

# **Development of Indicative TEN-T Extension of Comprehensive and Core Network in Western Balkans**

**2025**



# Glossary of Terms

<b>AND</b>	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
<b>ADR</b>	Agreement concerning the International Carriage of Dangerous Goods by Road
<b>AF</b>	Alternative Fuels
<b>AGN</b>	European Agreement on Main Inland Waterways of International Importance
<b>AIS</b>	Automatic Identification System
<b>Annex 1</b>	Annex 1 of the Transport Community Treaty
<b>BHMAC</b>	Bosnia and Herzegovina Mine Action Centre
<b>CBA</b>	Cost Benefit Analysis
<b>CEF</b>	Connecting Europe Facility
<b>CEFTA</b>	Central European Free Trade Agreement
<b>CEMT/ECMT</b>	European Conference of Ministers of Transport
<b>CEN</b>	European Committee for Standardisation
<b>CESNI</b>	European Committee for drawing up standards in the field of inland navigation
<b>COTIF</b>	Convention concerning International Carriage by Railway
<b>EBRD</b>	European Bank for Reconstruction and Development
<b>EC</b>	European Commission
<b>EIA</b>	Environmental Impact Assessment
<b>EIB</b>	European Investment Bank
<b>EIP</b>	EU's Economic and Investment Plan for the Western Balkans
<b>ERTMS</b>	European Railway Traffic Management System
<b>ETCS</b>	European Train Control System
<b>EU</b>	European Union
<b>EUSAIR</b>	EU Strategy for the Adriatic – Ionian Region
<b>EVCS</b>	Electric Vehicles Charging Station
<b>IFI</b>	International Financial Institution
<b>IPA</b>	Instrument for Pre-Accession
<b>ITS</b>	Intelligent Transport Systems
<b>IRI</b>	International Roughness Index
<b>IWW</b>	Inland Waterways
<b>JBCP</b>	Joint Border Crossing Points
<b>KPIs</b>	Key performance indicators
<b>LNG</b>	Liquefied Natural Gas
<b>NAIADES</b>	Navigation and Inland Waterway Action and Development in Europe
<b>RID</b>	Regulations concerning the International Carriage of Dangerous Goods by Railway
<b>RIS</b>	River Information System
<b>RP</b>	Regional Partners
<b>RSC</b>	Regional Steering Committee
<b>SEE</b>	South East Europe
<b>SEE Par-ties</b>	Southeast European Parties: Albania, Bosnia and Herzegovina, Kosovo*, North Macedonia, Montenegro, Serbia
<b>SLA</b>	Service Level Agreement
<b>SPP</b>	Single Project Pipeline
<b>TC</b>	Transport Community
<b>TCPS</b>	The Transport Community Permanent Secretariat
<b>TEN-T</b>	Trans-European Networks Transport
<b>TODIS</b>	Transport Observatory Database/Information System
<b>VHF</b>	Very High Frequency
<b>VTMIS</b>	Vessel Traffic Management Information System
<b>VTs</b>	Vessel Traffic Services
<b>WB</b>	Western Balkans
<b>WBEM</b>	Western Balkan – Eastern Mediterranean
<b>WBIF</b>	Western Balkans Investment Framework

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



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# 1. Foreword

Following five years development of the Trans-European Transport Network extended to the Western Balkans under the previous Regulation, 2025 marks the beginning of a new phase focused on progress along the Western Balkans – Eastern Mediterranean Corridor and Rhine-Danube Corridor. For the first time, in addition to the existing Key Performance Indicators (KPIs), Regulation (EU) 2024/1679 introduces compliance rates for newly defined KPIs, which will play a remarkable role in shaping future transport planning.

While the progress achieved so far is commendable, the dynamics of advancement has not been uniformed across the region, indicating the need for sustained engagement and targeted support. These variations highlight that, although visible steps have been taken, stronger regional cooperation and continued joint efforts will be essential to achieve full integration within the EU transport market. Transposition of EU transport standards and advancing reforms will be essential in order to advance in sustainable transport network of the region.

In line with Article 8 of the Treaty, the Regional Steering Committee reports annually on progress in extending the trans-European transport network (TEN-T) across the Western Balkans. The region has made tangible progress in connectivity, with new projects completed in all transport modes.

Despite significant EU funding through the Economic and Investment Plan and the New Growth Plan, a substantial funding gap remains, while cost overruns have given rise to concern about the region's capacity to meet both current and future funding needs. Strategic prioritisation will be crucial to optimise resources and maximise economic returns on this investment package.

For the Regional Steering Committee

**Ms Erjola Muka**

For the Transport Community Permanent Secretariat

**Matej Zakonjšek**



## 2. Executive Summary

1. This report marks an important milestone as it presents, for the first time, a set of **Key Performance Indicators (KPIs)** fully aligned with the revised **TEN-T Regulation (EU) 2024/1679**. These indicators provide a harmonised framework for assessing how the **Western Balkans transport network** performs and evolves, while guiding investment, policy development, and regional cooperation. Together, they offer a clear picture of progress towards a **modern, connected, and sustainable transport system**, and support the gradual integration of the region into the wider EU transport area.

The updated KPIs reflect the shift from simply building infrastructure to ensuring that it is safe, smart, sustainable, and interconnected.

- In **road transport**, indicators focus on infrastructure quality, digitalisation, and safety, including the deployment of Intelligent Transport Systems (ITS), weigh-in-motion, and Safe and Secure Truck Parking Areas (SSTPAs).
- In **rail transport**, they measure interoperability, electrification, speed, and service quality, encouraging convergence with the Single European Railway Area.
- **Waterborne transport** KPIs address Good Navigation Status, connectivity, port accessibility, and digital systems such as RIS and VTMS, supporting the transition to cleaner and more efficient logistics chains.
- For **aviation**, the indicators focus on connectivity, passenger and freight capacity, and sustainability, underscoring the role of airports in a multimodal ecosystem.

While this report establishes a baseline for the new KPIs, trend analysis remains possible only for the old indicators where consistent data has been collected over time. The varying levels of data maturity across the region reflect both the different stages of network development and the urgent need to strengthen transport data systems.

3. The **Core Road Network** continues to improve, with compliance for profile and condition rising to 53%, up from 45% in 2021 – a positive step toward meeting TEN-T standards. However, the two new KPIs, lane separation and at-grade crossings remain below optimal levels, at 42% and 13% respectively, signalling the need for further investment in safety and design upgrades.

The absence of regular annual road condition monitoring remains a key limitation. A consistent, region-wide approach to data collection will be vital to ensure decisions are evidence-based and investments well-targeted. At the same time, data gaps persist in areas such as weigh-in-motion, rest areas, safe and secure parking, and alternative fuels, underscoring the importance of building a more connected and data-driven road management system.

4. The **railway network** shows steady but uneven progress. Deployment of the European Rail Traffic Management System (ERTMS) has increased from 2% to 7% on the Core Network, while operational speeds improved from 16% to 20%, reflecting the completion of major modernisation projects. Yet, many lines still face capacity, quality, and condition challenges. Almost half of the rail network (45%) remains in poor or very poor condition, indicating the need for a sustained investment cycle focused on renewal, interoperability, and digitalisation. Rail's revival is not only a technical task; it is a strategic imperative. A reliable, connected, and interoperable rail network will be central to achieving the objectives of the TEN-T Regulation and reducing the region's dependency on road transport.
5. **Waterborne transport** in the Western Balkans remains stable, with steady progress achieved in improving navigability and advancing the modernisation and rehabilitation of port infrastructure. The Inland Waterway Network currently demonstrates a compliance rate of 44%, which is expected to rise as ongoing projects are completed. Ports have also shown similar progress, with an average infrastructure compliance rate of 52% for inland ports and 64% for seaports included in the Core TEN-T Network extension, while the Comprehensive TEN-T Network records 57% compliance for inland ports and 50% for seaports. The main shortcomings concern dredging works needed to achieve good navigation status and the implementation of alternative fuel infrastructure and environmental facilities aimed at enhancing the environmental performance of ships, as related investments remain limited.

6. **Air transport** in the Western Balkans continues to perform consistently, supporting both passenger mobility and regional connectivity. However, rail access to airports, a key requirement of the revised TEN-T Regulation, is still missing in most locations. Projects such as the Tirana Airport connection to the Durrës-Tirana railway line illustrate how targeted investments can close this gap. Further efforts are needed to integrate clean energy infrastructure, digitalisation, and climate resilience measures, ensuring that airports become active contributors to sustainable multimodal transport.
7. The **ongoing investment** in rail and road infrastructure upgrades demonstrates a strong focus on enhancing the Core Network. Currently, 640 kilometres of rail lines are being upgraded. All **15 rail projects** are strategically concentrated on the Core Network and the WBEM Core Corridor, reflecting the priority given to this crucial part of the transportation infrastructure. The total investment in these rail projects reaches **€2.806 billion all of them on the WBEM Core Corridor**. A substantial **40 road projects** are underway across the region. Of these, 29 projects are focused on the Core Network and 11 projects target the Comprehensive Network. The overall financial commitment to these road projects is **€10.5 billion**, of which EUR 6.8 billion is allocated to the Core Network and EUR 3.7 billion to the Comprehensive Network.

**22 waterborne transport projects**, representing an overall investment of **€1.261 billion**, are currently being implemented across the Western Balkans. These include **12 projects on the inland waterway network** and **7 projects on inland port infrastructure** along the **Rhine-Danube Corridor**, while **3 projects** with approximately **€456 million** of the total investment in **seaport infrastructure** in the WBEM Corridor. Collectively, these initiatives demonstrate a strong regional commitment to improving navigability and strengthening multimodal connectivity.

**14 ongoing airport infrastructure projects** across the Western Balkans represent a combined investment of approximately **€86 million**.

8. The **deterioration of road infrastructure** seems to have **stabilised**, and also the **condition of the railway network remains largely unchanged**. To enhance both, there is a need for better maintenance practices and increased investment. Shifting the focus from large, one-off construction projects toward regular maintenance and timely repairs offers multiple benefits: longer asset lifespan, reduced long-term costs, and smaller environmental impacts. Well-maintained infrastructure also supports safer, smoother, and more reliable mobility – key attributes of a future-ready transport system.
9. Progress under the **Economic and Investment Plan (EIP)** continues, with tangible advances on key corridors such as the Adriatic-Ionian Corridor in Albania and Corridor Vc. Yet some sections, notably Sarajevo-Podgorica, are still in the preparatory stages and await funding and stronger interstate coordination. Looking ahead, the **Reform and Growth Facility for the Western Balkans** provides an opportunity to align regional investments with EU priorities and long-term strategic frameworks such as the EUSAIR, EUSDR, and the Smart and Sustainable Mobility Strategy.

Policy reforms on ITS across all modes of transport, interoperability, sustainability, and road safety are progressing within the Transport Community's **Next Generation of Action Plans**, which remain essential instruments for driving regional transformation. Continued coordination through Technical Committees and the established infrastructure manager networks is helping to harmonise investment policies and accelerate cross-border project delivery, a critical step towards a seamlessly connected Western Balkans.

10. The 2025 assessment marks a step forward in aligning Western Balkans transport performance monitoring with the revised TEN-T framework. While progress is visible across all modes, substantial efforts are **still required to ensure data consistency, address complete infrastructure gaps, and transform policy progress into tangible, network-level improvements**. A continued focus on maintenance, interoperability, and sustainable investment supported by strong regional coordination will be essential to achieve a modern, resilient, and fully integrated Western Balkans transport network.

### 3. Scope and Methodology

The progress made by the South-East European Parties in aligning their infrastructure with TEN-T standards is monitored through a tracking system established under Article 8 of the Transport Community Treaty. This system mandates the Regional Steering Committee to produce dedicated annual reports for submission to the Ministerial Council. ([...] *“The Regional Steering Committee shall report every year to the Ministerial Council on the implementation of the TEN-T described in this Treaty. Technical Committees shall assist the Regional Steering Committee in drawing up the report.”*).

The monitored compliance indicators correspond to the infrastructure requirements laid down for each mode in Chapter III of Regulation (EU) 2024/1679:

- Comprehensive Network: rail (Art. 15), inland waterways (Art. 21), inland ports (Art. 22), maritime ports / European Maritime Space (Art. 26), road (Art. 30), air (Art. 34), and multimodal freight terminals (Art. 38);
- Core (and extended core) Network: rail (Art. 16), inland waterways & inland ports incl. Good Navigation Status (Art. 23), maritime (Art. 27), road (Art. 31), air (Art. 34), and multimodal freight terminals (Art. 38(3)-(4)). The list of indicators encompasses all those set out in the articles above.

The methodology applied to assess the KPIs across all transport modes is based primarily on data provided through self-declaration by the regional partners, complemented, wherever possible, by studies carried out by the TCT Secretariat. The collected information has been validated and structured in line with the revised TEN-T Regulation, with each KPI defined through clear assessment criteria. TODIS have been used to map infrastructure elements and network performance, while qualitative assessments capture regulatory and operational aspects not reflected in numerical data. This combined approach enables consistent monitoring of roads, railways, inland waterways, ports, and airports, ensuring that the results are clear and progressively aligned with EU standards. For indicators that the Transport Community has monitored since 2020, it will be possible to present trend analyses, while for newly introduced indicators, the monitoring exercise will commence with this reporting cycle.

As such, this is the first TEN-T Report fully based on the TEN-T requirements outlined in the EC Regulation 2024/1679.

A key change under Regulation 2024/1679 is the establishment of the Western Balkan - Eastern Mediterranean Core Corridor (WBEM), along with enhancements to the Rhine-Danube Core Corridor. The WBEM corridor includes both EU Member States and Western Balkans partners, encompassing a network of critical transport infrastructure:

#### **Main figures about WBEM:**

Fourteen parties: Eight EU Member States and six Western Balkan Partners

- Motorways - 5 750 km
- Railways - 6201 km
- Seaports - 21 locations
- Airports - 14 locations
- Multimodal Freight Terminals - 13 locations
- Urban nodes - 24 locations

This expanded and upgraded WBEM corridor aims to strengthen connectivity between the Western Balkans and the European Union, supporting a more integrated and efficient trans-European transport network.



## Map Finder Chart for European Transport Corridors

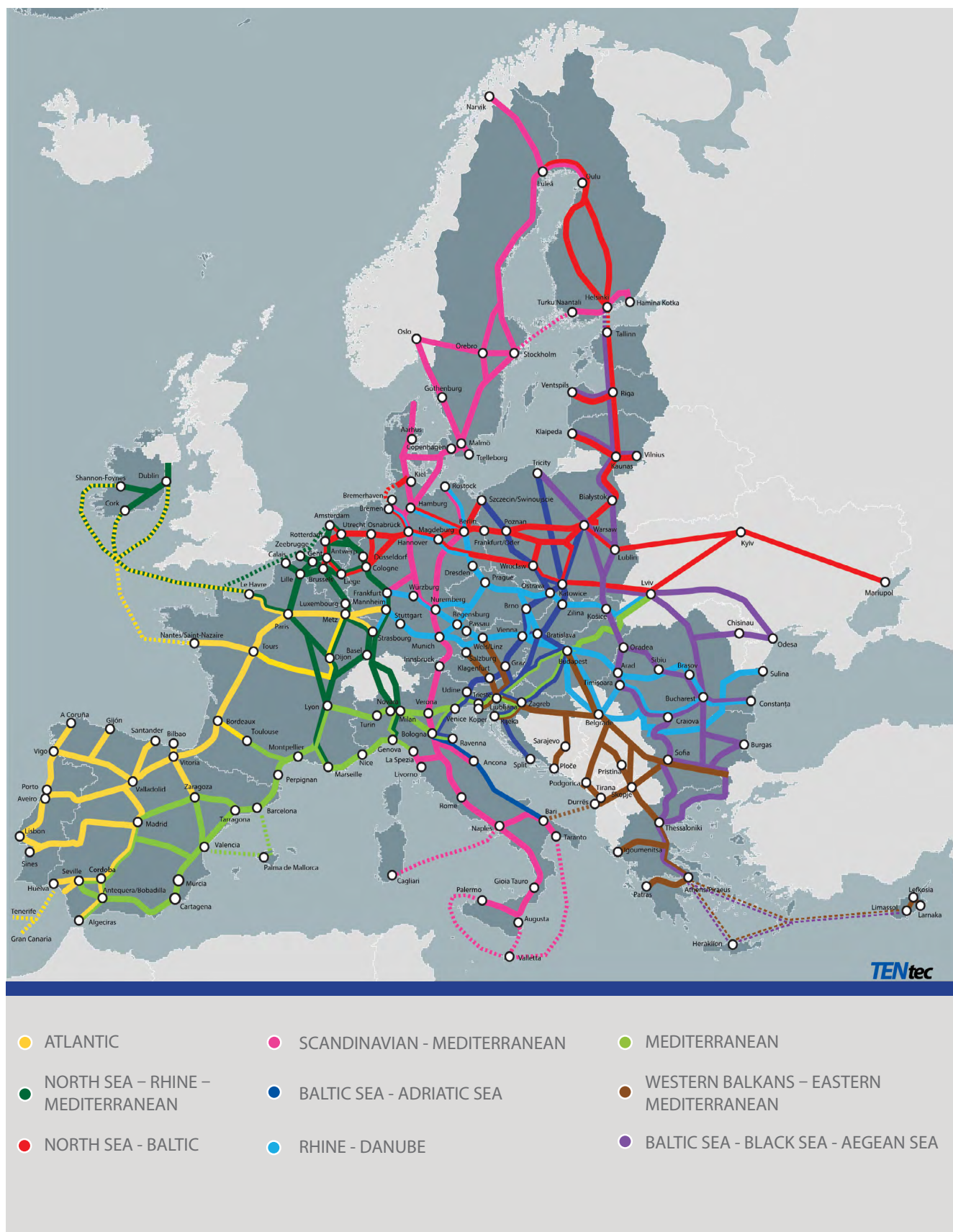


Figure 1. Europe Network of Core Corridors

The **Rhine-Danube Core Corridor** is a vital part of the Trans-European Transport Network (TEN-T), aimed at strengthening connectivity and economic integration across Europe. In Serbia, it includes two important rail and road sections and the entire inland waterway network:

- Belgrade – Vršac: This section connects Belgrade to Vršac, leading toward the Romanian border and improving links between Serbia and Romania.
- Belgrade – Hungarian Border: Extending from Belgrade to Hungary's border, this section is shared by both the Rhine-Danube and Orient/East-Med Core Corridors. It plays a strategic role in enhancing transportation links between Central and Southeastern Europe.
- The entire Inland Waterway Network, comprising the Danube, Sava, and Tisa Rivers, are an integral part of the Rhine-Danube Corridor. This corridor is a key trans-European transport route, facilitating efficient, multimodal connectivity between Central and Eastern Europe.

These routes are essential for both freight and passenger transport, supporting trade, mobility, and economic development in the region.

The indicative extension of the TEN-T Core, the Extended Core and the Comprehensive Networks in the Western Balkans as provided for by the EU Regulation 2024/1679 and included in Annex I.1 to the Treaty establishing the Transport Community is given on the next page.

Based on the latest developments and adjustments, the indicative extension of TEN-T in the Western Balkans currently includes:

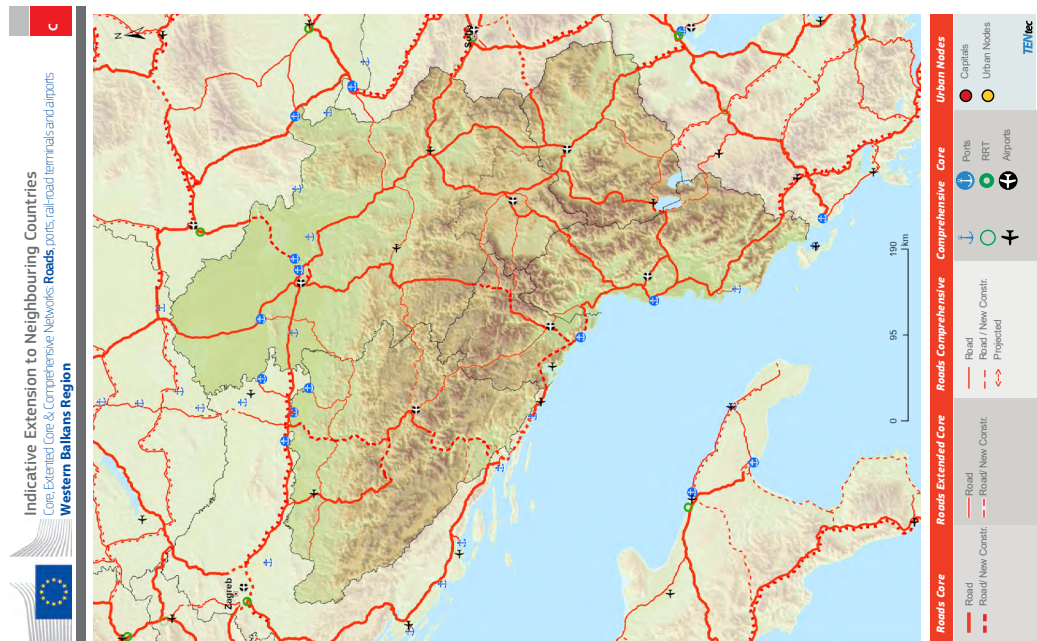
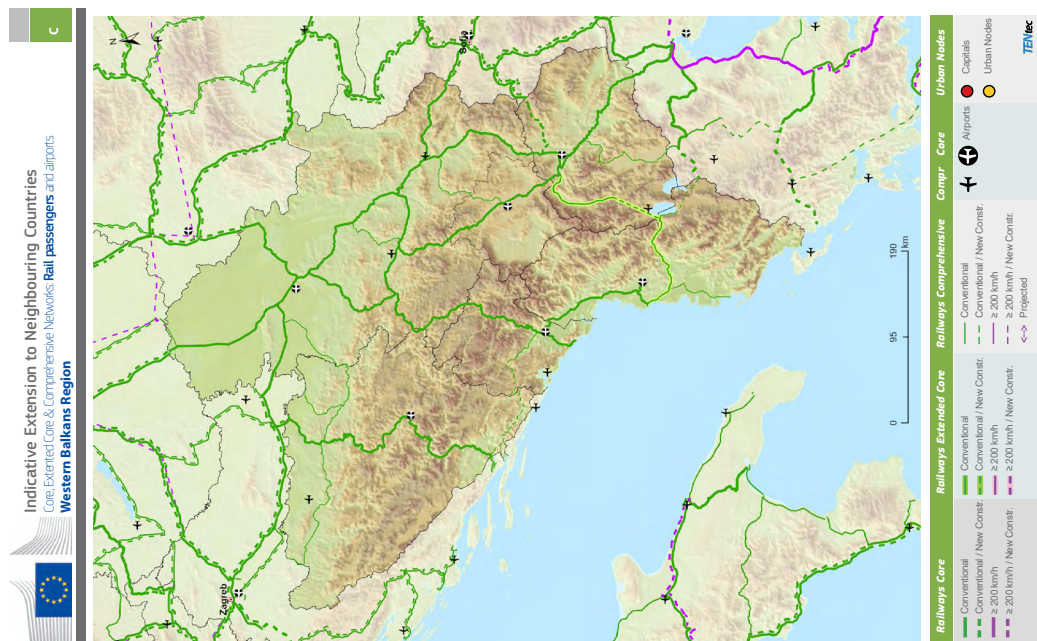
- 5,461.9 km of TEN-T roads, of which 3,511.3 km on the Core Network;
- 4,287 km of TEN-T railways, of which 3,051 km on the Core Network;
- 1,260 km of TEN-T Core Network Inland Waterways;
- 8 inland waterways ports of which 5 on the Core Network,
- 3 seaports of which 2 in Core Network, and
- 11 airports.

