

Sustainable and Smart Mobility Strategy in the Western Balkans Progress Report

November 2024



Contents

- List of Abbreviations4
- 1. Executive Summary7
- 2. Introduction 11
- 3. Progress by Measures 12
 - 3.1. Sustainable Mobility 12
 - Flagship 1 - Boosting the Uptake of Zero-Emission Vehicles, Renewable & Low-Carbon Fuels, and Related Infrastructure 12
 - Flagship 2 - Creating Zero-Emission Airports and Ports 18
 - Flagship 3 - Making Interurban and Urban Mobility more Sustainable and Healthy21
 - Flagship 4 - Greening Freight Transport.....26
 - Flagship 5 - Pricing Carbon and Providing Better Incentives for Users28
 - 3.2. Smart Mobility30
 - Flagship 6 - Making Connected and Automated Multimodal Mobility a Reality30
 - Flagship 7 - Innovation, Data and AI for Smart Mobility36
 - 3.3. Resilient Mobility38
 - Flagship 8 – Working towards the Single Market.....38
 - Flagship 9 - Making Mobility Fair and Just for All.....47
 - Flagship 10 - Enhancing Transport Safety and Security49
- 4. Conclusions and the Way Forward.....51

List of figures

Figure 1: Proportion of Car Fleet by Age Bracket	12
Figure 2 Western Balkans – Eastern Mediterranean Corridor.....	27
Figure 3: Map ERTMS Deployment.....	31
Figure 4: Spatial extent of Road Sub-Link Multi-Hazard Exposure for 2030 and 2050 Timeframe.....	42
Figure 5: Spatial Extent of Railway Sub-Link Multi-Hazard Exposure for 2030 and 2050 Timeframe.....	42
Figure 6: Comparison of the Top 20 Most Vulnerable Road Sections in 2030 and 2050.....	43
Figure 7: Comparison of the Top 20 Most Vulnerable Railway Sections in 2030 and 2050...	44
Figure 8: Map of Electrified Lines	45

List of tables

Table 1: Transposition of Sustainable Mobility Legislation.....	14
Table 2: Transposition of Vehicle Regulations.....	16
Table 3: Transposition of Roadworthiness Legislation.....	18
Table 4: Availability of Alternative Fuels Infrastructure in Airports/Maritime Ports/Inland Waterway Ports.....	21
Table 5: SUMP Development in the Western Balkans.....	24
Table 6: Transposition of Interoperability and Railway Safety Legislation.....	26
Table 7: Transposition of Combined Transport Legislation.....	28
Table 8: Transposition of E-Tolling Legislation	29
Table 9: Transposition of ITS legislation.....	33
Table 10: Transposition of Digital Mobility Legislation	35

List of Abbreviations

Annex I	Annex I to the Transport Community Treaty
ADM	Excise Customs and Monopolies Agency of Italy
ANTOCC	Albanian National Traffic Operation and Control Centre
ARA	Albanian Road Authority
AoI	Area of interest
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	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	A 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	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
FUAs	Functional Urban Areas
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	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
LIID	Local Infrastructure and Institutions Development
MaaS	Mobility as a Service
MoU	Memorandum of Understanding
MoT(s)	Ministry(ies) of Transport
NAPs	National Access Points
NBs	National Bodies
NCTS	New Computerised Transit System
NGO	Non-governmental organisation
NIB	National Investigation Body
NSA	National Safety Authority
NSW	National Single Window
NVR	National Vehicle Register
OPS	Onshore Power Supply
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
RIMN	Rail Infrastructure Managers Network
RES	Renewable energy sources
RISM	Road Infrastructure Safety Management
RP	Regional Partners
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
SLA	Service Level Agreement
SSMS	Sustainable and Smart Mobility Strategy
SUMP	Sustainable Urban Mobility Plan
SUPRAE	Support for Policy Reform, Accession, and Effectiveness

* 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.

TA	Technical Assistance
TC	Technical Committee
TCT	Transport Community Treaty
TCT Secretariat	Transport Community Permanent Secretariat
TEAMS platform	Microsoft Teams business communication platform
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	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 Organization

1. Executive Summary

The Sustainable and Smart Mobility Strategy (SSMS) for the Western Balkans aligns with the overarching objectives of the European Union's Green Deal, which sets an ambitious goal of achieving climate neutrality by 2050. As part of the Green Deal, the transport sector is called upon to reduce its greenhouse gas emissions by 90% by 2050. This ambitious agenda requires a shift towards sustainable, smart, and resilient transport systems across all regions, including the Western Balkans. The region's alignment with the EU's environmental and transport policies is crucial for its successful integration into the European single market and the broader EU policy framework.

This region continues to rely heavily on oil-derived fuels across all transport modes, and electric and hybrid vehicle adoption is still minimal—comprising less than 1% of the vehicle fleet, compared to over 18% in the EU. While a shift towards vehicles powered by alternative fuels like electricity and compressed natural gas is emerging, energy efficiency measures remain underdeveloped, and emission standards are inconsistently applied, ranging from Euro 3 to Euro 6.

Consistent with the EU's Green Deal, the Sustainable and Smart Mobility Strategy (SSMS) for the Western Balkans², endorsed by the TCT Ministerial Council in July 2021, calls for a 90% reduction in greenhouse gas emissions from transport by 2050, necessitating a shift towards resilient and sustainable transport systems. The region's high number of older vehicles, which consume more energy and emit higher levels of pollutants, highlights the need for sustainable mobility initiatives to reduce emissions and align with EU standards. Investing in railways, multimodality, cleaner vehicles, and advancing e-mobility are critical steps for the Western Balkans to support its environmental objectives and facilitate integration with the EU's single market.

The Sustainable and Smart Mobility Strategy (SSMS) in the Western Balkans, focuses on three key pillars - Sustainable Mobility, Smart Mobility, and Resilient Mobility - each supported by specific flagship initiatives. This report presents a comprehensive overview of the progress made in achieving these objectives, highlighting key achievements, challenges, and opportunities for improvement.

Sustainable Mobility

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

The transition to zero-emission vehicles and alternative fuels is a key priority across the Western Balkans. While all regional partners are integrating alternative fuels into national energy policies, the progress varies significantly among the Regional Partners. Albania, for example, has successfully implemented incentives such as VAT and registration fee exemptions for electric and hybrid vehicles, resulting in a significant increase in adoption rates. However, disparities in charging infrastructure across the region remain a key challenge. Serbia has made notable progress by offering subsidies for purchasing electric vehicles and

² Strategy for Sustainable and Smart Mobility in the Western Balkans: <https://www.transport-community.org/wp-content/uploads/2021/06/Strategy-for-Sustainable-and-Smart-Mobility-in-the-Western-Balkans.pdf>

plans to deploy a comprehensive network of charging stations along major corridors by the end of 2024.

The region's alignment with the EU's Alternative Fuels Infrastructure Regulation is still pending. Without full transposition of this regulation, the deployment of infrastructure to support zero-emission vehicles remains inconsistent, creating challenges for achieving region-wide sustainability goals.

Flagship 2: Creating Zero-Emission Airports and Ports

Ports and airports across the Western Balkans are increasingly focusing on sustainability. The Port of Durres in Albania and the Port of Bar in Montenegro have undertaken multiple initiatives to enhance their green credentials. The Port of Durres has plans to install solar panels to reduce energy consumption, while the Port of Bar is introducing hybrid buses for internal transport and implementing LED lighting upgrades.

Airports in the region are working to reduce CO₂ emissions through initiatives such as the Airport Carbon Accreditation programme. Pristina Airport in Kosovo has achieved carbon neutrality, and airports in Belgrade and Tirana have made significant progress in mapping and reducing their emissions. Despite these efforts, the lack of alternative fuels infrastructure for aviation remains a major challenge, with most airports still heavily reliant on traditional fuels.

Flagship 3: Making Interurban and Urban Mobility More Sustainable and Healthy

To improve urban mobility, major cities such as Belgrade, Sarajevo, and Pristina have developed Sustainable Urban Mobility Plans (SUMPs) focusing on integrating public transport, enhancing walking and cycling infrastructure, and reducing urban air pollution. Regional workshops and initiatives organised by the Transport Community have emphasised the need for improving intercity rail connections and establishing better links between urban nodes and the Trans-European Transport Network (TEN-T).

However, the adoption of Sustainable Urban Mobility Plans across the region is inconsistent, with smaller urban centres lacking the resources or political commitment to implement comprehensive urban mobility plans. The development of multimodal hubs and the improvement of last-mile connectivity are critical next steps for achieving the region's sustainable mobility goals.

Flagship 4: Greening Freight Transport

To enhance freight transport sustainability in the Western Balkans, regional efforts are focusing on developing multimodal transport solutions that combine road, rail, and waterways. The Western Balkans aims to join the Rail Freight Corridors, which will facilitate more efficient cross-border transport and align with EU transport networks. However, progress is uneven across the region, with challenges in developing multimodal terminals and overcoming infrastructure bottlenecks. Addressing these issues and advancing regulatory frameworks will be key to achieving a more sustainable, integrated freight transport system.

Flagship 5: Pricing Carbon and Providing Better Incentives for Users

The Western Balkans is working to reduce the environmental impact of transport by introducing mechanisms that price carbon emissions and provide better incentives for sustainable travel choices. This includes the deployment of e-tolling systems to enhance interoperability and streamline cross-border transport. As of July 2023, Serbia and North Macedonia have

achieved electronic tolling interoperability with a single tag device. Montenegro achieved interoperability with Serbia in June 2024 and expects it with North Macedonia by the end of 2024. Bosnia and Herzegovina has implemented e-tolling interoperability between its motorway operators since June 2023, with testing ongoing with Croatia as of June 2024. The region has also established the Transport Community Transport Observatory Database and Information System (TODIS) to monitor transport network performance.

Smart Mobility

Flagship 6: Making Connected and Automated Multimodal Mobility a Reality

Significant progress has been made in advancing Intelligent Transport Systems (ITS) in the region. Regional Partners such as Bosnia and Herzegovina and Serbia have established traffic control centres and deployed digital solutions for road transport management. The EU-Western Balkans Green Lanes initiative, which was initially successful within the region, has expanded to include EU member states, enhancing cross-border data exchange and transport efficiency.

However, progress in deploying the European Rail Traffic Management System (ERTMS) has been slower than anticipated. Only limited sections of the core and comprehensive rail networks are equipped with ERTMS, indicating a need for accelerated efforts in rail digitalisation. Additionally, challenges remain in achieving multimodal data interoperability and establishing cohesive transport information services, which continue to hamper the full realisation of smart mobility and initiatives such as E-Freight, Mobility as a Service (Maas) and the provision of real-time traffic information services.

Flagship 7: Innovation, Data, and AI for Smart Mobility

The region has made certain efforts to foster innovation and integrate data-driven solutions into transport. Events like the Transport Innovation Workshop, held in October 2024, in Split, which focused on sustainable and smart mobility, have provided a platform for innovative projects and collaboration. The endorsement of the Digital Mobility Centre of Excellence by Transport Ministers reflects a clear political commitment to leveraging digitalisation and AI for smart mobility.

Despite these advancements, the development of comprehensive AI strategies and data governance frameworks remains in the early stages. The region needs to invest more in research and innovation (R&I) capabilities and promote stronger collaboration between academia, government, and the private sector to accelerate the adoption of digital and AI-driven transport solutions.

Resilient Mobility

Flagship 8: Working Towards the Single Transport Market

Regional Partners are revising their national transport strategies to incorporate sustainability, resilience, and digital transformation. Albania, for example, will develop its Transport Sector Strategy and Action Plan 2025, focusing on climate resilience and digital integration. Kosovo adopted a Multimodal Transport Strategy for 2023-2030 in 2023, with a corresponding action plan in 2024, aimed at enhancing green transport solutions and reducing emissions. Montenegro is developing a National Plan of Adaptation to Climate Change and conducting feasibility studies for low-carbon fuels, supported by the World Bank.

Efforts to promote green and digital transformation include study visits, workshops, and knowledge exchange initiatives organised by the Transport Community Secretariat. The region is also working to improve border crossings through one-stop-shop concepts and joint controls, which help to reduce administrative bottlenecks and enhance transport efficiency.

Flagship 9: Making Mobility Fair and Just for All

The Action Plan for Social Issues and Passenger Rights in Transport, endorsed by the Regional Steering Committee, marks a significant step towards ensuring social fairness in transport. The plan includes actions to uphold workers' rights, promote equal opportunities, and improve gender balance in the workforce. Specific measures include the creation of a platform to identify barriers to women's economic empowerment and the appointment of equality ambassadors in the transport sector.

The region's potential engagement in the EU's "Platform for Change" initiative could further strengthen its commitment to gender equality and social inclusion in mobility. However, additional efforts are required to align regional policies with EU standards, especially in areas related to passenger rights and workforce diversity.

Flagship 10: Enhancing Transport Safety and Security

The Western Balkans Road Safety Observatory has become a crucial tool for collecting and analysing road safety data, enabling Regional Partners to identify high-risk areas and plan targeted safety improvements. With support from the EU and the World Bank, the region is implementing the Safe and Sustainable Transport Programme to finance road and rail safety initiatives.

Despite these efforts, financial constraints continue to impede the implementation of necessary safety measures, especially in addressing dangerous road sections and enhancing emergency preparedness for incidents involving hazardous goods. Legislative updates and increased funding are essential to advancing road and rail safety standards in the region.

Key Achievements and Challenges

The SSMS WB report highlights substantial progress across the three strategic objectives—Sustainable, Smart, and Resilient Mobility. Key achievements include the increased adoption of zero-emission vehicles, advancements in ITS deployment, and improvements in road safety data collection. However, challenges remain in aligning regional legislation with EU standards, securing consistent funding for infrastructure projects, and improving governance and cross-border coordination.

To build on the progress made, the Western Balkans must prioritise accelerating legislative alignment, enhancing institutional capacity, mobilising investments in alternative fuels and digital infrastructure, and fostering greater regional cooperation. These efforts are crucial for achieving the region's long-term vision of a sustainable, smart, and resilient transport sector.

2. Introduction

Under the framework of the European Union's Green Deal, the Western Balkans faces a pivotal opportunity to transform its transport sector, balancing economic growth with sustainability. While the EU is progressing towards climate neutrality by 2050, the Western Balkans has significant work ahead, particularly in reducing its dependency on oil-based fuels and advancing the adoption of cleaner technologies. Road transport dominates the region, yet electric and hybrid vehicle usage remains minimal, which underscores the need for a systemic shift towards sustainable mobility. This transition is not only essential for environmental alignment with the EU but also for enhancing regional connectivity and economic resilience.

The Sustainable and Smart Mobility Strategy (SSMS) in the Western Balkans represents a concerted effort to bridge this gap, setting a pathway to a transport network that is both eco-friendly and digitally integrated. By focusing on clean energy adoption, infrastructure improvements, and policy harmonisation, the strategy addresses core challenges while paving the way for smarter, safer, and more sustainable mobility options.

Aligned with the revised Trans-European Transport Network (TEN-T), the SSMS supports the development of eco-friendly and interconnected transport systems through initiatives like the Western Balkans–Eastern Mediterranean Corridor and the Rail Freight Corridor.

Despite these advancements, the region faces significant challenges in harmonising its transport policies and infrastructure with EU standards. Governance structures in the Western Balkans need improvement to facilitate the effective implementation of transnational projects. While some progress has been made in revising national transport strategies and incorporating green elements, issues such as digitalisation and alternative fuel adoption, as well as integrated urban planning, remain areas where further efforts are needed.

The SSMS for the Western Balkans envisions a green, smart, and resilient transport system that is closely aligned with EU policies. Achieving this vision requires a multi-faceted approach that integrates sustainability, digitalisation, and resilience into transport planning and development. Through the successful implementation of its flagship initiatives, the Western Balkans can create a more sustainable and inclusive transport system, contributing to the EU's broader Green Deal goals while addressing the unique challenges faced by the region.

