



**SUSTAINABLE AND SMART MOBILITY STRATEGY
IN THE WESTERN BALKANS PROGRESS REPORT
DECEMBER 2022**

CONTENTS

LIST OF ABBREVIATIONS

1. EXECUTIVE SUMMARY	3
2. INTRODUCTION	6
3. PROGRESS BY MEASURES	9
3.1. SUSTAINABLE MOBILITY	11
FLAGSHIP 1 - BOOSTING UPTAKE OF ZERO-EMISSION VEHICLES, RENEWABLE & LOW-CARBON FUELS AND RELATED INFRASTRUCTURE	11
FLAGSHIP 2 - CREATING ZERO-EMISSION AIRPORTS AND PORTS	13
FLAGSHIP 3 - MAKING INTERURBAN AND URBAN MOBILITY MORE SUSTAINABLE AND HEALTHY	14
FLAGSHIP 4 - GREENING FREIGHT TRANSPORT	16
FLAGSHIP 5 - PRICING CARBON AND PROVIDING BETTER INCENTIVES FOR USERS	17
3.2. SMART MOBILITY	19
FLAGSHIP 6 - MAKING CONNECTED AND AUTOMATED MULTIMODAL MOBILITY A REALITY	19
FLAGSHIP 7 - INNOVATION, DATA AND AI FOR SMART MOBILITY	21
3.3. RESILIENT MOBILITY	24
FLAGSHIP 8 - WORKING TOWARDS THE SINGLE MARKET	24
FLAGSHIP 9 - MAKING MOBILITY FAIR AND JUST FOR ALL	28
FLAGSHIP 10 - ENHANCING TRANSPORT SAFETY AND SECURITY	30
4. CONCLUSIONS AND WAY FORWARD	32



LIST OF ABBREVIATIONS

Annex I	Annex I to the Transport Community Treaty
ADM	Excise Customs and Monopolies Agency of Italy
ARA	Albanian Road Authority
BCAs	Border Crossing Agreements
BCPs	Border Crossing Points
ClimaProof	Enhancing Environmental Performance and Climate Proofing of Infrastructure Investments in the Western Balkan Region from an EU integration perspective
CO2	Carbon dioxide
CEFTA	Central European Free Trade Agreement
CONNECTA	the Technical Assistance to Connectivity in the Western Balkans
DAC	Digital Automatic Coupler
DG MOVE	Directorate General for Mobility and Transport
DG NEAR	Directorate General for Neighbourhood and Enlargement Negotiations
EBRD	European Bank for Reconstruction and Development
EC	European Commission
eCMR	digital version of the freight document CMR
ECVVR	European Centralised Virtual Vehicle Register
eFTI	electronic freight transport information
EIB	European Investment Bank
ERA	European Union Agency for Railways
ERTMS	European Rail Traffic Management System
eTIR	eTIR international system aims to ensure the secure exchange of data between national customs systems related to the international transit of goods, vehicles or containers according to the provisions of the TIR Convention
EU	European Union
EUD	Delegation of the European Union
CTC	Counter-Terrorism Coordination
EU Member State(s)	European Union Member State(s)
EVR	European Register of Vehicle
eQMS	Electronic Queuing Management System
GHG	Greenhouse Gas (GHG) emissions
FBIH	Federation of Bosnia and Herzegovina-entity in Bosnia and Herzegovina
ICT	Information and Communications Technology
INTERREG	interregional cooperation programme co-funded by the European Union
IM(s)	Infrastructure Manager(s)
IPA	the Instrument for Pre-Accession Assistance
ITS	Intelligent Transport Systems
IWW	Inland Waterways
JASPERS	Joint Assistance to Support Projects in European Regions

KPIs	Key Performance Indicators
LCs	Level-crossings
MaaS	Mobility as a Service
MoU	Memorandum of Understanding
MoT(s)	Ministry(ies) of Transport
NCTS	New Computerised Transit System
NGO	Non-governmental organization
NIB	National Investigation Body
NSA	National Safety Authority
NSW	National Single Window
NVR	National Vehicle Register
PERS	Public Enterprise Roads of Serbia
PHEV	Plug In Hybrid Electric Vehicle
PIU	Project Implementation Units
PSO	Public Service Obligation
RAMS	Road Asset Management System
R&D	Research and Development
R&I	Research and Innovation
RIAMS	Railway Infrastructure Asset Management System
RES	Renewable energy sources
RISM	Road Infrastructure Safety Management
RP	Regional Parties
RRA	Railway Regulatory Agency
RSC	Regional Steering Committee
RSA	Road Safety Audit
RSI	Road Safety Inspection
RU	Railway Undertaking
S2R	Shift2Rail
S2R JU	Shift2Rail Joint Undertaking
SEED	System for Electronic Exchange of Data
SEE Parties	Southeast European Parties: Albania, Bosnia and Herzegovina, Kosovo* , North Macedonia, Montenegro, Serbia
SEESARI	Southeast Europe Strategic Alliance for Rail Innovation
SSMS	Sustainable and Smart Mobility Strategy
SUMP	Sustainable Urban Mobility Plan
TA	Technical Assistance
TC	Technical Committee
TCT	Transport Community Treaty
TCT Secretariat	Transport Community Permanent Secretariat
TEAMS platform	Microsoft Teams business communication platform

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

TEN-T	Trans-European Transport networks
ToR	Terms of Reference
TODIS	Transport Community Transport Observatory Database and Information System
TSI(s)	Technical Specification(s) of Interoperability
TTF	the World Bank Trade and Transport Facilitation Project
UN	United Nations
UNDP	United Nations Development Program
UNEP	United Nations Environment Programme
USAID	United States Agency for International Development
VAT	Value-added tax
WB	Western Balkans
WBIF	Western Balkans Investment Framework
WBRSO	Western Balkans Road Safety Observatory
WHO	World Health Organisation

1. EXECUTIVE SUMMARY

The Western Balkans region is affected by the changing climate and has already seen the severe consequences of climate change. Sustainable and Smart Mobility Strategy for Western Balkans was developed to serve the region by setting common objectives and a list of common measures for making transport greener, sustainable, and healthier for citizens. The progress report demonstrates advancement in the implementation of the strategy from year to year and has been divided per three goals: Sustainable, Smart and Resilient Mobility which further cover 10 flagships and actions under them. Paragraphs below present key findings from each Flagship:

Flagship 1 - Boosting Uptake of Zero-Emission Vehicles, Renewable & Low-Carbon Fuels and Related Infrastructure

Progress is reported in **Albania and Serbia** on deployment of e-charging stations. None of the Regional Parties (RP) has adopted *Alternative Fuel Infrastructure Directive*, which provides basis for alternative fuel infrastructure deployment and specifies minimum requirements for building up this infrastructure. *Transposition of Directive 2018/2001 EU on the promotion of the use of energy from renewable energy sources (RES)* has not been carried out in any Regional Parties and the participation of RES in the transport sector is currently almost zero. *Incentives (tax exemption, subsidies) for electric/hybrid vehicles* have been introduced in **Albania, Bosnia and Herzegovina, Kosovo, Montenegro and Serbia**.

Flagship 2 - Creating Zero-Emission Airports and Ports

Ports have dedicated themselves to become greener, the Port of Durres in **Albania** is considering investing in the construction of solar panels sites, while Port of Bar in **Montenegro** has been a part of several INTERREG projects aiming to increase its energy efficiency and become low carbon.

Flagship 3 - Making Interurban and Urban Mobility more Sustainable and Healthy

Major regional urban centres (Sarajevo, Tirana, Skopje, Belgrade, Pristina, Podgorica) have *Sustainable Urban Mobility Plans* with the progress continuing even in smaller cities. As for *interurban transport*, *MoU signed between the Infrastructure Managers* for regular consultation and coordination on variety of issues including the international transport.

Flagship 4 - Greening Freight Transport

In December 2021, European Commission published proposal for the Revision of TEN-T Regulation² which includes *Rail Freight Corridor for Western Balkans*. Once adopted, the new RFC will become an essential tool for the coordinated cooperation to improve international freight traffic. *Multimodality in passenger and freight transport needs to be improved*, there are many planned and several ongoing projects for both freight terminals and passenger stations however they are still not put into operation.

Flagship 5 - Pricing Carbon and Providing Better Incentives for Users

There is *no progress in the transposition of the Directive on the interoperability of electronic toll systems*. TCT Secretariat's supported Technical Assistance (TA) on baseline assessment and financial impact of electronic tolling interoperability finished in August 20202, should assist RPs in transposition.

Flagship 6 - Making Connected and Automated Multimodal Mobility A Reality

New Computerised Transit System, which allows customs formalities by using electronic exchange for transit, is so far in operation in **North Macedonia** and **Serbia** while **Bosnia and Herzegovina** adopted necessary legislation. TCT Secretariat is conducting a *TA regarding the deployment of e-freight in the Western Balkans* aiming to enable an interoperable electronic freight information exchange system in the region, reducing administrative burden for logistics operators, and facilitating multimodal transport.

Legislative framework for *deployment of ERTMS* has been set by transposition of interoperability directive, which was done by all Regional Parties. There are several planned/in pipeline projects for ERTMS, but so far it was not introduced on any section. *ITS Directive 2010/40/EU is partially transposed in Albania, North Macedonia and Serbia* and fully transposed in **Montenegro**. As for deployment, **Montenegro** installed ITS equipment on the newly built highway. **Serbia** has ongoing projects while **Albania** is planning to apply to IPA for ITS deployment project.

Flagship 7 - Innovation, Data and AI For Smart Mobility

The TCT Secretariat signed *MoU with Shift2Rail JU*, (now: Europe's Rail Joint Undertaking, EU-Rail) to modernise the rail sector and is cooperating with EU-Rail and Southeast Europe Strategic Alliance for Rail Innovation (SEESARI) in innovative projects. More efforts are needed to promote innovation for transport overall and for establish cooperation frameworks for specific modes such as road and waterborne.