The network has been split into sections and nodes to facilitate performance monitoring. The fifth Trans-European Networks Transport (TEN-T) Annual Report relied on TODIS logistics, collecting and confirming data through the network of appointed Regional Users and through Technical Committees' inputs. Consequently, some important modifications occurred as compared with the previous papers, namely:

- Adjustments in the network's layout resulting from the progress of projects on the ground (specifically for the road network), past modifications that have only now been captured properly and corrections of previous layout/reporting errors.
- Enhanced network granularity for the road and rail network, resulting in increased precision and heightened reporting accuracy.

With the latest TEN-T revision reflected in Regulation 2024/1679, rail and road networks, as well as inland waterway ports, have been changed by adding new sections or upgrading existing ones. This resulted in a longer Extended TEN-T Core and Comprehensive Network in the Western Balkans.

Regulation 2024/1679 introduced several new requirements for TEN-T (Trans-European Transport Network) compliance. In addition to the existing six compliance indicators for railway infrastructure, six new indicators have been added. Key updates include criteria for waiting times at borders, loading gauge specifications, passenger design speed, identification of current or potential future capacity bottlenecks, addressing steep inclines, and a migration plan for constructing new railway lines with the European standard track gauge of 1,435 mm.



## Comprehensive and Core Networks: Inland Waterways and Ports

**Comprehensive and Core Networks:**  
Roads, ports, rail-road terminals and airports

Figure 2. Indicative trans-European transport network (TEN-T) extension of Comprehensive and Core Networks to the Western Balkans

The revised TEN-T Regulation strengthens road compliance standards, introducing more frequent rest areas every 100 km on the comprehensive network and every 60 km on core and extended core networks, with parking and sanitary facilities. Safe and secure parking is now required every 150 km or within 3 km of exits on core networks to be fully compliant by 2040. Alternative fuels must be available on both core and comprehensive networks. Tolling standards now include general road user charges and weigh-in-motion systems to be installed every 300 km on busy routes. Urban nodes on the TEN-T network must adopt Sustainable Urban Mobility Plans (SUMP) by 2025, report on mobility data such as emissions and congestion annually, and develop multimodal hubs for efficient last-mile transport.

The new TEN-T Regulation places a stronger emphasis on environmental sustainability. It mandates that ports within the comprehensive network provide alternative fuelling facilities and adopt measures to enhance the environmental performance of vessels in port. This includes the installation of waste reception and degassing facilities, noise reduction systems, and initiatives to curb air and water pollution. For the inland waterway network, the regulation also prioritises maintaining Good Navigation Status by ensuring the efficient operation and upkeep of locks to minimise vessel waiting times, along with the timely publication of navigation status data.

With the revised TEN-T Regulation, Tivat Airport has been newly added to the TEN-T network, reflecting the growing focus on enhancing connectivity in the region. The updated regulation introduces two key compliance criteria for Core Network airports. Firstly, **Digital Infrastructure** mandates that airports integrate advanced ICT systems to improve operational efficiency, safety, and data exchange capabilities across various transport modes. This includes deploying real-time passenger information systems and multimodal data flows, enabling seamless connectivity and supporting overall operational resilience. Secondly, the regulation emphasizes **Climate Resilience**, requiring infrastructure projects to incorporate climate resilience measures. This involves conducting climate vulnerability and risk assessments to ensure airport infrastructure can withstand environmental challenges, including natural and man-made disasters, thus securing long-term functionality and adaptability.

## 4. TEN-T Network Compliance Assessment

### 4.1. Railway network

In 2024, Regulation (EU) No 1315/2013 on Union guidelines for the development of the trans-European transport network (TEN-T) was repealed and replaced by Regulation (EU) 2024/1679. This new legal act establishes the updated framework for the 2025 annual TEN-T compliance assessment. It introduces revised objectives, technical requirements, and implementation milestones, reflecting the EU's ambition to create a modern, fully interconnected transport network.

For the 2025 reporting cycle, the compliance assessment covers all Key Performance Indicators (KPIs) defined in Regulation 2024/1679. These KPIs provide a structured basis for measuring progress and ensuring consistency across Member States and neighbouring partners. The regulation outlines a long-term strategy for developing a unified TEN-T that encompasses all modes of transport, with particular emphasis on the rail sector as the backbone for sustainable and efficient mobility.

The updated framework specifies detailed requirements for technical standards, infrastructure interoperability, and priority investments. For rail transport, these requirements include:

- **Deployment of the European Rail Traffic Management System (ERTMS)** to ensure seamless cross-border operations.
- **Migration to the 1,435 mm nominal track gauge** to achieve network-wide compatibility.
- **Mitigation of noise and vibration impacts** from rail traffic, including measures for rolling stock and infrastructure such as noise barriers.
- **Compliance with Technical Specifications for Interoperability (TSI)** and other infrastructure requirements to improve efficiency and safety.
- **Enhancement of level crossing safety** to reduce risks for road and rail users.
- Where relevant, interconnection between railway infrastructure and inland waterway ports to promote multimodal freight transport.
- **Introduction of new technical and performance requirements** for network elements.

Regulation 2024/1679 thus represents both a strategic and technical upgrade to the TEN-T framework, with clear implications for infrastructure planning, investment priorities, and compliance monitoring in the years ahead.

## → Railway Compliance indicators

Railways		Comprehensive	Extended core	Core
Passenger and Freight	Electrification	2050	2040	2030
	Track gauge 1435 mm	2050	2040	2030
	ERTMS	2050	2040	2030
Passenger	160 km/h design speed	/	2040	2040
Freight	22.5 t axle load	2050	2040	2030
	740 m train length			
	Single Track	/	2040	2030
		at least 1 train path per three hours and direction and not less than 12 train paths daily		
	Double Track	2050	2040	2030
		at least 1 train path per hour and direction on average on a daily basis	at least 1 train path per two hours and direction and not less than 24 train paths on a daily basis	
	100 km/h design speed	/	2040	2030
	Loading gauge P400 (on main ETC lines)	/	2040	2040

Based on the requirements set out in Regulation (EU) 2024/1679, this report assesses compliance against a defined set of Key Performance Indicators (KPIs) covering both infrastructure and operational parameters. The specific indicators are as follows:

### Infrastructure indicators (target years indicated in brackets):

- **Electrification** – Full electrification of the rail network by 2030, including sidings where required.
- **Axle load** – Freight lines to support a 22.5 t axle load by 2030.
- **Freight lines speed** – Freight lines must allow a minimum speed of 100 km/h by 2030 (no speed requirement applies to passenger-only lines).
- **Passenger lines speed** – Passenger lines to support speeds of at least 160 km/h by 2040.
- **Train length** – Freight lines to accommodate trains of at least 740 m, including locomotives under certain conditions, by 2030.
- **Track gauge** – New railway lines to be built to a normal gauge of 1,435 mm.
- **ERTMS / signalling** – Core Network to be fully equipped with the European Rail Traffic Management System (ERTMS) by 2030.
- **Loading gauge** – Compliance with loading gauge P400.

## Operational indicators:

- **Dwelling time** – Maximum dwelling time of 25 minutes at borders.
- **Delay at borders** – Measured time lost during cross-border operations.
- **Removing bottlenecks** – migration plan for constructing new railway lines with the European standard track gauge of 1,435 mm.

In addition to verifying compliance with TEN-T regulatory parameters, the report also evaluates the **general condition of the railway infrastructure**. This is based on:

- The ratio between operational speeds and design speeds, highlighting sections where network potential is underused.
- The length of network segments with a small curve radius.

## Clarification on the “Train length – minimum 740 m” requirement

Regulation (EU) 2024/1679 introduces new, more precise provisions on train length. The 740 m measurement (including locomotives) applies across the network, including “last mile” access sections, to maximise rail freight capacity.

- **Comprehensive Network (target year 2050):**

- On double-track lines, at least one train path per hour per direction, on average over a daily basis, must be available for freight trains of 740 m or longer, if requested by a railway undertaking.

- **Extended Core Network (2040) and Core Network (2030):**

- On double-track lines, at least one train path every two hours per direction and not fewer than 24 train paths daily must be available for 740 m freight trains, if requested.

- On single-track lines, at least one train path every three hours per direction and not fewer than 12 train paths daily must be available for 740 m freight trains, if requested.

## Loading Gauge Requirements

Member States must ensure the circulation of freight trains capable of carrying standard semi-trailers up to 4 metres in height, loaded at a minimum height of 27 cm above the top of the rail, so-called P400 loading gauge. This applies to the **main freight lines** of the European Transport Corridors within their territory, including last-mile connections. The target year for compliance is 2040 for both the Core and Extended Core Networks.

## ERTMS Deployment

The regulation mandates the progressive roll-out of ERTMS as the **single European signalling system** across the entire TEN-T network, replacing all national legacy “Class B” systems. The objective is to enhance cross-border interoperability, increase safety, and improve network efficiency, while encouraging the European rail supply industry to invest in ERTMS technologies.

ERTMS	Comprehensive	Extended core	Core
Equipped with ERTMS	2050	2040	2030
Class B systems are decommissioned	2050	2045	2040
Equipped with radio-based ERTMS	2050	2050	2050
Radio-based ERTMS, in case of:			
-construction of a new line	from 2030	from 2030	from 2030
-upgrade of the signalling system	from 2040	from 2040	from 2040

## Operational railway priorities

By 2030, on the European Transport Corridors (ETCs), the following operational targets apply:

- **Border dwelling time** – The average dwell time for all freight trains crossing the border between two Member States / Parties must not exceed 25 minutes.
- **Punctuality** – At least 75% of freight trains crossing at least one border along an ETC must arrive at their final destination either at the scheduled time or with a delay of less than 30 minutes.

## Allocation of 740 m train slots for freight

On the Core Network (target 2030), Extended Core Network (2040), and Comprehensive Network (2050), the following capacity requirements apply:

- On **double-track lines**, at least two train paths per hour and per direction must be available for freight trains with a length of at least 740 m (including locomotives).
- On **single-track lines**, at least one train path every two hours per direction must be available for freight trains with a length of at least 740 m (including locomotives).

## Rail Infrastructure Requirements – Exemptions

Under Regulation (EU) 2024/1679, certain exemptions to the infrastructure requirements are permitted where:

- Specific geographical or significant physical constraints prevent compliance.
- A socio-economic cost-benefit analysis yields a negative result.
- Implementation would cause significant negative environmental or biodiversity impacts.

**Isolated networks** are fully exempt from all TEN-T rail requirements. An *isolated network* is defined as the rail network of a Member State, or a part of it, with a track gauge different from the European standard nominal gauge (1,435 mm).

## Railway Connections of Other Transport Nodes

### TEN-T Airports:

- Airports with **annual passenger traffic exceeding 12 million** must be connected to the TEN-T railway network, including the high-speed network, enabling long-distance rail services.
- Airports with **annual passenger traffic between 4 and 12 million** must be connected either to the TEN-T railway network or to the corresponding urban node via rail, metro, light rail, tramway, cable car, or, in exceptional cases, another zero-emission public transport mode.

### TEN-T Maritime Ports:

- All **Core Network ports**, as well as **Comprehensive Network ports** handling more than 2 million tonnes of cargo annually, must be connected to both rail and road infrastructure, and, where possible, inland waterways.

### TEN-T Multimodal Freight Terminals:

Member States must make all reasonable efforts to ensure that TEN-T multimodal freight terminals on their territory:

- If connected by rail and capable of vertical transshipment, are able to handle containers, swap bodies, and semi-trailers by 2030.
- Can accommodate 740 m trains without manipulation, or where this is not economically viable, implement adequate measures to improve operational efficiency for 740 m trains by 2040.

## Primary infrastructure characteristics and physical state

### Western Balkan Eastern Mediterranean European Transport Corridor (WBEM)

The extension of the TEN-T Core and Comprehensive Network to the Western Balkans began in 2016 as part of a network-wide revision. The latest update in 2024 introduced major changes to the railway network, including the historic establishment of the Western Balkan East Mediterranean (WBEM) Corridor for the first time.



Figure 3. WBEM Rail Core Corridor

The WBEM Corridor spans six Regional Partners and eight EU member states, covering a total rail network length of 6201 km. Alongside the Core and Comprehensive Network layers, a new layer, the Extended Core Network, has been introduced. In the Western Balkans, this includes the section from Durrës (Albania) through Rogozhine, Pogradec, and Lin (Albania) via Struga (North Macedonia) and Kicevo to Skopje (North Macedonia), totalling 386 km. This section has been upgraded in status from the Comprehensive Network to the Extended Core, with a target completion date of 2040.

## Rhine - Danube Core Network Corridor (RD)

As laid out in Regulation 2024/1679, the Rhine-Danube Core Network Corridor spans several key regions of Europe, linking Western Europe's Rhine River Basin with Central and Eastern Europe along the Danube River. The corridor primarily connects Germany, Austria, Slovakia, Hungary and continues eastward through Serbia, Romania and Bulgaria, reaching the Black Sea.

The corridor includes direct links with the Western Balkans. According to EU Regulation 2024/1679, specific rail and road extensions connect the Rhine-Danube Corridor to the Western Balkan region, enabling more integrated transport links.

Notable inclusions are in Serbia. The major rail in Serbia is integrated into the Corridor, particularly Belgrade - Subotica linking with Hungary to the north, and Belgrade - Vrsac linking with Romania to the east, enhancing the cross-border movement of goods and passengers.

## TEN-T Rail Core and Comprehensive Network

The TEN-T rail network consists of three layers: the Core, the Extended Core (from Skopje to Durrës) and the Comprehensive Network. The total length of the Railway Comprehensive Network is 4,287 km, of which 3,923 km exist. In total, there are 364 km of missing links. The Railway Core Network including the Extended Core spans 3,051 km, with 2,972 km on the ground. The length of missing links is 78km. At the same time, 630 km of Core and the Comprehensive Network are under construction (and temporarily without traffic). Finally, 90 km of the Core Network have been temporarily closed for safety reasons (lack of maintenance).



### Railway Network 2025



Figure 4. Indicative extension of the TEN-T Core and Comprehensive Rail Network to the Western Balkans

## **TEN-T Core and Comprehensive Network Compliance**

Over the past 18 years, the region has invested over EUR 4 billion in rail projects. Yet, despite these significant investments, infrastructure conditions and service quality have seen only limited improvement. Passenger rail services still average speeds of around 50 km/h, leaving them at a disadvantage compared to road transport. Freight rail faces similar issues, with lengthy delays for train preparation, loading, unloading, and border processing. As a result, rail traffic has sharply declined in both passenger and freight segments over the past decade, and the region's total annual freight volume remains stagnant at approximately 25 million tonnes.

This situation is driven by two main factors: inadequate infrastructure maintenance and the lack of policy reform. A 2018 study by CONNECTA, funded by the European Commission, estimated the annual cost of basic maintenance to be around EUR 50,000 per kilometre. However, due to budget constraints, regional partners can only allocate EUR 15,000 per kilometre per year. In addition, staffing shortages across all areas of railway operations and management have further contributed to the declining state of railway infrastructure.

The TEN-T Comprehensive and Core Railway Network continues to suffer from insufficient investment, with only 15% of total funds directed towards transport infrastructure. Without essential repairs and upgrades, maintenance costs will rise, business productivity will be affected, and the decline in rail transport will persist.

Accelerating railway reforms is crucial to fully leverage the advantages of rail transport in South East Europe. A coordinated approach that integrates infrastructure development with policy reforms can help reduce fragmentation in the sector, while an open market would enhance performance across multimodal transport corridors. Though progress in rail infrastructure development and reform is underway, further effort is needed to unlock the region's full potential.

As the 2030 deadline for completing the Core Network, the 2040 target for the Extended Core Network, and the 2050 goal for the Comprehensive Network approach, regional partners will face significant challenges in meeting these objectives.

Additionally, improvement of the data collection process and data debugging in 2025 affected current results, with a negative impact on some performance indicators because of the artificial increase in the length of the Core network.

### **a) Electrification**

As of 2025, the electrification compliance rate for the operational rail network stands at 62% on the Core Network and 50% on the Comprehensive Network. These figures reflect changes compared to 2024 data, due to the recent improvements in the data collection process and the inclusion of missing parts, impacting the overall electrification percentage. Additionally, for better overview in this report, all missing links are categorised as "diesel" in terms of traction.

This reclassification has impacted overall compliance percentages: the Core Network's electrification compliance decreased by 3%, while the Comprehensive Network's compliance decreased by 5%.

# Electrification 2022-2025

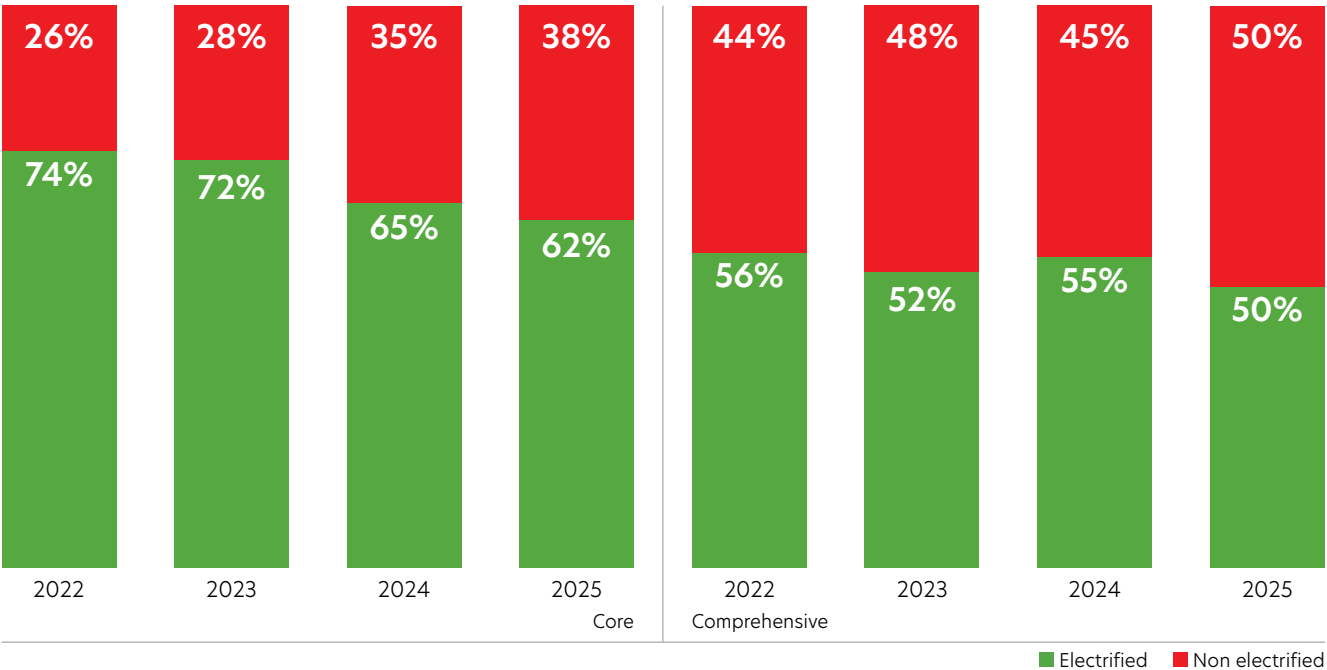


Figure 5. Percentages of electrified and non-electrified lines 2022 - 2025

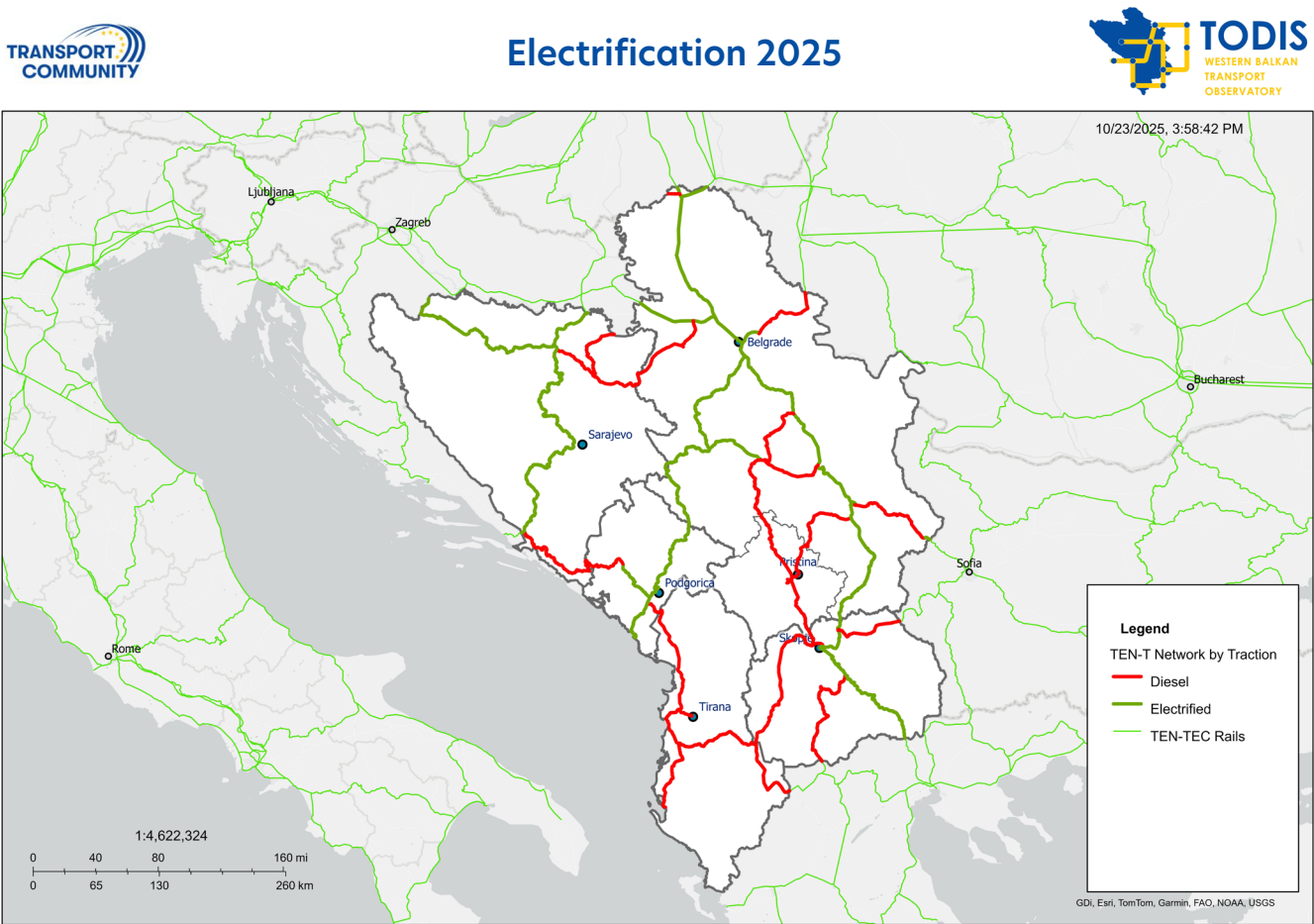


Figure 6. Map of electrified lines

### b) Axle Load

The Core Network’s freight axle load compliance, set at 22.5 tonnes per axle, remains unimproved from 2024. However, due to the recent improvements in the data collection process and the inclusion of missing parts there is a slight decrease in axle load compliance.

