivity. As a result, global freight transport volumes will almost quadruple by 2050. The expected growth will create unprecedented challenges for the transport system in general and will lead to an increase in capacity limits and the assessment of scenarios that can occur in the international trade must be considered an important strategic tool for the definition of future transport policies.

Trade within Balkan countries and China

Italy's trade exchanges with the Balkans are also in strong evolution. The non-European countries of the Balkans represent an additional market of particular relevance for Italy for short sea shipping, both because exchanges occur mainly by sea and because commercial relations have taken on significant dimensions. In 2017, the goods exchanged with the six countries considered to belong to this area almost reached 8 billion euros.

Italy is responsible for about a third of total trade (24 billion euros) to non-European Balkan countries, second only to Germany. In particular, Italy is Albania's main trading partner (it is responsible for 65% of total foreign trade, equal to 2.4 billion euros) and is one of the main partners for Serbia, covering over a third of the total of trade with the EU (in absolute terms the total amount of trade with Serbia is significantly higher, around 3.5 billion). Italy is also Montenegro's fourth largest supplier with Montenegrin imports of 91 million euros and 10th as a customer with Montenegrin exports of 6 million euros, while it is the fifth largest customer among EU countries.

A relevant part of the commercial trade with Albania and Montenegro occurs with Apulia region, which is respectively around 20% and 37% of the total commercial trade with Italy mainly carried out by sea.

Table 7. Trade flows of the Apulia region (in million euros)

	Import			Export			TOTAL		
	2017	2018	2019	2017	2018	2019	2017	2018	2019
Albania	215.5	242.1	242.6	219.2	228.0	229.4	**434.7**	**470.1**	**472.0**
Montenegro	0.6	1.0	0.5	10.8	11.2	11.4	**11.4**	**12.2**	**11.9**
China	502.6	1,300.7	1,550.2	979.4	140.1	113.6	**1,482.0**	**1,440.8**	**1,663.9**
World	**8,771.0**	**8,884.1**	**9,702.3**	**8,250.0**	**8,077.4**	**8,755.8**	**17,021.0**	**16,961.4**	**18,458.0**

** Source: Own calculations based on Istat/Coeweb, 2020. Note: Provisional data for the year 2019.*

While the commercial trade between Apulia and Montenegro remain stable in the last years, the one with Albania has constantly grown, about 9% from 2017, Also trade with China continues to grow (tripled in the last decade) and represent the 9% of the total trade of the Apulia region with a negative balance of payment where imports in expansion far outweigh exports to China.

Between Albania and Apulia there are daily connections by sea, with ro-pax ferries for the Durres-Bari, Saranda-Brindisi and Valona-Brindisi routes.

Ferries to Montenegro depart 4 times a week with ro-pax ferries for the Bari-Bar route which lasts about 10 hours. To reach Montenegro it is possible to sail with ferries from Bari to Dubrovnik, Croatia, to then cross the border.

FDI flows and internationalization

The Regional Strategic Programme for Internationalization 2019-2020 of Apulia region is part of the final phase of the current regional intervention strategy for the programming cycle of EU funds 2014-2020, aimed at "*contributing to the realization of the Union's strategy for smart, sustainable and inclusive growth and for the achievement of economic, social and territorial cohesion*".

The interventions of the regional strategic program for internationalization for the period 2019-2020 are divided into five groups:

- institutional interventions, aimed at promoting and enhancing the image of "Smart Apulia" as a whole;
- sectoral interventions, aimed at promoting and enhancing the regional offer system in the main "focus" sectors: "Smart business project";
- support interventions for international promotion projects of Apulian SMEs;
- localization marketing interventions for the purpose of attracting investments in Apulia;
- technical assistance for programming and implementation of the Regional strategic program for internationalization.

These interventions will develop taking into account the need to ensure the appropriate forms of synergy and integration, especially with a view to optimizing the public resources invested, with the following intervention programs, the implementation of which has been entrusted to the ICE-Agency for the promotion abroad and the internationalization of Italian companies.

Based on the dynamics of development of the Apulian foreign trade, there are persistent difficulties in the international development model of regional companies which focuses attention on markets characterized by a growth in demand below the average, despite significant progress in the ability to offer and export innovative products and technologies, in sectors with dynamic global demand. With regard to the transactions recorded by the Apulian companies that invest in foreign companies, Apulia's contribution to the foreign holdings held by Italian companies remains at modest levels (0.9% of the active investments in 2017), while the number of companies in which it participates is 314 in 2017.

Table 8.Dynamics of Apulia in the internationalisation process (year 2017)

	Participation of Italian companies in foreign companies		Presence in Italy of companies with foreign participation	
	No. of firms	**Employees**	**No. of firms**	**Employees**
Apulia	314	10,076	139	8,298
Italy	35,748	1,627,530	13,052	1,283,072

** Source: ICE elaboration on REPRINT data, Polytechnic of Milan, 2018.*

On the other hand, analysing the flow of incoming investments, there is a clear improvement in terms of Apulia's ability to attract investments from abroad which benefits from the positive impact of regional incentives in favour of productive investments in the Apulian territory.