Flagship 8 – Working Towards the Single Market

The TCT Secretariat has organized *several events to support capacity building on green and digital transformation*, namely: Western Balkan Road Summit, Workshop for Western Balkan Maritime Ports as well as several awareness sessions as part of TA.

Climate resilience importance, when it comes to transport infrastructure, has been recognised, however none of the Regional Parties have prepared nor approved any targeted adaptation strategy to climate change for the transport sector. As for establishing *efficient road maintenance*, all Regional Parties have set in place multiannual road maintenance frameworks with duration of road maintenance contracts varying from four to one-year long, but Road Asset Management System have not been established in most of RPs.

Electrified railways are one of the most sustainable ways of travel and transport. In Western Balkans, 55.5% of Comprehensive Rail Network and 74% of Core is electrified. *Rail market* opening is progressing; however, preparation and adoption of laws and bylaws is not moving in pace needed to swiftly achieve regional railway market. *Restructuring of rail companies* is an ongoing activity among all Regional Parties. Currently four Regional Parties have opened the market at domestic level.

² Proposal for a Regulation of the European Parliament and of the Council on Union guidelines for the development of the trans-European transport network, amending Regulation (EU) 2021/1153 and Regulation (EU) No 913/2010 and repealing Regulation (EU) 1315/2013

Flagship 9 - Making Mobility Fair and Just for All

The TCT Secretariat has organised several events to assist regional institutions in removal of legal barriers to women's economic empowerment: The first kick-off meeting of *Women in Transport* - the Balkans Perspective was organised by TCT Secretariat as well as online *Conference Towards Gender Balanced Transport* in the Western Balkans

Flagship 10 - Enhancing Transport Safety and Security

Improving road safety infrastructure is proving to be a challenging process, mainly, due to the lack of financing and poor planning. Safety improvement at level crossings has been recognised as a key priority for all RPs. Progress has been made in developing dedicated *Road Safety Strategies* based on UN and EU targets. **Serbia** and **Montenegro** have already developed strategies and **Bosnia and Herzegovina**, **Albania** and **Kosovo** are in the process of strategy preparation/adoption.

2. INTRODUCTION

Globally, transport is behind 23% of direct global Greenhouse Gas (GHG) emissions. Demand for transport is furthermore expected to continue to grow massively in the coming decades, as population, economic output, and transport activity (vehicle kilometres travelled) are positively correlated. As transport relies on oil for 92% of its energy consumption³, decarbonisation of this sector is particularly challenging, but increasingly important. Additionally, past extreme weather conditions, as evidenced by floods, have showed importance of adaptation and climate proofing of transport infrastructure to ensure mobility and economic connectivity.

The RPs are no exception regarding the carbon-intensity of their mobility, despite having lower motorisation rates than other parts of Europe. As population grows and the economy develops, in the absence of policy aiming to decouple activity from energy use and emissions, the transport sector in the region is, thus, also expected to continue being one of the main contributors to GHG emissions and air pollution.

In the context of EU accession ambitions, making transport cleaner and sustainable is one of the key drivers of transport policy in the European Union (EU) and in the Western Balkans (WB) Region (Green Deal⁴, Green Agenda goals⁵, Economic and Investment Plan for the Western Balkans⁶, EU Sustainable and Smart Mobility Strategy⁷) and there is general pressure as well as financial funds from the international community to decarbonise transport. Decoupling economic growth from GHG emissions and air pollution will require a departure from the business-as usual transport approach. Transport typically ranks between the second and third largest contributors to air pollution in the WB cities, which are amongst the most polluted in Europe. A holistic approach, that avoids unnecessary activity, shifts activity to greener modes, improves efficiency of the transport sector and reduces the carbon intensity of the fuel mix, while keeping transport affordable; is therefore needed to mitigate air pollution and GHG emission from the transport sector.

Sustainable and Smart Mobility Strategy in the Western Balkans

With all the above in mind, the Transport Community Permanent Secretariat, in concert with ad-hoc group members from regional Ministries of Transport, the European Commission and the Regional Cooperation Council, has developed the Sustainable and Smart Mobility Strategy in the Western Balkans (SSMS WB). Additionally, a gap analysis has been developed to determine the current state of play regarding the transport reforms and infrastructure in relation to 10 flagships from the EU Sustainable and Smart Mobility Strategy. The SSMS WB was adopted by the TCT Regional Steering Committee in May 2021 and then presented and welcomed at the Annual Ministerial Council of the Transport Community in July 2021 in Slovenia.

³ International Transport Forum, 2020, "Decarbonising transport initiative" - <https://www.itf-oecd.org/decarbonising-transport>

⁴ Communication From The Commission To The European Parliament, The European Council, The Council, The European Economic And Social Committee And The Committee Of The Regions The European Green Deal

⁵ Sofia Declaration on the Green Agenda for the Western Balkans:

<https://www.rcc.int/docs/546/sofia-declaration-on-the-green-agenda-for-the-western-balkans-rn>

⁶ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: An Economic and Investment Plan for the Western Balkans, COM(2020) 641 final

⁷ Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions Sustainable and Smart Mobility Strategy – putting European transport on track for the future

This Strategy serves the region to achieve common objectives and a harmonised approach and assist RPs in developing and strengthening their own transport strategies. With the aim in mind of making transport greener, sustainable, and healthier for citizens of the Western Balkans. The document mirrors the European Commission's Sustainable and Smart Mobility Strategy and considers three objectives:

- o Sustainable
- o Smart and
- o Resilient Mobility

Monitoring of the Strategy

The Strategy itself is multimodal, cross-cutting, and encompasses various modes and their interconnections. Addressing only one mode will not provide suitable solutions to cut GHG emissions, therefore, a wider transport system approach is needed. Individual actions within this Report should always be considered as part of general objectives of achieving sustainable and smart mobility, meaning less pollution, less greenhouse gases, more efficiency and serving economic competitiveness.

The Strategy encompasses a roadmap and a set of actions that each RP is invited to implement, where the focus has been placed on immediate short and mid-term actions to jump-start greening. There is a necessity to ensure implementation and monitoring of the Strategy through the TCT structures. Given the multimodal dimension of the Strategy, its implementation is followed through an agenda item on the existing Technical Committees and by workshops/capacity building organised by the TCT Secretariat. The measures presented below refer only to actions which should have started in the previous year or should start this year. It is envisaged that the monitoring table will be updated annually in accordance with the deadlines set forth in the Sustainable and Smart Mobility Strategy for the Western Balkans.

Organisation of the Report

The Report is organised in 4 sections. Following the Introduction, Chapter 3 is presenting key findings and progress in the implementation of 10 Flagships. The last chapter of the Report lists conclusions which focus on the way forward, and further actions to be taken by RP in the upcoming period.

3. PROGRESS BY MEASURES

3.1. SUSTAINABLE MOBILITY

Flagship 1 - Boosting Uptake of Zero-Emission Vehicles, Renewable & Low-Carbon Fuels and Related Infrastructure

To achieve the objectives set in the European Green Deal, Green Agenda and Paris Agreement, it is necessary to boost the uptake of low- and zero-emission vehicles and vessels supported by renewable and low-carbon fuels for road, waterborne and, air and rail transport. There is a need to ensure that sustainable vehicles and fuels are supplied by the industry, infrastructure put in place, and demand by end-users incentivised. This Flagship includes the following actions:

- i. Transposition of the Alternative Fuel Directive;
- ii. Deployment of e-charging stations on busiest corridors;
- iii. Encouraging the introduction of incentives for zero-emission vehicles.

Transposition of the Alternative Fuel Directive

None of the Regional Parties has adopted the Alternative Fuel Infrastructure Directive which provides a basis for alternative fuel infrastructure deployment and specifies minimum requirements for building up this infrastructure, to be implemented as part of every EU country's national policy framework.

The Directive obliges the RPs to adopt a policy framework that aims to develop the market for alternative transport fuels and the infrastructure to support them.

There is, however, certain progress in this regard. **Montenegro** has initiated a discussion with the European Union Delegation (EUD) for providing Technical Assistance (TA) to assist with the transposition. While in **Serbia**, they have planned to transpose the Directive by the 4th quarter of 2024. Albania has prepared a national framework for setting up electric chargers both on the national and local road networks.

North Macedonia has not transposed the Alternative Fuel Infrastructure Directive; however, in July 2021, the Ministry of Economy initiated the drafting and consultation of the Law on Biofuels which will, for the first time, regulate the matter of biofuels used in transport. The draft Law passed the public consultation process but is still pending adoption due to delays caused due to COVID 19 and the current energy crisis.

Deployment of e-charging stations on busiest corridors

Regarding the deployment of e-charging stations, progress has been reported in **Albania** and **Serbia**. The Albanian Road Authority (ARA) is planning to inspect all petrol stations on the availability of e-charging points. Deployment of e-charging points will be mandatory for all new petrol stations. **Serbia** is installing 10 additional chargers and the respective tender was launched in July 2022 with expected completion by mid-2023. Furthermore, the Public Enterprise Roads of Serbia (PERS) started a pilot project for energy saving and the use of alternative forms of energy. The construction of solar power plants and toll collection facilities and the main construction of Serbian roads in the value of about EUR 65,000 has already been procured. Additionally, implementation of software and the equipment for remote regulation of public lighting is in the final phase, through which they can make various electricity savings. Serbia issued a

seven-year green bond, worth one billion Euros in September 2021. The funds collected by the Green Bond will be invested in 11 different projects with the focus on railway and waterborne transport.