The SSMS for the Western Balkans is structured around three key pillars—Sustainable Mobility, Smart Mobility, and Resilient Mobility—each of which addresses different aspects of the transport transformation. These pillars are supported by ten flagship initiatives that focus on the adoption of green technologies, digital transformation, and the enhancement of regional transport resilience.

The report that follows presents an overview of the progress made in implementing the SSMS in the Western Balkans, highlighting key achievements, ongoing challenges, and opportunities for improvement. The chapters are organised to provide a detailed analysis of the flagship initiatives under the three main pillars of the strategy—Sustainable Mobility, Smart Mobility, and Resilient Mobility. The concluding chapter offers recommendations on the way forward and identifies further actions needed to achieve the region's strategic transport objectives.

3. Progress by Measures

3.1. Sustainable Mobility

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

Data on vehicle age, Euro emission standards, energy consumption, and emission factors highlight the need for sustainable mobility and e-mobility initiatives in the Western Balkans. The region's passenger car fleet is predominantly composed of vehicles between 10 and 20 years old, with Albania having the highest share of cars over 20 years old. Older vehicles tend to consume more energy and produce higher emissions, including greenhouse gases, nitrogen oxides (NOx), and particulate matter (PM), compared to newer, more efficient models. As a result, the vehicle fleet in the Western Balkans contributes disproportionately to pollution levels when compared to the EU average, underscoring the urgent need to invest in sustainable mobility. Accelerating the transition to cleaner, fuel-efficient vehicles and advancing e-mobility will be key to reducing emissions and aligning with EU environmental standards³.

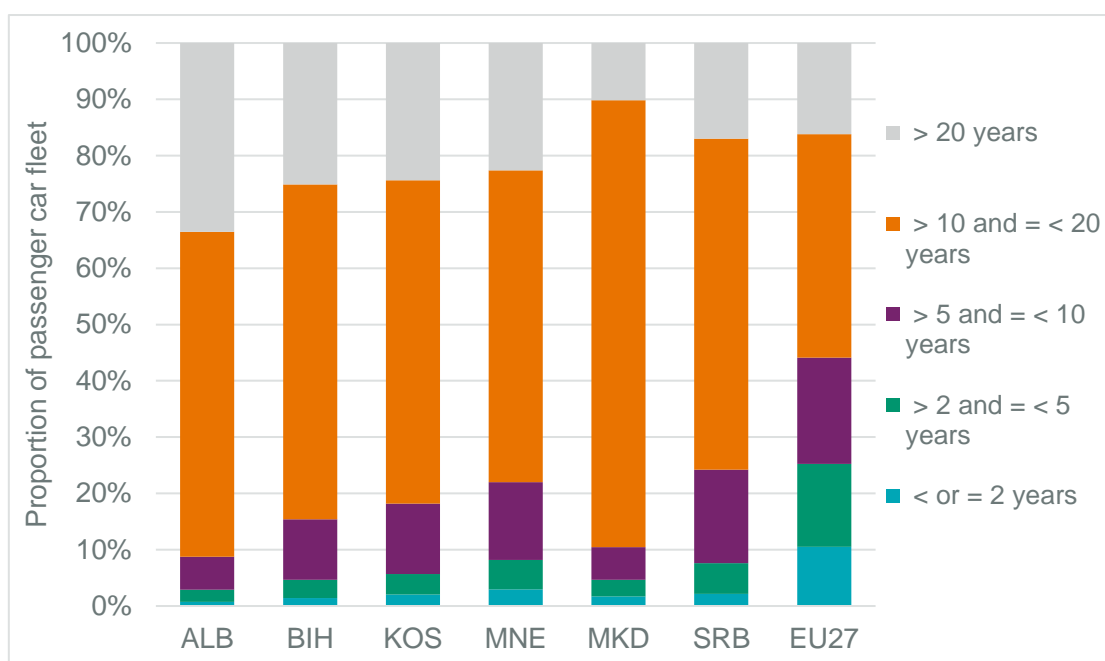


Figure 1: Proportion of Car Fleet by Age Bracket⁴

The path to a sustainable and climate-resilient transport system requires a multi-layered approach. Key aspects of this transition involve the adoption of zero-emission vehicles, the widespread use of renewable and low-carbon energy sources, and the development of robust infrastructure to support these technologies. These pillars are essential for reducing

³ World Bank, Policy Instruments for Managing Road Vehicle Emissions in The Western Balkans, 2023

⁴ World Bank, Policy Instruments for Managing Road Vehicle Emissions in The Western Balkans, 2023

greenhouse gas emissions, enhancing air quality, and moving towards a greener, more sustainable transport landscape. This initiative is driven by the following key actions:

- i. Transposition of alternative fuel regulation
- ii. Deployment of e-charging stations on the busiest corridors
- iii. Encouraging incentives for zero-emission vehicles
- iv. Improving emissions testing in roadworthiness checks

Transposition of the Alternative Fuel Directive

The 'Fit for 55' package led to the adoption of Regulation (EU) 2023/1804, replacing Directive 2014/94/EU, effective from 13 April 2024. The regulation seeks to establish minimum infrastructure requirements for alternative fuel vehicles across all EU transport modes, ensuring full interoperability and offering comprehensive user information and payment options. Key targets include:

- Electric recharging infrastructure: Fleet-based and distance-based targets, such as for every battery-electric light-duty vehicle, 1.3 kW of publicly accessible recharging power must be provided, while plug-in hybrid vehicles require 0.8 kW. By 2025, the TEN-T core network will have recharging stations every 60 km for light-duty vehicles and every 120 km for heavy-duty vehicles.
- Hydrogen refuelling stations: Every 200 km along the TEN-T core and comprehensive networks by 31 December 2030.
- Shore-side electricity: Deployment for ships and stationary aircraft at major ports and airports.
- Liquefied methane refuelling: For heavy-duty vehicles and maritime TEN-T ports.

The regulation also outlines user-friendly recharging provisions (payment options, price transparency) and sets national policy frameworks and reporting requirements for alternative fuels infrastructure.

Albania has been actively involved in integrating alternative fuels and associated infrastructure into its national energy policy framework. Some elements of Directive 2014/94/EU on the deployment of alternative fuels infrastructure have already been included in their national legislation. Albania expressed its commitment to implementing the new Regulation 2023/1804 on alternative fuels by 2025, as outlined in the National Plan for European Integration.

Additionally, in the National Plan for European Integration 2024-2026 of Albania (approved by a decision of the Council of Ministers in January 2024), the Ministry of Infrastructure and Energy has foreseen the transposition of Directive 2009/33/EC of the European Parliament and of the Council of 23 April 2009, "On the promotion of clean and energy-efficient road transport vehicles". This directive establishes a framework for the purchase of road vehicles by contracting authorities and operators to fulfil public service obligations under a public service contract by 2026.

In *Montenegro*, the Ministry of Transport has initiated activities to prepare a Strategy, Feasibility Study, and Environmental Impact Assessment related to the use of alternative fuels,

along with the associated regulations. These activities are expected to commence in early 2025.

In *North Macedonia*, the Ministry of Economy, during the Bilateral Screening, has undertaken the obligation for the Regulation on the deployment of alternative fuels infrastructure. A plan, within the provided technical assistance in 2024, aims to prepare an analysis to determine in which law this regulation will be transposed.

As for *Serbia*, in May 2024, Minister in charge of transport established a working group for the drafting of the Law on Deployment of Alternative Fuels Infrastructure. This law will align with AFIR (R1679/2024) and is planned to be adopted by the end of 2024.

	Albania	Bosnia and Herzegovina	Kosovo	Montenegro	North Macedonia	Serbia
E-Mobility and fuels						
Clean Vehicles Directive 2009/33/EC ⁵	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed
Alternative Fuels Regulation 2023/1804 ⁶	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed

Table 1: Transposition of Sustainable Mobility Legislation

Deployment of E-Charging Stations on the Busiest Corridors

Under CONNECTA, Technical Assistance to develop the strategic framework for the deployment of e-charging stations on the TEN-T Core and Comprehensive Network was completed in August 2023. The deliverables are expected to be translated, incorporated into strategic documents, or adopted as standalone document

In *Albania*, the Agency for Energy Efficiency, based on a study completed in 2021 for developing a network of charging stations for electric cars across Albania, has already installed five charging stations in the city of Tirana, with several more planned. Additionally, in 2024, the Agency will install 8–9 charging stations at various border crossings and coastal towns.

Under the EU IPA III-funded Operational Programme for Energy (2024-2027), support for deploying electric high-speed recharging infrastructure for clean road vehicles will focus on harmonising regulations, making investments, and conducting related technical studies. The Operational Programme will prioritise:

- Aligning Albanian legislation with EU Directives 2014/94 and other relevant legislation through the preparation of new laws, bylaws, or amendments to ensure an up-to-date legal framework for deploying alternative fuel infrastructure.

⁵ Directive on the Promotion of Clean and Energy-Efficient Road Transport Vehicles.

⁶ Directive ensuring a minimum deployment of alternative fuel infrastructure. As part of the Fit for 55 package, the European Commission proposed a new Regulation on alternative fuels infrastructure, repealing the previous Directive

- Supplying and installing up to 130 electric vehicle charging stations, their respective grid connections, power transformers (where necessary), infrastructural preparation in new locations, and an IT system to manage the Charging Stations Network.
- Conducting technical studies to assess the feasibility of locations for Electric Vehicles Charging Stations, determine charger specifications, estimate investment and operating costs, identify operation modalities, and prepare necessary designs, environmental impact assessments, permitting procedures, and supervision.
- Conducting capacity-building activities to train the Agency for Energy Efficiency on installing, operating, and maintaining charging stations, as well as adapting to the new legislative framework.

Additionally, the Detailed Project for the Rehabilitation and Construction of Railway Station Buildings, including external yards (Durrës-Tirana PTT-Rinas), funded by an EU loan from the EBRD, will incorporate e-charging stations at railway stations along the core transport corridor of the Western Balkan Corridor and Eastern Mediterranean (WBEM). The renewal of railway terminals will ensure multimodal access and include parking spaces for cars, with charging points for electric vehicles, in compliance with Albanian legislation and aligned with the regional electro-mobility study. There are also potential opportunities for evaluation in the R2 corridor, specifically on the Vora-Hani i Hotit and Durrës-Rrogozhina routes within the TEN-T networks.

Regarding the deployment of e-charging stations in *Kosovo*, within the TEN-T core and comprehensive network, the criterion of having charging stations every 60 km for electric vehicles is being met. However, there is no detailed information regarding the capacity of these charging stations.

The update of Transport Development Strategy of *Montenegro* will begin in 2025 with a focus on green elements. An appropriate national methodology for the deployment of e-charging stations should also be developed. The first National Energy and Climate Plan is currently under preparation. In line with the EU Directive, a Feasibility Study for the Use of Alternative Fuels is scheduled to start by the end of 2024.

In *North Macedonia*, an electric vehicle (EV) charging station is set to be installed along the road section connecting Skopje to Bllace. This initiative is being financed through a loan from the European Bank for Reconstruction and Development (EBRD).

In *Serbia*, 16 new electric vehicle (EV) charging stations will be installed along motorways, with each station featuring at least five chargers capable of delivering a minimum power of 150 kW per charger. Each station will also have at least two connections to allow for simultaneous charging. By the end of November 2024, six of these charging stations, equipped with five chargers each, are expected to be operational, enhancing the accessibility of EV infrastructure across Serbia.

Aligning Emission Standards Across the Region: Setting a Minimum Standard for New Vehicles at EURO 6

In addition to the legislation outlined in Annex I of the Transport Community Treaty (TCT), the Transport Community’s Sustainable and Smart Mobility Strategy in the Western Balkans advocates for adopting EU emission standards for both light and heavy-duty vehicles. The aim is to harmonise emission standards across the Western Balkans. Currently, none of the regional partners have incorporated these EU emission standards into their regulations, nor have they implemented carbon performance standards for vehicles sold within the EU or adopted the End-of-Life Vehicles Directive. Addressing these regulatory gaps is crucial for aligning the Western Balkans with EU standards on vehicle emissions and sustainability.

In *Albania*, progress has been made, particularly when reviewing data on registered vehicles meeting the EURO 5 standard and above (provided by GDRTS). The environmental impact has improved significantly between January and August 2024, with 66.5% of registered vehicles (cars) meeting EURO 5 or above, compared to the same period in 2023.

In *Montenegro*, a regulation came into effect on 1 July 2024, prohibiting the import of vehicles older than 15 years, with the minimum standard set at Euro 5., This includes vehicles manufactured between 2009 and 2013, while EURO 6 compliance is mandatory for specific categories. These include:

- Category M: Vehicles with a mass over 400 kg, a maximum effective power (the largest continuous rated motor power) exceeding 15 kW, intended for passenger transport.
- Category N: Vehicles with a mass over 550 kg, a maximum effective power exceeding 15 kW, intended for cargo transport.

	Albania	Bosnia and Herzegovina	Kosovo	Montenegro	North Macedonia	Serbia
Vehicle regulations						
Euro standards for road vehicles Regulations (EC) No 715/2007 ⁷ , and (EC) No 595/2009 ⁸	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed
Carbon emission regulations Regulation (EU) 2019/631 ⁹	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed

Table 2: Transposition of Vehicle Regulations

⁷ Euro 6 Standards for Light Passenger and Commercial Vehicles. The European Commission proposed Euro 7 standards (COM/2022/586 final), repealing Regulations (EC) No 715/2007 and (EC) No 595/2009

⁸ Euros VI Standards for Heavy Duty Vehicles. The European Commission proposed Euro 7 standards (COM/2022/586 final), repealing Regulations (EC) No 715/2007 and (EC) No 595/2009

⁹ Regulation (EU) 2019/631 Setting CO2 Emission Performance Standards for New Passenger Cars and Vans. As part of the Fit for 55 package, the European Commission proposed a revised regulation on carbon standards for both light-duty and heavy-duty vehicles.

Encouraging Incentives for Zero-Emission Vehicles

Albania has introduced VAT exception for new electric vehicles (unregistered in any other country), alongside waiver on registration fees for electric vehicles. These measures have significantly increased the number of electric vehicles, from 175 in 2019 to 1,535 in 2022 (a 777 % increase), with hybrid vehicles registration growing by 494% over the same period. Notable statistics for January–August 2024 include:

- 40.5% of first-time registered vehicles (0km) are electric or plug-in hybrid (16.4% more than in the same period of 2023).
- 1,878 electric vehicles registered for the first time (a 81% increase compared to the same period of 2023).
- An active electric vehicle fleet of 5,153 as of August 2024 (a 55% increase from August 2023)

Montenegro has continued its annual initiative (publishing the tender), which began in 2021, to support electric and hybrid vehicles purchase in 2023. The grant was set at €100,000 per year (totalling €200,000), with half earmarked for electric vehicles and the other half for hybrids. Subsidies amounted to €5,000 for electric vehicles and €2,500 for hybrid vehicles (plug-in and full hybrids). Individuals could receive a subsidy for one vehicle, while businesses could receive support for up to two vehicles. In 2024, the EKO-Fund budgeted €325,000 for subsidies to promote energy-efficient vehicle procurement for both individuals and businesses, as well as to develop charging infrastructure.

In January 2024, *Serbia* adopted a Regulation supporting purchases of new, fully electric vehicles (the fifth consecutive year for this initiative). This year's budget is set at €1.45 million. Additional subsidies were introduced for public transport and taxi fleet renewal, with eligibility criteria for taxis requiring:

- Fully electric, hybrid, or compressed natural gas drive,
- Compliance with at least the EURO 6 engine standard.