In recent years, the number of foreign subsidiaries in Apulia has increased from 135 in 2015 to 139 in 2017, with an increase of 4 units (+ 3%), although the overall share of companies in the region with foreign ownership continues to be very low compared to the overall presences recorded in Italy (1.06% in 2017).

Furthermore, it should be noted that more and more foreign citizens are choosing to stabilize and start new business activities in Apulia: at the end of 2017, 18,762 businesses led by entrepreneurs of foreign origins were active in Apulia, equal to 4 , 9% of all active firms registered.

In this context, it is necessary for Apulia to pursue a more advanced regional production internationalization model, able to better seize the opportunities offered to the dynamics of development of the global market, to expand the overall content level of international openness of the Apulian economy, especially in relation to the volume of trade generated with the rest of the world (18,5 billion Euros the total value of trade generated by Apulia in 2019, compared to 898,8 billion generated by Italy) and improve the low level of participation in the dynamics of foreign investment.

In **Montenegro**, the overall flow of FDI in the country reached 181.7 million euro in the first quarter 2019. FDI in the form of capital investments, in the first quarter 2019, amounted to 123.5 million euros, or 123% more than in the same period of the previous year. Investments in banks and companies amounted to 85 million euros (+ 270%), while investments in the real estate sector reached 38.5 million euros (18.8%).

Italian companies are mainly present in the energy sector. There are margins to increase their presence in the following sectors: infrastructure, transport, tourism, consultancy and engineering, environment, recycling and treatment of water and waste.

In the transport, energy and tourism sectors, different Italian companies have invested:

- In November 2010, the *Ocean Interlog* consortium from Trieste, with an investment of 2.15 million euros, took over the entire capital of *Pomorski Poslovi*, owner of maritime services in the port of Bar.
- In 2014, the Italian company *Geodata* was engaged in Montenegro in the direction of the works of the Bar-Boljare highway, in particular in the direction of the works of 32 tunnels for a length of over 36km. Geodata is part of an Italian-French joint venture that has won an international tender launched by the Montenegrin government for a value of around 20 million euros.
- Terna Rete Elettrica acquired a 22% minority stake in CGES, the Montenegrin electricity transmission company. Always Terna is working on the construction of an "Italy-Montenegro" power line of a total of 415 km, of which 390 are submarines, for an investment of around 720 million euros.
- The Pizzarotti Group then built the "One & Only" resort, the first in the
- Mediterranean, in the town of Kumbor (Herceg Novi), for a value of 256 million euros, enriched by a conference center, a marina for 220 luxury boats, prestigious commercial areas, two beach clubs, 273 apartments and villas, sport facilities.

Lastly, it is worth mentioning the settlements of medium-small Italian companies mainly attributable to some production on behalf of third parties in the wood-furniture sector, as well as investments in the services sector. These are situations not always indicated by official surveys, but which are symptomatic of the vitality of the collaborative relationships between the companies of the two countries, also favoured by the geographical proximity and the relative ease of access to the markets.

Positive results were recorded on the foreign direct investment front also for Albania: from 1992 to 2016 the FDI stock went from 20 million dollars to 4.9 billion (equal to about 42% of GDP), according to what emerges from data from the United Nations Conference on Development and Trade (UNCTAD).

In addition, in the first nine months of 2017, the incoming flow stood at 725 million euros, an increase of 7% compared to the same period of the previous year, making the country the second destination market for FDI in the Western Balkans , preceded only by Serbia.

Italy plays a leading role on the **Albanian** economic arena; it is the first investor by number of companies.

In 2016, according to data from the Bank of Italy, Italy ranked first both for FDI flows, which reached the figure of 67 million euros, and for the number of companies, with 2,662 companies in the territory. Italy accounts for the largest share of employment (49.6%) and turnover (25.2%) of total foreign and mixed capital companies, while it ranks fourth for investments made, with 9.9 %.

In recent years, the infrastructure sector has experienced constant expansion in Albania, also thanks to the increased demand for technologies with Western standards and to the increase in economic activity and services. The country, aims at improving connections for the transport of people and goods and it is engaged in the restructuring of road, railway, port and airport infrastructures, the lack of which weighs on production costs and represents an obstacle to exports. The 2016-2020 Action Plan provides for 43 interventions aimed at strengthening regional connections and developing a national transport system compatible with Community functional and environmental standards.

V. NEXT STEPS

V.1. Response to Covid-19

Regional guidelines are recently approved by Apulia region for the prevention and containment measures suitable to allow the reopening, as well as new measures or the updating and integration of prevention and containment measures for some activities (maintenance of the green, vehicle rental and other equipment, retail trade on public areas), already exercised in the regional territory.