In **North Macedonia**, EBRD is financing project on supporting 'Electric Vehicle (EV) Transition through Development of EV pathway and Initial EV Charging Deployment' with following components: institutional gap analysis; context for EV charging infrastructure- current state of play in region and Europe; pathway for EV development (with forecast and scenarios). In 2023 it is planned to award the consultancy for the development of the E-mobility National Strategy and Action Plan for the road infrastructure in the Republic of North Macedonia.

Additionally, CONNECTA's support on preparation of the *Strategic framework for the deployment of e-charging stations in the Western Balkans*, started on 8 March 2022, with a total duration of 12 months. The project aims to analyse the state of play/plans of deployment of e-charging stations and propose a roadmap on extending the e-charging stations on the TEN-T Road Core/Comprehensive network in the Western Balkans. The study results will further help the RPs with planning and deployment of e-charging stations.

Transposition of Directive 2018/2001 EU on the promotion of the use of energy from renewable energy sources (RES) has not been carried in any of the RPs and participation of RES in the transport sector is currently almost zero. However, it is worth noting that all the RPs have a strategic plan for the participation of RES in the transport sector in the coming years.

Bosnia and Herzegovina, Montenegro, North Macedonia and Serbia use electricity from renewable sources in rail and public transport (tram, trolleys) and those are the only uses of renewable sources in transport. Kosovo does not use renewable energy in transport at all. It should also be noted that Albania also has zero electricity consumption from renewable sources in rail.

Encouraging introduction of incentives for zero-emission vehicles

Albania introduced a VAT exemption on electric vehicles (in the case of the supply of new electric vehicles not previously registered in any other country) as a form of incentives. The registration tax for the electric vehicles (which is calculated on the basis of the volume of the cylinder) has been reduced and also represents a type of incentive for the purchase of electric vehicles.

As for **Bosnia and Herzegovina**, at the level of one entity (FBiH), they provided EUR 511,000 for financial incentives to subsidy citizens for the purchase of new electric and hybrid vehicles. The value of the incentives for the electric vehicles is EUR 5,000. For the purchase of the plug-in hybrid vehicles with carbon dioxide (CO₂) emissions of up to 50 grammes per kilometre or full hybrid vehicles with CO₂ emissions of up to 130 grams per kilometer, the value of the incentives is EUR 2,500.

In **Kosovo**, regulations have been adopted to incentivize the import or purchase of electric vehicles. Montenegro published two tenders for the purchase of electric and hybrid vehicles, one for 2021 and the other for 2022. For each year, the grant fund amounted to EUR 100,000 (EUR 200,000 in total), EUR 50,000 of which were earmarked for the purchase of electric vehicles and EUR 50,000 for the purchase of hybrid vehicles. The subsidy amounted to EUR 5,000 for an electric vehicle and EUR 2,500 for a hybrid vehicle (plug-in and full hybrids). Physical persons could be eligible for a subsidy for the purchase of one vehicle, while legal entities and entrepreneurs could be entitled to a subsidy for the purchase of up to two vehicles. As part of these two public tenders, the Eco-Fund has granted subsidies for the purchase of 42 hybrid vehicles and 20 electric vehicles. Additionally, in April 2022 the Eco-Fund also launched a public

tender for the purchase of electric and hybrid vehicles (categories L, M1 and N1) for the public sector which is still ongoing. With the work program for 2022, the Eco-Fund envisaged investment incentives for the acquisition of infrastructure for charging electric vehicles. The draft of the public tender is currently in the preparation phase, and the publication of the public tender for the acquisition and installation of charging stations for electric vehicles will depend on the available funds of the Eco-Fund for the current year. In **North Macedonia**, currently there are no subsidies introduced and offered for procurement of zero emissions vehicles.

In **Serbia**, owners of electric vehicles and hybrid vehicles do not pay annual tax on the use of motor vehicles. In March 2020, Serbia has adopted a regulation to subsidise purchase of electric vehicles and vehicles with hybrid drive. Subsidies are available for:

- hybrid passenger vehicle and hybrid light truck with CO₂ emissions up to a maximum of 100 g/km – EUR 2,500
- Plug In Hybrid Electric Vehicle (PHEV) and light truck, as well as electric vehicle and light truck with range extender with CO₂/km emissions up to a maximum of 50 g/km – EUR 3,500
- totally electric passenger vehicle and totally electric light truck – EUR 5,000

Additionally, subsidies and incentives are introduced for public transport and renovation of taxi fleets through adoption of a special regulation. It defines that taxi carriers have the right for subsidised purchase of new vehicles which meet one of the following criteria:

- have a fully electric, hybrid or compressed natural gas drive, or
- meet at least EURO 6 engine standard in terms of exhaust emissions.
- Additional criteria are related to the price of the vehicle, which cannot be less than EUR 13,000 and to the vehicle colour which must be white, or light/dark colour tone.

The subsidised purchase of new vehicles will be carried out by paying the amount of EUR 8,000 EUR to the legal entity or entrepreneurs who fulfil the conditions. Moreover, the regulation envisages that the taxi carrier is obligated to perform the activity of taxi transport as public transport with the subsidised vehicle for at least three years. The subsidised purchase of taxi vehicles is foreseen for three years for a maximum of 6,000 vehicles per year.

Flagship 2 - Creating Zero-Emission Airports and Ports

Compared to the other modes of transport, waterborne and air transport has greater decarbonisation challenges in the next decades. The reasons for that are multi-fold and some of the main factors are: the current lack of market-ready zero-emission technologies, long development and life cycles of vessels and, the required significant investments in refuelling the equipment and infrastructure. International competition might also push for a faster deployment of decarbonisation elements in waterborne and air transport.

This Flagship includes the following actions:

- i. following up on deliverables of INTERREG projects regarding Action Plans for Greening of e Ports of Bar and Durrës;
- ii. setting foundation for deployment of alternative fuels infrastructure through transposition of relevant EU acquis in air and waterborne sectors.

Following up on deliverables of INTERREG projects regarding Action Plans for Greening of e Ports of Bar and Durres

The alternative fuel infrastructure in both inland waterways core network ports (Brčko, Šamac, Novi Sad and Belgrade) and maritime core network ports (Bar and Durres) is currently non-existent due to the lack of demand for this type of infrastructure. However, certain steps have been made towards making ports more environmentally friendly.

The Port of Durres in **Albania** is considering investing in the construction of solar panel sites within the Port area, in order to shift a part of the energy consumption. Air quality, energy consumption and waste management are seen as the most critical issues in the Port of Durres. An important initiative will be the development of an internal mobility plan within the Port area in line with the deliverables of INTERREG projects. The aim will be to motivate employees to use bicycles and avoid daily use of cars and build a bicycle parking lot together with the construction of bike lanes in the Port facilities. The redesign of the Durres Port parking spaces is also one of the initiatives that the Port intends to undertake. The overall plan of greening the Port of Durres has to be followed in parallel with the new plans of the Albanian government to move the existing port to the new location, as envisaged by the new Port of Durres Masterplan 2030. This will encompass the relocation of cargo operations in a new modern facility to be built north of the bay, in Porto Romano whilst the old city harbour will be dedicated to passengers, cruises and an integrated marina and real estate development. The relocation of the Port can be seen as a total reset which should benefit both the maritime and tourism industries. The identified sustainability measures for the Port of Durres can however also be applicable to the new port in Porto Romano.

The Port of Bar in **Montenegro** was very active in participation in various EU funded projects aimed at improving the port community system as well as greening of ports such as the following projects: SuMo (Sustainable Mobility in the Port Cities of the Southern Adriatic Area, 2020–2022), the SMARTPORT project (Smart and Sustainable Energy Port, 2020–2022), the EFINTIS project (Enhancing efficiency of the Intermodal transport flows by Improved ICT Systems, 2020–2022) and the EnerNETMob project (Mediterranean Interregional Electromobility Networks) for intermodal and interurban low carbon transport systems, 2018–2022. The majority of these projects is still ongoing and with their implementation, the Port of Bar will contribute substantially to the implementation of the Sustainable and Smart Mobility Strategy.

Setting foundation for deployment of alternative fuels infrastructure through transposition of relevant EU acquis in air and waterborne sectors

As mentioned before, none of the RPs have adopted the Alternative Fuel Infrastructure Directive which regulates this area. As for the availability of alternative fuels, none of the airports currently has the infrastructure for sustainable aviation fuels although some of them (Belgrade, Niš, and Kraljevo) do use renewable energy sources either for running the airport or for ground handling.

Flagship 3 - Making Interurban and Urban Mobility more Sustainable and Healthy

Urbanisation has increased in the Western Balkans in the past decades and this trend is likely to continue. Traffic in urban areas is one of key factors contributing to air pollution in Western Balkans cities. Many new aspects are changing how transport is managed: through new options such as walking, cycling, micro-mobility, by improving and optimising urban logistics and first mile-last mile, or by introducing urban sustainable urban mobility plans. However, more needs to be done to connect the TEN-T Network with urban nodes and to ensure seamless transition between urban and interurban transport. While, to boost interurban passenger transport, that has been underutilised, improvement of the rail system is crucial.

This Flagship includes the following actions:

- i. encouraging regional capitals and assisting in defining sustainable urban mobility solutions for major urban nodes along e core network (last mile solutions);
- ii. better managing and coordinating international rail traffic, including, if necessary, through revised rules for capacity allocation and infrastructure charging in rail;
- iii. transposition of the Fourth Railway Package provisions.