*Note: The slight decrease in axle load compliance is a result of improvements in the data collection process and included missing parts. These upgrades also meant the reclassification of certain segments, which has affected overall axle load metrics.*

### Axle Load 2022-2025

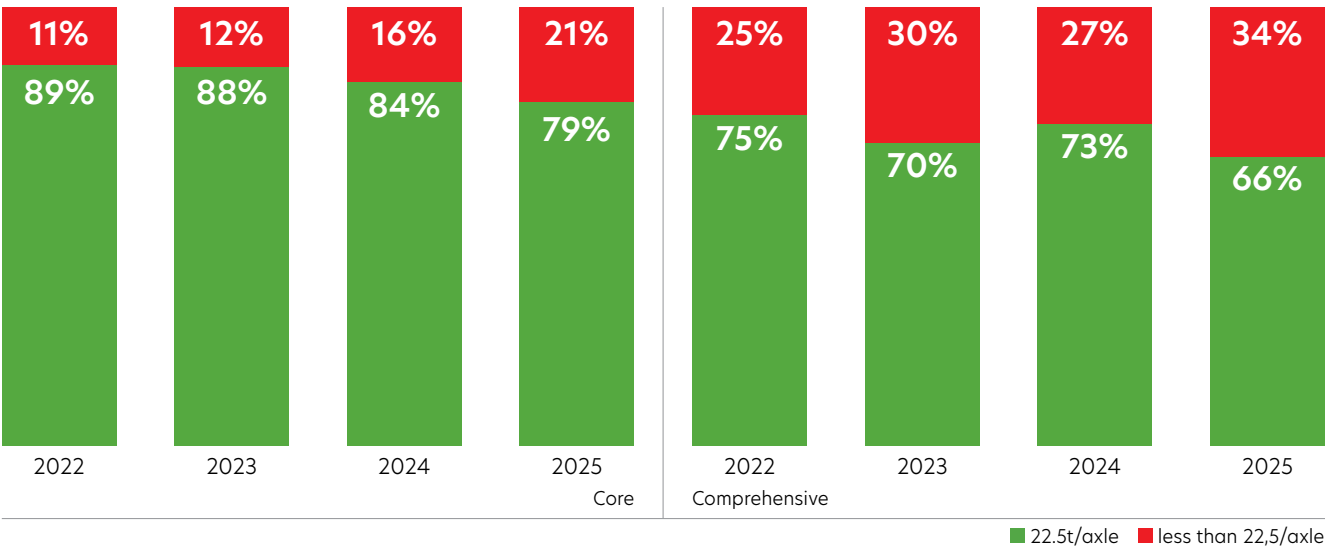


Figure 7. Axle load in tonnes/axle on Core and Comprehensive Network 2022 - 2025

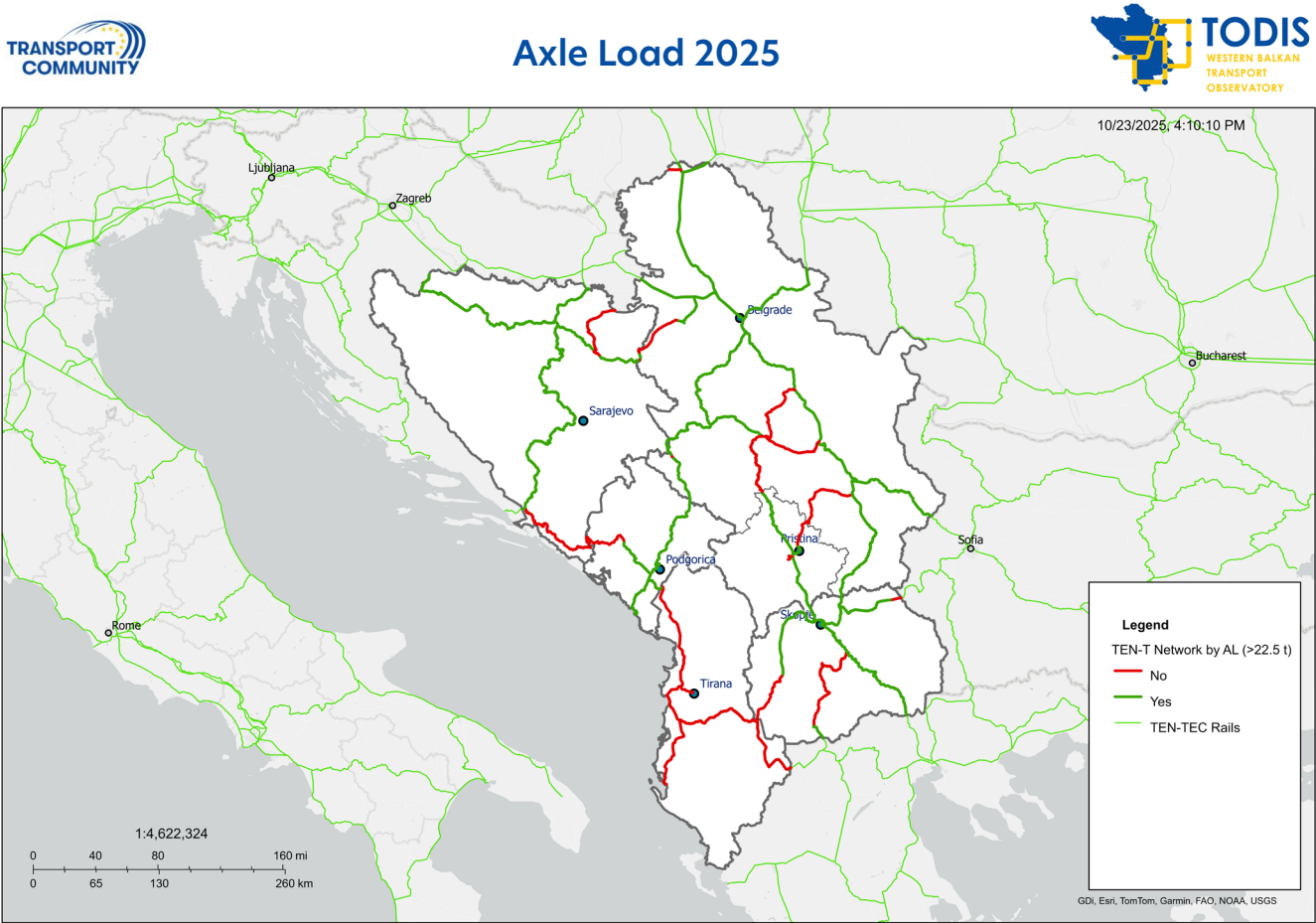


Figure 8. Map of axle load in tonnes/axle on Core and Comprehensive Network

### c) Freight line speed

As of 2025, 53% of the Core Network and 52% of the Comprehensive Network meet the freight line design speed requirement of 100 km/h or more. This represents a small change compared to 2024, influenced by two main factors: the revised lengths of the networks due to TEN-T updates and the inclusion of all missing links in the calculation.

Regarding operational speed, for segments operating at speeds of over 100 km/h, the situation has improved by 4% on the Core and 3% on the Comprehensive network.

*Note: The decrease in Design speed Compliance on the Core Network is a result of the inclusion of missing links in the calculation.*

#### Minimum Design Speed (100km/h) for Freight Trains 2022-2025

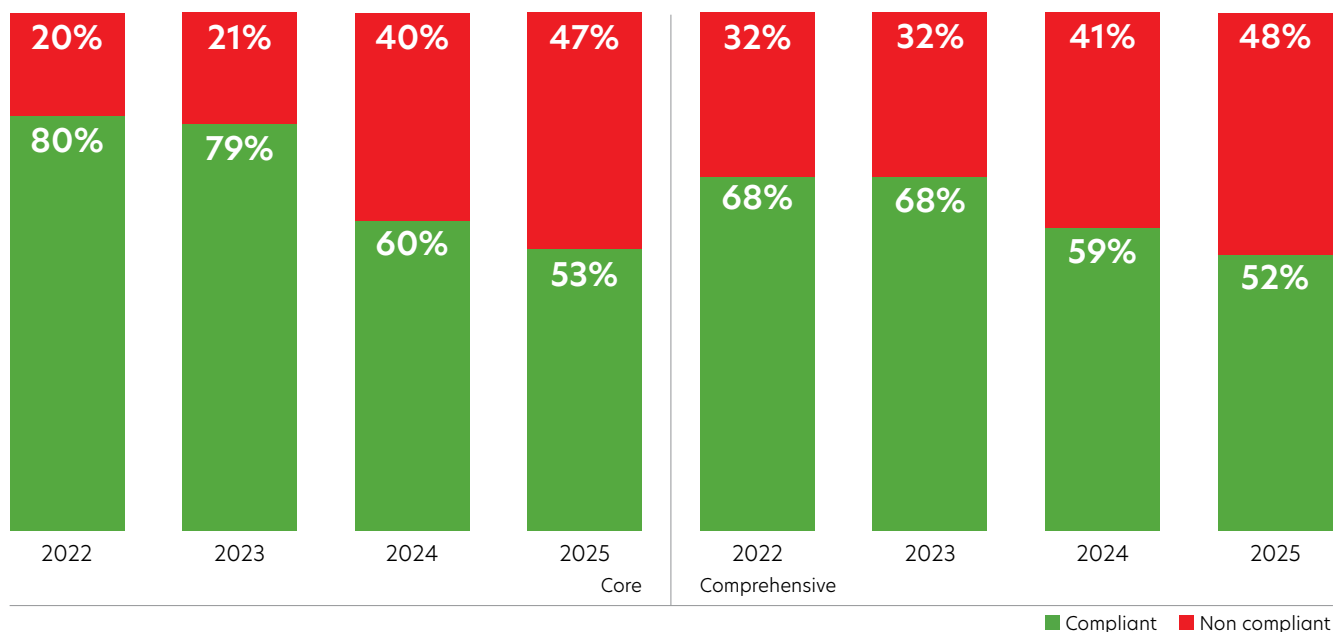


Figure 9. Minimum Design Speed 100 km/h for Freight Trains 2022 - 2025

#### Minimum Operating Speed (100km/h) for Freight Trains 2022-2025

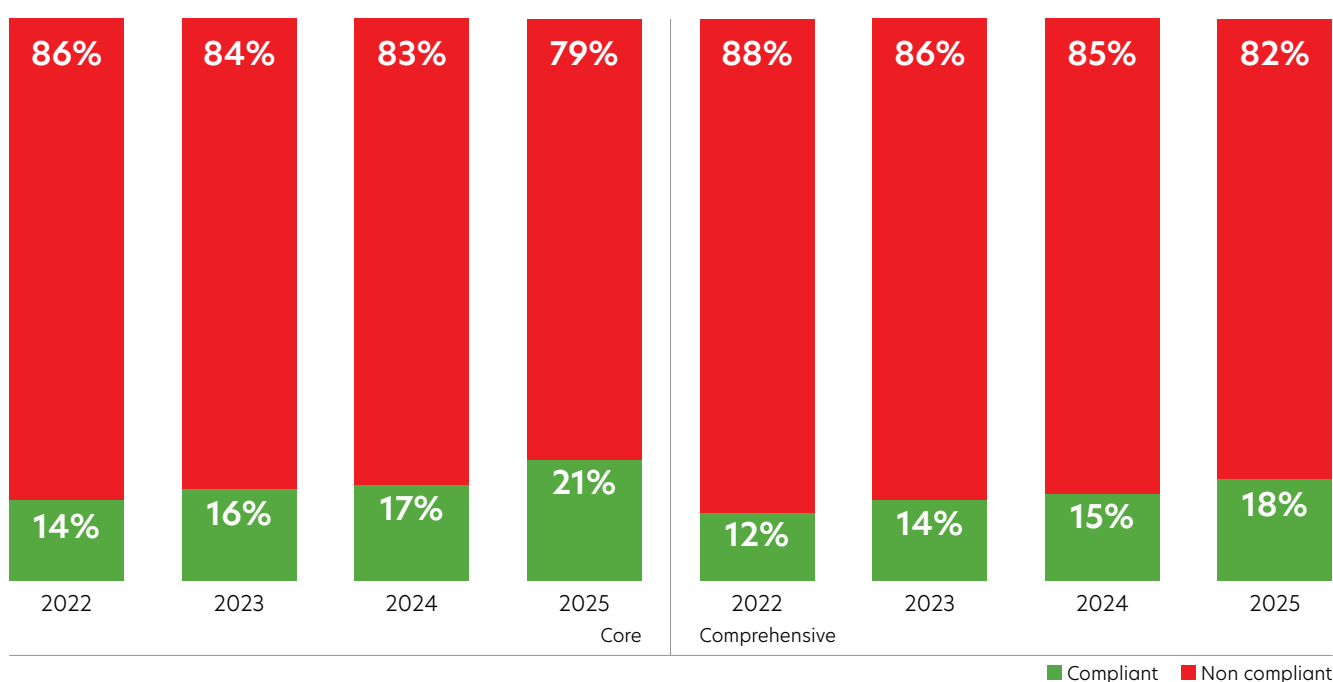


Figure 10. Operating Speed 100 km/h for Freight Trains 2022 - 2025

## d) Train length

There has been a slight change in the compliance rate for freight train length, with 15% of the Comprehensive Network and 13% for the Core now able to accommodate trains of 740 metres or longer. This is almost the same as the previous year for the Comprehensive and a decrease for the Core. It is primarily attributed to enhancements in the data collection process and included missing lines rather than actual infrastructure developments.

Overall, the region largely meets the 550-metre train length requirement, with Albania being the only exception. However, it is crucial to interpret these statistics with care, as ongoing infrastructure upgrades and operational complexities can create gaps between nominal compliance and actual operational capabilities. For example, while a rail line may be technically equipped to handle 740-metre trains, practical limitations, such as inadequate sidings, may prevent the effective realisation of this capability.

### Train length 2022-2025

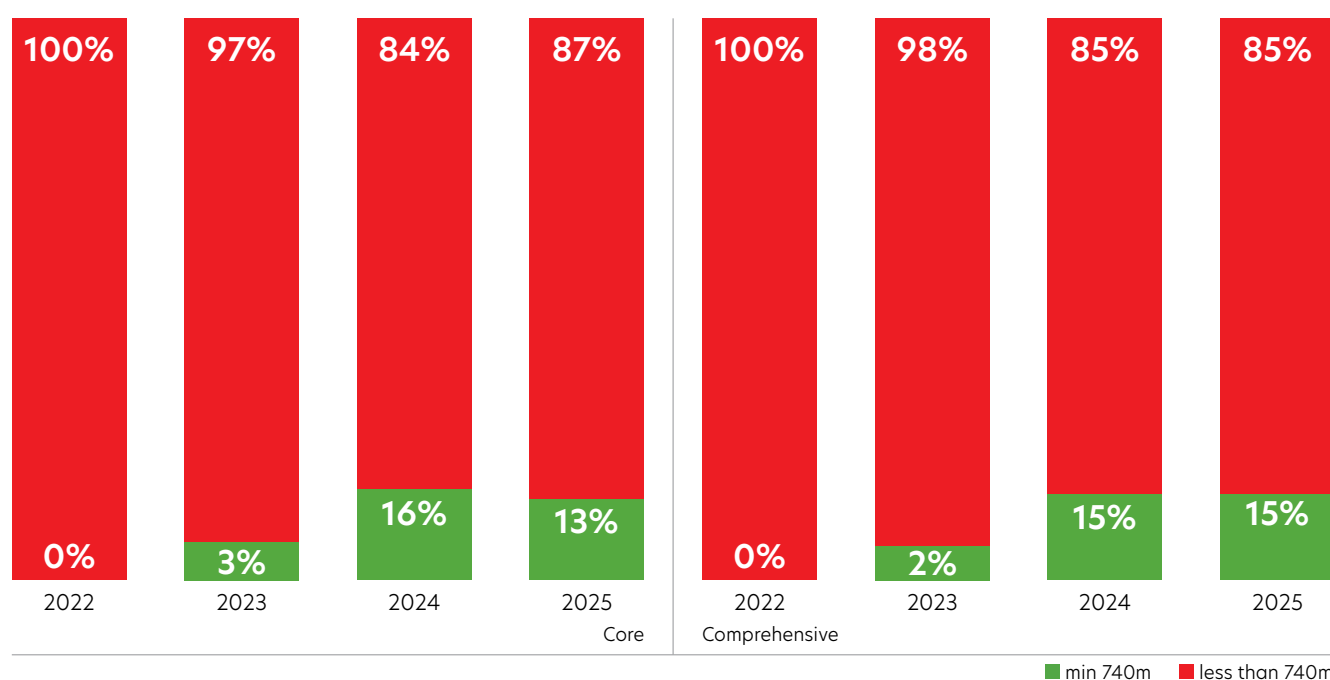


Figure 11. Train length 2022 - 2025

## e) Track gauge

Rail track gauge has achieved a historical 100 % compliance. There is one exception: the Mokra Gora narrow gauge rail line in Serbia. The line is not part of the Core and Comprehensive Network, however it is primarily used for tourism. This situation has remained unchanged for many years and does not affect interoperability across the broader rail network.

## f) ERTMS

The rollout of the ERTMS system has begun in the Western Balkans, marking a significant milestone. Nowadays, 7% of the Core Network and 5% of the Comprehensive Network are equipped with the ERTMS system, thanks to the opening of the reconstructed Belgrade - Subotica line in Serbia, and Kumanovo - Beljakovce in North Macedonia.

Most regional partners have partially transposed the interoperability directive (third or fourth rail package). With ongoing projects supported by funding, there are plans to implement ERTMS with ETCS level 1 or 2 in Albania, Kosovo, Serbia, and North Macedonia, which could increase ERTMS coverage.

However, deploying the ERTMS system presents significant challenges in meeting TEN-T parameters, and progress has been slower than expected. Therefore, all regional partners must intensify efforts to transpose and fully implement the interoperability directive.

# ERTMS 2022-2025

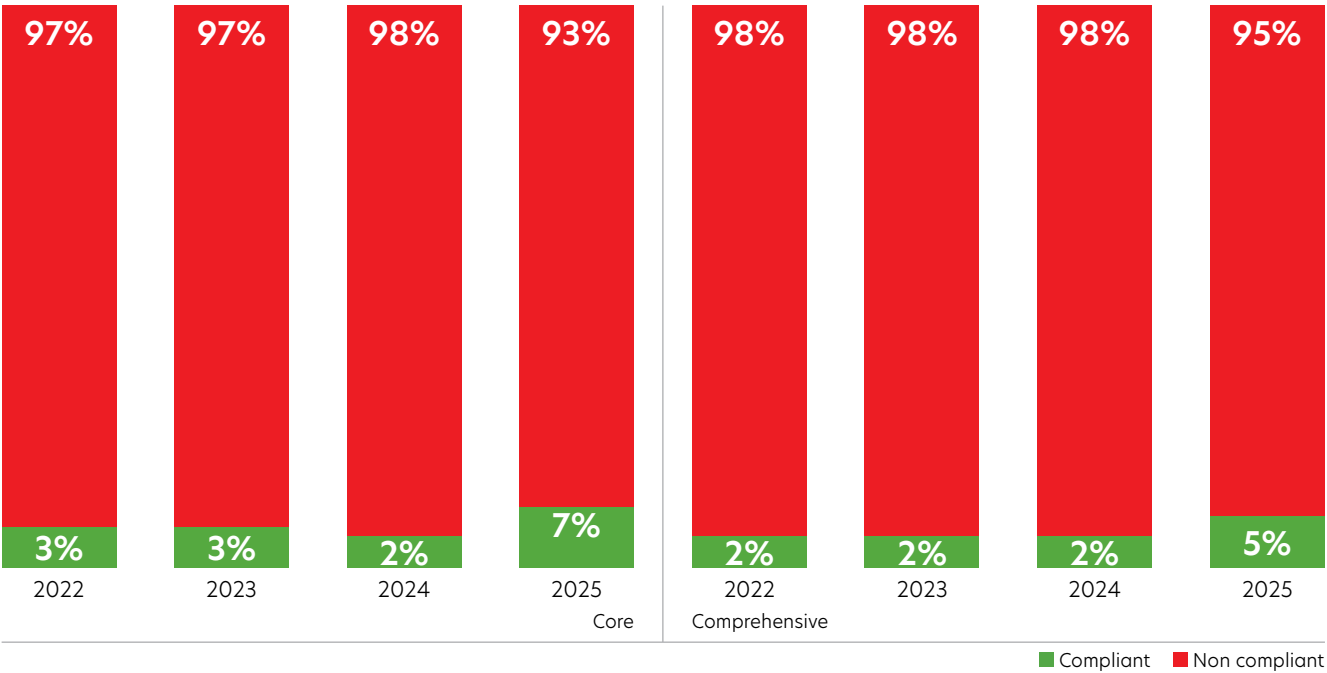


Figure 12. ERTMS deployment 2022 – 2025

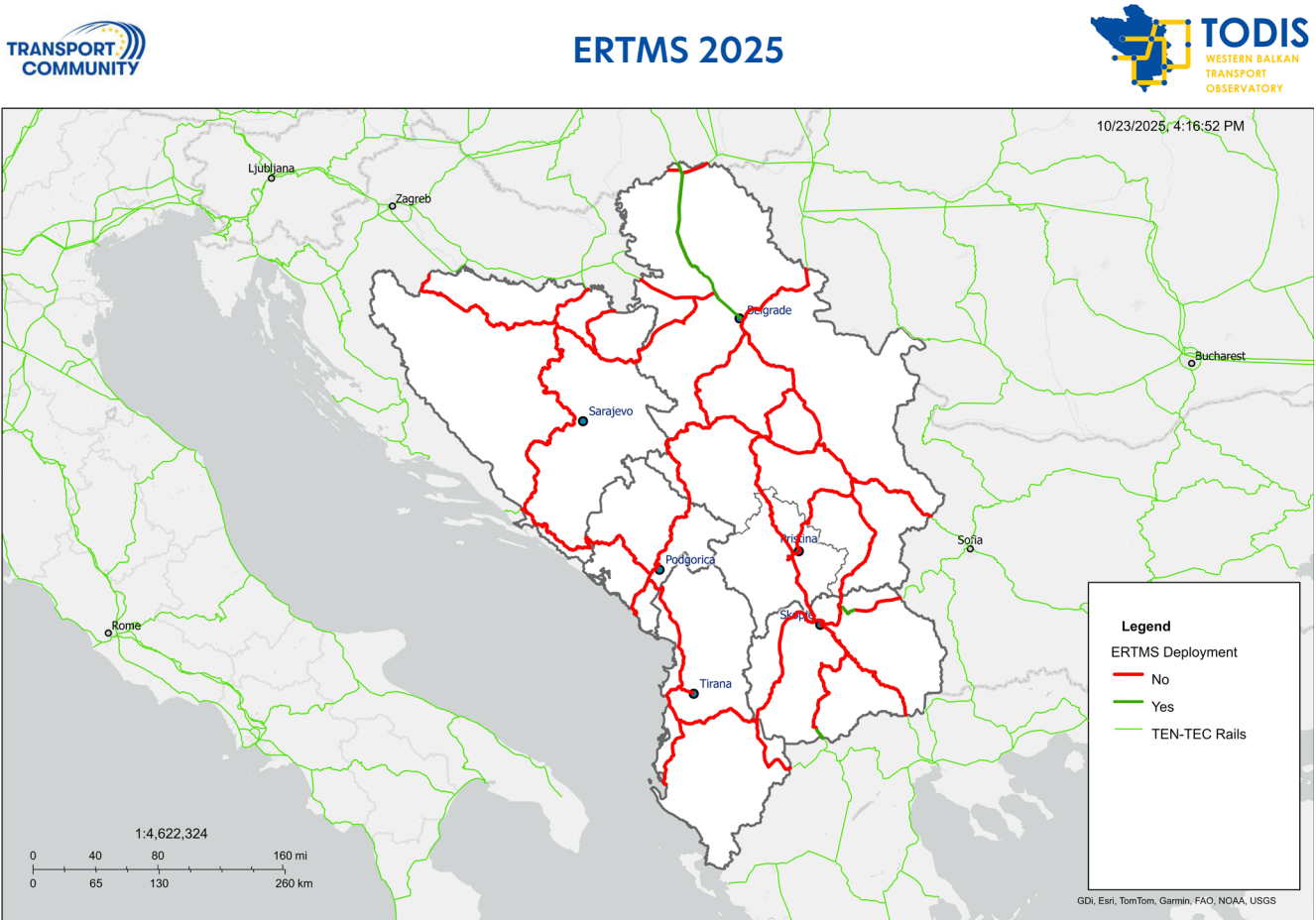


Figure 13. Map ERTMS deployment

**g) Passenger speed of over 160 km/h**

Under Regulation (EU) 2024/1679, the Region must ensure that passenger rail lines on the TEN-T core and extended core networks support speeds of at least 160 km/h by 2040, with a minimum of 75% of sections meeting this standard. Currently, compliance is at 6% for Core and 4% for the Comprehensive Network.