Additional conditions stipulate that the vehicle price cannot be less than €13,000, and it must be either white or a light/dark shade.

A subsidy of €8,000 will be provided to qualifying legal entities or entrepreneurs, with stipulation that they use the subsidised vehicle for public taxi transport for a minimum of three years. The subsidised purchase scheme will cover up to 6,000 vehicles annually over three years.

The Public Enterprise Roads of Serbia (PERS), in collaboration with the Ministry of Construction, Transport and Infrastructure (MCTI), has proposed to the Ministry of Finance amendments to the Law on Fees for the Use of Public Goods. The proposed changes, adopted in October 2023, offer a toll discount of up to 13% for electric vehicles in all categories, using the ENP system.

Improving Emissions Testing in Roadworthiness Checks

Directive 2014/45/EU of the European Parliament and of the Council, dated 3 April 2014, concerning periodic roadworthiness tests for motor vehicles and their trailers, is reported as fully transposed by all the regional partners except *Bosnia and Herzegovina*. This Directive sets minimum requirements for periodic roadworthiness tests for vehicles operated on public roads.

Additionally, Commission Implementing Regulation (EU) 2019/621 specifies the technical information needed for roadworthiness testing of items under examination. It offers guidelines on recommended testing methods and establishes detailed rules on data formatting and the procedures for accessing relevant technical information. This regulation has yet to be transposed by the Regional Partners. The lack of full transposition of these recent legal acts highlights that certain changes and updates have not been incorporated into the roadworthiness testing systems and procedures of these regional partners, indicating a need for further measures to ensure alignment with European Union standards.

	Albania	Bosnia and Herzegovina	Kosovo	Montenegro	North Macedonia	Serbia
Roadworthiness						
Directive 2014/45/ on Periodic Roadworthiness Tests for Motor Vehicles and their Trailers	Transposed	Not transposed	Transposed	Transposed	Transposed	Transposed
Regulation (EU) 2019/621 on Technical Information necessary for Roadworthiness Testing	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed

Table 3: Transposition of Roadworthiness Legislation

Flagship 2 - Creating Zero-Emission Airports and Ports

Sustainability in the waterborne and air transport sectors is increasingly recognised as essential for mitigating transport-related environmental impacts. The maritime industry is undergoing a transformative shift towards eco-friendly practices, incorporating innovative green technologies and adopting alternative energy sources such as liquefied natural gas (LNG). These efforts aim not only to improve fuel efficiency adhere to stringent emissions standards but also to protect marine ecosystems and promote sustainable maritime operations.

Similarly, the aviation sector is actively working toward sustainability through various initiatives. The introduction of advanced, fuel-efficient aircraft, the expanded use of sustainable aviation fuels (SAF), and improvements in air traffic management systems underscore the sector’s commitment to reducing its carbon footprint. These efforts align with global sustainability goals,

helping air travel to continue while substantially lowering its environmental impact and preserving the essential connectivity that air transport offers. This Flagship initiative includes the following actions:

- i. Following up on deliverables of INTERREG projects regarding Action Plans for Greening of Ports of Bar and Durres
- ii. Setting the foundation for the deployment of alternative fuels infrastructure through the transposition of relevant EU Acquis in the air and waterborne sectors.

Following Up on Deliverables of INTERREG projects regarding Action Plans for Greening of Ports of Bar and Durres

Currently, alternative fuels infrastructure in inland waterways core network ports (Brčko, Šamac, Novi Sad, Pančevo and Belgrade) and maritime core network ports (Bar and Durres) is lacking due to limited demand for such facilities. Nonetheless, some steps have been taken to enhance the environmental sustainability of these ports.

In the current programming period, both *Albania* and *Montenegro* are participating in various EU-funded projects aimed at improving sustainability, connectivity, and environmental resilience in their transport and energy sectors. These initiatives include:

The SA - Connectivity Project, as part of the Interreg IPA South Adriatic Programme, which focuses on enhancing regional mobility and connectivity in the South Adriatic region through sustainable, climate-resilient, and smart intermodal mobility systems to improve accessibility and cross-border movement with coordinated actions.

- In Albania, the Port of Durres APD's Action Plan under this project includes integrating new modules into the Port Community System (PCS).
- In Montenegro, the Port of Bar will undertake infrastructure upgrades, such as a new parking area, and will acquire environmental protection and security equipment. This project also includes preparing technical documentation for infrastructure improvements and conducting a study on security procedures within the Port of Bar.

The TREASURE Project under the Interreg Euro-Med Programme, aims to protect biodiversity and reduce urban pollution through enhanced environmental monitoring and pollution mitigation in port areas.

- In Albania, the project finances a pumping station to monitor hydrocarbon pollution levels in seawater at the Port of Durres, addressing the need for enhanced pollution detection.
- In Montenegro, the Port of Bar will monitor environmental parameters throughout the project's duration and will acquire equipment to reduce the environmental impact of port operations.

The RENEWPORT Project, also part of the Interreg Euro-Med Programme, promotes the adoption of renewable energy within Mediterranean ports through solar energy installations.

- In Albania, the Port of Durres will install solar panels, leveraging its 300 sunny days per year to lower energy costs and establish a renewable energy model for port infrastructure.

- In Montenegro, the Port of Bar plans to install a solar panel system in its parking area, aiming to reduce operational energy costs.

The ADRIREC project, funded by the Interreg IPA Adrion Programme, focuses on renewable energy investments through installation of photovoltaic panels to reduce reliance on fossil fuels and decrease energy costs.

- In Albania, photovoltaic panels will be installed on two structures or parking areas at the Port of Durres, generating approximately 70 kWp of power.
- In Montenegro, similar solar panels will be installed in the Port of Bar's parking area as part of ongoing sustainability efforts.

Additionally, Montenegro is participating in the SUPERALFUEL Project under the ADRIION Programme. This includes a study at the Port of Bar to develop a framework for assessing the sustainability of alternative fuels such as hydrogen, ammonia, and methanol, considering bunkering, storage, distribution, and supply technologies.

Through the WATERBRIDGING Project, also part of the ADRIION Programme, Montenegro will conduct a feasibility study on implementing Onshore Power Supply (OPS) at the Port of Bar to enhance environmental sustainability.

Additionally, Montenegro is in the process of tendering for a dust emission reduction system at the Port of Bar, which will include wheel washing and de-mucking systems, with completion expected by the end of 2024 to support environmental sustainability.

Setting the Foundation for the Deployment of Alternative Fuel infrastructure through Transposition of Relevant EU Acquis in Air and Waterborne Sectors

As mentioned earlier, none of the regional partners have yet adopted the Alternative Fuel Infrastructure Regulation, which governs this area. Furthermore, fixed storage tank facilities for aviation biofuel are currently unavailable at regional airports.

Belgrade Airport has initiated discussions with fuel suppliers to explore expanding the airport's fuel farm and supply capacities, marking an important first step toward the potential availability of alternative fuels within the next five years.

TAV Macedonia, part of TAV Airports, has joined a global initiative with 400 airports, including 200 across Europe, to decarbonise aviation, committing to the Toulouse Declaration in 2022, which targets net-zero CO₂ emissions by 2050. Additionally, under ICAO requirements, the Civil Aviation Agency of North Macedonia is required to submit a State Action Plan for reducing CO₂ emissions every three years. The most recent plan, from 2021, includes using diesel-biodiesel blends in ground vehicles at two airports, reducing emissions by 3-5%, or approximately 15 tons of CO₂. Work on a new Action Plan is set for completion by the end of this year.

Alternative fuels for airport ground services are available to some extent at certain regional airports. At Sarajevo International Airport, 23% of ground handling equipment (primarily tractors, elevators and other service vehicles) is electrically powered. Alternative fuels for ground services are also partly available in airports in Banja Luka, Belgrade, Skopje, Niš and Kraljevo.

It is important to note that the requirement to make alternative clean fuels available is based on market demands. Airports need to be prepared to offer alternative clean fuels, when necessary, as stipulated by the regulation: 'for air transport infrastructure: capacity to make available alternative clean fuels'.

Regional Partner	Airports	Availability of Alternative Fuels Infrastructure
Albania	Tirana	No
Bosnia and Herzegovina	Sarajevo	No
	Banja Luka	No
North Macedonia	Skopje	No
	Ohrid	No
Kosovo	Pristina	No
Montenegro	Podgorica	No
	Tivat	No
Serbia	Belgrade	No
	Niš	No
	Kraljevo	No
Maritime ports		
Albania	Durres	No
	Vlore	No
Montenegro	Bar	No
Inland Waterway ports		
Bosnia and Herzegovina	Brčko	No
	Šamac	No
Serbia	Belgrade	No
	Novi Sad	No
	Pančevo	No
	Sremska Mitrovica	No
	Smederevo	No
	Prahovo	No

Table 4: Availability of Alternative Fuels Infrastructure in Airports/Maritime Ports/Inland Waterway Ports

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

Urban mobility is a cornerstone in the reducing emissions and improving air quality, particularly in the Western Balkans, where pollution levels remain alarmingly high. According to recent global reports, the region still includes some of Europe's most polluted cities. While progress has been made towards sustainable mobility planning, enhanced collaboration between national and local authorities is essential. Aligning these efforts under the Green Agenda and the EU's Green Deal is crucial, not only to achieve climate neutrality targets but also to improve regional connectivity. Furthermore, revitalising the rail system is essential to unlock the

potential of interurban passenger transport, which remains significantly underutilised. Actions under Flagship 3 include:

- i. Encouraging regional capitals and assisting in defining sustainable urban mobility solutions for major urban nodes along 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 Provisions of Fourth Railway Package.
- iv. Introduction of regionally aligned Public Service Obligation for international passenger rail transport.

Encouraging Regional capitals and Assisting in Defining Sustainable Urban Mobility Solutions for Major Urban Nodes Along Core Network (Last Mile Solutions)

Cities like Belgrade, Banja Luka, Niš, Pristina, Sarajevo, and Skopje experience significantly higher PM2.5 levels than most EU cities, frequently exceeding World Health Organisation thresholds. This is largely due to the region's heavy reliance on fossil fuels for energy generation, with Albania being an exception.

The newly adopted TEN-T Regulation by the European Parliament and Council reaffirms the EU's commitment to building a sustainable, resilient transport network that enhances European connectivity. This regulation sets ambitious targets, particularly for urban mobility across the urban nodes along the TEN-T network, which includes cities with populations exceeding 100,000, including those in the Western Balkans. By 2027, these urban nodes must adopt Sustainable Urban Mobility Plans (SUMP) covering their entire Functional Urban Areas (FUAs). These plans are intended to integrate diverse transport modes, promote zero- or low-emission mobility, reduce air and noise pollution, and improve accessibility. By 2030, the Regulation further mandates the development of multimodal passenger hubs to support first- and last-mile connections, improving access to public transport infrastructure and active mobility options.

The development of SUMP across the Western Balkans is being supported by international donors, local governments, and various programmes. In *Albania*, GIZ has assisted several cities, including Tirana and Elbasan. In *Bosnia and Herzegovina*, GIZ, along with programmes like Interreg and ADRION, has supported SUMP development in cities such as Sarajevo, Bijeljina and Zavidovići, with some municipalities currently in the adoption phase.

In *Kosovo*, Prishtina developed its SUMP with funding from the municipal budget and support from the European Bank for Reconstruction and Development (EBRD), achieving assembly approval in 2019. Additionally, other cities like Gračanica and Ferizaj are working on their SUMP, supported by GIZ, though many plans are still awaiting adoption. The UNDP has also been involved in facilitating SUMP development in cities like Prizren and Suhareka, although these are in the earlier stages, highlighting Kosovo's ongoing commitment to implementing sustainable transport initiatives across its municipalities.

In *Montenegro*, the development of SUMP has also been supported by GIZ, with Podgorica finalising its plan in 2020. Cities such as Rožaje and Kolašin adopted their plans in 2020 and March 2021, respectively. Tivat, another Montenegrin city, participated in the PolySUMP

initiative, which provides a broader, integrated framework for regional sustainable mobility planning. Montenegro is now preparing a second-generation SUMP for its capital, Podgorica, to further align with EU urban mobility frameworks by integrating sustainable practices.

In *North Macedonia*, a technical assistance project has recently been launched to develop SUMPs for five municipalities (Kavadarci, Kočani, Prilep, Strumica, and Struga) by September 2024, with the aim of improving urban transport systems by enhancing efficiency, reducing environmental impact, and ensuring inclusive and safe mobility options.

In *Serbia*, five cities (Belgrade, Aleksinac, Kruševac, Valjevo, and Šabac), have officially adopted SUMPs, with additional plans under development. The goal is to create 20 more SUMPs through the World Bank and AFD-funded Local Infrastructure and Institutions Development (LIID) project, in alignment with updated EU urban mobility frameworks and guidelines. At the national level, Sustainable Urban Development Strategy of Serbia, adopted in 2019, provides overarching direction, while new traffic safety laws address the regulation of light electric vehicles, such as e-scooters, enforcing safety standards and age limits.

No	Regional Partner	City/ Municipality	SUMP Development Support	SUMP Adopted by Local Assembly (Year)
1	Albania	Tirana	GIZ, 2020	Published*
2	Albania	Elbasan	GIZ, 2020 SUMP Report	Published*
3	Albania	Belsh	GIZ, 2020 SUMP Solution	Published*
4	Albania	Gramsh	GIZ (SUMP Solution)	Published*
5	Albania	Librazhd	GIZ (SUMP Solution)	Published*
6	Albania	Klos	GIZ (SUMP Solution)	Published*
7	Albania	Mat	GIZ (SUMP Solution)	Published*
8	Albania	Shkoder	GIZ (SUMP Solution) SUMP in preparation (Cosimo Chiffi)	In progress
9	Albania	Peqin	GIZ (SUMP Solution)	Published*
10	Albania	Cerrik	GIZ (SUMP Solution)	Published*
11	Albania	Durres	Interreg, SUMP, 2019	Published*
12	Bosnia and Herzegovina	Sarajevo (Canton of Sarajevo and City)	GIZ	Yes, 2020
13	Bosnia and Herzegovina	Banja Luka	First SUMP proposal Interreg - LIR Evolution as project partner, DANUBE Transnational Programme, Project CHESTNUT (not adopted) UNDP-completed	In the procedure
14	Bosnia and Herzegovina	Bijeljina	GIZ	Yes, 2020
15	Bosnia and Herzegovina	Zavidovići	GIZ	Yes, 2020
16	Bosnia and Herzegovina	Gradiška	City of Gradiška as project partner in ADRIAN Programme, Project SMILE, document "SUMP for City of Gradiška" made by LIR Evolution as technical expertise	Yes
17	Bosnia and Herzegovina	Prijedor	Agency PREDA, project partner in ADRIAN Programme, Project SMILE, document "Sustainable Mobility Legal and Policy Framework in Bosnia and Herzegovina", technical expertise LIR Evolution	Yes
18	Kosovo	Pristina	Municipal budget & EBRD	Assembly-approved, supported by

No	Regional Partner	City/ Municipality	SUMP Development Support	SUMP Adopted by Local Assembly (Year)
				municipal budget, 2019
19	Kosovo	Gračanica	GIZ (SUMP solution)	Assembly-approved, 2019
20	Kosovo	Ferizaj	GIZ (SUMP solution)	Published*
21	Kosovo	Gnjilane	GIZ (SUMP solution)	Published*
22	Kosovo	Podujeva	GIZ (SUMP solution)	Published*
23	Kosovo	Prizren	UNDP	N/A
24	Kosovo	Mitrovica South	UN HABITAT	Published*
25	Kosovo	Suhareka	UNDP	N/A
26	Montenegro	Podgorica	GIZ	Yes, 2020
27	Montenegro	Rožaje	GIZ	2020
28	Montenegro	Kolašin	GIZ	March 2021
29	Montenegro	Tivat	(Poly SUMP)	NA
30	North Macedonia	Skopje	IPA - II SUMP generation in preparation	2011 first generation
31	North Macedonia	Ohrid	GIZ (SUMP solution)	Published*
32	North Macedonia	Veles	Jovan Hristoski University Mother Teresa, Skopje, North Macedonia Goran Jovanovic APPIA DOO Ljubljana, Slovenia Andon Petrovski 24 ING DOOEL Bitola, North Macedonia Olivera Petrovska 24 ING DOOEL Bitola, North Macedonia	2020
33	North Macedonia	Bitola	GIZ (SUMP solution)	2019
34	North Macedonia	Butel	TBC	2022
35	North Macedonia	Kumanovo	GIZ + municipal budget	2021
36	North Macedonia	Kavadarci	GIZ (SUMP solution)	Published*
37	North Macedonia	Karposh	GIZ (SUMP solution)	Published*
38	Serbia	Belgrade	City Budget	Yes, 2020
39	Serbia	Aleksinac	municipal budget	Yes, 2021
40	Serbia	Kruševac	City Budget	Yes, 2017
41	Serbia	Pirot	GIZ	Published*
42	Serbia	Užice	National budget (Ministry for Regional Development), final draft	Initiated in November 2023, in progress
43	Serbia	Šabac	GIZ	December 2020
44	Serbia	Čajetina	SCTM, SIDA	No
45	Serbia	Valjevo	EU Interreg	Yes, 2019
46	Serbia	Niš	EIB	No, still in preparation

Presented to mayor's office and used by relevant departments (no formal adoption due to lack of legislation).