Encouraging regional capitals and assisting in defining sustainable urban mobility solutions for major urban nodes along e core network (last mile solutions)

As a follow up to the Strategy adoption, during the European Mobility Week on 21 September 2021, the Transport Community Permanent Secretariat organised an online workshop on sustainable mobility in urban areas in the Western Balkans. The aim of the workshop was to ensure a common approach in sustainable and smart transport development in the Western Balkans and to ensure connections between urban areas with the TEN-T Network. With the workshop, the first step was made to align activities and to improve cooperation on the local and regional level in achieving the ultimate aim of having sustainable, smart and green mobility. The workshop hosted approximately 35 participants encompassing a wide range of stakeholders from international organisations, municipalities, non-governmental organisations etc.

Participants concluded on the necessity to ensure continuous cooperation between different administrative levels (regional, local) and civil societies to ensure a wider rollout of sustainable and smart mobility and to achieve climate neutrality. Urban nodes are more and more important for the overall functioning of the TEN-T multimodal network and there is a need to improve last-mile connections and address the problems of congestion and pollution often concentrated in urban areas.

Positive progress is that all major urban centres (Sarajevo, Tirana, Skopje, Belgrade, Priština, Podgorica) have Sustainable Urban Mobility Plans (SUMP) with progress continuing even in smaller towns. In April 2022, the EC announced the 100 EU cities that will participate in the EU Mission for 100 climate-neutral and smart cities by 2030. The 100 cities come from all 27 Member States, with 12 additional cities coming from countries associated or with the potential of being associated to Horizon Europe, the EU's research and innovation programme (2021-2027). Sarajevo, Podgorica and Elbasan have been selected to be part of the EU Cities Mission to deliver 100 climate-neutral and smart cities by 2030. The Cities Mission will receive EUR 360 million of Horizon Europe funding covering the period 2022-23, to start the innovation paths towards climate neutrality by 2030. The research and innovation actions will address clean mobility, energy efficiency and green urban planning, and offer the possibility to build joint initiatives and ramp up collaborations in synergies with other EU programmes⁸.

Better managing and coordinating international rail traffic, including, if necessary, through revised rules for capacity allocation and infrastructure charging in rail

Better managing and coordinating international rail traffic can be achieved only through close cooperation of infrastructure managers in the Western Balkans. The TCT Secretariat is actively engaged in developing further communication channels between all RPs from the rail sector. In September 2021, during the Rail Summit organised by the TCT, the European Investment Bank (EIB) and the European Bank for Reconstruction

⁸ European Commission, Directorate-General for Research and Innovation, EU missions: 100 climate-neutral and smart cities, Publications Office of the European Union, 2022, <https://data.europa.eu/doi/10.2777/191876>

and Development (EBRD), Infrastructure Managers signed a Memorandum of Understanding with the aim to establish a Network of Railway Infrastructure Managers for regular consultation, coordination and experience sharing. There were two meetings in 2022 and, as one of the main conclusions, they expressed a concern over the lack of the human resources. Because of that, the TC Secretariat will promote an idea about one Regional Centre of Excellence. The main role will be to provide trainings and education to operational and high education staff.

Transposition of Provisions of Fourth Railway Package

Transposition of the Fourth Railway Package provisions and further aligning the EU acquis in the area of interoperability and safety is one of the preconditions to making railways more competitive and safer, hence influencing positively modal shift. In general, there is a moderate progress across RPs, where some have advanced more and others less.

Albania has transposed the Interoperability Directive and has prepared a solid base for the completion of the institutional framework by establishing the National Investigation Body (NIB), the National Safety Authority (NSA), and the Railway Regulatory Authority (RRA). However, these bodies are not operational. Further efforts are needed to publish the Technical Specifications for Interoperability (TSI) and continue with the transposition of the Fourth Railway Package and establishing of the Electronic Register of Vehicle. In Kosovo, a working group has been established for drafting the new Railway Safety and Interoperability Law.

In **Montenegro**, there is progress regarding the first phase of the project on developing the asset management system. Five TSIs and two new Rulebooks on Interoperability have been published (October 2020). Further efforts are needed to draft the Safety Law, as well as completion of the institutional framework (NSA, NIB, Regulatory Body, and Designated Body). The electronic register of vehicles is operational. North Macedonia has prepared a draft Safety Law and the Law on Interoperability but still needs to adopt it. Additionally, progress was made on establishing the working group for the publishing of the TSIs.

Serbia is continuing with its efforts on preparing amendments to the Interoperability Law. Its adoption is expected by 2023. The draft of the Law on Railway safety has been finalised, and the TSIs published. Amongst other developments, Serbia, with the support of the World Bank, is continuing with the activities in establishing the Rail Infrastructure and Asset Management System (RIAMS). The Railway Directorate will deliver a database of the Register of Infrastructure to the European Union Agency for Railways. Further efforts are needed to fully establish the Rail infrastructure and Asset Management System.

Flagship 4 - Greening Freight Transport

Multimodality takes advantage of the strengths of different modes, such as convenience, speed, cost, reliability, predictability, and in combination, can offer more efficient transport solutions for people and goods. This will help ease the pressure on the Western Balkans congested transport infrastructure, and make the whole sector more environmentally friendly, safer, and cost-efficient.

This Flagship includes the following actions:

- i. Rail Corridor Initiative – the Western Balkans to join Rail Freight Corridors;
- ii. Assessment of bottlenecks in modal interconnections and the current incentive system in place.

Rail Corridor Initiative – Western Balkans to join Rail Freight Corridors.

In December 2021, the European Commission published a proposal for the Revision of TEN-T Regulation⁹ which puts more focus on the green and digital transformation of the transport sector. The region's

particular importance in the overall European context is also mirrored in the newly proposed TEN-T package consisting of four proposals aimed at modernising the EU's transport system. The Western Balkans are geographically embedded into the EU, with neighbouring Member States such as Greece and Bulgaria relying heavily on the region's infrastructure for their connectivity with the EU. A more inclusive approach may be seen from the proposed creation of a new Western Balkans Corridor across the region, linking Austria, Slovenia and Croatia to Greece and Bulgaria, and covering the territory of all South East European Parties. The new Corridor encompasses also the Rail Freight Corridor for the Western Balkans. Once the new TEN-T package is adopted, the new Rail Freight Corridor Western Balkans and its associated institutional mechanisms will likely become an essential tool for the coordinated implementation of the Core Network in the region and better cooperation on international freight traffic.

Assessment of bottlenecks in modal interconnections and the current incentive system in place

Multimodality in passenger and freight transport is still in its inception phase and regulatory, institutional and infrastructure framework needs to be set. Several projects for developing both freight terminals (Batajnica, Makiš) and passenger stations are ongoing or planned projects, however they are still not put into operation. Generally, development of multimodal terminals and adjusting the existing road/rail infrastructure to enable multimodal transport is moving in a slow pace.

As regards the Council Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between Member States, certain RPs, such as **Serbia**, and **Montenegro** transposed some provisions of the combined transport directive, however, full transposition is yet to be achieved. Another problem that has appeared is a lack of planning/coordination of connections of the urban environment with the TEN-T Network, i.e. newly built rail stations are not connected to the public transport network.

Flagship 5 - Pricing Carbon and Providing Better Incentives for Users

Transport is a key enabling service that contributes to economic growth and satisfies a country's mobility needs. Yet, its activities produce negative externalities to the environment and to the society. Currently, transport users cannot easily access information on transport carbon footprint and availability of clean choices. People need to be made aware of the environmental impact of their travel, purchases and day-to-day mobility that will lead to potential travel pattern changes.

This Flagship includes the following actions:

- i. Deployment of e-tolling and achieving interoperability of electronic road toll systems and facilitating cross-border exchange of information;
- ii. Establishing Transport Community Transport Observatory Database and Information System (TODIS).

⁹ Proposal for a Regulation of The European Parliament and of The Council on Union guidelines for the development of the trans-European transport network, amending Regulation (EU) 2021/1153 and Regulation (EU) No 913/2010 and repealing Regulation (EU) 1315/2013

Deployment of e-tolling and achieving interoperability of electronic road toll systems and facilitating cross-border exchange of information

There is no progress in the transposition of the Directive 2019/520/EC of the European Parliament and of the Council of 19th of March 2019 on the interoperability of electronic toll systems and facilitating the cross-border exchange of toll non-payment information in the Union that entered into force in October 2021. The TCT Secretariat's supported Technical Assistance on baseline assessment and financial impact of electronic tolling interoperability started on 24 January 2022. The specific objective of this assignment is to allow for an impact assessment of e-tolling interoperability in the region in a way that a road user can travel seamlessly in the whole region. Special provision shall be made to make this expandable to neighbouring EU Member States. The final report was submitted in August 2022 and the results of the study were disseminated at the Regional Conference on Road User Charging, in October 2022.

Establishing Transport Community Transport Observatory Database and Information System (TODIS)

The Treaty establishing a Transport Community includes setting-up a Transport Observatory as an information system to be used by decision makers in monitoring and reviewing the condition and performance of the indicative TEN-T extension of the comprehensive and core networks to the Western Balkans. The Transport Observatory concept endorsed by the Regional Steering Committee in October 2020 shall fulfil four core functions, namely:

- TEN-T Network Performance monitoring;
- TEN-T Projects monitoring;
- TEN-T network demand forecasting and modelling;
- EU Acquis monitoring.

Transport Observatory is developed under a three-staged approach, with Phase I already completed and Phase II (TODIS development and implementation) currently on-going, as shown graphically below.

Phase II of Transport Observatory development started in September 2021 (when the procurement procedure for TODIS design and implementation was launched) and is scheduled for completion in December 2022. Procurement was successfully concluded in late 2021. Since contract commencement in January 2022, the following activities have so far been carried out: Business Analysis and Detailed Design; Data collection (on-going); TODIS development (on-going). As per the implementation schedule, TODIS implementation and users' training shall be finalised in December 2022.