**Passenger speed  
≥ 160km/h 2025**

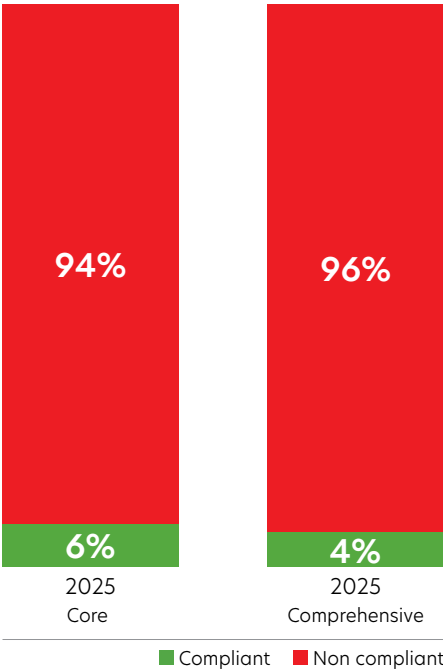


Figure 14. Passenger Speed ≥ 160km/h for 2025



**Passenger Design Speed ≥ 160 km/h**

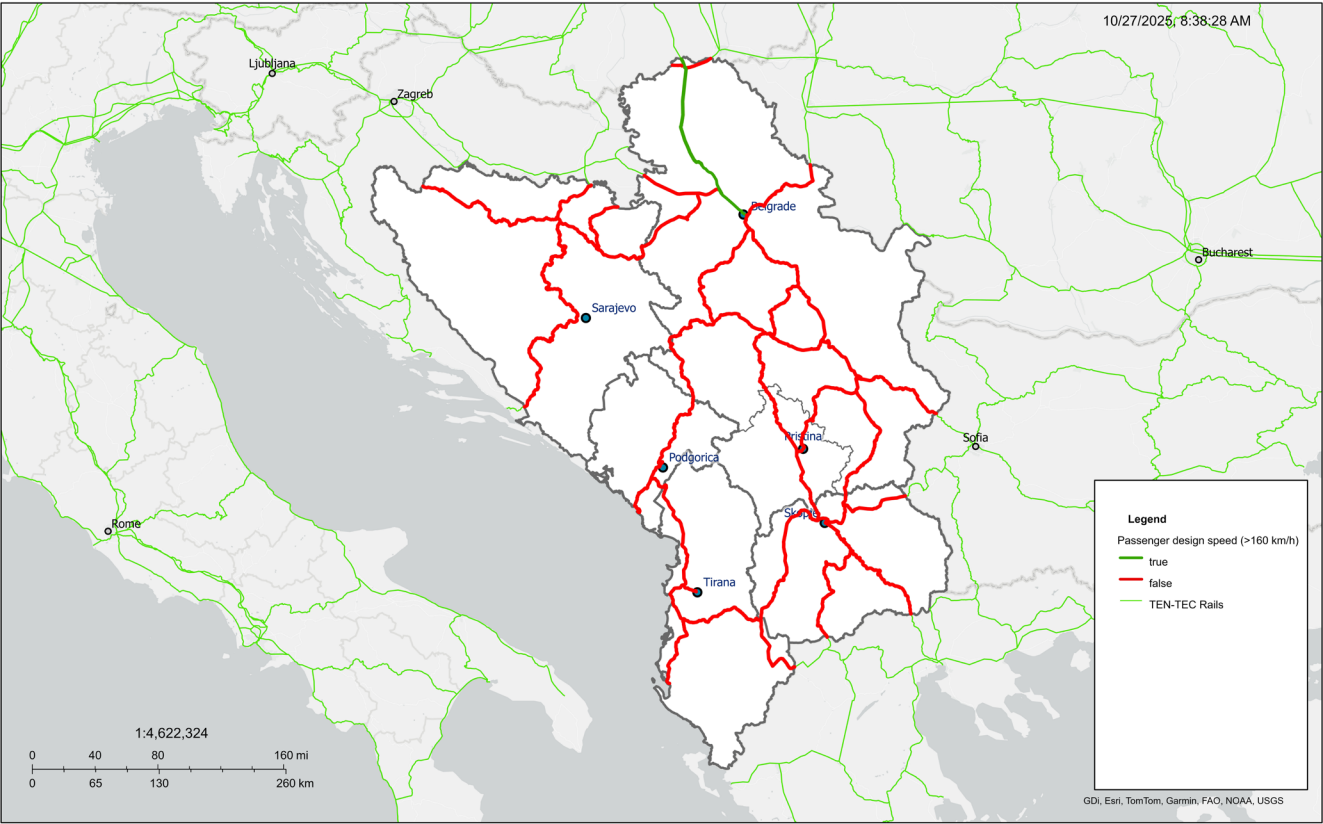


Figure 15. Map Passenger Speed ≥ 160km/h for 2025

## h) Loading Gauge P400

As per the revised TEN-T Regulation, the Region must ensure that railway infrastructure on the Core and extended Core networks complies with the P400 loading gauge standard by 2040, enabling the transport of semi-trailers on pocket wagons and supporting efficient intermodal freight operations. Nowadays, compliance with this parameter is at 39% for the Core network.

## i) No Strong Inclination ( $\leq 1.25\%$ )

Currently, the Region is 50% compliant and progressing toward fulfilling the TEN-T Regulation requirement that railway lines on the Core and Comprehensive networks maintain a maximum gradient of 1.25%, essential for ensuring efficient and interoperable freight transport.

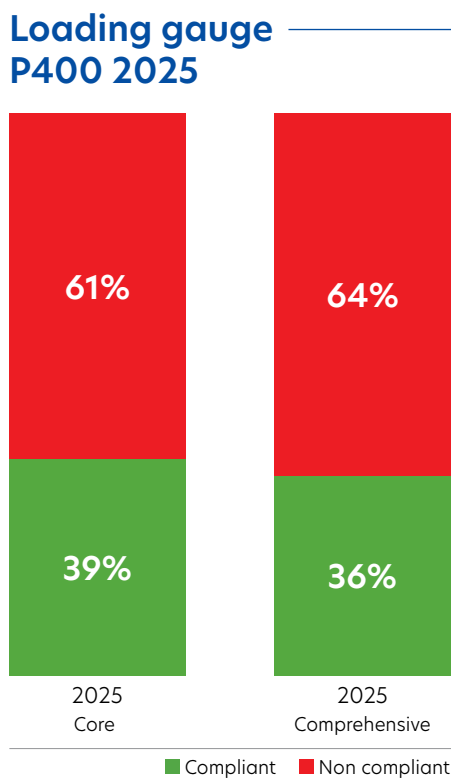


Figure 16. Loading Gauge P400 for 2025

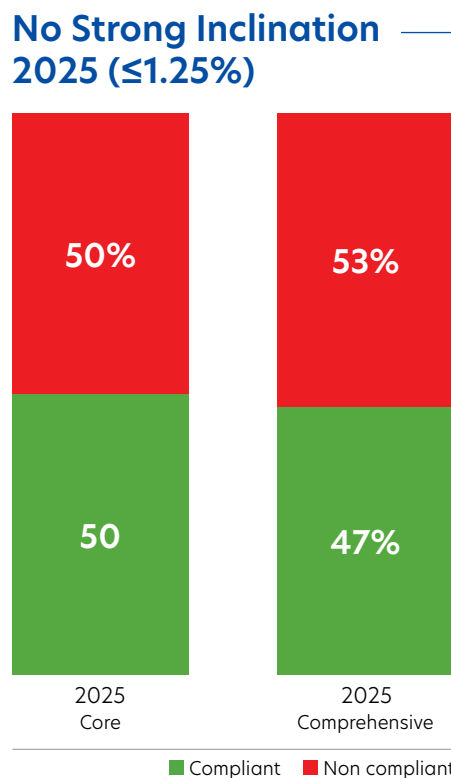


Figure 17. No Strong Inclination ( $\leq 1.25\%$ ) for 2025

## Overall compliance assessment

The present network status was evaluated by analysing data provided by regional partners regarding the state of play on their respective tracks. Track condition has been divided into five parts based on the ratio between the current maximum operational speed and maximum design speed on the network. This was done to provide a better description of current railway conditions.

Condition of railways	Operational/Design Speed
Very good	0.86 - 1
Good	0.71 - 0.85
Medium	0.61 - 0.70
Poor	0.51 - 0.60
Very poor	0 - 0.50

Figure 18. Assessment Methodology Criteria

Following the criteria applied, an overview of the network is given in the figure below.

Infrastructure Conditions 2022-2025

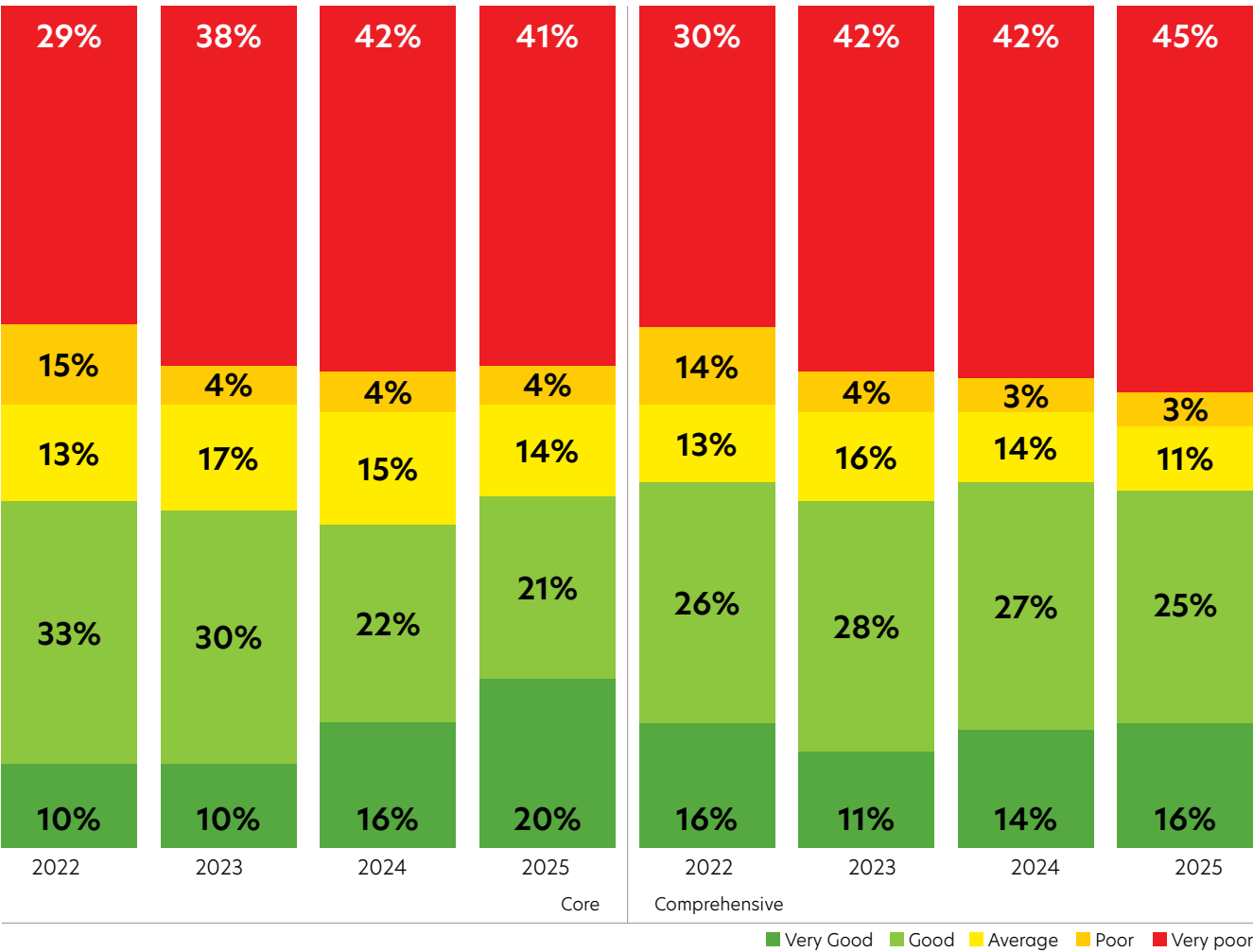


Figure 19. Condition of the Rail Network 2022 - 2025

In 2025, the Regional Partners reported that 41% of the Core Rail Network and 41% of the Comprehensive Rail Network were classified as being in either very good or good condition, allowing for speeds between 70% and 100% of their design capabilities. However, there was a slight increase of about 4% in the very good category and a slight decline of 1% in the good category. This decline can be attributed to a slower pace of improvement due to limited investment. Approximately 14% of the rail sections on the Core network were rated as being in average condition, with considerable variations in their maximum allowed speeds.

Unfortunately, a significant portion of both the Core (45%) and Comprehensive Networks (48%) was rated as being in poor or very poor condition, with design speeds averaging only 50% and showing deterioration since 2024 on the Core Network. A critical concern is the reliability of the assessment system, as some sections exhibited significant discrepancies between their reported condition, design specifications, and maximum allowed speeds. Additionally, it appears that different assessment systems are being utilised by various regional partners.

Curve radius is another important parameter influencing the development of the Rail Core and Comprehensive Network. Currently, 39.79% of the Core Network and 39.48% of the Comprehensive Network have curves with a radius of 300 metres or less. This limitation means that achieving speeds of 100 km/h or more would require significant reconstruction and realignment of these sections. Such sections can become potential bottlenecks during periods of higher traffic. This parameter has been included in the report for the first time and shall be monitored continuously in the coming years.

## Radius of curves on Core and Comprehensive Network

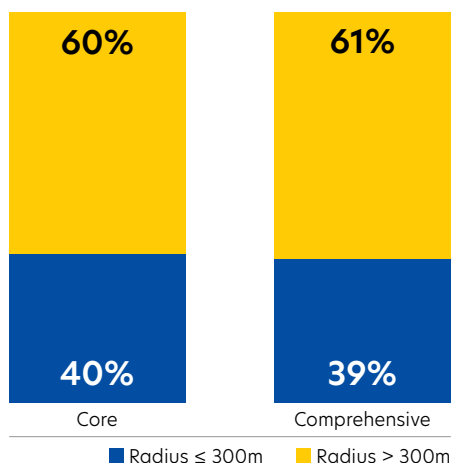


Figure 20. Radius of curves of the Rail Network 2025

The Comprehensive Rail Network has 1,264 level crossings, of which only 25% are equipped with active signalling (protection). In contrast, EU member states average 55% active signalling and 45% passive protection at level crossings.

The widespread deterioration of the network is primarily due to lack of routine and condition-based maintenance (CBM). This issue has arisen from a lack of planning and insufficient funding to meet basic maintenance needs in the past. As a result, the rail network now requires significant reconstruction efforts instead of just routine maintenance, which will likely lead to more severe traffic disruptions in the future.

A viable solution to this problem is the implementation of routine condition-based maintenance through multi-annual contracts between the infrastructure manager and the relevant authorities, supported by timely and adequate funding. This approach, part of the Transport Community Rail Action Plan, is not only cost-effective but also promotes sustainability by preventing the impacts of sporadic maintenance. These negative impacts mean increased funding requirements for reconstruction, indirect losses from underperformance, traffic disruptions, and safety concerns,

which can escalate the costs associated with routine CBM. Furthermore, it is crucial to comply with EU Technical Specifications for Interoperability and TEN-T standards.

Recognising that rail transport is one of the most environmentally friendly modes of transportation, the transportation industry's future seems promising. The EU Sustainable and Smart Mobility Strategy, along with the Growth Plan and the European Green Deal, focuses on advancing the rail transport system. Therefore, the Southeast European countries should not only follow but lead the way toward a modern, interoperable, sustainable, and environmentally friendly transport system by significantly enhancing their rail infrastructure.



## Infrastructure conditions 2025

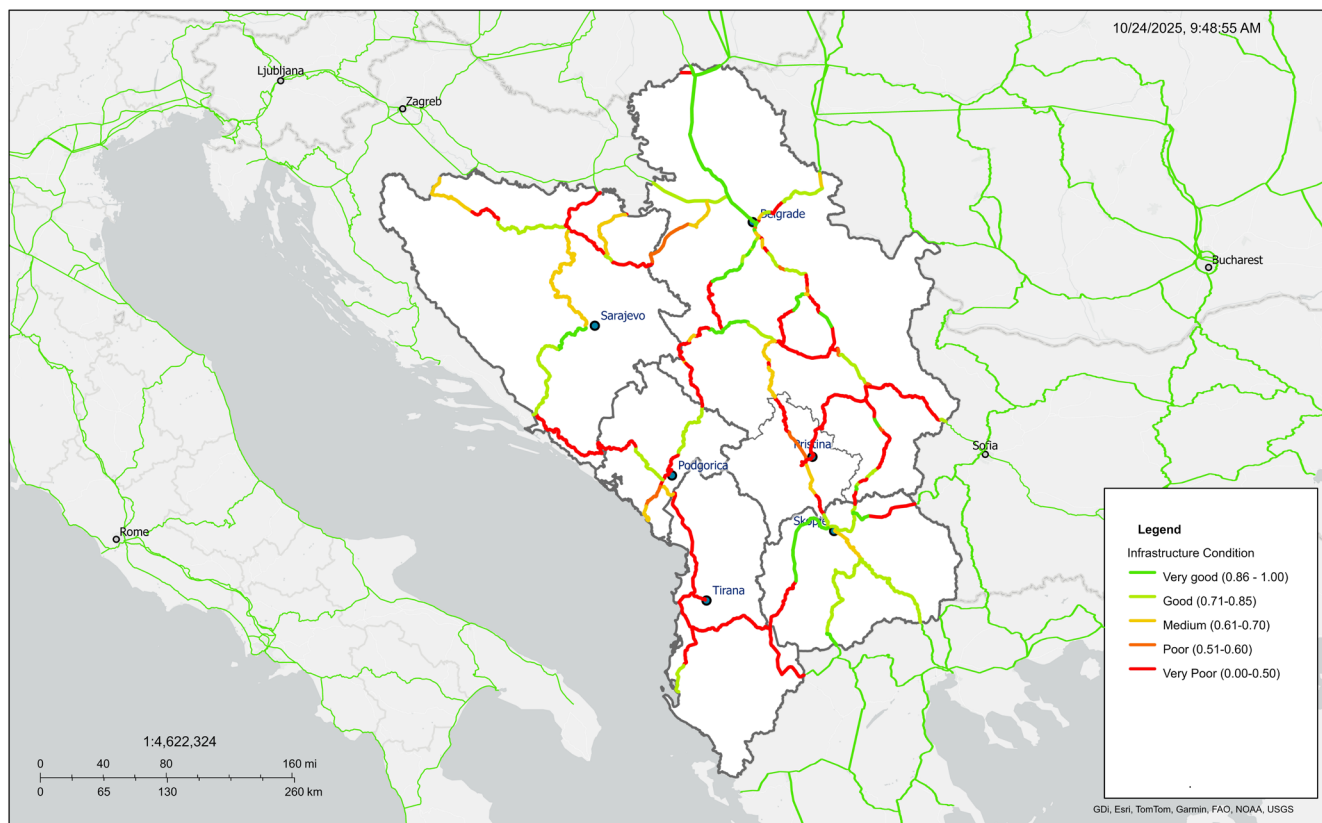


Figure 21. Railway infrastructure condition map

## 4.2. Road network

The revised TEN-T Regulation (EU) 2024/1679 introduces more rigorous requirements for the road network as part of the broader objective to deliver a safe, sustainable and interconnected transport system. Compared with the previous framework, the Regulation places greater emphasis on the quality of road infrastructure, harmonised service levels across Member States, and the removal of bottlenecks affecting cross-border traffic. It brings road infrastructure into closer alignment with EU policy priorities such as the European Green Deal, digitalisation of transport services and enhanced road safety standards. The newly defined key performance indicators (KPIs) are intended to measure progress against these objectives transparently and comparably.

They include, in particular, indicators on the availability and spacing of safe and secure rest areas, the installation of weigh-in-motion systems to prevent overloading and protect infrastructure, and the provision of minimum universal traffic information to improve safety and traffic management. Together with indicators on the deployment of alternative fuel infrastructure, road safety management practices and toll interoperability, they provide a structured means to track compliance with the Regulation.

Their purpose is not only to assess whether minimum standards are met, but also to support continuous improvement by highlighting trends, guiding investment, and ensuring that road infrastructure across the TEN-T contributes effectively to safer, cleaner and more efficient mobility.

The Regulation sets differentiated implementation deadlines to reflect both the ambition of the policy and the varying levels of infrastructure development across the network. For the **core network**, compliance with the main road infrastructure requirements is expected by **31 December 2030**, with an intermediate deadline of **2025** for existing sections on certain safety and information obligations. The **extended core network**, **though not relevant for the road network in the Western Balkans**, benefits from a longer timeframe, with completion required by **2040**, while the **comprehensive network** is to be fully compliant by **2050**. These staged deadlines apply across all key road indicators safe and secure rest areas (60 km spacing on the core, 100 km on the comprehensive), weigh-in-motion systems (every 300 km), and the provision of minimum universal traffic information. The phasing ensures that the most strategically important corridors are upgraded first, while allowing sufficient time to extend compliance progressively to the wider network.

Regulation 2024/1679 introduced updates to the TEN-T Road Core and Comprehensive Network, which fall into two main categories: new requirements and KPIs for the TEN-T and changes to the network itself. The network changes are explained below while the new requirements are explained further under TEN-T Compliance Indicators.

### Revised TEN-T Road Network

Revision effected the following changes to the Comprehensive Network:

**Tuzla-Zvornik** section in Bosnia and Herzegovina is 56 km of conventional road with medium-quality conditions and serves as an essential link between Bosnia and Herzegovina and Serbia.

**Mostar-Vinjani** 53.78 km express route connects Bosnia and Herzegovina with Croatia, supporting cross-border trade and travel with Croatia.

**Ruma to Zvornik** is the link connecting Serbia and Bosnia and Herzegovina. This section is comprised of three subsections with different characteristics. **Ruma-Šabac** section is a 33.8 km highway offering a very good driving experience with upgraded facilities and faster transit times. **Šabac-Loznica** 56.67 km section is built to expressway standard and is maintained in very good conditions, facilitating efficient regional movement between Serbia and Bosnia and Herzegovina. **Loznica to Zvornik** is the last remaining 20.27 km section with conventional roads of medium-quality conditions.

**Lipjan – Duhel**, with 36.17 km conventional road, is in good condition, reinforcing the internal connectivity in Kosovo.

These newly added road sections, included into Comprehensive Network, will enhance transport efficiency and accessibility throughout the Western Balkans.

## Western Balkan Eastern Mediterranean Core Network Corridor (WBEM)

The extension of the TEN-T Core and Comprehensive Network to the Western Balkans began in 2016 as part of a network-wide revision. The latest update in 2024 introduced major changes to the comprehensive road network, including the first ever establishment of the Western Balkan East Mediterranean (WBEM) Corridor.

The WBEM Corridor spans six Regional Partners and eight EU member states: Austria, Slovenia, Croatia, Hungary, Bulgaria, Greece, Cyprus and Italy.



Figure 22. WBEM Road Core Corridor

## Rhine - Danube Core Network Corridor (RD)

As laid out in Regulation 2024/1679, the Rhine-Danube Core Network Corridor spans several key regions of Europe, linking Western Europe's Rhine River Basin with Central and Eastern Europe along the Danube River. The corridor primarily connects Germany, Austria, Slovakia, Hungary, continuing eastward through Serbia, Romania and Bulgaria, to the Black Sea.

The corridor includes direct links with the Western Balkans. According to Regulation 2024/1679, specific rail and road extensions connect the Rhine-Danube Corridor to the Western Balkan region, enabling more integrated transport links.