Table 5: SUMP Development in the Western Balkans¹⁰

¹⁰ Source: Open Regional Fund for South East Europe - Energy, Transport and Climate Protection, ProSUMP, GIZ GmbH

Additionally, in the Western Balkans and Observing Participants, Transport Ministers and mayors endorsed the Clean Bus and Clean Fleet Initiative as part of the deliverables for the Green Mobility Summit on 5th June in Sarajevo. This Platform aims to address the environmental challenges posed by traditional fossil fuel-powered buses and fleets, which significantly contribute to air pollution and greenhouse gas emissions. By promoting clean energy adoption and advanced technologies in public transport, the Clean Bus and Fleet Platform aims to create greener, healthier, and more sustainable urban transport systems that benefit both the environment and local communities.

Overall, the Western Balkans region is making significant progress in urban mobility planning, with increasing alignment to EU standards and a strong focus on improving sustainability, safety, and accessibility. National policies, local initiatives, and donor-funded projects collectively support the development of sustainable urban transport networks, thereby improving quality of life for citizens.

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

Effective management and coordination of international rail traffic in the Western Balkans requires close collaboration among the region's infrastructure managers. The Transport Community Treaty (TCT) Secretariat is committed to strengthening communication between all regional rail partners. In the first half of this year, the Rail Infrastructure Managers Network (RIMN)_established through the Memorandum of Cooperation signed at the 2021 Western Balkans Rail Summit in Belgrade-convened in Pristina in March 2024 to discuss maintenance strategies, collaborative efforts, and the forthcoming establishment of a regional Railway Centre of Excellence. A second meeting took place at InnoTrans in Berlin in September, where attendees explored the latest industry advancements. The establishment of the RIMN in 2022 marked a key milestone in the Rail Action Plan.

Transposition of Provisions of the Fourth Railway Package

Aligning with Interoperability and Safety Standards is crucial for strengthening future regional cooperation, opening regional markets, and significantly reducing waiting times at border and common crossing points. The mutual recognition of operating licences, train driver licences, safety certificates, and vehicle authorisations is a prerequisite for opening the rail market at the regional level.

In this context, the TCT Secretariat, in collaboration with the DG MOVE and the European Union Agency for Railways (ERA), has continued to provide assistance to help all regional partners reach mutual agreement. During this reporting period, *Albania, Bosnia and Herzegovina, and Kosovo* made progress in interoperability compliance by taking concrete steps toward establishing an electronic vehicle register. Three regional partners (*Montenegro, Serbia, and Kosovo*) have drafted Railway Safety Law, aiming for adoption by the end of 2024. However, no tangible measures have been taken by any regional partner regarding mutual recognition of licences and certificates. Legislative changes are essential to improving the current situation.

	Albania	Bosnia and Herzegovina	Kosovo	Montenegro	North Macedonia	Serbia
Interoperability and safety						
Directive (EU) 2016/797 on the interoperability of the rail system	Partially transposed	Partially transposed	Partially transposed	Not transposed	Partially transposed	Partially transposed
Directive (EU) 2016/798 on railway safety	Partially transposed	Transposed	Not transposed	Not transposed	Partially transposed	Partially transposed

Table 6: Transposition of Interoperability and Railway Safety Legislation

Introduction of Regionally Aligned Public Service Obligation for international Passenger Rail Transport

In alignment with the Southeast European Parties' Dedication to Rail, signed during the Western Balkans Rail Summit in Belgrade in 2021, the re-establishment of Rail Passenger Connections in Southeast Europe remains a priority for the region. The planned meeting for this year has been rescheduled for November 2024 as part of a Conference organised with the Central European Initiative (CEI) and EU Member State.

Flagship 4 - Greening Freight Transport

Enhancing multimodal freight transport is essential to establishing a more efficient and sustainable logistics system. By combining different modes of transport—such as road, rail, and waterways—goods can be moved more efficiently, reducing reliance on any single mode. Prioritising greener freight solutions, such as low-emission vehicles and alternative fuels, allows for substantial reduction in the sector's environmental footprint. This approach not only alleviates congestion on overburdened transport networks in the Western Balkans but also fosters a safer, more cost-effective, and environmentally responsible freight system. This Flagship includes the following actions:

- i. Rail Corridor Initiative – the Western Balkans will 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 May 2024, the EU adopted a revised Regulation for the trans-European transport network (TEN-T), strengthening efforts to create a sustainable, resilient, and integrated transport system. The regulation sets ambitious timelines for the core network (2030), extended core (2040), and comprehensive network (2050), aiming for full completion with strengthened governance measures.

For the Western Balkans, a significant development includes the establishment of the new Western Balkans – Eastern Mediterranean Corridor, intended to enhance regional cohesion and connectivity. This new corridor, part of the revised TEN-T maps, will enable seamless cross-border transport systems and help alleviate bottlenecks. To ensure the coordinated implementation of the European Transport Corridor, a work plan will be developed in collaboration with the relevant Member States and, where applicable, with neighbouring

countries. The Corridor Forum will be consulted actively on both the plan and its execution, with close coordination with the TCT Secretariat considered essential. Regular updates will inform Member States and neighbouring countries on any challenges encountered during the corridor's development. Additionally, an annual progress report will be submitted to the European Parliament, the Council, the Commission, and the concerned Member States.

Additionally, a Rail Freight Corridor traversing the Western Balkans will play a pivotal role in synchronising the implementation of the Core Network. With this corridor's adoption, international freight transport will increase, supporting the region's integration into the broader European transport framework.

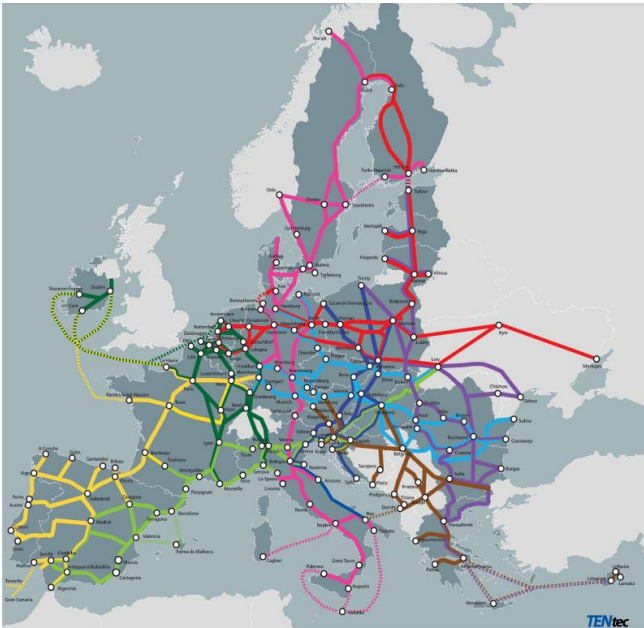


Figure 2 Western Balkans – Eastern Mediterranean Corridor¹¹

Assessment of Bottlenecks in Modal Interconnections and the Current Incentive System in Place

Multimodality in passenger and freight transport remains in its nascent stages, with ongoing efforts to develop the necessary regulatory, institutional, and infrastructure frameworks. Several projects, including freight terminals like Batajnica and Makis, and various passenger stations, have made progress but are yet to become fully operational. Despite these developments, the overall pace of constructing multimodal terminals and upgrading existing road and rail infrastructure to support multimodal transport has been relatively slow. While some regional partners, such as Serbia and Montenegro, have partially adopted the provisions of Council Directive 92/106/EEC on combined goods transport, full transposition is still pending.

¹¹ REGULATION (EU) 2024/1679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 June 2024 on Union Guidelines for the Development of the Trans-European Transport Network, amending Regulations (EU) 2021/1153 and (EU) No 913/2010 and repealing Regulation (EU) No 1315/2013

	Albania	Bosnia and Herzegovina	Kosovo	Montenegro	North Macedonia	Serbia
Multimodality						
Directive 92/106/EEC on combined transport of goods	Not transposed	Not transposed	Not transposed	Partially transposed	Not transposed	Partially transposed

Table 7: Transposition of Combined Transport Legislation

The Service Contract “Technical Assistance on Multimodality, Terminal Assessment, and Digitalisation” was assigned in December 2023, with the implementation anticipated by the end of 2024.

The specific objective of the assignment is to assist the six Regional Partners of the Transport Community in aligning with relevant EU acquis, by, among other tasks, examining the issues hindering the development of multimodality (e.g., infrastructure, policy, digitalisation issues), conducting a market and prospective analysis of multimodal freight terminals, and elaborating an action plan for the development of a multimodal freight terminal network. The tasks of this Technical Assistance assignment consist of the following:

- Task 1: Inception Report
- Task 2: Survey for satisfaction with multimodal/ intermodal services
- Task 3: Identification of multimodal freight terminals
- Task 4: Digitalisation aspects for enhanced multimodality and seamless supply chain flow
- Task 5: Institutional support

Flagship 5 - Pricing Carbon and Providing Better Incentives for Users

Transport is fundamental to economic growth and meeting a nation’s mobility needs, yet it also has considerable environmental and societal impacts. Individuals and businesses often lack access to data on carbon emissions generated by their journeys or information on greener alternatives. Raising public awareness about the environmental consequences of travel, consumption, and daily mobility choices is essential, as it can encourage a shift towards more sustainable travel behaviours. This Flagship focuses on the following actions to address these challenges:

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

Deployment of E-Tolling and Achieving Interoperability of Electronic Road Toll Systems and Facilitating Cross-Border Exchange of Information

There has been no progress in the transposition of Directive 2019/520/EC of the European Parliament and of the Council from 19 March 2019, (effective from October 2021), on the

interoperability of electronic road toll systems and facilitating cross-border exchange of information on the failure to pay road fees in the Union, where only Serbia partially transposed the Directive.

Albania aims to develop a comprehensive plan adopting the European Electronic Toll Service (EETS) between 2028 and 2030. This initiative is expected to streamline tolling system of Albania and facilitate integration into the broader European transport network, thereby enhancing efficiency and connectivity. Kosovo plans to implement an e-tolling system alongside Intelligent Transport Systems (ITS).

As of 1 July 2023, electronic toll collection interoperability between Serbia and North Macedonia has been operational with a single tag device. Montenegro achieved interoperability with Serbia in June 2024, and interoperability with North Macedonia is expected by the end of 2024. Since 19 June 2023, e-tolling interoperability has been implemented between the two motorway operators in Bosnia and Herzegovina, with testing underway with Croatia as of June 2024.

	Albania	Bosnia and Herzegovina	Kosovo	Montenegro	North Macedonia	Serbia
E-tolling						
Directive 2019/520/EC on the interoperability of electronic toll systems	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed	Partially transposed

Table 8: Transposition of E-Tolling Legislation

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

The Treaty establishing the Transport Community includes a commitment to develop a Transport Observatory, which will function as an information system to support decision-makers in monitoring and assessing the condition and performance of the indicative TEN-T extension across core and comprehensive networks in the Western Balkans. With the completion of Phase 2 of the Transport Observatory Data Information System (TODIS) development, the TCT Secretariat, in collaboration with regional partners, has initiated the first data collection through TODIS. This data will play a crucial role in preparing the TEN-T report on the evolving indicative extension of the Core and Comprehensive Network, as well as in developing the Five-Year Rolling Work Plan.

All regional partners have appointed individuals to serve as "regional users" and "regional coordinators." The Transport Community Permanent Secretariat has organised a seven training sessions, including individual sessions for each regional partner and two sessions specifically in Bosnia and Herzegovina.

3.2. Smart Mobility

Flagship 6 - Making Connected and Automated Multimodal Mobility a Reality

Digitalisation and automation are transforming mobility and transport, boosting both sustainability and efficiency. These technologies optimise routes to reduce emissions and air pollution and improve traffic flow through real-time data and predictive analytics. However, in the region, digitalisation is still in its early stages, with solutions focused on isolated segments rather than integrated network-wide strategies. This Flagship includes the following actions:

- i. Using modern software at border crossing points /common crossing points (such as e-qms, NCTS, SEED, NSW, Galileo app).
- ii. Initiating the deployment of ERTMS through the transposition of EU directives, TSIs, preparation of project documentation and deployment.
- iii. Deploying ITS through the transposition of EU directives, standards, preparation of project documentation and deployment.
- iv. Deploying Mobility as a Service (passenger and freight) applications and digital transport corridors, smart mobility solutions and multimodal travel information services.
- v. Assessing needs for setting up agencies or other bodies to support safe, smart and sustainable road transport operations .
- vi. Initiating the deployment of 5G transport corridors across the region on Core and Comprehensive Network.

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

Significant strides have been made in enhancing border crossing points (BCPs) between the Western Balkans and EU Member States, particularly through the Green Lanes initiative. Following the EU-Western Balkans Summit in December 2023, the Transport Community and CEFTA Secretariats developed a Comprehensive Roadmap aimed at improving customs cooperation and modernising BCPs. A key element of this roadmap is the creation of BCP fiches, designed to assist decision-makers and investors in planning small-scale projects related to BCP interventions and further project preparation.

In 2024, the Transport Community Secretariat, with support from a consultant and input from national administrations, successfully prepared 11 BCP fiches for border crossings shared by pairs of EU and Western Balkans parties, including Albania-Greece, Bosnia and Herzegovina-Croatia, and Serbia-Hungary, among others. The proposed measures outlined in these fiches are intended for implementation within a three-year period, aligning with the next generation Action Plan on Transport Facilitation (2025-2027). Additionally, *Serbia and Hungary* have signed a Memorandum of Understanding (MoU) to exchange pre-arrival customs information, extending the Green Lanes Initiative and enhancing the flow of goods along one of the region's most crucial transit routes. *Albania* is participating in the EU-Western Balkans Green Lanes initiative, where the exchange of pre-arrival customs information via the SEED system has been implemented for maritime transport (Blue Lines) between Albania and Italy. Albania has

also expressed interest in extending the Green Lanes initiative to Greece, focusing on key road BCPs. The exchange of pre-arrival customs information through the SEED system has been successfully implemented between *Bosnia and Herzegovina to Croatia*, with support of CEFTA.