3.2. SMART MOBILITY

Flagship 6 - Making Connected and Automated Multimodal Mobility A Reality

Digitalisation, automation, and the emergence of a shared, collaborative economy and platforms (which are challenging the current and traditional mobility and transport landscape) will be key for building a smart, green, and resilient transportation system. This rapid transformation can make the transport system more connected, multimodal, and efficient, allowing for a better organisation and execution of travel and transport operations. In the region, digitalisation is still at the inception level, with specific solutions mostly developed on specific sections and not all network.

This Flagship includes the following actions:

- Using modern software at border crossing points /common crossing points (such as e-qms, NCTS, SEED, NSW, Galileo app);
- Initiation of deployment of ERTMS through transposition of EU directives, TSIs, preparation of project documentation and deployment;
- Deployment of ITS through transposition of EU directives, standards, preparation of project documentation and deployment;
- Deployment of Mobility as a Service (passenger and freight) applications and digital transport corridors, smart mobility solutions and multimodal travel information services;
- Assessing needs for setting up agencies or other bodies to support safe, smart and sustainable road transport operations.

Using modern software at border crossing points /common crossing points (such as e-qms, NCTS, SEED, NSW, Galileo app)

Bosnia and Herzegovina adopted new customs legislation which foresees the possibility of conducting customs formalities by using electronic exchange for transit, through the NCTS (New Computerised Transit System-NCTS), allowing exchange of electronic data between the customs authorities and economic operators, thus substituting the paper documentation. The NCTS is the first trans-European electronic system to be introduced in Bosnia and Herzegovina in the area of customs, and in order to obtain an invitation to join the EU-CTC Committee and the relevant Conventions, the NCTS should be used at the RP level for a one year period. The NCTS is so far in operation in **North Macedonia** and **Serbia**.

The Memorandum of Understanding (MoU) on the electronic exchange of data between the Customs Administration of **North Macedonia** and the Directorate General of Customs and Excise of the Independent Authority for Public Revenue of **Greece** was signed on 7 July 2022 in Thessaloniki. It provides a legal basis for further activities and is set as the first stage in the process of extension of Green Lanes to the EU MS. From the date of signing, North Macedonia unilaterally started to provide data to Greece, through the SEED+ system.

MoUs between the Customs Administration of **Albania** and the Excise Customs and Monopolies Agency of **Italy** (ADM), and between the Revenue and Customs Administration of **Montenegro** and ADM are signed in Rome on 9 September 2022. The MoUs are to provide the basis for facilitation of sea traffic (Blue Lanes) by electronic exchange of data on goods transported by maritime transport, including information about empty trucks via the SEED+ system.

Initiation of deployment of ERTMS through transposition of EU directives, TSIs, preparation of project documentation and deployment

The legislative framework for the deployment of ERTMS has been set by transposition of the Interoperability Directive, which was done by all RPs. However, efforts are needed to align the Interoperability Directive with the new provisions from the Fourth Railway Package. Technical specifications, which further details technical elements for deployment of ERTMS, have been adopted only by **Serbia**.

Even though some RPs do not have domestic legislation for the implementation of TSIs, they are implementing it in all ongoing infrastructure projects supported by the EU. **Albania** - TSIs are foreseen in the modernisation of the Rinas (int Airport) - Tirana – Durres railway line. **North Macedonia** will electrify and introduce ERTMS through the infrastructure works on the new railway line between Kumanovo and Bulgarian border. **Montenegro** and **Kosovo** plan to implement few TSIs on Route 4 and Route 10. **Bosnia and Herzegovina** has also foreseen to implement TSIs on the railway line Samac – Doboij – Rjecica. At the entity level, Republika Srpska (RS) adopted a several by-laws: (i) Rulebook on certification of drivers and centres for the education Directive 1007/59, (ii) Rulebook on passenger rights and obligation Regulation 1371/2007, (ii) Rulebook on interoperability Directive 2016/797. In addition to that, the authorities of RS expressed interest for technical assistance in establishing National Vehicle Register (NVR). In **Serbia**, there are a number of projects that have foreseen the implementation of the ERTMS.

Deployment of ITS through transposition of EU directives, standards, preparation of project documentation and deployment

ITS Directive 2010/40/EU is partially transposed in Albania, North Macedonia and Serbia and fully transposed in Montenegro. During the reporting period, **Montenegro** adopted 5 by-laws related to the transposition of respective EU Directive 2010/40/EU and Directive 2004/52/EC. The Administrative Instruction in **Kosovo** for the transposition of the ITS Directive is still in process and is expected to be signed by the end of 2022. **Serbia** adopted the revised National Program for the Adoption of the Acquis 2022-2025 and the deadline for transposition of ITS Directive 2010/40/EU. **North Macedonia** reported that all standards related the ITS are adopted by Institute for standardisation.

Preparation of ITS Strategies in **North Macedonia** and **Serbia**, supported by the World Bank is reported to be on track and set to finalise the respective strategies by Q4 2022 and Q3 2023 respectively. **Montenegro**, as part of EU Technical Assistance on legal approximation, expects to finalise the strategy by the end of 2021 while the Programme for the Development and Introduction of Intelligent Transport Systems in Road Transport in Montenegro for 2022-2026 has been prepared.

Bosnia and Herzegovina and **Kosovo** are supported by CONNECTA for the preparation of ITS Strategies and Operational Concept for Road Traffic Management Centres. The project is expected to be completed by March 2023.

As for deployment, **Montenegro** installed on the newly built highway section Smokovac-Matsevo section ITS equipment in the value of cca 25 mil. EUR. Albania completed the detailed design for the deployment of ITS on 200km, including the Traffic Monitoring Centre. Albania is planning to apply for funds within IPA III for the implementation of this project. In Serbia, two regional Traffic Management Centres are ongoing, construction of Regional Centre for traffic management and surveillance Nis (ITS regional centre) with an EBRD loan and construction of regional centre Belgrade. In addition to that, **Serbia** is planning to apply for funds within IPA III for the preparation of project documentation for National centre for traffic management and surveillance – Belgrade as well as for the implementation of

ITS elements along road the Core Network.

Deployment of Mobility as a Service (passenger and freight) applications and digital transport corridors, smart mobility solutions and multimodal travel information services

The TCT Secretariat is conducting a TA regarding the deployment of e-freight in the Western Balkans and implementation of Regulation (EU) 2020/1056 on electronic freight transport information. The general objective of this assignment is to fulfil the obligations derived from the Transport Community Treaty signed by Regional Parties, related to electronic freight transport information, part of the Sustainable and Smart Mobility Strategy in the Western Balkans and Waterborne and Multimodal Action Plan as well.

The specific objective of this assignment is to enable an interoperable electronic freight information exchange system in the region, reducing administrative burden for logistics operators, and facilitating multimodal transport. A special provision shall be taken for this to be expandable to the neighbouring EU Member States. The TA is encompassing following deliverables:

- The European Union's institutional and legal framework and best practice examples;
- State of play and GAP Analysis by the Regional Parties;
- Impact assessment of the Regulation;
- Implementation plan and pilot projects.

Project electronic freight transport information exchange and implementation of the Regulation (EU) 2020/1056, financed through TCT budget, started in February and will be completed by the end of 2022. A coordination group has been formed consisting of representatives of Regional Parties to assist and streamline the work of consultants. Additionally, the consultants have been doing a series of awareness sessions to inform the RP on the benefits of transport digitalisation.

Assessing needs for setting up agencies or other bodies to support safe, smart and sustainable road transport operations

Through the elaboration and revision of the RP transport strategies (Albania, Bosnia and Herzegovina, Montenegro, Kosovo Serbia), Regional Parties are also assessing the human and planning capacity to ensure green and digital transition. However, so far concrete actions to build the capacity have not been taken.

Flagship 7 - Innovation, Data and AI For Smart Mobility

Achieving the Green Deal, Green Agenda and Paris Agreement objectives in the field of mobility, making full use of digitalisation and increasing Western Balkans competitiveness cannot happen without research and innovative support. The 'Western Balkans Regional R&D Strategy for Innovation' Study claims that unleashing region's innovative potential will generate important economic gains (e.g., investing 3 per cent of GDP into research and innovation will generate a 6 per cent increase of GDP and a 13 per cent increase in exports). Innovation is important not just for depolluting transport but also for overall economic progress of the region.

This Flagship includes the following actions:

- i. Developing R&I partnerships within region and with EU bodies;
- ii. Encouraging public companies/institutions/universities to establish innovation centres;
- iii. Improving coordination between public authorities, universities, NGOs on regional to encourage interdisciplinary research in green and digital mobility;
- iv. Increasing awareness and educating young leaders, officials, and other relevant stakeholders on greening of transport.

Developing R&I partnerships within region and with EU bodies

The TCT Secretariat signed a MoU with Shift2Rail JU, (now: Europe's Rail Joint Undertaking, EU-Rail) with which both parties committed to modernise the rail sector through deployment of new technologies and innovative solutions; engage in R&I activities regarding the deployment of digital, autonomous, connected, and sustainable rail systems and operations.

Encouraging public companies/institutions/universities to establish innovation centers

Based on the needs expressed on the Rail Infrastructure Managers Network for the Western Balkans, the TCT Secretariat and EU-Rail committed to cooperate on establishing Railway Center of Excellence for the WB. The objective of the Rail Centre of Excellence is to identify and enable knowledge transfer in order to improve the quality of rail systems, the educational and research systems and their synchronised cooperation while the ultimate goal being to develop the rail transport systems within the Western Balkans in line with the transport market of the EU. The general objective of the Rail Centre of Excellence is investing into the future WB6 rail transport capacities/human resources and increasement of the awareness and knowledge as well as promoting the EU standards and norms related to the Rail Transport Sector. More efforts are needed to promote innovation for transport overall and for specific modes such as road and waterborne.