Road sections in Serbia are included in both Core Corridors, particularly the **Belgrade-Subotica section** linking to Hungary in the north and the **Belgrade-Vrsac** section linking with Romania to the east, enhancing the cross-border movement of goods and passengers.

## → TEN-T Compliance Indicators

The revised TE→N-T Regulation (EU) 2024/1679 defines specific road infrastructure requirements for the comprehensive and core networks, setting out the applicable standards and implementation deadlines. Several of the road requirements are already addressed and monitored through complementary priority documents, such as the Road Action Plan, the Road Safety Action Plan, and the Transport Community Treaty (TCT) Annexes. Specifically, road safety management and tunnel compliance are covered under the Road Safety Action Plan; tolling interoperability is addressed through the Road Action Plan and monitored against Annex I.3; while environmental requirements are followed up through Annex I.6.

An overall overview of the requirements and corresponding article references is provided in the table below.

Requirements	Comprehensive network	Core network
Design & maintenance quality (Road conditions)	Roads designed / built / maintained to high quality & safety standards Art. 30(1)(b)	Same Art. 31(1)
Motorway/expressway standard (road profile)	—	Roads must be specially designed for motor traffic, have separate carriageways (or equivalent safety separation), and no at-grade crossings; existing core by 31 December 2025; new core by 31 December 2030 Art. 31(2)(a)–(c), 31(5)
ITS on roads (monitored under Road Action Plan)	ITS complies with Directive 2023/2661/EU amending 2010/40/EU and relevant delegated acts Art. 30(1)(g)	Same Art. 31(1)
Alternative fuels	Deploy AFIR infrastructure in line with Reg. (EU) 2023/1804 Art. 30(1)(h)	Same Art. 31(1)
Rest areas	Rest areas max 100 km apart; provide safe / sufficient parking & appropriate facilities (incl. sanitary), meeting needs of a diverse workforce by 31 December 2050 Art. 30(2)(b)	Rest areas along the core network max 60 km apart; provide sufficient safe parking & appropriate facilities by 31 December 2030 Art. 31(3)(a)

Requirements	Comprehensive network	Core network
Safe & secure parking areas (SSPA)	Only general rest-area rule above applies	Develop safe & secure parking areas on/near the core ( $\leq 3$ km from exit), avg max 150 km apart; by 31 December 2040 Art. 31(4)
Weigh-in-motion (WIM)	WIM systems installed on average every 300 km on the national network (focus on high-freight sections permitted) by 31 December 2050 Art. 30(2)(c) + second subpara	Must meet Art. 30(2)(c) (i.e., the same WIM requirement); by 31 December 2040 Art. 31(3)(b)
"Minimum universal traffic info" (road-safety events)	Deploy / use means to detect safety-related events / conditions and collect data for road safety-related minimum universal traffic information: existing comprehensive by 31 December 2030, new comprehensive by 31 December 2050 (or completion date) Art. 30(3)(a)–(b)	Same requirement applies, but earlier deadlines: existing core by 31 December 2025, new core by 31 December 2030 (or completion) Art. 31(5)(a)–(b), ref. to 30(3)
Safety management (monitored under Road Safety Action Plan)	Apply Directive 2008/96/EC on road infrastructure safety management Art. 30(1)(a)	Same (via cross-reference to Art. 30(1), Art. 31(1))
Environmental protection (monitored under TCT Annex I.6)	High level of environmental protection (incl. noise mitigation, runoff collection / treatment) Art. 30(1)(c)	Same Art. 31(1)
Tunnels (monitored under TCT Annex I.3)	Tunnels >500 m comply with Directive 2004/54/EC. Art. 30(1)(d)	Same Art. 31(1)
Toll interoperability (monitored under Road Action Plan)	Interoperability per Dir. (EU) 2019/520 + Implementing Reg. 2020/204 + Delegated Reg. 2020/203 (where applicable) Art. 30(1)(e)	Same Art. 31(1)
Tolling rules (monitored under TCT Annex I.3)	Tolls / user charges levied per Dir. 1999/62/EC (where applicable) Art. 30(1)(f)	Same Art. 31(1)

Table 1. Road compliance indicators

## → Primary infrastructure characteristics and layout

The total length of the TEN-T road network in the Western Balkans is **5,461.9 km**, of which **3,511.3 km** are on the Core Network, and **1,950.5 km** are Comprehensive network after the network modifications.

The network's current general layout is depicted below.

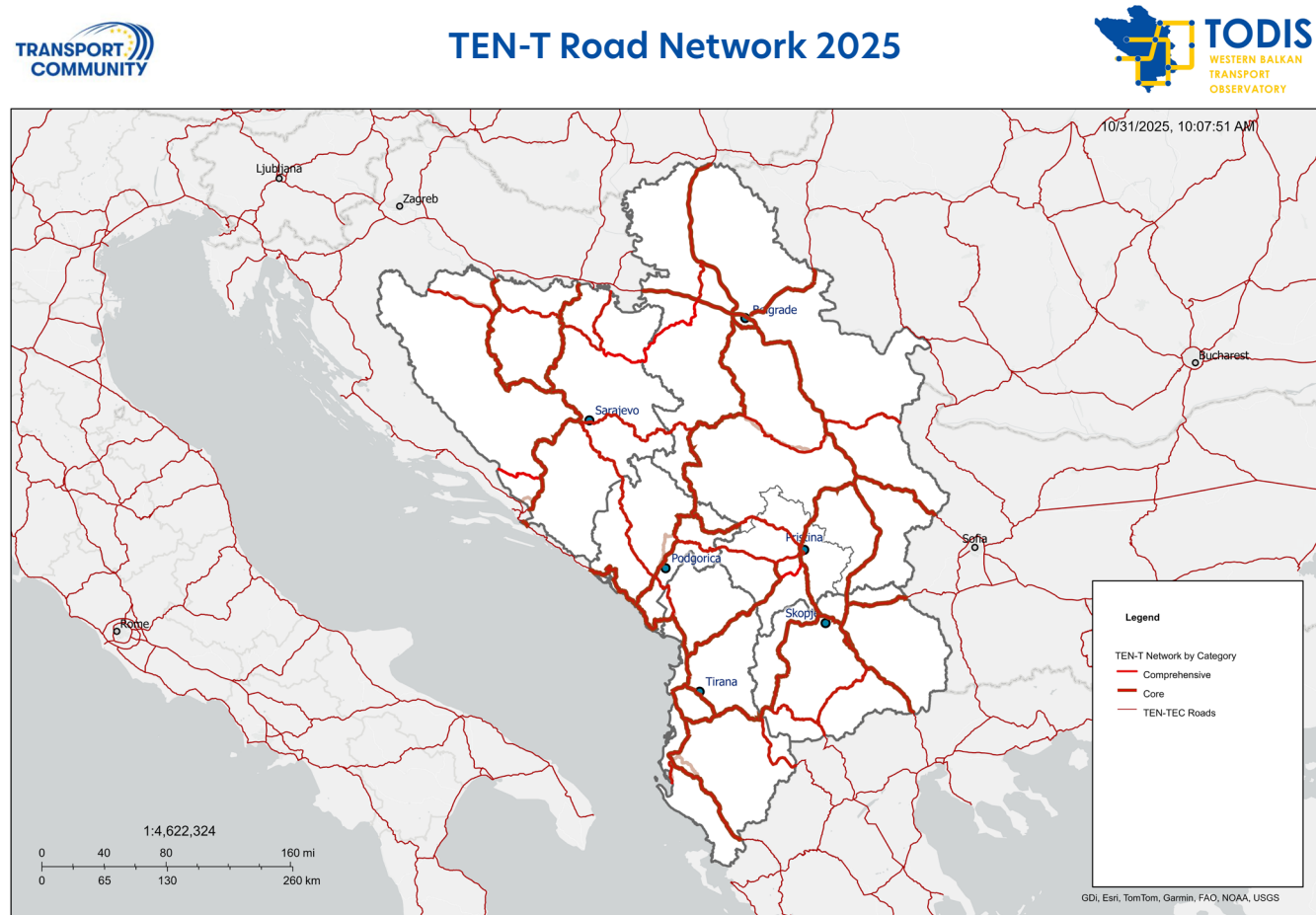


Figure 23. Map of the TEN-T Extension of Core and Comprehensive Road Network to Western Balkans

## → TEN-T Core Network Compliance

The TEN-T Core Network incorporates those parts having the highest strategic importance for the Comprehensive Network. Its current length is **3,511.3 km**, of which:

**1,657.2 km** are motorways;

**246.6 km** are express roads;

**1,607.4 km** are conventional roads.

The TEN-T Core Network compliance assessment is based on the above-listed criteria in Table 1.

Overall compliance with ITS, e-tolling and safety directives has not been quantified with numerical data, a pre-condition in this regard being the implementation of structural / institutional reforms mainly addressed under the dedicated Action Plans rolled out by the Transport Community Permanent Secretariat. The availability of alternative fuels is monitored through the CONNECTA study, 2023 and regular updates from the regional partners.

Details of Core network compliance against each relevant criterion are provided below.

#### **a) Infrastructure profile and condition**

For the Core TEN-T road network, the design profile and maintenance quality of roads is assessed against the criteria set out in Articles 30(1)(b) and 31 of the revised TEN-T Regulation 2024/1679. Roads are expected to be designed, built or upgraded, and maintained to high quality and safety standards, ensuring structural durability, road user safety, and operational reliability.

In addition, Articles 31(2)(a)-(c) and 31(5) specify requirements for motorways and expressways, which must be designed specifically for motor traffic to include:

- separate carriageways (or equivalent safety separation), and
- avoid at-grade crossings.

Compliance deadlines are defined as follows:

- a. for the existing infrastructure of the core network, by 31 December 2025 and for the existing infrastructure of the extended core network, by 31 December 2030,
- b. for the new infrastructure of the core network, by 31 December 2030, and for the new infrastructure of the extended core network, by 31 December 2040, or in the event that the road section is completed before, by its date of completion.

The methodology for monitoring these KPIs relies primarily on self-assessment by Regional Partners, using data from Road Asset Management Systems (RAMS) whenever available.

Road condition will still be rated under 5 distinct categories, using the International Roughness Index (IRI), as follows:

- very good (IRI < 1.24),
- good (IRI 1.24 - 2.84),
- medium (IRI 2.84 - 5.09),
- poor (IRI 5.09 - 8.94),
- very poor (IRI > 8.94).

In previous reports, Core Network roads were considered compliant if their profile was motorway or expressway and maintained in very good or good condition. And based on these requirements, Core Network compliance rate is 52.6%.

The current assessment strengthens this KPI by additionally requiring verification of separate carriageways and the absence of at-grade crossings, reflecting both design safety standards and operational separation for motor traffic. Based on these requirements, (motorway with very good or good pavement condition and separation of carriageways) compliance rate is **42.21%** for the Core Network, of which **13.39%** motorway with very good or good pavement condition and no-crossing at grade.

A Core Network section will therefore be considered compliant if it has a motorway or expressway profile in very good or good condition and either possesses separate carriageways or has no at-grade crossings. Due to the added KPIs, the overall compliance rate is at 53%.

## Core Network: Road Infrastructure Profile

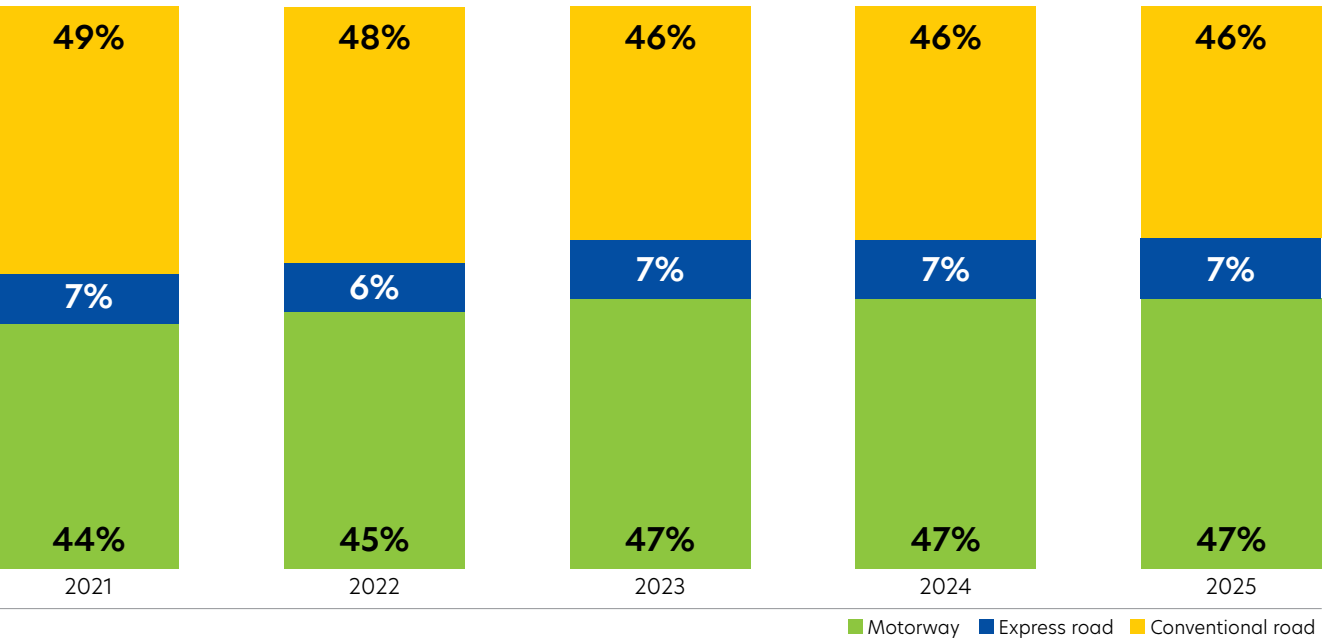


Figure 24. Core Network Road Profile 2021 - 2025

## Core network: road infrastructure condition

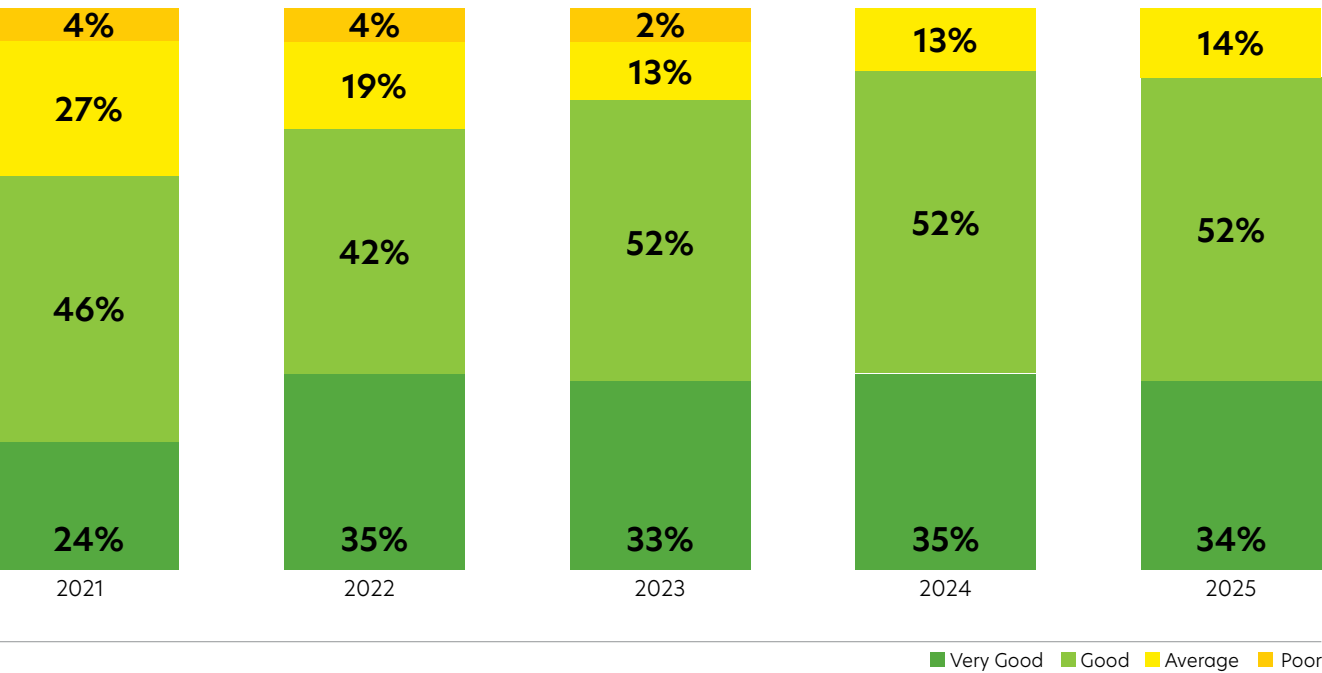


Figure 25. Core Network Road Condition 2021 - 2025

Overall, the percentage of roads related to road conditions remained stable as in 2025 “very good” held 33.7%, “good” remained stable at 51.9%, while 14.4% were in poor condition.

Broken down by road type, the proportion of motorways, express roads, and conventional roads remained stable in terms of distribution, with 47.2% of roads being motorways, 7.02% express roads, and 45.78% conventional roads.

The total length of compliant road sections on the Core Network now stands at 1,847.7 km due to the new highway sections operating during 2024/2025. The following road sections were opened since the previous report:

## TEN-T Core Network compliance rate

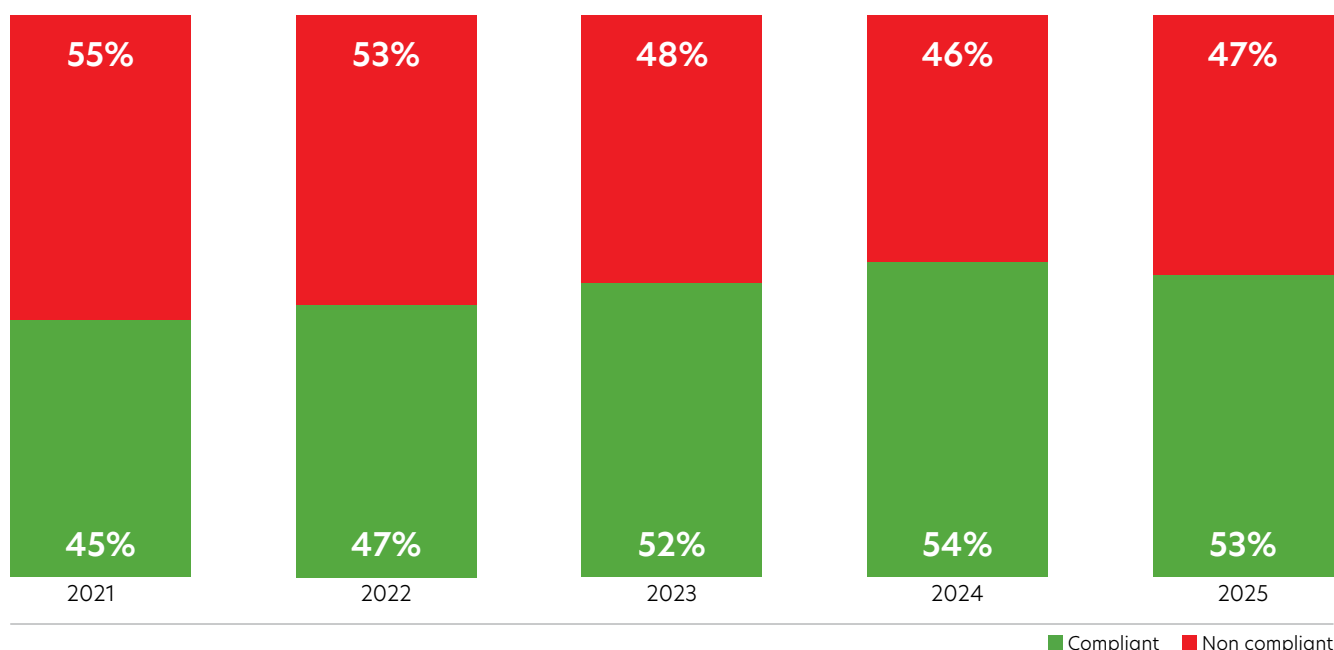


Figure 26. Core Network Compliance rate 2021 - 2025

- Construction of Vraca (Tunnel Zenica) - Donja Gračanica road section, 3.9 km, Bosnia and Herzegovina,
- Construction of Nević polje - Vitez section (part of Jajce - Lašva expressway), 4.5 km (Bosnia and Herzegovina),
- Construction of Kriva Palanka - Stracin expressway, 25.5 km (North Macedonia),
- Rehabilitation of state road A4, section Blace - Skopje, 10.2 km (North Macedonia),
- Construction of Preljina - Pozega road section, 31 km (Serbia).

### b) ITS Deployment

For the Core TEN-T road network, the deployment of Intelligent Transport Systems (ITS) must comply with Directive 2010/40/EU, as last amended by Directive 2023/2661/EU, as well as the relevant delegated acts. In line with Article 31(1) of the TEN-T Regulation, ITS measures are designed to enhance traffic management, road safety, and the provision of real-time information to road users.

Compliance with the ITS Directive 2010/40/EU, including its delegated regulations related to Real-Time Traffic Information (RTTI) and Multi-Modal Traffic and Travel Information Services (MTTIS), forms part of the Road Action Plan and the Growth Plan Reform Agenda. The transposition and implementation of these provisions are monitored on an annual basis through a separate reporting mechanism.

### c) Alternative fuel availability

The 'Fit for 55' package led to the adoption of Regulation (EU) 2023/1804, which replaces Directive 2014/94/EU and entered into force on 13 April 2024. The regulation establishes minimum infrastructure requirements for alternative fuel vehicles across all EU transport modes, ensuring interoperability and providing comprehensive information and payment options for users. Key targets under AFIR include:

Electric recharging infrastructure: Fleet-and distance-based targets are set, with 1.3 kW of publicly accessible recharging power required per battery-electric light-duty vehicle and 0.8 kW per plug-in hybrid vehicle. By 2025, recharging stations must be available every 60 km for light-duty vehicles and every 120 km for heavy-duty vehicles along the TEN-T core network.

Hydrogen refuelling stations: Stations must be provided every 200 km along both the TEN-T core and comprehensive networks by 31 December 2030.

Liquefied methane refuelling: Infrastructure is required for heavy-duty vehicles and at maritime TEN-T ports.

Transposition of AFIR forms part of the Road Action Plan and Sustainable and Smart Mobility Strategy for the Western Balkans, progress is monitored annually through different reporting mechanisms.

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

It is worth noting, however, that the alternative fuels network in the Western Balkans is in its infancy. Most existing refuelling stations have been established on the back of private initiatives. These stations are primarily situated in the region's major cities, reflecting current market demand. However, their presence on the TEN-T Network is minimal, primarily due to the region's limited adoption of alternative fuel vehicles.

Regional Partner	No. of Alternative Fuel stations <sup>1</sup>			
	Electricity <sup>2</sup>	CNG	LNG	Hydrogen
Albania	60	-	-	-
Bosnia and Herzegovina	93	3	-	-
North Macedonia	59	6	-	-
Kosovo	13	-	-	-
Montenegro	49	-	-	-
Serbia	85	30	1	-
Western Balkans	359	39	1	-

Table 2. Overview of the total number of stations available for each regional partner

Among the facilities listed above, only a few are actually located on the TEN-T road network, and 18 e-charging stations are deployed on Corridor X in Serbia, resulting in approx. 500 km of the TEN-T Core Network complying with the sufficiency requirements for electric vehicle charging points

The rollout of EVCS on the TEN-T road network in the region remains sporadic among the regional partners, and the region still needs to approve the strategic framework for the extension of EVCS across the entire road network.

Despite recent progress in this area, the region's overall compliance remains relatively low considering the cumulative application of sufficiency requirements for all mandatory alternative fuels.

#### d) Rest areas and safe & secure parking areas

The indicator for rest areas gauges the availability of rest areas along the core road network, requiring them to be located at intervals not exceeding 60 km and equipped with sufficient safe parking and appropriate facilities, in line with Article 31(3)(a) of Regulation (EU) 2024/1679. Compliance is calculated by mapping the actual spacing of rest areas on each core network section, verifying the presence of parking capacity and facilities, and determining the share of the network that meets the 60km requirement against the total length of the core road network.