This collaborative effort, alongside similar agreements across other EU-Western Balkans partners, helps reduce congestion at borders, providing economic benefits to businesses on both sides.

Initiating of the Deployment of ERTMS Through the Transposition of EU Directives, TSIs, Preparation of Project Documentation, and Deployment

The Railway Comprehensive Network in the region spans 4,293 km, of which 3,896 km is operational, with 397 km of missing links. The Railway Core Network totals 3,006 km, of which 2,882 km is currently operational.

In the Western Balkans, the ERTMS system has been deployed on 2.2% of the Core Network and 1.63% of the Comprehensive Network, notably on the reconstructed Belgrade–Novi Sad line. The second segment, extending from Novi Sad towards Subotica and Hungarian border, is expected to be completed by the end of 2024. Most regional partners have partly transposed the interoperability directive (third or fourth rail package). With ongoing and funded projects, ETCS level 1 or even 2 is planned for *Albania, Kosovo, Serbia and North Macedonia*, which would see ERTMS deployed on 16% of the Core network by 2027. ERTMS deployment remains one of the greatest challenges in achieving TEN-T parameters, and progress has been slower than anticipated. All regional partners are encouraged to intensify efforts in fully transposing and implementing the interoperability directive to advance ERTMS deployment and achieve greater alignment with TEN-T standards.

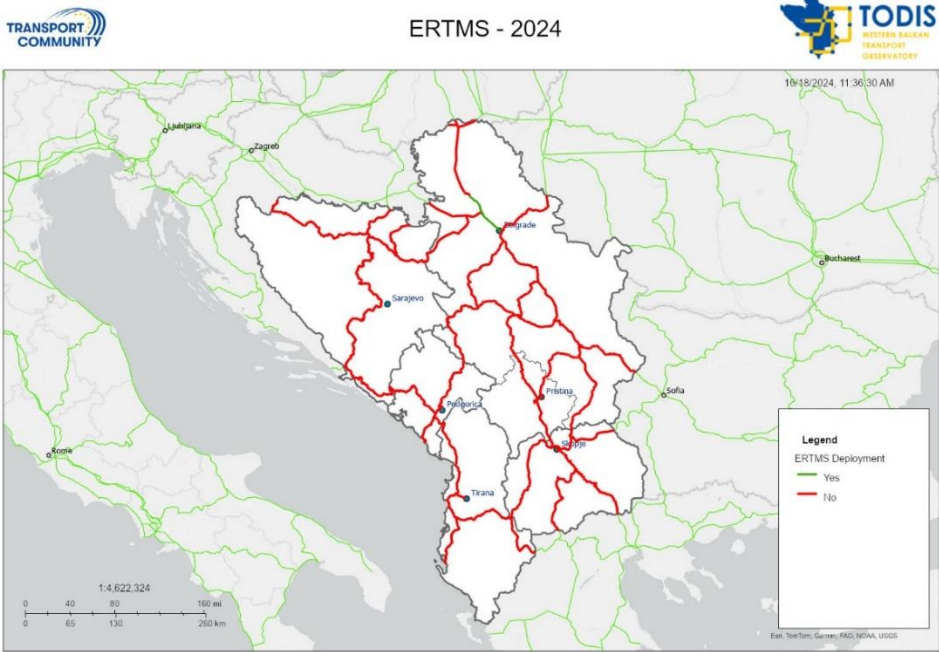


Figure 3: Map ERTMS Deployment¹²

¹² Transport Community Transport Observatory Database and Information System (TODIS)

Deploying ITS Through the Transposition of EU Directives, Standards, Preparation of Project Documentation and Deployment

During this reporting period, significant progress has been made in deploying Intelligent Transport Systems (ITS) across the Western Balkans, supported by EU-aligned initiatives and substantial regional investments.

In *Albania*, legislation has been partially aligned with Directive 2010/40/EU through Law No. 8308 on road transport and Guideline No. 3616/3, which establishes ITS rules. The Albanian Road Authority (ARA) has allocated €1.8 million for the Albanian National Traffic Operation and Control Centre (ANTOCC), which has been completed, and an additional €20 million for ITS implementation across the first 200 km of the national road network. Once a pending Ministerial Order is enacted, ANTOCC will enable real-time traffic information services in compliance with Commission Delegated Regulations (EU) 2015/962 and 2022/670. Full legislative alignment with the ITS Directive is anticipated by 2026.

In *Bosnia and Herzegovina*, ITS development is advancing with CONNECTA's support, resulting in a draft ITS Strategy.

In *Kosovo*, the ITS Strategy was formally adopted on 15 February 2024, followed by a three-year Action Plan approved on 9 October 2024. This plan outlines specific steps to enhance traffic management and digital integration. A company has been selected to design the Traffic Management Centre, a key component for centralising traffic data to enable effective monitoring and control.

Montenegro prioritises ITS through the "Technical Assistance for Capacity Support to the Transport Sector and EU Acquis Alignment in Montenegro" project (2022-2026). ITS deployment ongoing on the Smokovac-Mateševo section of the Bar-Boljare highway, at a cost of €25 million, with additional ITS investments for trunk and regional roads planned, supported by an anticipated EBRD loan in 2025. The project also includes a Rulebook detailing technical requirements and interoperability standards for electronic tolling systems.

North Macedonia has finalised its ITS Strategy, and the Support for Policy Reform, Accession, and Effectiveness (SUPRAE) project is assisting in revising the Public Roads Law to align with the ITS Directive. ITS deployment along Corridor X, from Interchange Veles South to the Bogorodica Border Crossing, was retendered in May 2024, with bids opened in September 2024. Tendering for ITS on Corridor X's northern segment is expected to begin in 2025, which will enhance traffic safety and efficiency on this major route.

In *Serbia*, the draft ITS Deployment Programme, including an Action Plan, is expected to be adopted by late 2024. The regional ITS centre in Niš became operational in 2023 and is staffed by 16 employees who oversee ITS implementations on critical corridors, including Corridor X, with \$10 million allocated through the WB-financed Regional Transport and Trade Facilitation Project. Serbia has also piloted a "safe parking lot" project on the Belgrade-Niš highway in 2024, providing secure truck parking with access control and video surveillance, with plans to expand to 12 additional locations by 2027. The nation's efforts also include deploying V2X systems on the E761 highway (Moravian Corridor – Route 5) as a pilot or nationwide V2X adoption. In June 2024, Serbia joined the C-Roads platform to facilitate cross-border

harmonisation and C-ITS services interoperability. Funding has been secured under the Safe and Sustainable Transport Programme for ITS projects on the A3 motorway, including the installation of weight-in-motion systems and secure parking facilities.

These initiatives are expected to gain momentum under the EU’s New Growth Plan and Reform Agendas, which place a strong emphasis on ITS transposition and implementation to enhance connectivity and align with EU standards across the Western Balkans.

	Albania	Bosnia and Herzegovina	Kosovo	Montenegro	North Macedonia	Serbia
ITS						
Directive 2010/40/EU on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport	Partially transposed	Not transposed	Not transposed	Fully transposed	Partially transposed	Partially transposed

Table 9: Transposition of ITS legislation

Deploying Mobility as a Service (passenger and freight) Applications and Digital Transport Corridors, Smart Mobility Solutions, and Multimodal Travel Information Services

Digital transport corridors have been mentioned as a priority in the EU and WB Sustainable and Smart Mobility Strategy (SSMS). They are integral to the Proposal for a Regulation for the developing the trans-European transport network, directly related to Regulation (EU) 2020/1056 on electronic freight transport information (eFTI). Currently, no progress has been made regarding transposition of Regulation 2020/1056. New momentum for advancing e-freight in the region is expected under the New Growth Plan and Reform Agenda, which prioritises the transposition and implementation of EU-related e-freight legislation.

In 2024, DG NEAR introduced the new EU4Digital initiative, which includes three main components: Wi-Fi networks for the Western Balkans, a network of innovation hubs, and e-freight. GIZ is currently working on the inception report and scope of work for the e-freight component of this initiative.

No progress has been made in transposing Commission Delegated Regulation (EU) 2017/1926 of 31 May 2017, which supplements Directive 2010/40/EU of the European Parliament and the Council. This regulation pertains to the provision of EU-wide multimodal travel information services.

In September 2024, the Transport Community Treaty (TCT) published a tender for the Assessment of setting up National Access Points (NAPs) and National Bodies (NBs) in Regional Partners. This initiative aims to establish robust and interoperable National Access Points and National Bodies across the Western Balkans, aligning the region’s transport infrastructure with EU standards and directives. The goal is to enhance data integration and

harmonisation, improving the efficiency, safety, and sustainability of the road transport systems. This initiative is also crucial for fostering regional connectivity and economic growth, while ensuring compliance with the ITS Directive (EU) 2023/2661 and related regulations. Regulations related to of EU-wide real-time traffic information services and the establishment of NAP have not been transposed.

The Technical Specifications for Interoperability (TSI) for Telematics Applications in Freight and Passenger Services define standards for digital communication and data exchange across rail networks. These standards ensure that rail systems can operate seamlessly and coordinate effectively across EU member states, improving both efficiency and customer service within the sector. The successful transposition of these TSIs is vital for the integration of rail systems, enabling smoother and more efficient cross-border operations. However, despite the importance of these specifications, *Serbia* remains the only Regional Partner to have fully transposed these TSIs. This achievement significantly advances alignment of Serbia with EU interoperability standards.

New momentum in the advancement of multimodal travel information services in the region is expected with the introduction of the New Growth Plan and its Reform Agendas, which prioritise the transposition and implementation of EU-related ITS legislation.

	Albania	Bosnia and Herzegovina	Kosovo	Montenegro	North Macedonia	Serbia
E-freight and MaaS						
Multimodal-Regulation (EU) 2020/1056 on electronic freight transport information (eFTI)	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed
Road - Regulation (EU) 2017/1926 of 31 May regarding the provision of EU-wide multimodal travel information services	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed
Multimodal-Delegated Regulation (EU) 2022/670 with regard to the provision of EU-wide real-time traffic information services	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed
Rail- Regulation (EU) No 1305/2014 on the technical specification for interoperability relating to telematics applications for freight	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed	Transposed

	Albania	Bosnia and Herzegovina	Kosovo	Montenegro	North Macedonia	Serbia
Rail- Regulation (EU) No 454/2011 on the technical specification for interoperability relating to the subsystem 'telematics applications for passenger services' of the trans-European rail system.	Not transposed	Not transposed	Not transposed	Not transposed	Not transposed	Transposed

Table 10: Transposition of Digital Mobility Legislation

Assessing the Need to Establish Agencies or Other Bodies to Support Safe, Smart and Sustainable Road Transport Operations

Regional partners, including Albania, Bosnia and Herzegovina, Montenegro, Kosovo, and Serbia, are actively working on developing and refining their transport strategies while assessing their human and planning capacities to support the transition to more digitally enabled and environmentally sustainable transport system. Despite these efforts, concrete actions to strengthen this capacity have yet to be fully realized.

Initiating the Deployment of 5G Transport Corridors Across the Region on the Core and Comprehensive Network

The strategic development of 5G networks across the Western Balkans has made significant progress, although there are varied timelines among regional partners. In *Albania*, a comprehensive 5G strategic plan is in effect until 2025, supported by a spectrum policy paper approved in 2020 and a new radio frequency allocation plan adopted the same year. Notably, the 5G pioneer bands of 3.6 GHz and 26 GHz are already available for use.

Bosnia and Herzegovina has initiated the implementation of a policy for the electronic communications sector, focusing on 4G networks that were established in 2019. This policy aims to facilitate the allocation of radio frequency spectrum for 5G networks and to deploy these networks in urban areas and along major transport routes, including motorways and railroads. *Kosovo* approved the Digital Agenda for Kosovo 2030 in 2023, laying the groundwork for future digital advancements.

Montenegro has adopted a 5G strategy, along with an action plan covering the period from 2023 to 2027. *North Macedonia* boasts an impressive 82% 5G coverage across its economy, with gigabit 5G speeds available in most towns. Meanwhile, in *Serbia*, the long-awaited rulebook necessary for the introduction of 5G networks is expected to be adopted soon, following the recently approved Strategy for the Development of Electronic Communications Systems, which anticipates this development in the third quarter of 2024. The auction for frequency division is scheduled for the end of 2025, marking a significant step toward enhanced connectivity in the region.

Flagship 7 - Innovation, Data and AI for Smart Mobility

As the global community moves toward climate resilience and sustainability, the transport sector stands at the forefront of this transformation. Investment in innovative transport solutions serves as a catalyst for this change, paving the way for a more sustainable and interconnected future. As we explore the latest advancements in clean mobility, it becomes evident that embracing innovation is essential for the evolution of transport systems. This journey towards modernisation and environmental responsibility will require collaboration among stakeholders, a commitment to ongoing research, and the prioritisation of sustainable initiatives. It is necessary to build a transport landscape that is not only efficient and effective but also aligned with climate goals and societal needs. This Flagship includes the following actions:

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

Developing R&I Partnerships within the Region and with EU bodies

The Green Mobility Summit, organised by the Transport Community and German Federal Ministry for Economic Cooperation and Development (BMZ), held on 6-7 June 2024 in Sarajevo, Bosnia and Herzegovina, brought together experts and leaders to discuss and promote innovative sustainable transport solutions. The summit culminated with the endorsement of the Declaration for Green Mobility of South East European Parties and Observing Participants. The Declaration called for the establishment of a Digital Mobility Centre of Excellence and a Digital and Innovative Transport Forum to expedite digitalisation of transport and support the achievement of measures from Sustainable and Smart Mobility Strategy Flagship 6 - Making Connected and Automated Multimodal Mobility a Reality and Flagship 7 - Innovation, Data and AI for Smart Mobility. The Declaration was endorsed by Ministries of Transport and mayors of the Western Balkans and Observing participants. A Digital Mobility Centre of Excellence is critical to accelerate the Western Balkans' transition to smart, sustainable transport in line with EU climate goals. By uniting governments, innovation hubs, universities, and NGOs, the Centre will drive digitalisation in transport, support interdisciplinary research, and enable practical pilot projects. It will advance the region's Sustainable and Smart Mobility Strategy by integrating technologies like AI, improving planning, and reducing emissions, while connecting with EU initiatives to strengthen regional innovation and collaboration. The establishment of digital mobility centres and smart innovation forums can play a pivotal role in fostering a collaborative environment for data-driven transport solutions.

Improving Coordination between Public Authorities, Universities, and NGOs in the Region to Encourage Interdisciplinary Research in Green and Digital Mobility

The Transport Innovation Workshop, titled *The Journey Towards a Greener Future and Climate Neutrality*, was held back-to-back with the 6th Regional ProSUMP Workshop and CIVINET Slovenia-Croatia-South East Europe on 10-11 October 2024. It brought together key stakeholders to discuss innovative solutions and transport financing models.

The workshop aimed to facilitate knowledge exchange and innovation in smart and digital mobility within the EU, highlighting financing mechanisms and institutional frameworks. It featured a series of presentations and discussions focusing on digital and sustainable trends in mobility, highlighting the importance of institutionalising digital transformation in transport. Key speakers, including representatives from the European Climate, Infrastructure and Environment Executive Agency (CINEA), ADRION and the Danube region programme, provided insights into the EU's vision for sustainable and digital mobility and available financing instruments for mobility innovation. The session on financing mobility shed light on potential funding sources available for the development of transport systems in the region.

Additionally, participants engaged in hands-on workshops and discussions to develop practical strategies for integrating digital technologies into transport infrastructure and operations. The afternoon included a panel discussion centred on replicating successful innovative sustainable mobility projects in local and national contexts, with participants sharing examples from their respective regions. An interactive session followed, aimed at establishing a framework for innovation and sustainability in transport as a prerequisite for achieving climate neutrality.