Improving coordination between public authorities, universities, NGOs on regional to encourage interdisciplinary research in green and digital mobility

The TCT Secretariat, together with EU-Rail and Southeast Europe Strategic Alliance for Rail Innovation (SEESARI), is involved in the project for Digital Automatic Coupler (DAC). With this regard, the first meeting was held in Vienna in May 2022 where further steps were agreed. Therefore, in 2023 several workshops will be organised for theoretical and practical presentations of the benefits of the DAC. Also, in cooperation with SEESARI and its members, the TCT Secretariat is working on re-establishing the passenger train connections between major cities in the WB. More efforts are needed to promote innovation for transport overall and for specific modes such as road and waterborne.

Increasing awareness and educate young leaders, officials, and other relevant stakeholders on greening of transport

In 2021, the TCT Secretariat organised the first of a kind Rail Summer School for the WB where young leaders from all relevant stakeholders were taught by eminent European professionals and leaders of relevant institutions like ERA, S2R, DB, Government officials etc.

Additionally, in 2022, the TCT Secretariat organised the Road Summer School which aimed at offering a capacity building program, allowing the participants to gain sound knowledge and understanding of the latest developments at the EU and regional level specifically focusing on safe, smart and sustainable roads. The participants learned about the essentials of green and digital development, road transport innovations, development of TEN-T networks, project financing and road safety (more in the agenda attached). The TCT Secretariat also organised a Summer School in June focusing on green and digital aspects of road transport for young professionals, educating them on the importance and necessity of green and digital transformation in transport.

3.3. RESILIENT MOBILITY

Flagship 8 – Working Towards the Single Market

The single market still needs to be developed in the Western Balkans, and the Transport Community Treaty is fostering the development of the region's Single Market and aims at creating a Transport Community comprising road, rail, inland waterway, and maritime transport. In order to make the transition to sustainable and smart mobility and transport truly successful, and the whole system more resilient, specific measures to increase the sector's crisis resilience need to be put in place.

This Flagship includes the following actions:

- i. Capacity building for administration on green and digital transformation of transport;
- ii. Development of cost effectiveness analysis of Sustainable and Smart Mobility Strategy Western Balkans Perspective and elaboration of detailed action plans per each Regional Party;
- iii. Adopting guidelines to assess climate change and natural hazards of road network;
- iv. Developing and implementing climate resilience plans for RPs transport networks;
- v. Establishing efficient road maintenance through multiannual road maintenance plans and Road Asset Management Systems;
- vi. Electrification of rail core network and implementation of Flagship 1, 2, 3;
- vii. Reforming railway sector through transposition and implementation of Market opening, passenger rights, interoperability, border crossings/common crossings legislation;
- viii. Reviewing transport relevant State aid rules.

Capacity building for administration on green and digital transformation of transport

The Transport Community Treaty has organised several events to support capacity building on green and digital transformation, namely:

- The Western Balkans Road Summit – the Transport Community Permanent Secretariat, the European Investment Bank (EIB), and the European Bank for Reconstruction and Development (EBRD) organised the Western Balkans Road Summit, Tirana on 7 June 2021, dedicated to: 'Shaping the future: safe, smart and sustainable roads' in Tirana, hosted by the Government of Albania. The Road Summit gathered Ministers in charge of Transport of the Western Balkans, representatives of the EU Member States, Regional Institutions, and international organisations. The discussion was centered on three elements of roads of the future:
 - o Safe roads focusing on safe infrastructure for road users, reducing speed limits in urban areas and the importance of road safety data;
 - o Smart roads focusing on making Intelligent Transport Systems (ITS) a reality for the region, data management for smarter roads, and innovative solutions towards green mobility;
 - o Sustainable roads focusing on climate proofing of road networks (TEN-T networks and urban) and deployment of emission zero fuels and infrastructure

At this summit, dedication was clearly shown by the Ministers and road agencies to move on the path of making roads sustainable and this was manifested through two declarations signed: one by the Ministers and one by the public road authorities.
- A Workshop for Western Balkans Maritime Ports (The Port of Bar and The Port of Durrës) on Greening of ports including alternative fuel projects was held in the Port of Piraeus on

20 of May 2022. One of the currently non – compliant key performance indicators of Core TEN-T Network for Albania's Port of Durrës and Montenegro's Port of Bar is the availability of alternative clean fuels. The Piraeus Port Authority implemented numerous EU funded projects, from which Albania's Port of Durrës and Montenegro's Port of Bar benefited from the exchange of knowledge on how to design, disseminate and develop successful sustainability projects as well as explaining the step-by-step procedures and lessons learnt. The workshop facilitated a deeper dialogue between the participants and possible future project partner initiatives on port sustainability projects, especially studies on alternative fuels. The participants were able to discuss and reflect on the lessons learned presented by the Piraeus Port Authority, while learning how these may be transferred to their own ports.

- Technical Committees (TC) where Sustainable and Smart Mobility was in the focus and implementation of the Strategy and Green agenda was discussed. On the TCs, prominent expert speakers were invited to raise awareness and capacity of our RPs for green and digital transformation.

Development of cost effectiveness analysis of Sustainable and Smart Mobility Strategy Western Balkans Perspective and elaboration of detailed action plans per each Regional Party

This Technical Assistance (TA) is a follow up of the Strategy for Sustainable and Smart Mobility for the Western Balkans endorsed by the TCT Ministerial Council in July 2021. The purpose of this Technical Assistance is assessing the impact, costs and prioritising measures from the Strategy, aiming to enhance mobility by focusing on sustainable and smart transport along the indicative extension of Trans-European Network for Transport (TEN-T) in the Western Balkans. The TA is a sub-project of the Technical Assistance to Connectivity in the Western Balkans (CONNECTA), which is an EU-funded technical assistance contract. This project started in March 2022, and is composed of two components:

- Component 1 – impact assessment and cost effectiveness analysis of the Sustainable and Smart Mobility Strategy for the Western Balkans;
- Component 2 - Strategic framework for the deployment of e-charging stations in the Western Balkans.

The result of the study will give us more insight how to practically start implementing sustainable and smart mobility in the Western Balkans.

Developing and implementing climate resilience plans for RPs transport networks and Adopting guidelines to assess climate change and natural hazards of road network

Transport was one of the main sectors affected showing how vulnerable the entire region is to climate change, due to lower resilience and adaptive capacity. Climate resilience importance, when it comes to transport infrastructure, has been recognised, however none of the Regional Parties have prepared or approved any targeted adaptation strategy to climate change for the transport sector. Some developments can be reported in **Albania, Bosnia and Herzegovina** and **Serbia** with cross-cutting strategies that will address transport sector challenges in relation to adaptation to climate change. Recently, risk assessment of the vulnerable assets and operations, due to climate change, has been practiced in the Western Balkans mainly on IFIs funded projects.

These measures aim to ensure a smooth transition towards greener and more sustainable road development. **Montenegro** has adopted a series of documents to tackle climate change such as ‘National strategy in the field of climate change until 2030’, Law on Protection from the Negative Impact of Climate Change, Manual for the Preparation of the Low Carbon Development Strategy until 2050 is finalised, as well as ‘Road Map of Decarbonisation of Transport in Montenegro’. In addition, with the support of the EBRD, “The Road Infrastructure Climate Resilience Strategy for Montenegro and Action Plan” has been prepared. Albania adopted in the end of 2021 the National Energy and Climate Plan 2021 – 2030. It comprises an integrated policy framework to steer decarbonisation efforts until 2030 and beyond, aligning with the goals of the European Green Deal. Currently, National Energy Efficiency Action Plan is being revised as an integral part of the National Energy and Climate Plan. **Albanian** Road Authority (ARA) with the support of the World Bank is working on the preparation of the Resilient Risk Map for the 100 priority Bridges out of 745 bridges of the National Network. Serbia has adopted a series of documents to tackle climate change such as the Law on Climate Change, the Rulebook on availability of consumer information on fuel economy and CO2 emissions in respect of the marketing of new passenger cars, the Law on Renewable Energy Sources, the Law on Energy Efficiency and Rational Use of Energy. Moreover, the Carbon Development Strategy with its Action Plan and National Energy and Climate Plan until 2030 with a vision until 2050 is in the final stage of preparation.

In relation to climate proofing of road infrastructure, the Regional Parties have been engaged actively in the regional project “Enhancing Environmental Performance and Climate Proofing of Infrastructure Investments in the Western Balkan Region from an EU integration perspective” (ClimaProof), implemented by the UNEP and funded by the Austrian Development Cooperation, aimed at adapting road infrastructure to present and future climate conditions through a broad concept of climate proofing. The TCT Secretariat will work to build upon these results, aiming to carry out the vulnerability assessment of the road and rail network, using the European Commission - Technical guidance on the climate proofing of infrastructure in the period 2021-2027.