<sup>1</sup> Home | EAFO, Open Charge Map - The global public registry of electric vehicle charging locations, NGVA Europe | Stations map - NGVA Europe, HRS Availability Map (h2-map.eu)

<sup>2</sup> CONNECTA Final Report, August 2023: Strategic Framework for deployment of e-charging Infrastructure in the Western Balkans

The indicator for safe and secure parking areas (SSPAs) monitors the development of these areas along the core road network, with an average spacing of not more than 150 kilometres, as required by Article 31(4) of Regulation (EU) 2024/1679. Compliance is assessed by mapping the location of all existing SSPAs along the core network, and calculating the proportion of the network adequately served. Due to current data limitations, the precise distance from exits ( $\leq 3$  km) is not applied in the calculation, but the indicator still provides an overall measure of network coverage and progress towards the 2040 deadline.

On these two KPIs, the TCT Secretariat is planning to undertake a study that will deliver an inventory of rest areas and SSTPAs along the TEN-T network (including border crossing points) in the Western Balkans is supporting implementation of the 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.

Due to lack of data, we will only be able to monitor and populate TODIS with the data available once this study is complete. The study will aim to assess compliance with EU safety, security, and service standards identify critical gaps, evaluate future demand, and provide policy and investment recommendations for infrastructure upgrades. Furthermore, it will outline key findings and an action plan for implementation, supporting alignment with TEN-T requirements and enhancing road transport efficiency.

#### **e) Weigh-in-motion**

This indicator measures the deployment of weigh-in-motion (WIM) systems on the road network, which are required to be installed on average every 300 kilometres, with a focus on high-freight traffic sections, in accordance with Article 31(3)(b) for the core network. Compliance is calculated by mapping all WIM installations along the network, determining the average distance between consecutive systems, and comparing this with the 300 km benchmark. Progress will be measured against a deadline of 2040 for the core network, and following submission of the precise geo-location of the related systems.

In the absence of any available data, we will not be able to present the compliance in this Report. Future monitoring will be possible once TODIS becomes available and the data from the Regional Partners provided.

#### **f) Minimum universal traffic info (road-safety events)**

This indicator assesses the deployment and use of systems to detect safety-related events and conditions and to collect data for providing road safety-related minimum universal traffic information along the core network, as required by Article 31(5)(a)-(b) of Regulation (EU) 2024/1679 (referring to Art. 30(3)). Compliance is determined through self-assessment carried out by each regional partner, reporting on the presence and operational status of detection systems.

Progress will be measured against the specified deadlines for existing core sections, full compliance is expected by 31 December 2025, while newly constructed or upgraded sections should be compliant by 31 December 2030.

In the absence of any available data, we will not be able to present the compliance in this Report. Future monitoring will be possible once TODIS becomes available and the data from the Regional Partners provided.

→ **TEN-T Comprehensive Network Compliance**

The total length of the TEN-T Road Comprehensive network (outside the TEN-T Core) is **1,950.5 km**, of which:

- 206.2 km** of motorways;
- 189.6 km** of express roads;
- 1,554.7 km** of conventional roads.

The conformity assessment with the TEN-T Comprehensive Network requirements is carried out based on the KPIs listed in Table 1. Further details are provided below.

**a) Infrastructure profile and conditions**

For the Comprehensive TEN-T road network, the design profile and maintenance quality of roads are assessed against the criteria set out in Article 30(1)(b) of the revised TEN-T Regulation 2024/1679.

Roads are expected to be designed, built and upgraded, and maintained to high quality and safety standards, ensuring structural durability, road user safety, and operational reliability. Unlike the Core network, there are no specific requirements for motorway or expressway design, and compliance is based on meeting national standards for carriageway width, surface condition, and general safety features.

Compliance monitoring relies primarily on self-assessment by Regional Partners, using data from Road Asset Management Systems (RAMS) wherever available.

In previous reports, Comprehensive Network roads were considered compliant if they were maintained in very good or good condition according to national standards. The current assessment continues to focus on surface condition and overall road quality, while also verifying that roads meet the required carriageway and safety specifications.

A Comprehensive Network section will therefore be considered compliant if it is in very good or good condition and conforms to national design and safety standards for carriageway layout and traffic separation.

The rise in the compliance rate regarding the increase in the motorway profile is due to the improved data and the newly opened road section.

**Comprehensive network: road infrastructure profile**

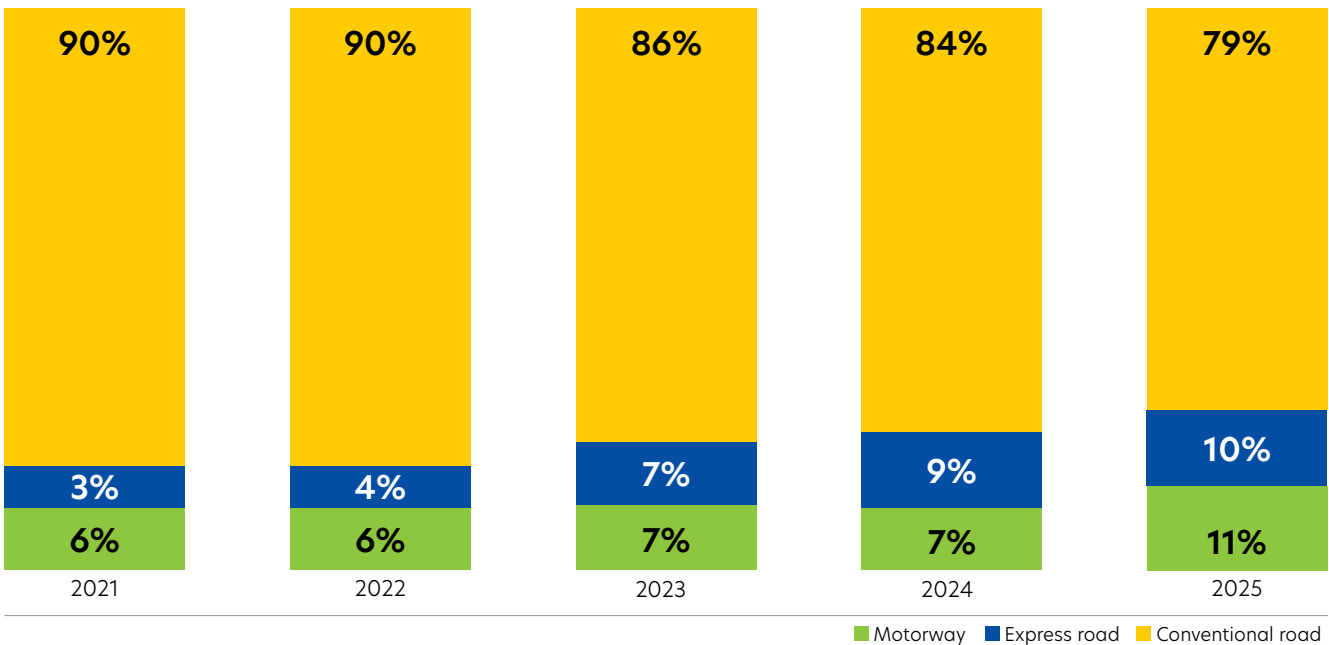


Figure 27. Comprehensive Road Network Profile 2021 - 2025

## Comprehensive network: road infrastructure condition

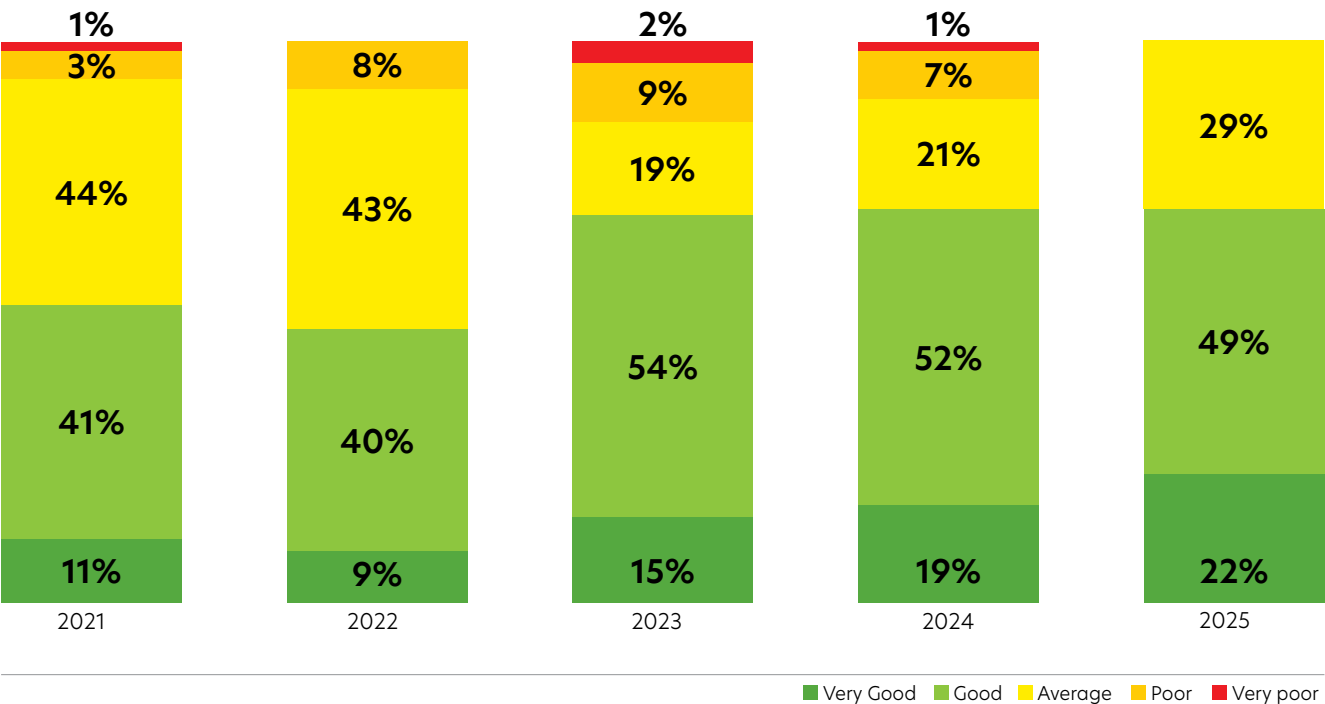


Figure 28. Comprehensive Road Network Condition 2021 - 2025

## TEN-T Comprehensive Network Compliance rate

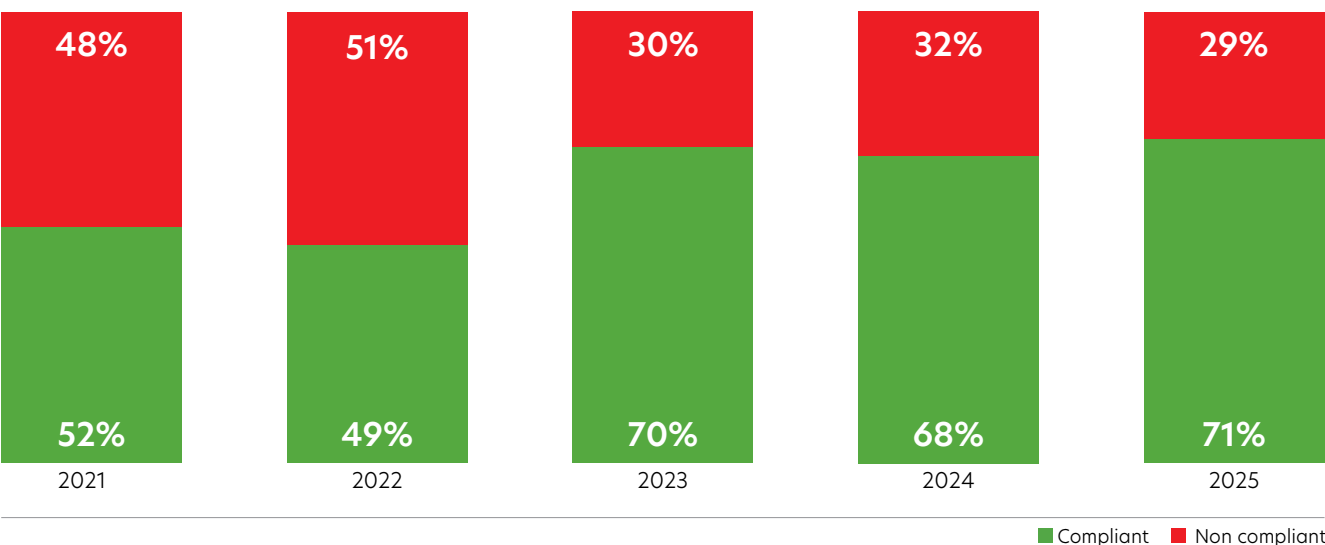


Figure 29. Comprehensive Road Network Compliance 2021 - 2025

Between 2024 and 2025, the road network shows both improvements and areas requiring further attention. The overall condition improved in the “very good” category, which increased from 15% in 2023 to 19% in 2024 and 21.8% in 2025, highlighting an upgrade in road quality. The “good” category slightly decreased from 54% in 2023 to 49% in 2025, while the “medium/poor/very poor” category saw a modest increase from 19% to 29.2% in 2025.

Broke down by road type, motorways increased, from 7% in 2023 to 10.6% in 2025, while there are 9.7% of expressways and 79.7% of conventional roads. There is a need for targeted improvements to maintain a higher level of quality.

## b) ITS Deployment

The requirement for ITS Deployment on the Comprehensive Network are the same as for the Core network described earlier. The source of data remains the same, CONNECTA study and the latest update.

Deployment of ITS on the indicative extension of the Core and Comprehensive Road Network to the Western Balkans is as per the table below:

Regional Partners	ITS Deployed	
	Length (km)	Traffic Control Centre
Albania	200 Ongoing	Yes
Bosnia and Herzegovina	224.3	Yes
North Macedonia	Tender ongoing for Corridor X	No
Kosovo	-	Design ongoing
Montenegro	55	Yes
Serbia	944.56	Yes

Table 3. Deployment of ITS in Regional Partners

## g) Rest areas and safe & secure parking areas

The indicator for rest areas measures the availability of rest areas along the core road network, requiring that they be located at intervals not exceeding 60 km and equipped with sufficient safe parking and appropriate facilities, in line with Article 31(3)(a) of Regulation (EU) 2024/1679. Compliance is calculated by mapping the actual spacing of rest areas on each core network section, verifying the presence of parking capacity and facilities, and determining the share of the network that meets the 60km requirement against the total length of the core road network.

On this KPI, the TCT Secretariat is planning to undertake a study that will deliver an inventory of rest areas and SSTPAs along the TEN-T network (including border cross points) in the Western Balkans. It is supporting implementation of 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.

Due to lack of data, we will be able to monitor and populate TODIS with these data only after the completion of this study as mentioned above.

## c) Weigh-in-motion

This indicator measures the deployment of weigh-in-motion (WIM) systems on the road network, which are required to be installed on average every 300 kilometres, with a focus on high-freight traffic sections, in accordance with Article 31(3)(b) for the core network. Compliance is calculated by mapping all WIM installations along the network, determining the average distance between consecutive systems, and comparing this with the 300 km benchmark.

As the methodology for WIM deployment is focused on high-freight corridors, the focus of this report is only on Core network. As such, the progress in the future will be measured against the respective deadlines such as 2050 for the comprehensive network.

Due to lack of data, assessment for this KPI will not form part of this Report.

**d) Minimum universal traffic info (road-safety events)**

This indicator similarly monitors the deployment and use of systems to detect safety-related events and conditions, and to collect data for minimum universal traffic information along the comprehensive network, in line with Article 30(3)(a)-(b) of Regulation (EU) 2024/1679.

Compliance is assessed through self-reporting by each Regional Partner, providing information on the detection systems deployed. Deadlines are set at 31 December 2030 for existing comprehensive network sections, and 31 December 2050 (or upon completion of new infrastructure) for newly constructed or upgraded sections.

Due to lack of data, assessment for this KPI will not form part of this Report.

**Overall compliance assessment**

Conclusions on each compliance criterion are given below.

**a) Infrastructure profile and condition**

Overall information on the TEN-T Road Network infrastructure profile and condition is given in the following charts:

**TEN-T Road Network: road infrastructure conditions**

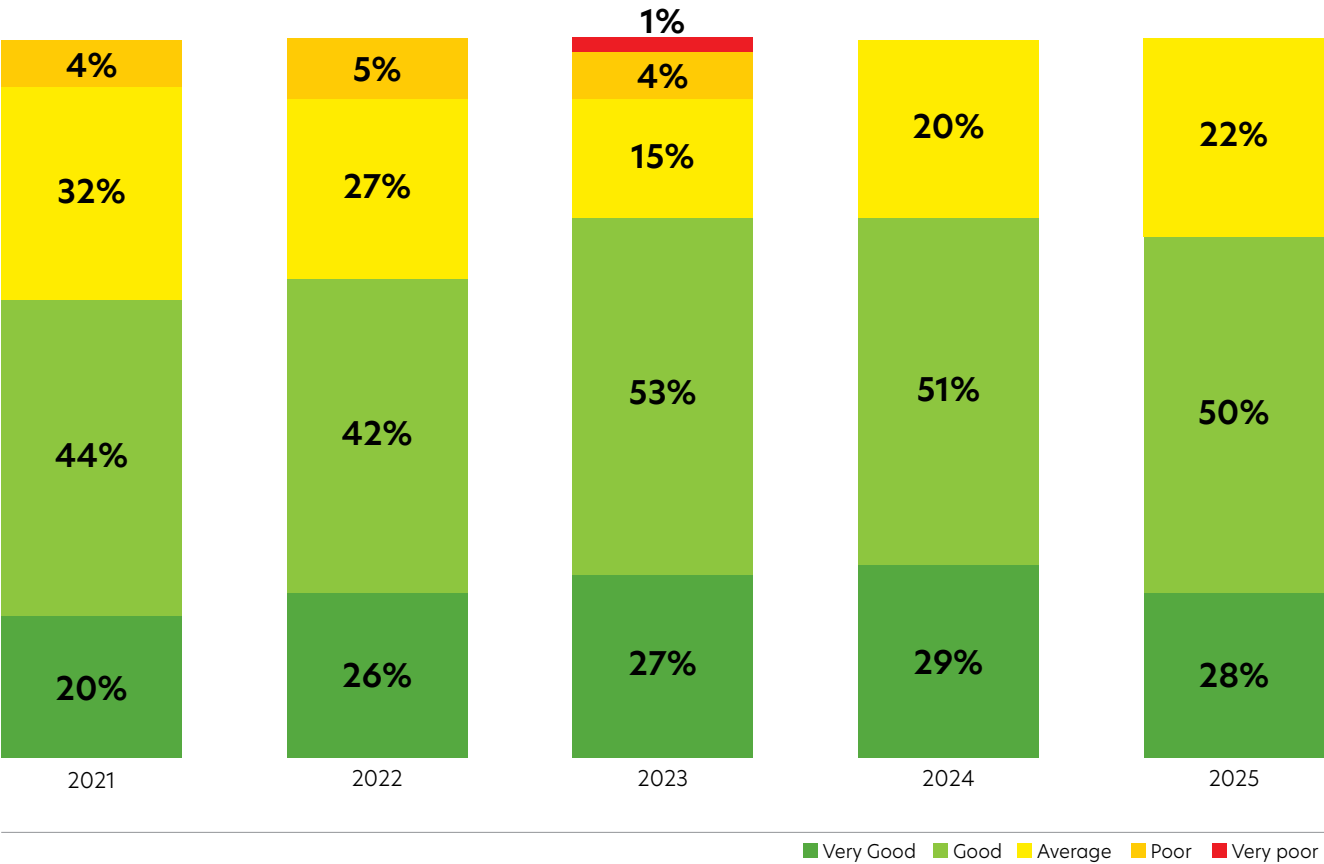


Figure 30. TEN-T Road Network Infrastructure Condition 2021 - 2025

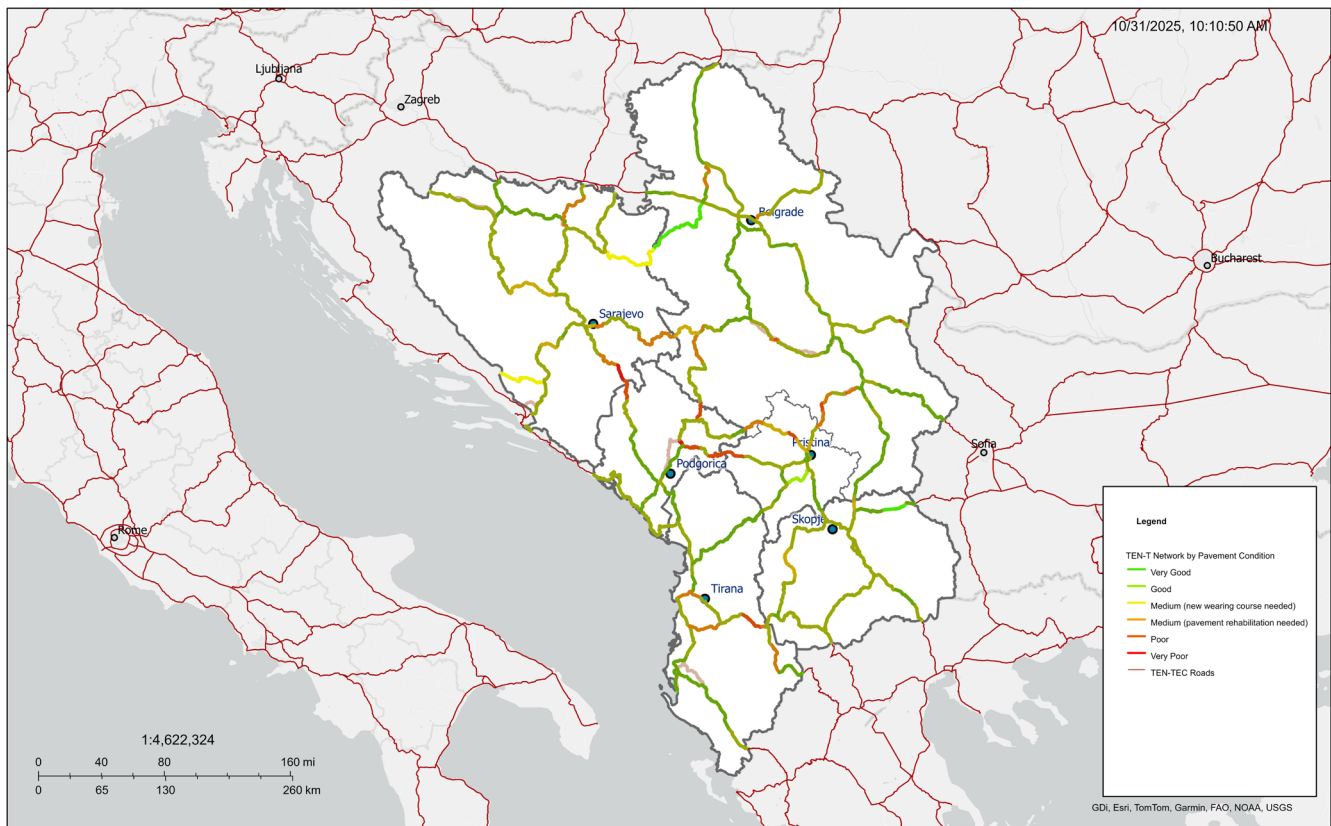


Figure 31. Road network condition map

## TEN-T Road Network: road infrastructure profile

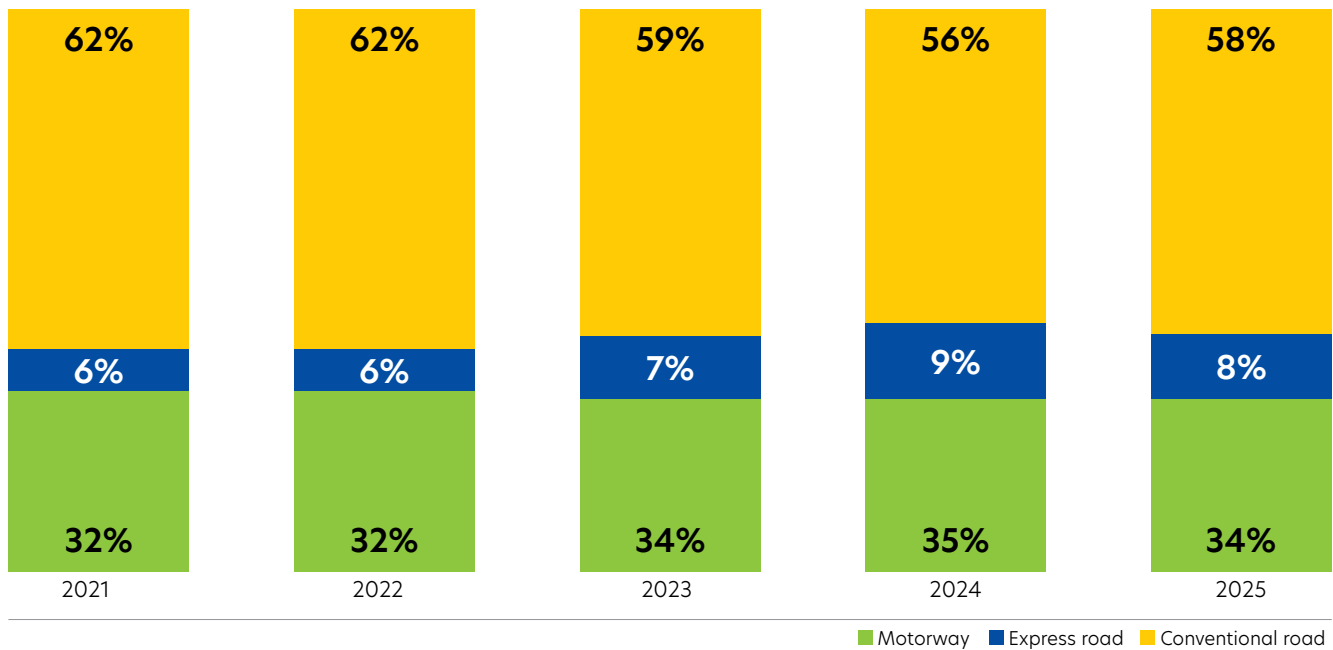


Figure 32. TEN-T Road Network Infrastructure Profile 2021 – 2025

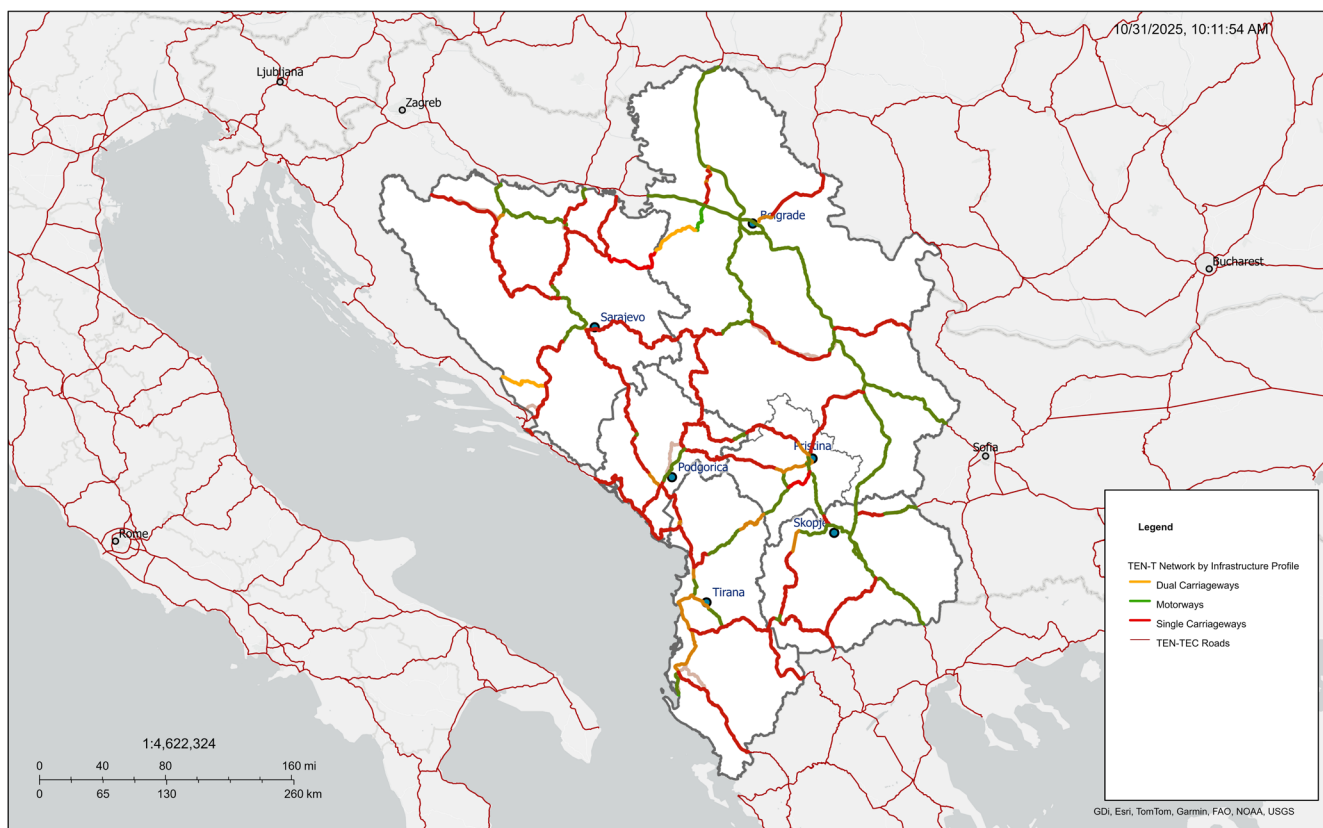


Figure 33. Road infrastructure profile map

## TEN-T Road network - 2030 compliance forecast

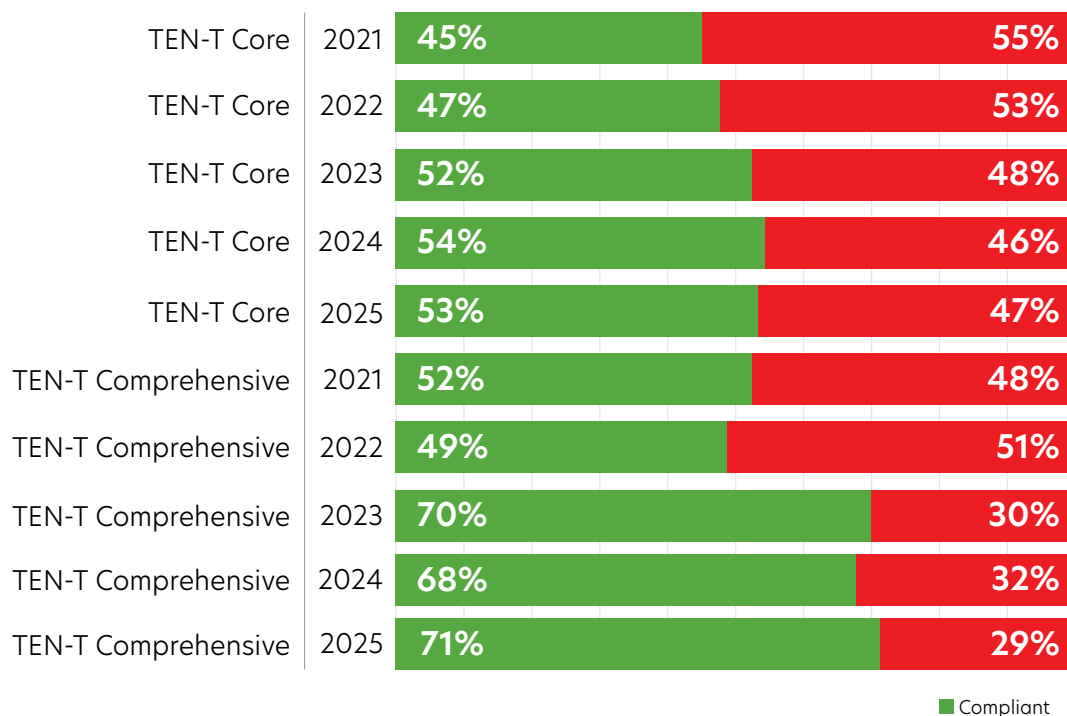


Figure 34. Core and Comprehensive Compliance Rate (infrastructure and profile) 2021 - 2025

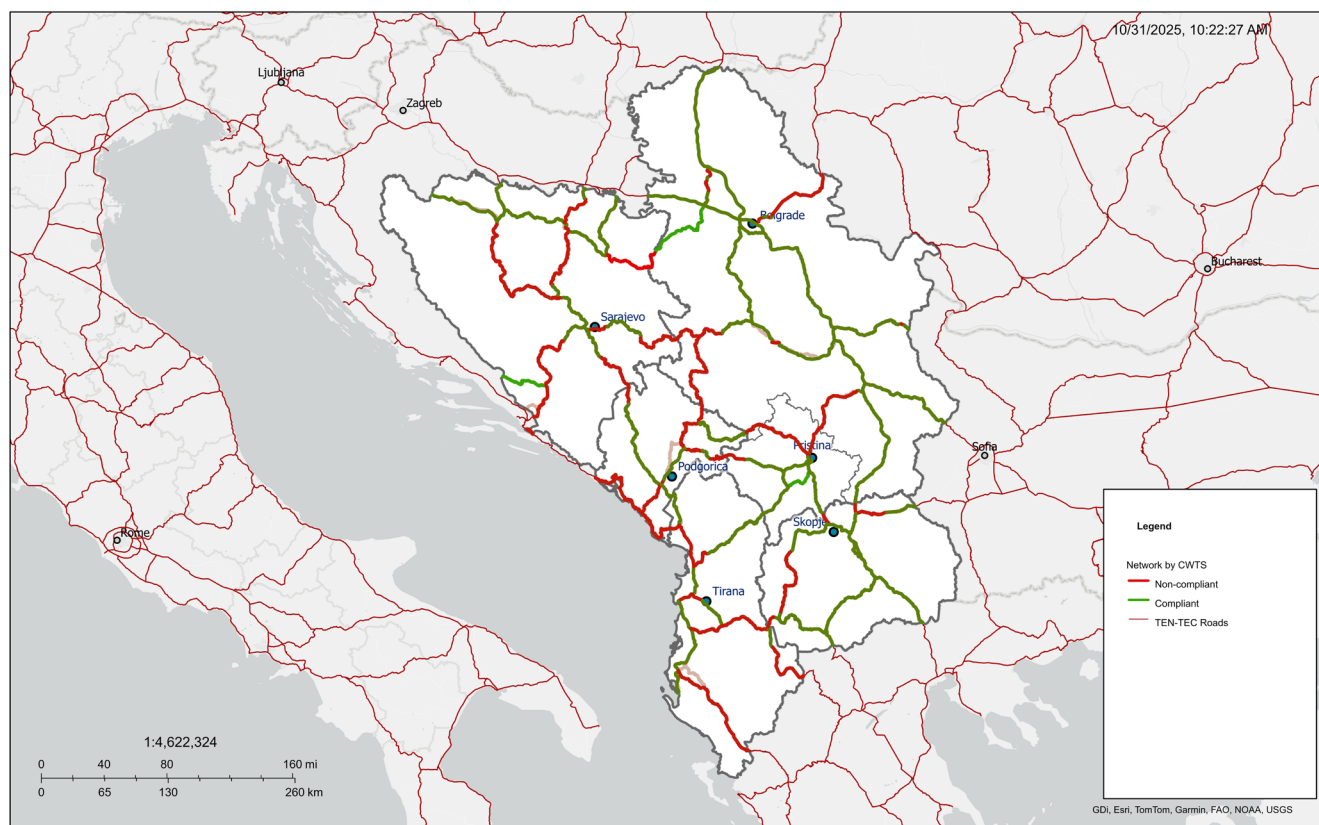


Figure 35. Road network compliance map

TEN-T compliance in the road sector has increased substantially on both the Core and the Comprehensive Network. This might reflect, to some extent the completion of ongoing projects. It should also be noted that almost none of the regional partners conduct annual road surface quality surveys, meaning that annual TEN-T Reports might not provide real-time updates on changes on the ground.

## 4.3 Waterborne network

The TEN-T Regulation encompasses waterborne transport as integral components of the Core network in the **Rhine-Danube Corridor**, emphasising the development and alignment of transport infrastructure in the Western Balkans with broader European standards. This region's strategic network of inland waterways, include the Danube, Sava, and Tisa Rivers, and key inland waterway ports.

Core network seaports Bar in Montenegro and Durrës in Albania and Comprehensive Port of Vlora are a part of the Western Balkan - Eastern Mediterranean Corridor and enhance transport and multimodal connectivity in the region. Together, these routes serve as essential links within the extended Core and Comprehensive Network, supporting whole logistics and sustainable transport solutions in alignment with European Union objectives.

### → Primary infrastructure characteristics and physical state

#### Inland Waterway Network

As part of the **Indicative Extension of the TEN-T Core Network** includes important rivers such as the Danube, the Sava and Tisa Rivers, a vital segment of the **Rhine-Danube Corridor**.

In the Region, the Danube flows through Serbia, entering from Hungary at river kilometre (rkm) 1,433 and exiting at the Bulgarian border near the confluence with the Timok River at rkm 845. There are two shared stretches along the river: a **137 km** section with Croatia (between km 1,433 and km 1,295) and a **229.5 km** stretch with Romania (between rkm 1,075 and rkm 845).

The river Sava, a major tributary of the Danube, connects with it in Belgrade having covered a total length of 944 km from its source in western Slovenia. It passes through **Croatia, Bosnia and Herzegovina, and Serbia**, serving as a critical international waterway. The Sava forms a natural border between **Bosnia and Herzegovina and Serbia** for approximately 27 km and between **Bosnia and Herzegovina and Croatia** for around 305 km. Additionally, Serbia and Croatia manage individual stretches of the river, with Serbia responsible for 175 km and Croatia for 72 km, extending to the city of Sisak.

In 2004, a **Framework Agreement on the Sava River Basin** was signed by **Slovenia, Croatia, Bosnia and Herzegovina, and Serbia**, becoming operational in 2006. This agreement governs the river's management, aiming to promote sustainable navigation, water use, and flood protection.

Within Serbia, the Sava flows from rkm 0 to rkm 210.6, while in Bosnia and Herzegovina, it runs from rkm 175 to rkm 507.4.

The Tisa enters in Serbia from Hungary near the city of **Szeged** at rkm 164 and flows to its confluence with the **Danube** at **Stari Slankamen** in **Vojvodina** at rkm 0. The 164 km Serbian stretch of Tisa- plays a vital role in the region's inland waterway network, enhancing connectivity and supporting regional trade and transport.

#### Inland Waterway Ports

The **Core Indicative Extension** of the **TEN-T Network** incorporates several important inland waterway ports:

**The Port of Brčko** is located in the northeastern part of Bosnia and Herzegovina, on the right bank of the Sava River waterway at rkm 221-224. It is connected to the European railway network by the Tuzla-Vinkovci road and rail network.

**The Port of Bosanski Šamac** was founded in 1979, on the right bank of the Sava River, exactly 305 kilometres from Belgrade. It is connected by road and the Šamac-Doboj-Sarajevo-Mostar-Ploče rail line to the Adriatic Sea. The port is near the future Corridor 5C and the Danube-Sava canal from Vukovar to Šamac.

**The Port of Novi Sad** is located in the city of Novi Sad on the left bank of the Danube at rkm 1,254 km and at the terminus of the Danube-Tisa-Danube Canal. Here the intersection of river Corridor VII and the land Corridor X forms a hub for international communication and transport. The strength of the location of this port is not only geographical: It also has transport links, only 0.3 km from railway Corridor X and 3 km from land Corridor X.

**The Port of Belgrade** is a cargo and passenger port on the Danube River in Belgrade, Serbia. The port is located in the centre of Belgrade, near the Pančevo Bridge. It also manages a passenger terminal on the nearby Sava River.

**The Port of Pančevo**, located at rkm 1,153 of the Danube. It is operated by four companies. The port handles various types of cargo: bulk, general cargo, bags, and pallets, with a capacity of 600-800 tons per day.

The **Comprehensive Indicative Extension** of the **TEN-T Network** incorporates several important inland waterway ports:

**The Port of Sremska Mitrovica**, located in the eastern industrial zone of Sremska Mitrovica, on the left bank of the Sava, 133 km from Belgrade. The terminal is a basin-type port with a water area of 1 hectare and a depth ranging from 2.5 to 7 metres. The quay has a total length of 100 metres, and 3,100 metres of operational railway tracks are connected to the national railway network.

**The Ports of Smederevo**, located along the Danube, from rkm 1,111 to 1,116, beside the M-24 road and the Belgrade-Nis highway. The port processes Iron & Steel, general cargo, oil and oil derivatives.

**The Port of Prahovo** is located on the Danube River, at the border of Serbia, Romania, and Bulgaria. It is an important international logistics hub. The port has a transshipment capacity of over 1.5 million tonnes per year and handles various types of cargo and processes different types of cargo including oil.

## Maritime Ports

The maritime ports to the extended **TEN-T Core Network** are:

**Ports of Bar** is the largest port in Montenegro and is based in the city of Bar. It has five terminals for Dry Bulk cargo, Liquid Cargo, Ro-Ro and general cargo, Passenger Terminal and a container terminal. This port is characterised for aquarism and has depths of up to 14 metres allowing for the accommodation of large ships.

**Port of Durrës** is the largest port in Albania handling almost 80% of the country's cargo transport and 70% of the marine passengers. Durrës has four Terminals: a Passenger Terminal, a Container Terminal, a general cargo and a bulk cargo terminal. In 2024 the Albanian Government extended its authority to two oil terminals at Porto Romano. At present the port is known as the Port of Durrës and Porto Romano.

The only maritime port in the **TEN-T Comprehensive Network** is the **Port of Vlora** on southern Albania's Adriatic coast. Though smaller in scale than Bar or Durrës, Vlora is an important port in Albania's maritime sector, with significant potential for future development and further support to regional maritime transport.

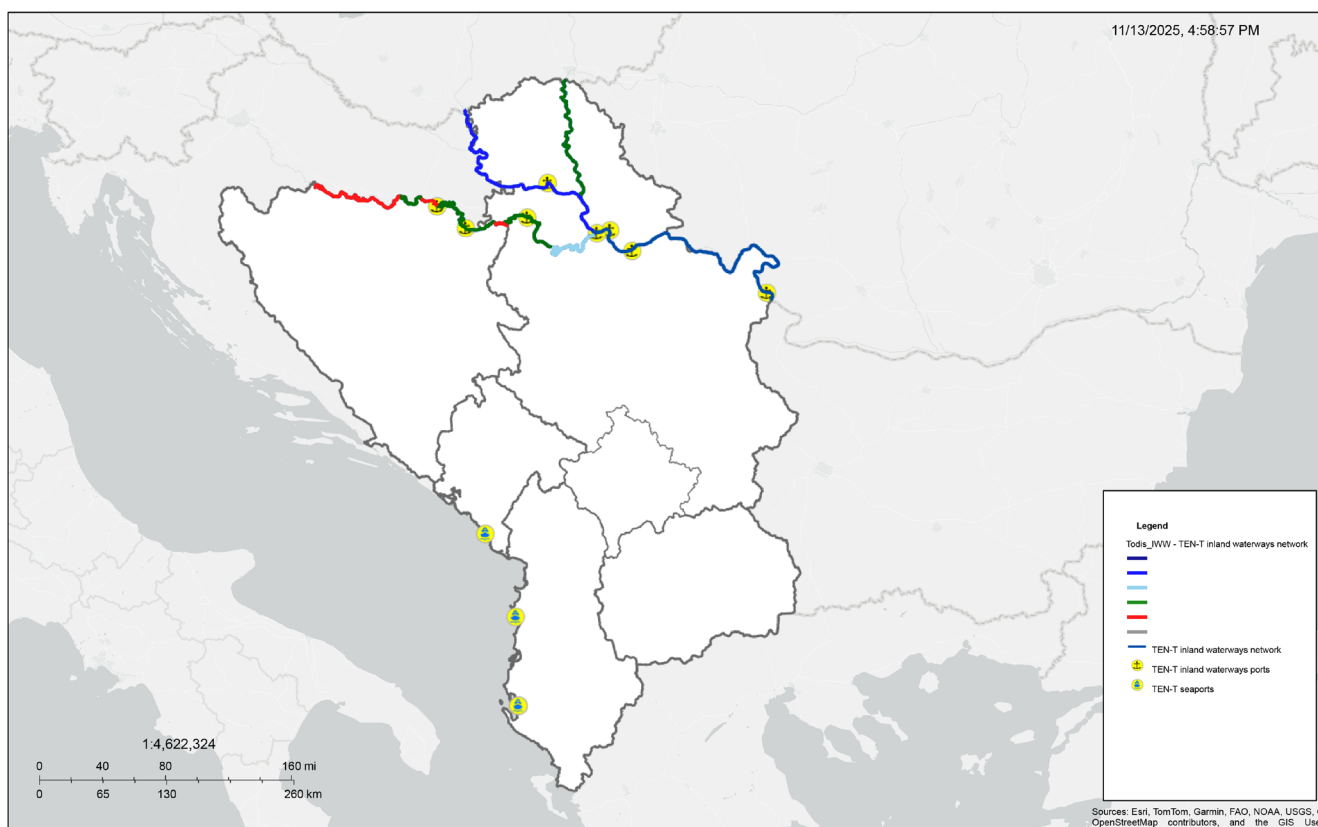


Figure 36. Map of Inland Waterways Network, Ports and Seaports

## → Compliance indicators for Waterborne Transport

### Compliance indicators for Inland Waterway Networks

The compliance indicators for inland waterway networks are derived from the TEN-T Regulation, which list them as infrastructure requirements.

The TEN-T Regulation requires that “Good Navigation Status” must be achieved by 31 December 2030 according to article 23 of the Regulation, while respecting the applicable environmental law.

Good Navigation Status was defined in 2018 as part of the “Study on support measures for implementation of the TEN-T Core Network related to seaports, inland ports and inland waterway transport”, commissioned by the European Commission, DG MOVE, resulting in “Guidelines towards achieving Good Navigation Status”. The definition was as follows:

**“Good Navigation Status** means the state of the inland navigation transport network, which enables efficient, reliable and safe navigation for users by ensuring minimum waterway parameter values and levels of service”

Apart from the physical waterway infrastructure, Good Navigation Status must be considered in the wider socio-economic remit of waterway management. Thus, to achieve and maintain Good Navigation Status, the physical infrastructure and components related to management aspects of infrastructure and traffic must be considered.

Indicators for the physical waterway infrastructure components are measurable parameters which describe the physical dimensions of the navigation channel in rivers, canals and lakes (e.g. depth) and of locks, ship lifts and bridges, as well as their availability over time (e.g. closures).

Components relate to infrastructure management maintenance and traffic (e.g. River Information Services - RIS), as well as the availability of facilities along waterways and in ports (e.g. mooring places, waste disposal facilities) which contribute to the Level of Service on and along the waterways.

However, in this report we will be focusing on the Recommended Minimum Levels of Service mentioned in article 23 of the TEN-T Regulation:

- (a) Maintain a navigable channel with a depth of at least 2.5 m and a minimum height under non-openable bridges of at least 5.25 m at specified reference water levels, which are exceeded by a defined number of days per year on a statistical average.
- (b) Publish on a website the number of days per year during which the actual water level exceeds or does not achieve the specified reference water level for navigation channel depth, as well as the average waiting times at each lock.
- (c) Ensure that locks are operated and maintained in such a way that waiting times are minimised; and
- (d) Ensure that rivers, canals, lakes and lagoons are equipped with RIS to guarantee real-time information to users across borders.