Encouraging Public Companies/Institutions/Universities to Establish Innovation Centres

The TCT Secretariat published the Tender Procedure for Defining Details, Concept and Curriculum Development for Establishing Regional Centre of Railway Excellence in May 2024. The objective of this assignment is to outline the essential particulars for the establishment of a Regional Centre of Railway Excellence in the Western Balkans region. This initiative arises from the conclusions of the first Rail Infrastructure Managers Network Meeting and is linked to the WB6 Ministerial Dedication to Railway from the Belgrade Railway Summit of 2021. The focus is on defining key components such as infrastructure and equipment requirements, specialised training programmes, and strategic collaborations. The assignment delves into the comprehensive framework necessary for creating a hub of excellence in the railway sector. By examining the specific details crucial for the centre's success—including technology integration, curriculum development, and industry partnerships—the study provides a roadmap for stakeholders and decision-makers involved in the planning and execution of this regional railway centre. The roadmap includes step by step guidelines, objectives, and full framework details on establishing the Regional Centre of Excellence. The project started in October 2024 and is expected to be completed by June 2025.

Increasing Awareness and Educating Young Leaders, Officials, and Other Relevant Stakeholders on the Greening of Transport

The Green Mobility Summer School was held in Pristina on 2 July, gathering experts and participants from across the Western Balkans and the EU to explore sustainable mobility

solutions. The four-day event brought together various participants to discuss strategies and policies for a greener future of transport. Participants discussed the EU's plans and strategies for green mobility, sustainable and smart mobility for the Western Balkans, explored synergies between transport, energy, and the environment, as well as sustainable urban mobility plans, alternative fuels infrastructure, and zero-emission mobility.

The Green Mobility Summer School also covered various aspects of smart and multimodal mobility, resilient infrastructure, and climate adaptation. Sessions included discussions on infrastructure funding, sustainability in railways, mobility as a service (MaaS), and the implementation of ITS directives. The participants also had the opportunity to take part in a site visit to urban mobility projects in Pristina, which provided them with practical insights into the application of sustainable mobility solutions in the city.

Undertaking Impact Assessment and Preparing a Roadmap for AI in mobility

All regional partners have been actively developing their ITS strategies (for all modes) and deploying of ITS on motorways, railway, and inland waterways. AI has been used in certain projects sporadically. However, none of the regional partners have developed strategic roadmaps at the national level.

3.3. Resilient Mobility

Flagship 8 – Working towards the Single Market

The establishment of a single transport market is essential for economic growth, improving efficiency, and ensuring smooth cross-border connectivity. By integrating transport systems, barriers are reduced, fostering competition, innovation, and lower costs for consumers. It also promotes greener, more efficient transport modes, contributing to job creation and regional competitiveness.

In the Western Balkans, the Transport Community Treaty is driving efforts to create this unified market across road, rail, inland waterways, and maritime transport. This initiative aims to harmonise regulations and enhance regional cooperation, aligning the region's transport systems with EU standards.

This Flagship includes the following actions:

- i. Revisiting national transport strategies and prioritising green elements
- ii. Capacity building for administration on the green and digital transformation of transport
- iii. Adopting guidelines to assess climate change and natural hazards in the road network
- iv. Developing and implementing climate resilience plans for Regional Partners' transport networks
- v. Establishing efficient road maintenance through multiannual road maintenance plans and Road Asset Management Systems
- vi. Electrification of the rail core network and implementation of Flagship 1, 2, and 3

- vii. Reforming the railway sector through the transposition and implementation of market opening, passenger rights, interoperability, border crossings/common crossings legislation
- viii. Reviewing transport-relevant State aid rules
- ix. Improving road and rail border crossings/common crossings (removal of administrative bottlenecks, additional parking lanes, construction of joint BCPs/CCPs).

Revisiting National Transport Strategies and Prioritising Green Elements

Albania is currently consulting on the Terms of Reference (ToR) for its upcoming Transport Sector Strategy and Action Plan 2030. This strategy aims to create a cleaner, safer, smarter, and greener transport system aligned with EU Transport Policy. Key objectives include enhancing national mobility through sustainable, flexible, and competitive transport solutions, as well as strengthening connections and integration with European and regional networks. The plan supports strategic goals for economic and social development of Albania and its future EU integration.

Bosnia and Herzegovina revised its Framework Transport Strategy by the end of 2022 through an EUD financed TA. The revised document includes actions related to sustainability. However, the official adoption of the TA results is still pending.

In January 2023, *Kosovo* adopted the Multimodal Transport Strategy for 2023-2030, which aims to increase mobility, reduce the cost of transport, and decrease gas emissions. In January 2024, the Action Plan for the Strategy of Multimodal Transport 2023-2025 was adopted, which further specifies actions and targets to implement the strategy.

Montenegro is developing its National Plan of Adaptation to Climate Change (NAP), aligning with the EU Directive. A Feasibility Study for alternative fuels is planned for 2025. The Low Carbon Development Strategy and Action Plan, supported by the World Bank, is underway, and Montenegro's first National Energy and Climate Plan is being prepared with GIZ's assistance. The Transport Development Strategy will be updated in 2025 to include green elements, and plans for LNG terminals near the Port of Bar are progressing.

The development of National Transport Strategy for the 2023–2030 period of *Serbia* is currently in progress, supported by a World Bank loan under the "Western Balkan Trade and Transport Facilitation Project." The initial draft was presented in March 2024. Recognising the strategic importance of this document, Serbia is working to expedite the preparation of the final version by engaging experts from the Faculty of Transport and Traffic Engineering at the University of Belgrade. This collaboration is expected to advance the completion of the National Transport Strategy, aligning it with Serbia's transport priorities and objectives.

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:

- Joint Transport and Energy Community Workshop on Sustainable and Green mobility - In Vienna, from 20 to 22 December 2023, public sector and civil society representatives from the Western Balkans, Ukraine, Moldova, and Georgia convened

for a Joint Workshop on sustainable and green mobility, co-organised by the Transport and Energy Community Secretariat. The European Commission and World Bank presented strategic contexts and funding opportunities, while UNOPS showcased its efforts in supporting EU integration. The workshop focused on alternative fuel infrastructure, air quality, and climate change, emphasising the need for collaboration in policy alignment, the development of electric charging stations, hydrogen initiatives, and Fuel Quality Monitoring Systems (FQMS). Participants reached a consensus on fostering cooperation to ensure seamless implementation of transport strategies and climate plans in their pursuit of EU accession reforms.

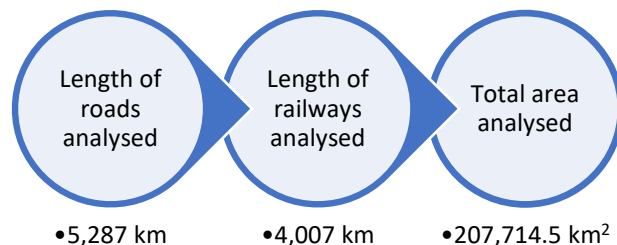
- Clean Bus and Clean fleet workshop - On 5 June, in Sarajevo, this workshop focused on aspects of zero-emission vehicles and alternative fuel infrastructure for public transport, as well as procurement options. The meeting was co-organised with GIZ, with JASPERS assistance, and joined by EBRD and World Bank. Workshop topics were in line with TCT Annex I, namely: TEN-T Regulation, Alternative Fuel Infrastructure Regulation, and the Clean Vehicles directive. The first panel discussed clean buses and clean fleets, focusing on infrastructure, operational, energy, and environmental aspects, followed by an interactive session and group discussion on the challenges and opportunities related to clean fleet infrastructure and operations. The second panel explored procurement and funding opportunities for clean buses and fleets, with another interactive session and group discussion on the same topic.
- The Green Mobility Summit was held on 6-7 June 2024 in Sarajevo, Bosnia and Herzegovina, focusing on sustainable transport solutions. Organised by the Transport Community Permanent Secretariat and the German Federal Ministry for Economic Cooperation and Development (BMZ), the event was part of the Regional Climate Partnership, promoting green transport in the Western Balkans, Georgia, Moldova, and Ukraine. Expert discussions on 6 June covered sustainable mobility strategies, urban mobility plans (SUMP), digital innovations, and climate-resilient transport networks. On 7 June, high-level officials, including ministers and mayors, discussed green infrastructure investments and zero-emission mobility initiatives. During the Summit, the Green Mobility Declaration was endorsed, committing to zero-emission mobility, climate resilience, and regional cooperation.
- The Green Mobility Summer School, organised by the Transport Community Permanent Secretariat and the Regional School of Public Administration (ReSPA), was held in Pristina from 2-5 July 2024, bringing together experts and participants from the Western Balkans and the EU to explore sustainable mobility solutions. The event targeted young professionals from Ministries of Transport, public institutions, and municipalities. Over four days, participants discussed EU and Western Balkans green mobility strategies, sustainable urban mobility plans, alternative fuels infrastructure, and zero-emission transport. Sessions covered topics such as smart and multimodal mobility, resilient infrastructure, and climate adaptation. The event included a site visit to urban mobility projects in Pristina, offering practical insights into sustainable solutions.
- Several workshops/study visits on the topic of digitalisation, such as ITS and e-freight, were held during 2023/2024.
- Technical Committees (TC), where Sustainable and Smart Mobility was the focus, and the implementation of the Strategy and Green agenda was discussed. Prominent

expert speakers were invited to raise awareness and build the capacity of our RPs for the green and digital transformation.

Developing and Implementing Climate Resilience Plans for RPs Transport Networks and Adopting Guidelines to Assess Climate Change and Natural Hazards of Road Network

Transport infrastructure in the Western Balkans is highly vulnerable to climate change, facing significant risks due to limited resilience and adaptive capacity. Despite the pressing need for climate-resilient infrastructure, none of the regional partners has yet established specific adaptation strategies for the transport sector. In response, the Transport Community (TCT) Secretariat launched a Technical Assistance (TA) project on 26 January 2023 to assess climate risks and develop a Resilience Plan for the Western Balkans' Road and rail networks. This project aligns with Sustainable Development Goal 13 (Climate Action) and the EU Green Deal, with a focus on the TEN-T road and rail extensions in the region, including ongoing and future projects highlighted in the Five-Year Rolling Work Plan for TEN-T development.

Concluding in late 2023, the project conducted a comprehensive vulnerability assessment across 5,287 km of TEN-T roads (3,540 km on the Core Network), 4,007 km of railways (2,623 km on the Core Network), and an area covering over 207,000 km². The project aimed to protect critical infrastructure from climate threats such as floods and landslides, identifying necessary adaptation measures like flood defences and improved drainage systems, and estimating costs based on similar past projects. Key tasks included: 1) a vulnerability analysis for core and comprehensive road and rail networks, 2) a criticality assessment to prioritise segments, 3) recommendations for adaptation strategies, and 4) institutional capacity-building in climate resilience. These outcomes are intended to guide targeted investments to ensure that the region's transport networks are equipped to withstand future climate challenges.



The Vulnerability Assessment Report for the Western Balkans evaluates the sensitivity and exposure of the TEN-T core and comprehensive road and railway networks to multiple climate-related hazards, considering both the current climate scenario for 2030 and a future scenario for 2050. It identifies floods, landslides, high temperatures, sea surges, and snowdrifts as the main hazards affecting the region's transport infrastructure.

Findings reveal that while flooding and landslides are primary hazards for both road and rail networks, rising temperatures and snowdrifts are also projected to increase vulnerability, especially in certain regions, such as the northern parts of the area of interest (AoI). The assessment highlights that nearly 56% of road links and 34% of railway links are categorised as highly vulnerable for both timeframes. This high vulnerability rating suggests that large portions of these networks will require significant resilience-building efforts. Multi-hazard scoring indicates a need for targeted mitigation in specific high-impact areas, with prioritised

intervention on the most vulnerable segments. Although sub-link analysis provides a more granular view, limitations remain in differentiating the criticality between highly vulnerable links, underscoring the need for a refined approach that combines multi-hazard data and localised resilience strategies. The following figures illustrate the spatial extent of multi-hazard exposure for road and railway sub-links, respectively, projected for the 2030 and 2050 timeframes.

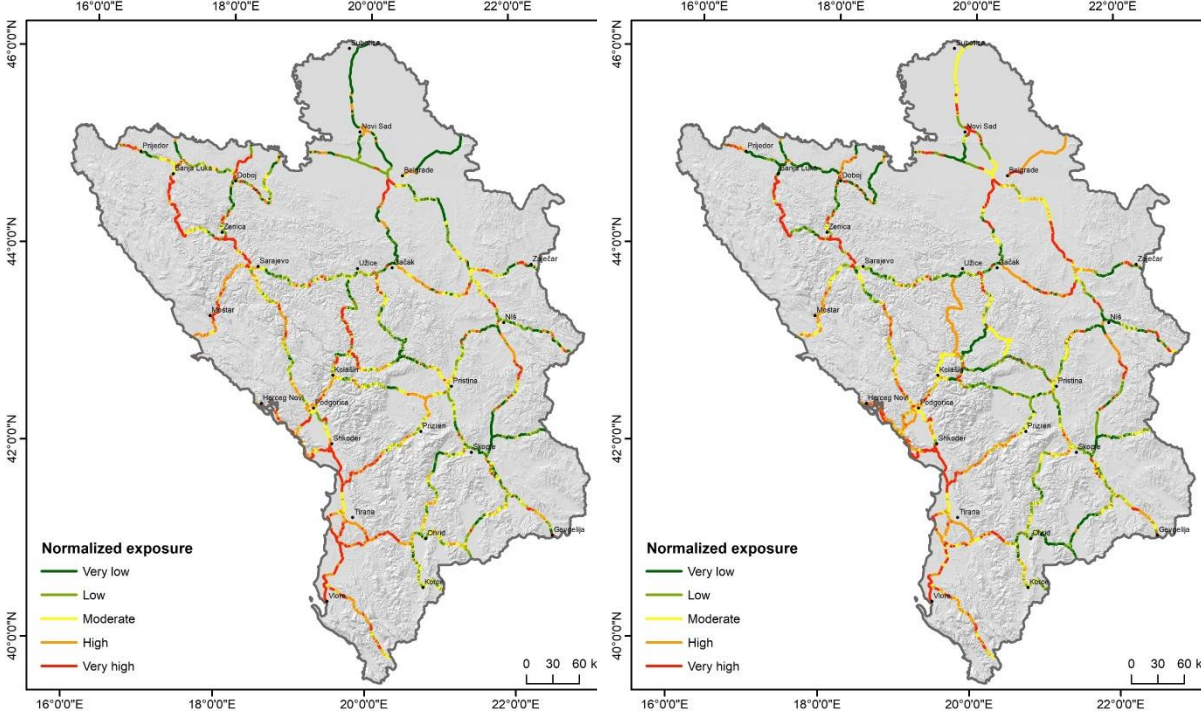


Figure 4: Spatial extent of Road Sub-Link Multi-Hazard Exposure for 2030 and 2050 Timeframe

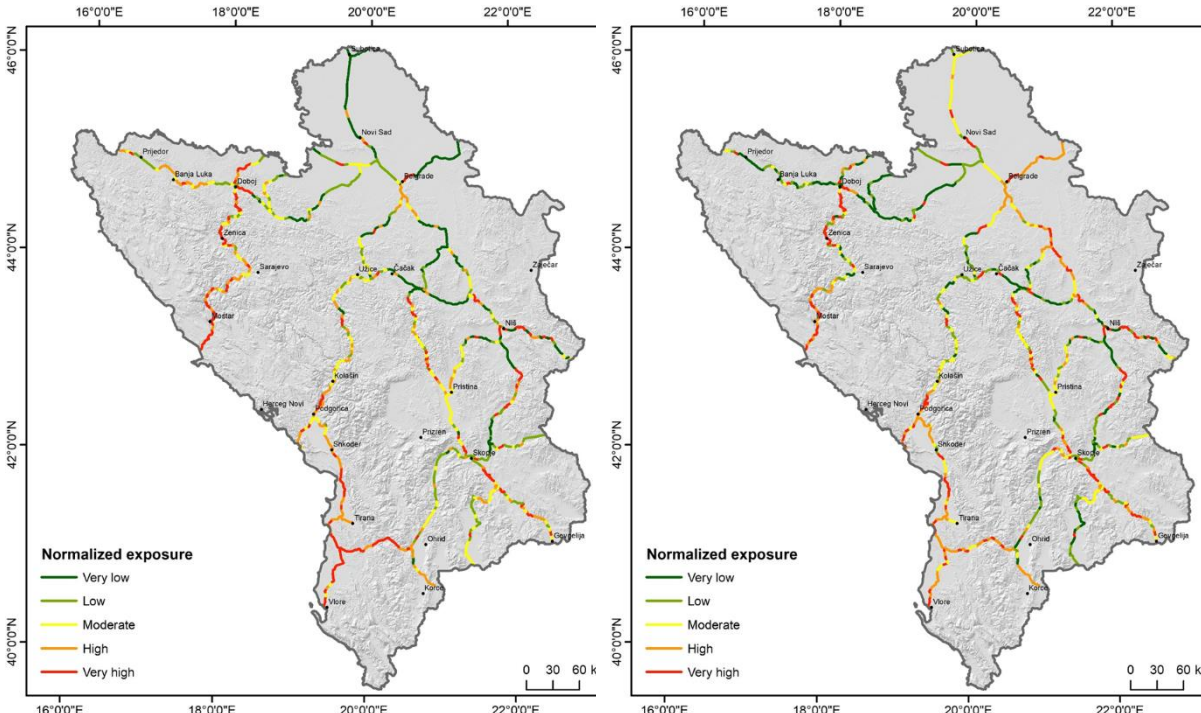


Figure 5: Spatial Extent of Railway Sub-Link Multi-Hazard Exposure for 2030 and 2050 Timeframe

The criticality assessment evaluates the impact of climate hazards on road and rail networks in the Western Balkans, specifically focusing on the Trans-European Transport Network (TEN-T) extension. It identifies and prioritises the most vulnerable sections based on exposure to multi-hazard risks expected to require adaptation by 2030 and 2050.