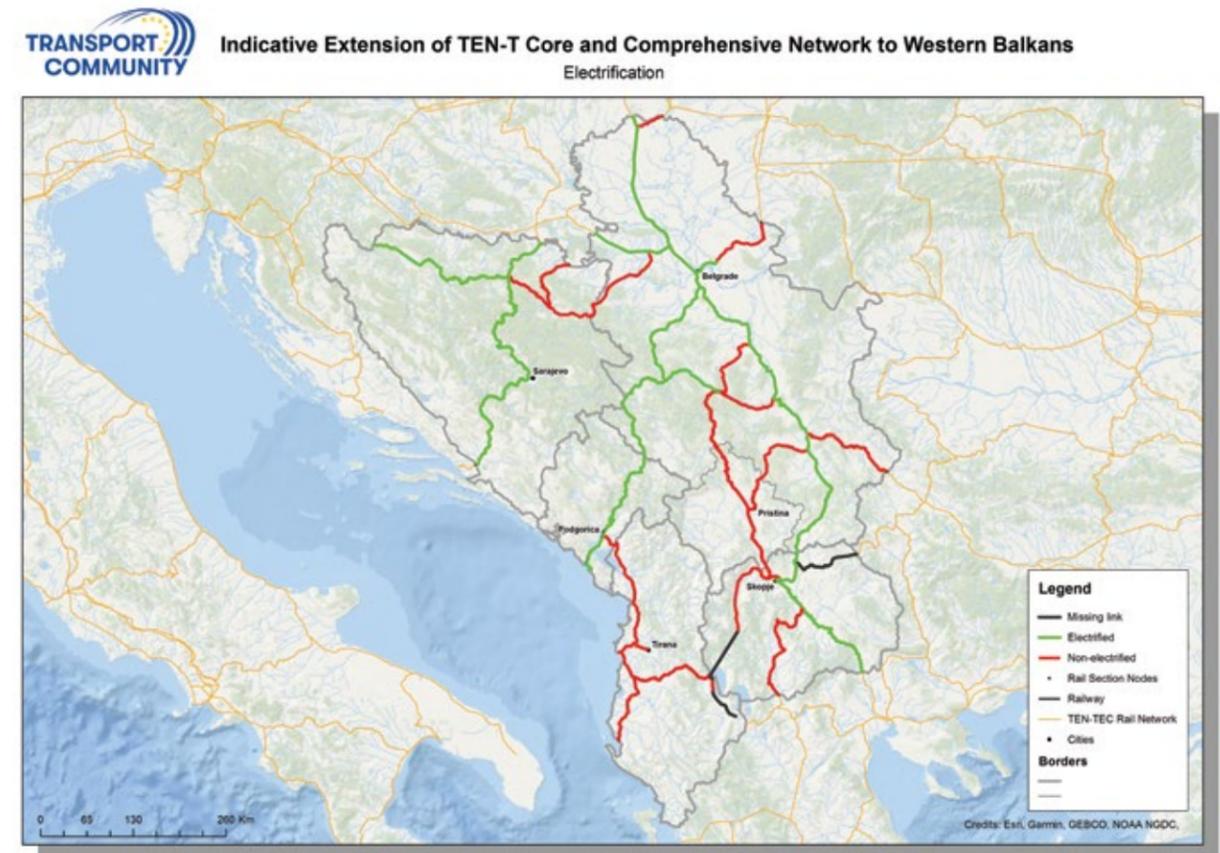
Establishing efficient road maintenance through multiannual road maintenance plans and Road Asset Management Systems

Establishing efficient road maintenance through multiannual road maintenance plans and Road Asset Management Systems (RAMS) has been relatively slow during this reporting period. Overall, all Regional Parties have set in place multiannual road maintenance frameworks with duration of road maintenance contracts varying from four to one-year long. During the reporting period, the contracts to set up RAMS in **Albania** and **Serbia** progressed but are not finalised yet. RAMS units were created within the above-mentioned road maintenance authorities. **Bosnia and Herzegovina** reported to have RAMS set up in most of the public road enterprises responsible for the TEN-T Core and Comprehensive Network. While, **Kosovo** and **Montenegro** are having ongoing projects for establishment of the Road Asset Management System. Nevertheless, all Regional Parties should invest more efforts and resources to achieve the targets of the Sustainable and Smart Mobility Strategy.

Electrification of rail core network and implementation of Flagship 1, 2, 3

Electrified railways are one of the most sustainable ways of travel and transport. They are also one of the criteria for the Core and Comprehensive Network. The total length of the Comprehensive Rail Network is 3,895 km, with 3,684 km in operation, out of which 55.5% is electrified. The length of the Core Rail Network is 2,546 km with 2,474 km in operation out of which 74% is electrified. Certain parts of the networks, mainly in **Albania** and **North Macedonia** (Corridor VIII), are still in the construction phase and are not part of this analysis. There are no significant differences between electrification compliance rates in 2021 and 2022.

Figure 1. Map of electrified lines



Reforming railway sector through transposition and implementation of Market opening, passenger rights, interoperability, border crossings/common crossings legislation

Rail market opening, as one of the most challenging measures has not experienced significant changes in the past year. The legislative rail framework is progressing. However, preparation of laws and bylaws is not satisfactory as well as speed of adoption by the legislative bodies. Just a few bylaws were adopted during the reported period in the entire region. There were no new laws related to the railway field.

Restructuring of rail companies is an ongoing activity among all Regional Parties. Currently four Regional Parties have opened the market at the domestic level. In practice, there are six private Railway Undertakings in **Serbia**, one in **Kosovo**, two in **Albania**. In **Montenegro**, one private RU submitted a request for the safety certificate and licence, but this process is still ongoing.

Regarding the rail freight market, a share of private undertakings is growing in **Serbia**. Now, it is 25% compared to the 15% last year. At same time freight volume of freight railway undertaking stayed at the same level. In **Albania**, private railway undertaking and in same time concessioner on distance Fier – Vlore and Fier – Balsh, is the main carrier taking into account that railway traffic is almost suspended on the whole network in Albania due to the construction works or bad conditions on the railway infrastructure. In Kosovo, public as well as private RUs stopped operating last year on the main Route 10 because of the rehabilitation of this section.

Further efforts are needed in the area of passenger rights. Most of the Regional Parties have taken actions to transpose certain parts of the regulation related to passenger rights. However, full implementation is still lagging. Safe and interoperable railway systems is a priority for all Regional Parties. To achieve interoperability at the regional level, mutual recognition of operating licenses, train driver licenses, safety certificates, vehicle authorisation is crucial. In terms of that, there is limited progress in implementing the technical pillar of the Fourth Rail package by all Regional Parties.

Reviewing transport relevant State aid rules

In the reporting period there was no progress by the Regional Parties regarding this measure.

Flagship 9 - Making Mobility Fair and Just for All

The transport sector is a major contributor to Western Balkans economies, supporting jobs and being a key driver of connectivity in the region. The sector represented around 5 per cent of the Western Balkans workforce in 2018. Certain developments put social standards and rules at risk: the economic downturn; an uneven level playing field amid growing international competition; the erosion of traditional social structures; and demographic change. These are among the challenges that should be addressed to retain a highly skilled workforce, protect workers' and passenger rights, and to foster affordable and available mobility to ensure that the green and digital transitions are just and inclusive.

This Flagship includes the following actions:

- i. Playing an active role to assist regional institutions in removal of legal barriers to women's economic empowerment opportunities;
- ii. Encouraging IFIs, Ministries in charge of transport and Transport Departments within Universities across region to develop grant schemes for women internships in transport sector;
- iii. Reviewing guidelines on Land PSO Regulation and provide guidance on freight PSOs.

Playing an active role to assist regional institutions in removal of legal barriers to women's economic empowerment opportunities

The Social Forum of the Transport Community is a platform for a social dialogue between key transport social stakeholders of the European Union and the South East European Parties. One of the topics that is addressed within the Forum is gender inequality and how to make the transport sector more attractive for youth and women. The Transport Community Permanent Secretariat has organised several events (in the scope of the Social Forum or separately) to assist regional institutions in removal of legal barriers to women's economic empowerment:

- The first kick-off meeting of Women in Transport - the Balkans Perspective was organised by the TCT Secretariat on 18 November 2021. The meeting took place online and it brought together a group (45 participants) of key stakeholders (European Commission, EBRD, UN and World Bank). The aim of the kick-off meeting was to exchange views and knowledge on the gender balance situation in the transport sector in the Western Balkans; to agree on a concept note, on how to address the most pressing issues on gender balance in the transport sector in the Region. The kick-off meeting was also the opportunity to establish much needed contacts with relevant Regional Parties, like the World Bank, United Nations Women, Regional Cooperation Council and European Bank for Reconstruction and Development, to make the needed push on the gender balance agenda in the transport sector in the Western Balkans region.

- An online conference Towards Gender Balanced Transport in the Western Balkans, as a follow up to the kick-off meeting on the topic related to "Woman in Transport" took place on the 8 March 2022. Gender equality is a highly important topic, and conferences like this one are a major step towards empowering women to join the transport sector and thus take over key roles in domestic and global transport. The conference highlighted the need for a stronger regional cooperation when addressing the gender gap in the sector, which brought together fifty key regional stakeholders, various actors from the Western Balkans, the European Commission, the Regional Cooperation Council, the World Bank, UN Women, and the International Transport Forum. The conference had two sessions. The first one addressed the much-needed political support for a gender balanced transport sector. The political support is necessary both to empower women to join this sector and to close the gap in terms of use of transport services. The second session addressed the topic of women and urban transport. Transport planning, design and operation of transport infrastructure and services is dominated by a male work force, that often doesn't reflect women's' needs in the transport sector.

The Conference concluded that engagement of women in the transport sector actions/initiatives should include women empowerment (promote education, training and professional development for women in transport), policy development (including a broad-spectrum of stakeholders when developing policies) and data collection: a big challenge in the region, as data collection and analysis very often don't include gender. TCT Secretariat with the support of the DG MOVE, EU institutions and other important partners will continue with its activities related to awareness raising.

Several of the IFIs, like the World Bank were also very active in addressing gender inequality in the transportation sector. The latest report published in May 2022 titled "Paths Toward Green Mobility: Perspectives on Women and Rail Transport in Bosnia and Herzegovina, and Serbia" explores two aspects of the rail transport sector-mobility, and employment - in the countries of Serbia, and Bosnia and Herzegovina (BiH) from a gender perspective. It examines issues of rail transport for women both as passengers, and as sector employees.

Encouraging IFIs, Ministries in charge of transport and Transport Departments within Universities across region to develop grant schemes for women internships in transport sector.