The transport sector has suffered more from the impact of the lockdown imposed by government authorities to curb the spread of Covid-19. The limitations imposed on the mobility of individuals, both nationally and globally, are endangering the survival of entire sectors.

At the national level, the Italian government has chosen to intervene directly in the rescue of the Alitalia flag carrier, which was in difficult conditions even before the crisis, initiating, with the Cura Italia decree, the establishment of a public participation newco for which € 500 million were allocated.

The provisions of the authorities also had an important impact on internal mobility, where the movements of the population between the various Italian municipalities decreased by an average of 56%. The collapse of internal mobility is also reflected in the decision of the rail carriers to cut 98% of high-speed journeys and 70% of regional routes. The blockade of production activities also led to a 20% reduction in rail freight traffic, this mainly due to the reduction in journeys to and from ports due to the decrease in flows of cargo ships from China.

The maritime transport sector, like air and rail, is in a situation of serious decline, especially for passenger flows, while for freight, maritime transport was guaranteed throughout the Covid-19 emergency period. According to Cemar Agency Network estimates, the impact of the epidemic on the cruise sector in Italy will lead to the cancellation of 953 stopovers for a total of 2.6 million fewer passengers.

The effects of the pandemic could also have a strong long-term impact on urban transport habits, favoring the use of private vehicles over public ones.

Transport in the recovery phase of the Covid emergency will be the first to have to be revolutionized to ensure containment of infections and safety, while directives from the central government are awaited.

In the Western Balkans, Covid-19 pandemic made the regional cooperation a necessity. Coordinated by Regional Cooperation Council, the implementation of Green Corridors was sped up to minimize the time spent in the Border for different transit shipments. The Corridor were envisaged as a set of special procedures that would enable unhindered flow of medicines, medical equipment and food in the time of the crises caused by the novel corona virus.

V.2. Next steps

The second pillar of EUSAIR strategy, *Connecting the Region*, reflects the main common transport connectivity challenges affecting all three countries. The Adriatic and Ionian Seas constitute an important

transport route for goods, and passengers. In this respect, great importance has been given at the implementation of the Adriatic Motorway of the Sea, which interests both Apulia, Albanian and Montenegro, in according with the trans-European multimodal transport system and TEN-T.

Having assessed that there is still a large margin of development in traffic in air and maritime transport, the orientation is to support demand to increase the development of maritime and air transport services and in general to work to improve the quality of the service and to strengthen maritime safety and security.

A strong integration of infrastructures and multimodal transport services between the transshipment terminals and the northern Italian and European regions, will shift towards the Mediterranean the axis of intercontinental maritime traffic. The development of a competitive regional intermodal port system together with transport networks and intermodal connections need to be supported by increasing and fostering cooperation at institutional level among strategic partners, as Albania and Montenegro.

For such a development to take place, key actors other than national and regional structures, such as regional and local authorities, transport operators and private entities should become more active in all the phases of policy-making. New inclusiveness mechanism and platforms need to be designed and implemented.

There is no one-size-fits-all solution for how connectivity platforms would be designed or managed. It calls for deeper and larger studies on identifying the best organization structures and mechanisms to support seamless transnational transport solutions. It demands multi-layered governance. The Western Balkan level with the Transport Permanent Secretariat, the EU level with DG Move, the national level with the Transport Ministries, the regional level as in the case of Apulia, etc. should be able to interact in a way that serves efficiently the intended purpose.

However, in the transport sector the research on governance is still quite limited. Issues such as governance and governance networks proper to transport, institutional arrangements, international coordination, identification and agreement on the key-factors for consensus and success, interaction with business networks, etc. should be the topic of next research steps.

Meanwhile the strong leadership and clear political engagement that enjoys the support of final beneficiaries (business, people, other) is the key factor for the initiation of such cross-border connectivity endeavors. It translates in: i) bringing together main stakeholders that have experience from this type of initiatives; ii) major stakeholders are committed to the importance of the project and have financial and political power; iii) risks (financial) are identified and distributed among the major stakeholders; and iv) the geopolitical context is conducive to such an endeavor. A broad stakeholders inclusion is needed, clarifying who they are and what desires they have and how they can be strengthening the project. Formalized partnerships in agreements are strongly recommended.

Once the structure / initiative is in place, the critical success conditions for collaborative should be met for efficient operations. Concretely it translates in professional management structure, practical engagement of the large variety of actors and stakeholders, extensive use of knowledge transfer and integration methods in combination with a high network density through regular contacts, implementation of innovative ways of identifying common interest and mobilizing teams from different countries, provision of sufficient resources – financial and professional -, and increased visibility on the advantages of such an endeavor. The structure should ensure several ways of communication between stakeholders to facilitate ownership, cross-fertilization of ideas, and common progress. Large information conferences mixed with smaller operational groups for specific topics will have a multiplier effect.

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