The assessment uses the following criteria for multi-criteria analysis (MCA): (A1) Vulnerability assessment as the starting point; (A2) Economic and Environmental Impacts, evaluating costs, environmental benefits, and return rates; (B1) Social Productivity Impact, considering traffic volume and disruptions in high-traffic areas; and (B2) Population Impact, assessing the number of people affected by potential disruptions in access to services. Together, these criteria guide effective adaptation planning for climate resilience in critical transport sections.

The assessment identifies the top 20 most vulnerable road and rail segments for each regional partner by time period (20 for each timeframe: 2030 and 2050), focusing on climate hazards such as floods, landslides, high temperatures, and snow drift. These vulnerabilities were analysed by segment, showing that roads and railways face varying levels of risk, with critical segments prioritised for targeted adaptation investments.

In 2030, critical road sections are primarily affected by flood and landslide risks, which are expected to worsen by 2050 due to climate change. The railway network shows similar patterns, with significant vulnerabilities anticipated along high-traffic corridors. The top 20 vulnerable road and railway sections for each timeframe underscore the need for adaptation measures to improve network resilience and reduce potential transport disruptions.

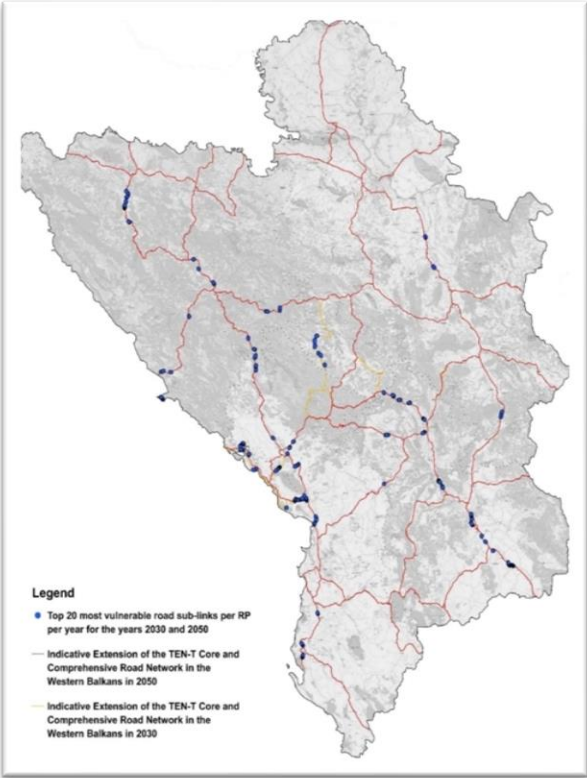


Figure 6: Comparison of the Top 20 Most Vulnerable Road Sections in 2030 and 2050

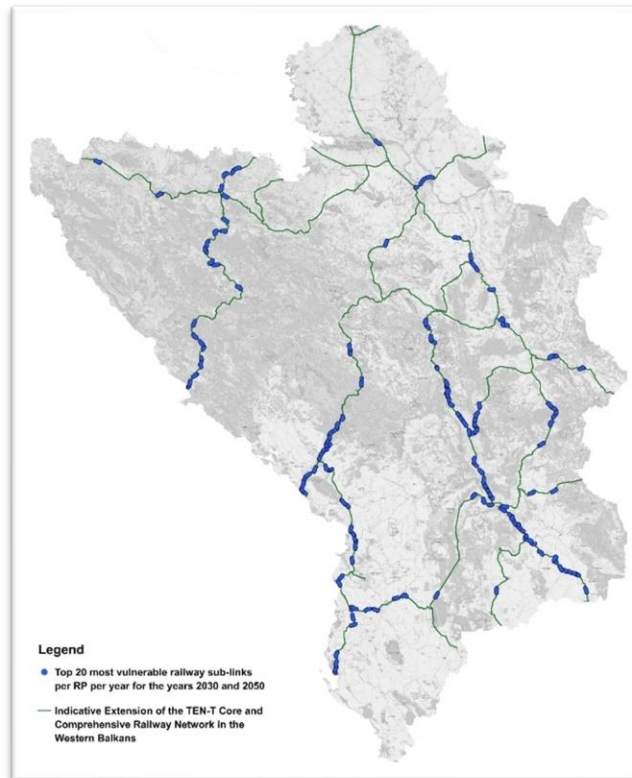


Figure 7: Comparison of the Top 20 Most Vulnerable Railway Sections in 2030 and 2050

For specific efforts among Regional Partners, the World Bank's "Construction of Resilient Bridges in *Albania*" project has commenced. In this phase, the reconstruction of 27 priorities bridges is planned. The Beshiri bridge is currently in the design phase and in the tender process, while the Viroi bridge is near contract signature. For the remaining bridges, ARA is reviewing designs for Groups A and B, encompassing 12 bridges.

In the design phase of road projects, resilience issues are addressed in line with relevant design standards. *Montenegro* has benefited from support from the European Bank for Reconstruction and Development (EBRD) to develop the "Road Infrastructure Climate Resilience Strategy for Montenegro and Action Plan."

As part of the Smart and Sustainable Programme, proposals have been submitted to include National Resilient Strategies for the Road, Railway, and Maritime sectors. Furthermore, every grant application for EU funding requires a mandatory risk assessment and incorporation of suitable mitigation measures.

In *North Macedonia*, resilience is integrated into the detailed design for road infrastructure, while an increasing awareness of the need to legislate for natural hazards and climate change adaptation. Meanwhile, in *Serbia*, PERS has successfully installed 54 Road Weather Information Systems (RWIS), bringing the total of 81 RWIS units now operational across the entire network.

Establishing Efficient Road Maintenance through Multiannual Road Maintenance Plans and Road Asset Management Systems

Key achievements include the signing of multiannual maintenance plans in *Albania*, the establishment and operation of a Road Asset Management System (RAMS) in *Albania* and *North Macedonia*, and piloting of a Service Level Agreement (SLA) in *Serbia*. All regional partners have multiannual road maintenance frameworks with annual contracts, though many facing challenges in advancing the RAMS. Montenegro is still in the process of finalising its Medium-Term Plan for Road Network Development, Reconstruction, and Maintenance (2024-2027).

Electrification of the Core Rail Network and Implementation of Flagship 1, 2, and 3

Electrified railways are among the most sustainable transport modes. Of the 4,293 km Railway Comprehensive Network, 3,896 km are operational, with 55.34% electrified. The Core Rail Network spans 3,006 km, of which 2,882 km are operational, with 65.09% electrified as of 2023. Some segments, such as those in Corridor VIII (*Albania* and *North Macedonia*), are currently under construction and excluded from this analysis. In 2024, rail electrification compliance shifted with the upgrade of the Durres–Elbasan–Lin–Kicevo section from Comprehensive to Core, reducing Core electrification by 6% but increasing Comprehensive compliance by 3.5%.

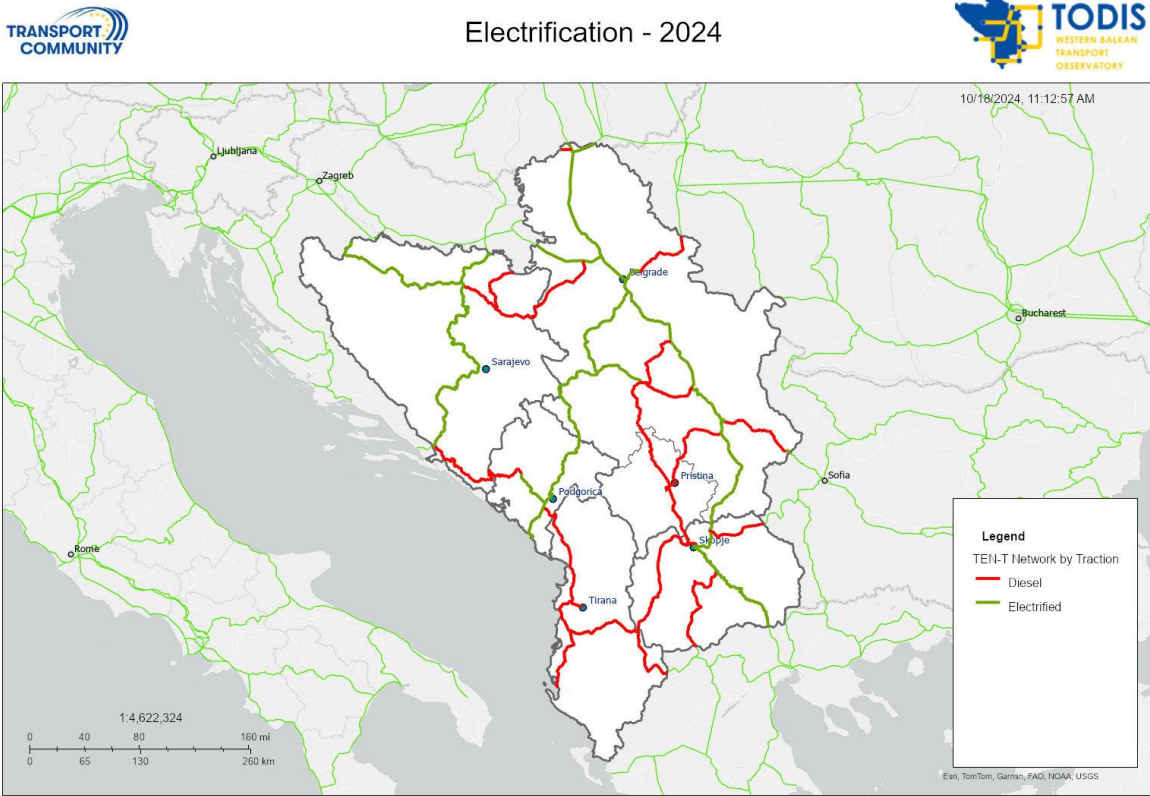


Figure 8: Map of Electrified Lines¹³

¹³ Transport Community Transport Observatory Database and Information System (TODIS)

Reforming the Railway Sector through the Transposition and Implementation of Market Opening, Passenger Rights, Interoperability, and Border Crossings/Common Crossings Legislation

Over the past eight years, the Western Balkans' rail market in has transitioned from fully closed to private operators to now hosting sixteen private freight railway undertakings. However, there are no private operators for passenger transport, and solely opening the market domestically remains financially unsustainable. Regional partners have agreed to focus on opening the market at a regional level, implementing EU interoperability legislation, and improving governance. During the reporting period, Infrastructure Manager of Kosovo, Infracos, signed a Multiannual Infrastructure Contract with the relevant authority. In Bosnia and Herzegovina, the Infrastructure Manager in the Republika Srpska entity has prepared a draft of the Multiannual Infrastructure Contract; however, the signing procedure is yet to be completed.

Although progress has been steady, five regional partners have opted to open their railway markets by 2024, with North Macedonia choosing to close its market. Bosnia and Herzegovina and North Macedonia, therefore, remain the only regional partners that have yet to make progress in this regard.

During this reporting period, *Albania, Bosnia and Herzegovina, and Kosovo* made progress in interoperability compliance by taking concrete steps to establish an electronic register of vehicles. Three regional partners (Montenegro, Serbia and Kosovo) drafted a Railway Safety Law with plans to adopt it by the end of 2024. Nonetheless, no regional partner has made concrete moves toward mutual recognition of licences and certificates, necessitating legislative changes for improvement.

All regional partners contributed to the Network of Infrastructure Managers (IMs) activities, culminating in the completion of technical specifications and tender documents for the "Level Crossings Safety Improvement" project. As a result, all regional partners can now proceed with securing financing and publishing calls for proposals.

Reviewing Transport-Relevant State Aid Rules

In the reporting period, there was no progress by the regional partners on this measure.

Improvement of Road and Rail Border Crossings/Common Crossings (Removal of Administrative Bottlenecks, Additional Parking Lanes, Construction of Joint BCPs/CCPs)

In 2024, a key milestone was the launch of joint border controls at Bijelo Polje rail station, serving as a joint rail border crossing point (BCP) between Montenegro and Serbia. This marks a significant step in cross-border cooperation, enhancing connectivity and operational efficiency along the entire rail corridor, benefiting both passengers and freight. Similarly, Serbia and Hungary agreed to implement joint passenger controls at the Rösztke rail BCP, following the re-establishment of the passenger line between Subotica and Szeged. These initiatives highlight successful cross-border collaborations to streamline operations and improve railway services.

However, progress remain slow among other regional partners in establishing the legal frameworks for joint rail BCPs. In the road transport, the one-stop border control model between Albania and North Macedonia at the Qafe Thane/Kjafasan BCP continued with infrastructure enhancements, supported by the World Bank's Transport and Trade Facilitation Project. Meanwhile, the Kosovo-North Macedonia road BCP at Hani i Elezit/Blace has seen limited development, although bilateral coordination is ongoing.

Positive developments occurred between Bosnia and Herzegovina and Montenegro, as well as Bosnia and Herzegovina and Serbia, where joint BCPs at Hum/Šćepan Polje, Ilino Brdo/Klobuk, and Rača/Sremska Rača are progressing through the preparatory phases. Additionally, Serbia and Montenegro reported improvements at shared BCPs, including equipment renewal on the Montenegro side, with discussions anticipated on establishing joint controls, inspired by the Bijelo Polje rail BCP's success.