During the TCT Capacity Building Summer School devoted to road transport, a participatory workshop on how to make the transport sector more attractive for women and the youth took place. One of the clear outcomes was to develop more grant schemes for women internship in the transport sector (private and governmental). The outcomes of the workshop will be presented to main stakeholders (Minister in charge of transport, Universities, IFIs) at the yearly Women in Transport Conference that will take place in the first quarter of 2023.

Reviewing guidelines on Land PSO Regulation and provide guidance on freight PSOs.

In the reporting period there was no progress by the Regional Parties on this measure.

Flagship 10 - Enhancing Transport Safety and Security

All Regional Parties have embraced Vision 0 in line with that of the UN and EU for introducing the Safe System approach in their new Road Safety Strategies, committing to aspirational targets of zero fatalities. Additionally, Railways through the transposition and implementation of the safety law are dedicated to improvement of safety on railways, with special attention given to level crossings as connecting points between road and rail.

This Flagship includes the following actions:

- i. Improving road safety management, enabling safer infrastructure a better protection of road users;
- ii. Preparing and adopting Road Safety Strategy and setting road safety targets for next decade 2021-2030;

Improving road safety management, enabling safer infrastructure a better protection of road users

Road Safety is a shared responsibility among all road safety actors. The collaboration with the Ministry of the Interior is highlighted as crucial. It has been recognised that furthering cooperation with other road safety stakeholders, in particular with the Ministry of Health and Ministry of Education and Science, will pave the path towards implementation of the safe system principles. The TCT Secretariat will continue to organise a dedicated session(s) under the Technical Committee agenda and place a greater emphasis on discussions around parts of the safe system such as enforcement, speed management, road policing and road trauma.

Improving road safety infrastructure is proving to be a challenging process mainly due to the lack of financing and poor planning. Western Balkans authorities will need further support from all stakeholders, the EU Commission, and IFIs to improve the road conditions and ensure safe roads for all users. That said, Safe and Sustainable programme is marking a big step forward in terms of financial support to the region for road safety.

Safety improvement at the level crossings is recognised as a key priority for all Regional Parties. Based on agreement with all Regional Parties, the TCT Secretariat prepared a project fiche supported by Serbia on behalf of all Regional Parties. This project fiche was officially submitted to JASPERS and approved in March 2021, to be completed in December 2022. The first phase of the project aimed to map level crossings throughout the network. Current balance between “active” (20%) and “passive” (80%) level crossings by type of protection is very far away from the EU average (55% “active” and 45% “passive” protection).

Western Balkans - total	2014	2015	2016	2017	2018	2019	2020	2021	total
Total number of railway accidents	722	831	633	824	786	752	488	671	5707
Accidents on LCRs	98	91	114	114	117	77	59	80	750
Percentage of accidents on LCs	13.6	11.0	18.0	13.8	14.9	7.8	11.5	13.4	12.9

Table 1. Total numbers of accidents and the number of accidents on LCs in the entire WB region

However, the most compelling insight from the above-aggregated statistics for the entire WB Region, and which is more than obvious, is that 61% of all the accidents on LCs, have fatalities or severity injuries as their direct consequences. Preliminary ranking says that in each Regional Parties there are few level crossings as candidates for denivelation as well as certain number of candidates for the upgrade of protection. More details will be available after publishing the final Report (expected date – end of September).

Aligning legislation with EU Directive 2008/96/EC on Road Infrastructure Safety Management is still an ongoing process for most of the Regional Parties. Furthermore, the relevant authorities need to continue identifying the high-risk road sections (dangerous roads and road sections), as well as adopt and start implementing the three-year Road Safety Inspections and Road Safety Audits Plans. Capacity building remains a challenge throughout the region. In that respect, the Transport Community Permanent Secretariat will organise a workshop for sharing knowledge about implementation of the Tunnel safety Directive.

Preparing and adopting Road Safety Strategy and setting road safety targets for next decade 2021-2030

Albania has sent a proposal to the EUD for financing the new Road Safety Strategy through IPA. **Bosnia and Herzegovina** has shown good progress in this regard. The draft Road Safety framework Strategy and Action Plan for 2021-2025 is pending and currently is under the review and opinion of the Road Safety Council. **Kosovo** has established an expert working group and has engaged a short-term consultancy work for drafting the Multimodal Transport Strategy (supported by the TCT Secretariat). The Multimodal Transport Strategy will include, in a separate chapter, the Road Safety Strategy where Secretariat is giving its contribution. The timeline for completion of the Draft Strategy is the end of the 2022 year.

North Macedonia, there are no reported developments. Drafting of the Road Safety Strategy is planned under the tasks of the new Leading Road Traffic Safety Agency. **Montenegro** has already in place a Road Safety Improvement Programme and Road Action Plan for the period 2020-2022. The work on drafting the Road Traffic Safety Strategy (2023-2030) with a 2-year Action plan (2023-2024) is still ongoing. The Strategy is expected to be completed and adopted later in the 2022 year. **Serbia** drafted the Road Safety Strategy for 2022-2030, however, the progress in the process of adoption of the draft Road Safety Strategy depends on the establishment of the new Road Safety Coordination Body.

4. CONCLUSIONS AND WAY FORWARD

The TCPS Sustainable and Smart Mobility Strategy for the Western Balkans mirrors the EU Strategy and strives to put the region on the path to achieving green mobility. This strategy outlines how the Western Balkans transport system can achieve its green and digital transformation and become more resilient to future crises. The result is predicted to substantially cut transport emissions by 2050 and contribute to the EU goal of climate neutrality, delivered by a smart, competitive, safe, accessible, and affordable transport system. This is also in line with policy initiatives indicated in the Western Balkans Green Agenda and Economic and Investment Plan for the Western Balkans.

In the reporting period from April 2021, progress highly varies when observing specific measures and specific Regional Parties. However, generally it can be said that the region has started moving in the direction of green and digital transition, to great extent due to encouragement, support and grant schemes by the European Commission.

Regarding the *Sustainable mobility*, several Regional Parties (e.g. Serbia, Montenegro, Bosnia and Herzegovina) incentivised purchase of electric and hybrid vehicles in an effort to replace the old vehicle fleet. However, alternative fuel infrastructure directive, the legal and planning framework for deployment of alternative fuel infrastructure has not yet been adopted by any of the Regional Parties and its transposition should be prioritised in the upcoming period. There is a lack of coordination and clarity on planning of deployment of mobility solutions. With mostly unilateral uncoordinated actions between different Ministries (i.e. the Ministry of Environment, the Tax Authority, the Ministry of Transport) as well as between RP governmental and local level. If the communication and planning would be streamlined across all Ministries and urban administrative levels (each in their own field) transition to sustainable mobility would be accelerated.

Multimodality in passenger and freight transport needs to be improved, there are many planned and several ongoing projects for both freight terminals and passenger stations (Batajnica, Makiš) however they are still not put into operation. Another problem that has appeared is a lack of planning/coordination of connections of the urban environment with the TEN-T Network, e.g. newly built rail stations are not connected to public transport network.

Positive progress is that major regional urban centres (Sarajevo, Tirana, Skopje, Belgrade, Priština, Podgorica) have Sustainable Urban Mobility Plans with the progress continuing even in smaller cities. Implementation of SUMP will be a challenging task and coordinated actions and joint planning will be needed to enable seamless connections with TEN-T Network. Sarajevo, Podgorica and Elbasan have been selected to be part of the EU Cities Mission to deliver 100 climate-neutral and smart cities by 2030 and will have chance to start the innovation paths towards climate neutrality by 2030.

Smart Mobility objective - for road ITS there has been progress in some of the Regional Parties in transposition of ITS directive. RP are also progressing in development of ITS strategies while the fastest deployment is on the newly built motorway sections. On the side of rail, legislative framework for deployment of ERTMS has been set by transposition of interoperability directive, however actual deployment of ERTMS systems is still lagging and further efforts are needed to digitalise rail sector. Interoperable electronic freight information exchange system in the region is non-existent as well as e tolling system. More effort needs to be placed to ensure interoperability of data exchange in the region as well as to promote innovation for transport overall and for specific modes such as road and waterborne.

As for *Resilient mobility*, progress has not been made on climate proofing of the infrastructure. The TCT Secretariat planned TA on the matter will be the first step, however RPs will need to adopt and further develop the resilience plans and start adapting their infrastructure on the most critical sections.

Capacity building for administration on green and digital transformation of transport has been conducted in the previous reporting period, covering broad range of subjects. In the upcoming period more focused concentrated trainings on specific parts and further assistance towards RPs in transposition of the EU transport acquis will be necessary.

Railways need to become more competitive. Reform of railway companies and transposition of the EU rail acquis as well as rehabilitation is moving forward but not with the necessary speed to enable modal shift. More effort is needed from the RPs in transposition of legislation and prioritising railway investments.

Regional Parties are in the process of developing a new Road Safety Strategy for the period 2021-2030 and the TCT Secretariat led level crossing project has helped map out the most critical level crossing issues. RPs need to accelerate aligning legislation with EU Directive 2008/96/EC on Road Infrastructure Safety Management.

The implementation of some of the measures requires a strong financial component. To implement the proposed actions in the Sustainable and Smart Mobility Strategy, external financial assistance will be necessary. According to the Economic and Investment Plan for the Western Balkans, up to EUR 9 billion of funding will be mobilised to boost economic growth and support reforms. Under the WBIF, Safe and Sustainable Transport Programme, currently under negotiation, should address small scale projects and fill the gap between large infrastructure covered by the WBIF and TAs financed through IPA or IPFs and enable fast deployment of small-scale, quick wins, big impact projects from the area of sustainable and smart mobility. The Transport Community Permanent Secretariat will facilitate and support this process and assist the Regional Parties in achieving sustainable and smart mobility.





www.transport-community.org