On a broader scale, the Green Lanes initiative has progressed in facilitating cross-border trade between the Western Balkans and EU Member States. The Transport Community Secretariat and CEFTA prepared 11 BCP fiches, outlining interventions at BCPs such as Albania-Greece, Bosnia and Herzegovina-Croatia, North Macedonia-Bulgaria, Serbia-Hungary, and others. Notably, Serbia and Hungary signed a Memorandum of Understanding (MoU) for pre-arrival customs information exchange, further expanding the Green Lanes Initiative and expediting goods flow along key transit routes, reducing border waiting times and fostering economic opportunities across the region.

Flagship 9 - Making Mobility Fair and Just for All

The transport sector is a vital contributor to the Western Balkans' economies, supporting job creation and enhancing regional connectivity. However, challenges such as economic fluctuations, increasing international competition, demographic changes, and the decline of traditional social structures pose risks to social standards and regulations. Addressing these issues is essential for developing a skilled workforce and ensuring that the transitions towards greener and more digital systems are fair and inclusive.

The Transport Community Permanent Secretariat is committed to promoting equitable mobility, particularly for individuals with reduced mobility and disabilities.

This Flagship includes the following actions:

- i. Playing an active role in assisting regional institutions to remove legal barriers to women's economic empowerment opportunities
- ii. Encouraging IFIs, Ministries in charge of transport and Transport Departments within Universities across the region to develop grant schemes for women internships in the transport sector
- iii. Reviewing guidelines on Land PSO Regulation and providing guidance on freight PSOs
- iv. Setting up a Platform for Change and removing legal barriers to women's economic empowerment.

Playing an active role in assisting regional institutions to remove legal barriers to women's economic empowerment opportunities

The Social Forum of the Transport Community serves as a platform for a social dialogue between key transport stakeholders from the European Union and the South East European Parties. One of the forum's key topics is gender inequality, with a focus on the transport sector more appealing to young people and women. To address these issues, in 2023 the Transport Community Permanent Secretariat prepared an Action Plan for the Implementation of the EU Acquis in the Area of Social Issues and Passenger Rights in Transport. This action plan was endorsed in December 2023 at the TCT Annual Ministerial Council and is structured around four essential working groups: workers' fundamental rights, just transition for transport workers, passenger rights, and promoting equal opportunities to improve gender balance in the workforce. Serbia has committed to the Declaration on Equal Opportunities for Women in Transport, raising awareness about gender inclusivity in the workforce. Additionally, Albania presented an Action Plan for Equal Opportunities, focusing on creating a fair, inclusive and diverse workforce.

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

In November 2023, as part of the Roundtable on Advancing Skills in the Western Balkans, a panel titled "Skills for the Green and Digital Transition in Transport" explored the evolving skill requirements for the industry's green and digital transformation. This panel aimed to identify essential competencies and training needs for a sustainable and technologically advanced transport sector. Universities and other educational institutions were engaged to discuss developing grant schemes for young graduates, both men and women, to support internships in the transport sector, fostering a diverse, skilled, and innovative workforce. In November 2024, a study visit to Brussels is planned to focus on building an inclusive and attractive transport sector. Topics will include, gender equality, training, and certification of seafarers, with discussions on strategies to enhance the sector's appeal and promote workforce diversity.

Reviewing Guidelines on the Land PSO Regulation and Providing Guidance on Freight PSOs

No progress was made by the regional partners on this measure during the reporting period, and an update is awaited.

Setting up a Platform for Change and removing legal barriers to women's economic empowerment

The establishment of a "Platform for Change" is a pivotal action under our equal opportunities' initiatives in the Action Plan for the Implementation of EU Acquis in Social Issues and Passenger Rights in Transport. At the March 2023 RSC meeting, the European Commission invited regional partners to join this platform, which promotes equal opportunities and strengthens women's employment in the transport sector. This platform facilitates discussions and the exchanges of best practice for a more inclusive industry. A study visit to Brussels in November 2024 will provide regional partners with insights into the platform's work and initiatives on diversity and equality in transport.

Flagship 10 - Enhancing Transport Safety and Security

All regional partners have aligned with the Vision Zero initiative, mirroring the UN and EU's commitment to integrating the Safe System approach into their new Road Safety Strategies. These strategies reflect a shared goal of eliminating fatalities, marking a significant step toward safer roads across the region. In parallel, railway safety is also being prioritised through the transposition and enforcement of safety regulations, with a particular focus on improving conditions at level crossings, where road and rail intersect. This dual approach underscores the region's dedication to enhancing safety across both road and rail networks. This Flagship includes the following actions:

- i. Improving road safety management, enabling safer infrastructure and better protection of road users
- ii. Preparing and adopting a Road Safety Strategy and setting road safety targets for the next decade (2021-2030)
- iii. Improving domestic legislation by transposing the transport of dangerous goods Acquis.

Improving Road Safety Management and Enabling Safer Infrastructure for Better Protection of Road Users

The lead Road Safety Agency plays a critical role in mobilising resources, coordinating partnerships, and consulting stakeholders to achieve road safety targets. Progress has been made in some areas, notably due to "Support for Road Sector Reform and Road Safety Strategy" project in *Albania*. Currently, *Serbia* is the only regional partner with an operational road safety agency, while *North Macedonia* and *Kosovo* are in the process of establishing theirs. Montenegro is reviewing its institutional framework for road safety, but all initiatives require strong political support. The Western Balkans Road Safety Observatory, operational since 2021, has begun to offer accessible, consolidated road safety indicators through an online dashboard, which aids in setting and monitor regional safety targets. The dashboard provides dynamic, aggregated road safety data that is easily understandable and accessible to stakeholders, offering tailored solutions to set and monitor regional road safety targets. This resource significantly contributes to improving and harmonising road safety data.

Improving road infrastructure remains a key component of road safety. Regional partners are identifying dangerous sections and conducting inspections, but a lack of funding continues to hinder the progress. The World Bank's "Safe and Sustainable Transport Programme" supports small-scale projects that prioritise safety, particularly on high-risk road sections. Albania, Montenegro, and Serbia have implemented licensing systems and allocated budgets for road safety improvements, but more consistent financial planning and transposition of EU Directive 2008/96/EC are needed to enhance infrastructure and meet safety targets by 2030.

Preparing and Adopting a Road Safety Strategy and Setting Road Safety Targets for the Next Decade (2021-2030)

Regional partners are actively working to develop comprehensive road safety strategies for 2021-2030, aligned with EU and UN targets to reduce fatalities and injuries. In *Albania*, a new Road Safety Strategy is underway as part of the EU project "Support for Road Sector Reform and Road Safety Strategy," which also involves restructuring the Albanian Road Authority.

Meanwhile, *Bosnia and Herzegovina* has yet to make significant progress, with its draft Road Safety Framework Strategy and Action Plan for 2024-2028 still awaiting approval from the Road Safety Council.

Multimodal Transport Strategy of *Kosovo* includes a chapter on road safety; however, the associated Road Safety Action Plan remains pending adoption. *North Macedonia*, though not reporting notable advancements, has established a commission to draft a new Road Safety Strategy. *Montenegro*, on the other hand, seamlessly transitioned from its 2020-2022 Road Safety Improvement Programme to its newly adopted Road Traffic Safety Strategy (2023-2030) and accompanying two-year Action Plan (2023-2024). *Serbia* has also progressed, having adopted its Road Safety Strategy for 2023-2030, along with a detailed Action Plan for 2023-2025 in September 2023, thereby contributing to the region's collective efforts towards safer roads.

Improving Domestic Legislation by Transposing the Transport of Dangerous Goods Acquis

All regional partners and observing participants have made progress in the transport of dangerous goods, but challenges regarding human and financial resources persist. Cooperation with the European Commission and Member States has facilitated specialised support to all Regional Partners and Observing Participants through the TDG Committee and Workshops organised by the Transport Community Permanent Secretariat. Significant complementary assistance programmes were deployed via TAIEX, but only for those Regional Partners and Observing Participants that actively requested it, such as Albania, Montenegro, North Macedonia, Moldova, and Georgia. As a follow-up to the assistance already provided, Kosovo translated the Annexes of ADR and RID into Albanian, while Montenegro translated ADR. The programmes of *Albania* and *Montenegro* focusing on emergency intervention in case of accident/incident during the transport of dangerous goods, led to a new area of focus: transposition and implementation of the 112 emergency services and eCall services.

Taking into consideration the aim of further integrating the transport markets in the Western Balkans, as well as the high priority given to tourism development on the economic Agenda of our regional partners, the two pieces of EU Acquis applicable in this field were highlighted as priorities for further developments. *North Macedonia* accepted the challenge of hosting a Workshop dedicated to this important technological issue in cooperation with TAIEX and the relevant Commission services. As a follow-up to the event, Kosovo developed a request for technical assistance via TAIEX and also succeeded in including some of the necessary activities in their ongoing IPA assistance.

4. Conclusions and the Way Forward

The Sustainable and Smart Mobility Strategy for the Western Balkans (SSMS WB) sets a path towards a green, smart, and resilient transport sector, aligning the region with the EU Green Deal and its broader environmental goals. While notable progress has been made, challenges in governance, legislation, and infrastructure remain, impacting the strategy's core objectives: Sustainable, Smart, and Resilient Mobility.

Sustainable Mobility - The Western Balkans have made strides toward sustainable mobility, including the increased adoption of zero-emission vehicles and alternative fuels. However, legislative alignment with EU standards, such as the Alternative Fuel Infrastructure Regulation (AFIR), remains incomplete in many regional partners, leading to disparities in charging station deployment, especially in rural and cross-border areas. The development of infrastructure for alternative fuels, including electric vehicle charging stations and hydrogen refuelling stations, is a pressing need. Regulatory gaps, inconsistent investments, and fragmented planning across regional partners hinder the widespread adoption of alternative fuels.

In the ports and aviation sectors, ports like Durrës and Bar are incorporating renewable energy projects, such as solar panels and eco-friendly transport solutions, while airports in Pristina and Belgrade have achieved carbon neutrality or set ambitious goals to reduce environmental impacts. However, insufficient funding and technical expertise continue to be barriers to achieving fully sustainable aviation and maritime operations.

The integration of Sustainable Urban Mobility Plans (SUMP) across key cities like Belgrade and Sarajevo demonstrates progress in urban transport planning, emphasising public transport and non-motorised mobility options. However, governance challenges, including limited coordination and support from national governments, complicate consistent funding and full implementation of these plans, impacting sustainable urban mobility efforts.

Smart Mobility - The deployment of Intelligent Transport Systems (ITS) across the region highlights varying levels of success, with progress evident in traffic management centres in Serbia and Montenegro. Legislative alignment with EU ITS directives is progressing slowly, and the complexity of transposing these directives adds further difficulty to achieving interoperability across borders.

Initiatives such as digital freight corridors and multimodal travel information services underscore the region's commitment to developing connected transport solutions. However, full implementation, digital integration, and interoperability across the Western Balkans remain challenging.

Governance constraints in harmonising standards, coupled with the slow adoption of the European Rail Traffic Management System (ERTMS), hinder the digitalisation of the rail network, limiting the potential for seamless cross-border rail transport.

Initiatives like the Digital Mobility Centre of Excellence reflect a commitment to data-driven transport solutions, but fostering an innovation ecosystem remains a priority. Legislative and regulatory gaps inhibit public-private collaboration, while limited infrastructure investments in digital tools reduce regional partners' capacity to advance smart mobility. Creating stronger

collaboration frameworks between the private sector, academia, and public institutions is essential to driving smart and sustainable innovation.

Resilient Mobility - Efforts to build resilience focus on strengthening infrastructure against climate hazards and enhancing the robustness of transport systems against environmental shocks. Road and rail projects on the TEN-T network increasingly incorporate resilience measures on specific sections. However, substantial infrastructure funding gaps persist, limiting the region's capacity to integrate resilience into infrastructure projects.

While there is certain progress on climate resilience strategies, there is still a need to incorporate resilience planning within the yearly planning documents of public companies. Improving resilience also depends on institutional capacity to plan and implement projects that address climate risks. Regional partners face constraints in legislation and regulatory alignment with EU standards, affecting comprehensive resilience planning and limiting the resources available to support resilient mobility projects.

However, funding and technical capacity remain significant constraints. Transport infrastructure, particularly in road and rail networks, is vulnerable to climate risks, necessitating greater efforts to integrate resilience into all infrastructure projects.

Way Forward and Recommendations

To achieve a sustainable, smart, and resilient transport sector in the Western Balkans, targeted actions are needed across governance, infrastructure, and digitalisation. The following recommendations outline priority steps to align regional efforts with the EU Green Deal objectives and enhance the region's transport systems.

1. Accelerating Sustainable Mobility

To accelerate sustainable mobility in the Western Balkans, regional partners should focus on enhancing the adoption of zero-emission vehicles, renewable fuels, and sustainable infrastructure. This requires full transposition of the Alternative Fuel Infrastructure Regulation and the introduction of incentives for purchasing zero-emission vehicles. Additionally, key investments should prioritise the installation of electric vehicle (EV) charging stations along major corridors, reducing reliance on traditional fuels. Integrating renewable energy in ports and airports is also essential to meeting long-term sustainability goals.

To support accelerating sustainable mobility, Sustainable Urban Mobility Plans (SUMP) should be expanded and implemented across urban nodes in the Western Balkans, emphasising public transport, cycling, pedestrian infrastructure and multimodal solutions that integrate various transport modes for seamless connectivity. Railway electrification and modernisation should also be prioritised to reduce emissions and improve efficiency in cross-border freight and passenger transport, aligning with sustainable mobility targets.

2. Advancing Smart Mobility Initiatives

For smart mobility, advancing digital transformation in transport is critical. To achieve this, the region must complete the transposition of ITS and digital mobility legislation

while establishing robust data governance frameworks. This will facilitate interoperability for transport information services and cross-border traffic management. Strategic partnerships between governments, research institutions, technology companies, and academia will also be essential to accelerate the adoption of innovative solutions. Establishing a Digital Mobility Centre of Excellence will encourage innovation in AI and data-driven solutions for smarter mobility.

3. Enhancing Resilient Infrastructure

Building resilient infrastructure is another priority, especially for road and rail segments vulnerable to climate risks. Allocating resources for climate-proofing these critical networks, as identified in recent assessments, is key to creating a stable transport system. Projects should incorporate resilience into the TEN-T network for both rail and road and climate resilience plans need to be adopted at the level of public companies. Regional coordination is vital, and aligning with EU frameworks will help secure funding to meet the EU's resilience standards for infrastructure.

4. Improving Governance and Legislation

Improving governance and legislation will enhance institutional capacity and legislative alignment with EU standards. Harmonising legal frameworks across borders—particularly in ITS and alternative fuels—will support a more coordinated approach. Establishing National Access Points (NAPs) to manage transport data will facilitate more effective data handling and integration. Capacity-building programmes will further support public authorities in implementing transnational projects and creating a more coherent legal landscape.

5. Leveraging EU and Regional Funding Opportunities

Leveraging EU and regional funding opportunities can maximise the impact of investments by aligning them with strategic mobility and digitalisation goals. Identifying longer lists of priority projects that qualify for WBIF, Horizon Europe, INTERREG, the Safe and Sustainable Programme, and IPA III funding could boost investment in clean mobility technologies and multimodal transport solutions. Monitoring and reporting mechanisms, including KPIs, will help track progress, ensuring that investments lead to tangible outcomes and continuous improvement.

6. Promote Social Inclusion and Just Transition

Continue efforts to promote gender equality, workforce diversity, and social inclusion in the transport sector. Implement the 2023 Action Plan for Social Issues and Passenger Rights to ensure workers' rights, a fair transition for transport workers, and passenger rights across the Western Balkans.

Implementing these recommendations will guide the Western Balkans towards a more sustainable, smart, and resilient transport system. Through legislative alignment, regional collaboration, and investment in digital and climate-resilient infrastructure, the region can advance EU integration, improve mobility, and contribute to economic and environmental sustainability.