## Danube River

The Danube River flows for 587.6 km through Serbia or 20.6% of it's total length, entering Serbia from Hungary at km 1433 and exiting at the Bulgarian border at km 845. There are two joint segments along this route: 229.5 km shared with Romania and 137 km with Croatia. At km 863, the Iron Gate II dam is located.

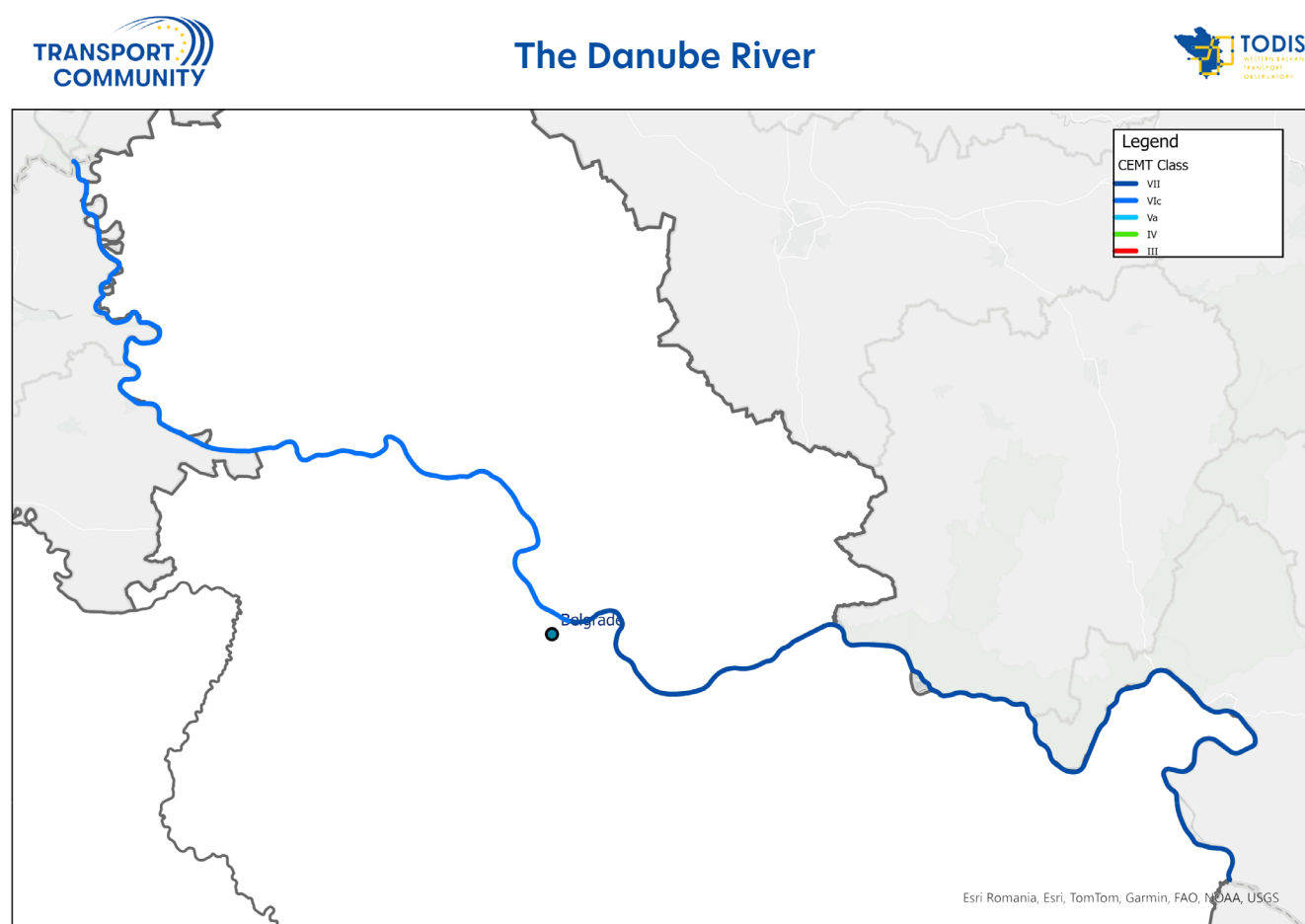


Figure 37. Map of the Danube River and the Status of Good Navigation

The Danube River demonstrates a high level of compliance with the Recommended Minimum Levels of Service set out in Article 23 of the TEN-T Regulation. The river maintains the required fairway depth of 2.5 m and bridge clearance of 5.25 m, while both locks have been modernised to improve operational efficiency and minimise waiting times. River Information Services (RIS) are fully implemented, ensuring real-time cross-border information exchange. However, the publication of data on water level variations and lock waiting times remains pending, resulting in an overall implementation level of around 75%.

River	Minimum Class IV	Publication on a website	Locks operated & maintained	RIS
Danube	Yes	No	Yes	Yes

Table 4: Compliance indicators for Danube River

The Recommended Minimum Levels of Service for the Danube River, as outlined in Article 23 of the TEN-T Regulation, are presented below:

1. Maintain a navigable channel (depth at least 2,5 m and bridges of at least 5,25m)

According to reports from regional partners, the navigational status of the Danube River, as per the **Classification of European Inland Waterways** (a set of standards governing the interoperability of large navigable waterways within the Trans-European Inland Waterway network, established by the European Conference of Ministers of Transport), is as follows:

The segment from the confluence the **Timok River (km 845) to Belgrade (km 1170)** meets the criteria for **CEMT Class VII**, the highest class, with a draught of up to 4.5 metres and a minimum bridge clearance of 9.1 metres.

The segment from **Belgrade (km 1170) to Bezdan (km 1433)** qualifies as **CEMT Class VIc**, offering the same draught and minimum bridge clearance as Class VII. However, the maximum length of pushed convoys is restricted to 200 metres, compared to 285 metres for Class VII.

It is important to note that the Danube currently contains 24 critical sectors for navigation. During the summer months, low precipitation causes water levels to drop below the required 2.5-metre depth in several sections, prompting dredging operations by Serbian authorities to maintain navigability. These seasonal fluctuations underscore the vulnerability of the region's waterways to climate change, highlighting the need for continued investment in resilient infrastructure and innovative mitigation measures.

The most critical location in terms of fairway depth and width remains Futog, though conditions there have stabilised compared to previous years. Conversely, the Preliv sector has emerged as the most critical point for navigation since autumn 2024. Additionally, Apatin faces growing challenges, as the number of days with water levels at or above the Low Navigable Water Level (LNWL) has notably decreased in recent years, further constraining navigability.

2. **Publication on a website** of the number of days per year during which the actual water level exceeds or does not achieve the specified reference water level for navigation channel depth, as well as the average waiting times at each lock.

The requirement to publish, on a publicly accessible website, the number of days per year during which the actual water level exceeds or does not achieve the specified reference water level for the navigation channel depth, as well as the average waiting times at each lock, is not yet fulfilled in the region.

Currently, no central or national platforms provide this information in an open and standardised format accessible to the public. While some data are collected by hydrological and navigation authorities for internal use, these datasets are not yet integrated into publicly available information systems or linked to River Information Services (RIS) platforms.

### 3. Locks are operated and maintained to minimise the waiting times

The Danube River section within Serbia is equipped with two major locks located at Iron Gate I (Đerdap I) and Iron Gate II (Đerdap II), which play a crucial role in ensuring uninterrupted navigation along this part of the TEN-T Core Inland Waterway Network.

The **Iron Gate I** Hydroelectric Power Station and lock complex, one of the largest on the Danube, underwent a comprehensive modernisation programme launched in 2008 and completed in December 2023. The project focused on the refurbishment of turbine units 4 to 6, increasing the nominal capacity of each from 174 MW to 201 MW and enhancing the reliability of both energy generation and navigation infrastructure. As part of these works, the lock's operational efficiency, safety systems, and maintenance regimes were improved, contributing to the minimisation of vessel waiting times and the overall optimisation of transit through this strategic point.

Similarly, the **Iron Gate II** Hydroelectric Power Station and navigation lock, located at rkm 853, underwent a modernisation project valued at EUR 31 million, co-financed by the European Investment Bank (EIB), the Connecting Europe Facility (CEF), and the national budget. Initiated in 2018 and successfully completed in July 2024, the project aimed to enhance navigational reliability, reduce congestion, and ensure compliance with EU standards on lock operation and safety.

With both locks now modernised, operational procedures and maintenance schedules are implemented to minimise downtime and optimise vessel traffic management. These upgrades significantly contribute to improving the navigability, efficiency, and reliability of the Danube, aligning with TEN-T key performance indicators related to lock operation and maintenance.

### 4. Rivers, canals, lakes and lagoons are **equipped with RIS**.

According to reports from regional partners, the Danube River is equipped with River Information Services (RIS), ensuring harmonised information exchange and navigational safety in accordance with the requirements of Directive 2005/44/EC on harmonised River Information Services on inland waterways in the Community.

The implementation of RIS along the Danube enables the provision of real-time and interoperable information services to all waterway users, including data on vessel positions, fairway conditions, traffic management, and cargo information. This contributes to improved safety, environmental performance, and efficiency of inland waterway transport, while facilitating integration with multimodal logistics chains.

In December 2023, the project "Implementation of VTS and Voice VHF Systems on the Danube and Sava Rivers in the Republic of Serbia" was successfully completed. The project, with a total value of EUR 5.8 million, was co-financed through national and EU funds. Its implementation ensures full interoperability between the national RIS infrastructure and regional RIS systems along the Danube and the Sava.

The project established a modern Vessel Traffic Service (VTS) integrated with RIS components, providing continuous monitoring of vessel traffic, enhanced navigational safety, and improved communication between vessels and authorities through VHF voice systems. These upgrades represent a significant step towards aligning Serbia's inland waterway infrastructure with EU standards and enhancing cross-border data exchange within the Danube RIS Corridor.

The largest ports along the Danube in Serbia part of the TEN-T Network extension are the Ports of Novi Sad, Belgrade and Pancevo part of the Core TEN-T Network extension while the Ports of Smederevo and Prahovo are part of the Comprehensive TEN-T Network.

### **Sava River**

The Sava River is navigable for larger vessels along a 593.8 km stretch between its confluence with the Danube in Belgrade, Serbia, and the Galdovo Bridge in Sisak, Croatia, 2.8 km upstream from the confluence of the Sava and Kupa rivers.

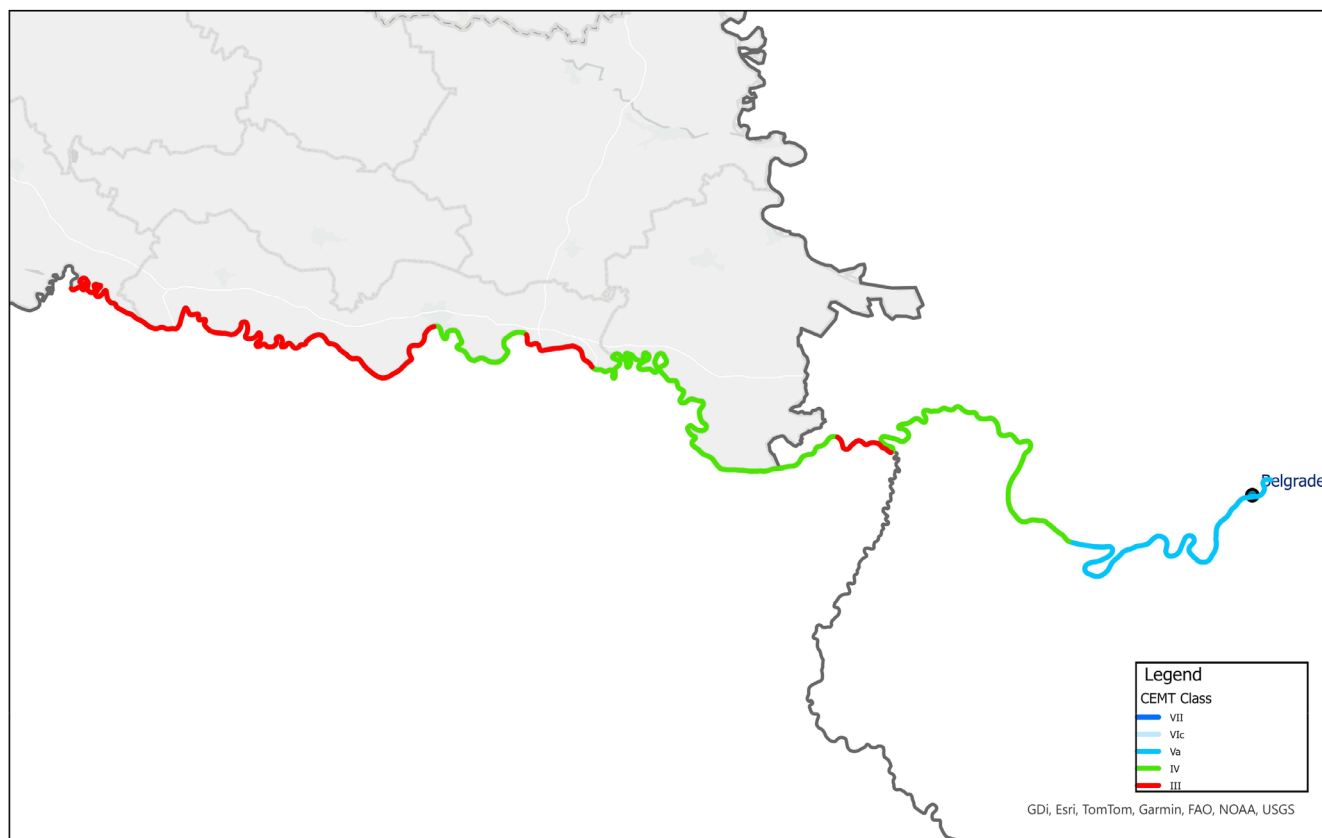


Figure 38. Map of Sava River and the Status of Good Navigation

The Sava River partially meets the Recommended Minimum Levels of Service, with a navigable channel maintained along approximately 55% of its length and River Information Services (RIS) implemented on about 39%, mainly within the Serbian section. Since there are no locks on the Sava, the related requirement is not applicable, while the publication of data on water level variations remains unimplemented. Overall, the implementation level across all indicators is estimated at around 31%, underscoring the need for continued investments to enhance navigability, digitalisation, and monitoring capacities.

River	Minimum Class IV	Publication on a website	Locks operated & maintained	RIS
Sava	Partly	N/A	N/A	Partly

Table 5: Compliance indicators for Sava River

The Recommended Minimum Levels of Service for the Sava River, as outlined in Article 23 of the TEN-T Regulation, are as follows:

1. Maintain a navigable channel with **depth of at least 2.5 m** and a minimum height under non-openable **bridges of at least 5.25 m** at specified reference water levels, which are exceeded by a defined number of days per year on a statistical average.
  - Between the mouth of the Sava (km 0) and Kamičak (km 81), the river is classified as **Class Va**, allowing navigation by vessels with a maximum length of 95-100 metres, a beam of up to 11.4 metres, a draught of 2.8 metres, and a tonnage of up to 3,000 tonnes.
  - The segment between Kamičak (km 81) and Rača (km 176) qualifies as **Class IV**, suitable for vessels up to 80-85 metres in length, with a beam of 9.5 meters, a draught of 2.5 metres, a tonnage of up to 1,500 tonnes, and a minimum bridge clearance of 5.25 metres.
  - The segment between Rača (km 176) and Domuskela (km 196) is classified as **Class III**, making navigation difficult along this part of the river.

- The segment from Domuskela (km 196) to Šamac (km 313.7) returns to **Class IV**.
- The stretch between Šamac (km 313.7) and Rit Kanal (km 338.2) is classified as **Class III**, posing significant challenges for year-round navigability for larger vessels and limiting the Sava's potential as a fully functional inland waterway within the Core Network.
- The segment from Rit Kanal (km 338.2) to Brod (km 371.2) is classified as **Class IV**.
- Beyond Brod (km 371.2), the river reverts to Class III, making navigation almost impossible in this section.

According to reports only 326.7 rkm (55%) fulfil the requirements of Class IV with depth of at least 2.5 m and a minimum height under non-openable bridges of at least 5.25 m while the rest of the river does not fulfil the minimal depth criteria.

The largest ports along the Sava River part of the TEN-T Network extension are the port of Brčko and Šamac in Bosnia-Herzegovina, the port of Sremska Mitrovica in Serbia, and Sisak and Slavonski Brod in Croatia.

However, the current situation on the Sava is even more challenging due to low rainfall and occasional flooding. According to reports from the **International Sava Basin Commission** and the river authorities in Croatia, Serbia, and Bosnia and Herzegovina, **31 critical sections** along the river require immediate attention to restore navigability.

## Critical sectors at the Sava River joint section between Croatia and Bosnia and Herzegovina

No	Name of the Sector	Section (rkm)		Length of the section
		from	to	
1	Košutarica	506,3	506,6	0,3
2	Košutarica-Bročine*	500,6	501,0	0,4
3	Mlaka - Mala Ciperna	488,0	489,0	0,2
4	Gredani - Babin dol	478,0	480,0	2,0
5	Stara Gradiška	464,1	464,5	0,4
6	Savski Bok	453,3	454,6	1,3
7	Dolina*	445,3	449,8	4,5
8	Davor Mlature	428,7	430,2	1,5
9	Davor ušće Vrbasa*	426,2	427,2	1,0
10	Siče-Radinje	413,0	414,0	1,0
11	Dubočac	387,2	389,8	2,6
12	Migalovci*	379,3	383,7	4,4
13	Jaruge-Noví Grad*	320,5	329,0	8,5
14	Kruševica-Sitno*	316,5	317,5	1,0
15	Savulje Sl. Šamac*	310,0	313,7	3,7
16	Sl. Šamac - Vučjak*	304,2	309,0	4,8
17	B. Greda-Brezovica	295,5	296,1	0,6
18	Štitar-Staro Selo	274,5	275,3	0,8
19	Gunja*	215,9	227,5	11,6
20	Račinovci	210,8	212,7	1,9
<b>Total</b>				<b>42.5</b>

\*Particularly restricting sectors (note from the Agency for Inland Waterways - Croatia)

Table 6. Critical sectors in Sava River in Bosnia and Herzegovina

## Critical sectors on the Sava River section in Serbia

No	Name of the Sector	Section (rkm)		Length of the section
		from	to	
1	Confluence of the Drina River	177,0	184,0	7,0
2	Sremska Mitrovica	126,8	134,0	7,2
3	Klenak	106,0	112,6	6,6
4	Šabac	90,0	104,0	14,0
5	Kamičak	82,2	88,2	6,0
<b>Total</b>				<b>40.8</b>

Table 7. Critical Sectors in the Sava River section in Serbia

**Note:** The stretch from rkm 177 to rkm 178 of the critical sector Confluence of the Drina River is on the territory of the Republic of Serbia, while the remaining stretch from rkm 178 to rkm 184 is a joint sector between the Republic of Serbia and Bosnia and Herzegovina.

- (e) **Publication on a website** of the number of days per year during which the actual water level exceeds or does not achieve the specified reference water level for navigation channel depth, as well as the average waiting times at each lock.

Information on the number of days per year during which the actual water level exceeds or falls below the specified reference water level for navigation channel depth, as well as data on average waiting times at each lock, are currently not published on any publicly accessible website. This lack of publicly available data limits transparency and prevents stakeholders, such as operators and authorities, from effectively monitoring navigational conditions and lock performance. Establishing an open-access online platform to regularly publish this information would significantly improve operational planning, enhance safety, and align with the transparency objectives set out in the TEN-T Regulation.

- (f) Ensure that **locks are operated and maintained** in such a way that waiting times are minimised.

There are no locks on the Sava River, and therefore this indicator is not applicable to its inland waterway network. Navigation along the Sava is free-flowing, and vessel movement is not constrained by lock operations. However, maintaining adequate fairway parameters and ensuring effective river information services (RIS) remain essential to facilitate smooth traffic flow and minimise potential delays caused by hydrological or infrastructural conditions.

- (g) rivers, canals, lakes and lagoons are **equipped with RIS** to guarantee real-time information to users across borders.

According to reports from regional partners, only the 210.6 rkm (39%) section of the Sava River in Serbia is currently equipped with River Information Services (RIS), ensuring harmonised information exchange and navigational safety in accordance with the requirements of Directive 2005/44/EC on harmonised River Information Services on inland waterways in the Community.

The section of the Sava River in Bosnia and Herzegovina is not yet covered by RIS, which limits cross-border interoperability and continuity of information services along the entire river corridor.

Currently, Bosnia and Herzegovina maintains the fairway signalling system from rkm 343 to rkm 211 along both Bosnia and Herzegovina and Croatian riverbanks, and from rkm 211 to rkm 178 along the Bosnia and Herzegovina bank, based on the Agreement between the Government of the Republic of Croatia and the Council of Ministers of Bosnia and Herzegovina on Inland Waterways Navigation, Signalling, and Maintenance.

The implementation of RIS along the Sava River enables the provision of real-time and interoperable information services to all waterway users, including data on vessel positions, fairway conditions, traffic

management, and cargo information. This contributes to enhanced navigational safety, improved environmental performance, and greater efficiency of inland waterway transport, while facilitating integration with multimodal logistics chains in the region.

In December 2023, the project titled “Implementation of VTS and Voice VHF Systems on the Danube and Sava Rivers in the Republic of Serbia” was successfully completed. The project, with a total value of EUR 5.8 million, was co-financed through national and EU funds. Its implementation ensured full interoperability between the national and regional RIS systems operating along the Danube and Sava Rivers.

The project established a modern Vessel Traffic Service (VTS) integrated with RIS components, enabling continuous vessel traffic monitoring, enhanced navigational safety, and improved communication between vessels and competent authorities through VHF voice systems. These upgrades represent a significant step toward aligning Serbia’s inland waterway infrastructure with EU standards and strengthening cross-border data exchange and operational coordination within the Sava RIS Corridor.

## Rehabilitation of the Sava River Waterway

The Sava River waterway requires substantial rehabilitation, and reconstruction works to enable its full navigational potential and ensure safe and reliable transport conditions. These works represent a strategic priority within Bosnia and Herzegovina’s core transport network, as the Sava forms an integral part of the TEN-T Core Network Corridor.

Upon completion of the rehabilitation and harmonisation of the Sava fairway parameters with those of the Danube, regular maintenance activities will be established in accordance with the **Fairway Rehabilitation and Maintenance Master Plan**, applying the principles of monitoring, planning, execution, and information sharing, and incorporating best practices from the Danube region.

A critical challenge to the full rehabilitation of the Sava River is the presence of landmines along the right riverbank, where certain areas are confirmed as hazardous and others remain under assessment. In 2024, Bosnia and Herzegovina signed a **Financial Agreement with the World Bank** to secure a grant for demining the right bank of the Sava River. This demining process is an essential precondition for all subsequent infrastructure and waterway development projects aimed at re-establishing the Sava as a functional and safe inland waterway transport corridor.

In order to rehabilitate the Sava fairway, it is necessary to prepare a Study and Technical documentation for rehabilitation works. Documentation should include preparation of an Environmental and Social Impact Assessment Study (ESIA), an update of Preliminary design from a Feasibility study (FS prepared by the Sava Commission in 2008) and Main design.

## Tisa River

The Tisa River is a key waterway in Central and Eastern Europe and part of the extended TEN-T Core Network. In Serbia, the Tisa enters from Hungary near Szeged at river kilometre (rkm) 164 and flows to its confluence with the Danube at Stari Slankamen in Vojvodina (rkm 0). This 164 km stretch is vital for enhancing connectivity, supporting regional trade, and strengthening the functionality of the inland waterway network.

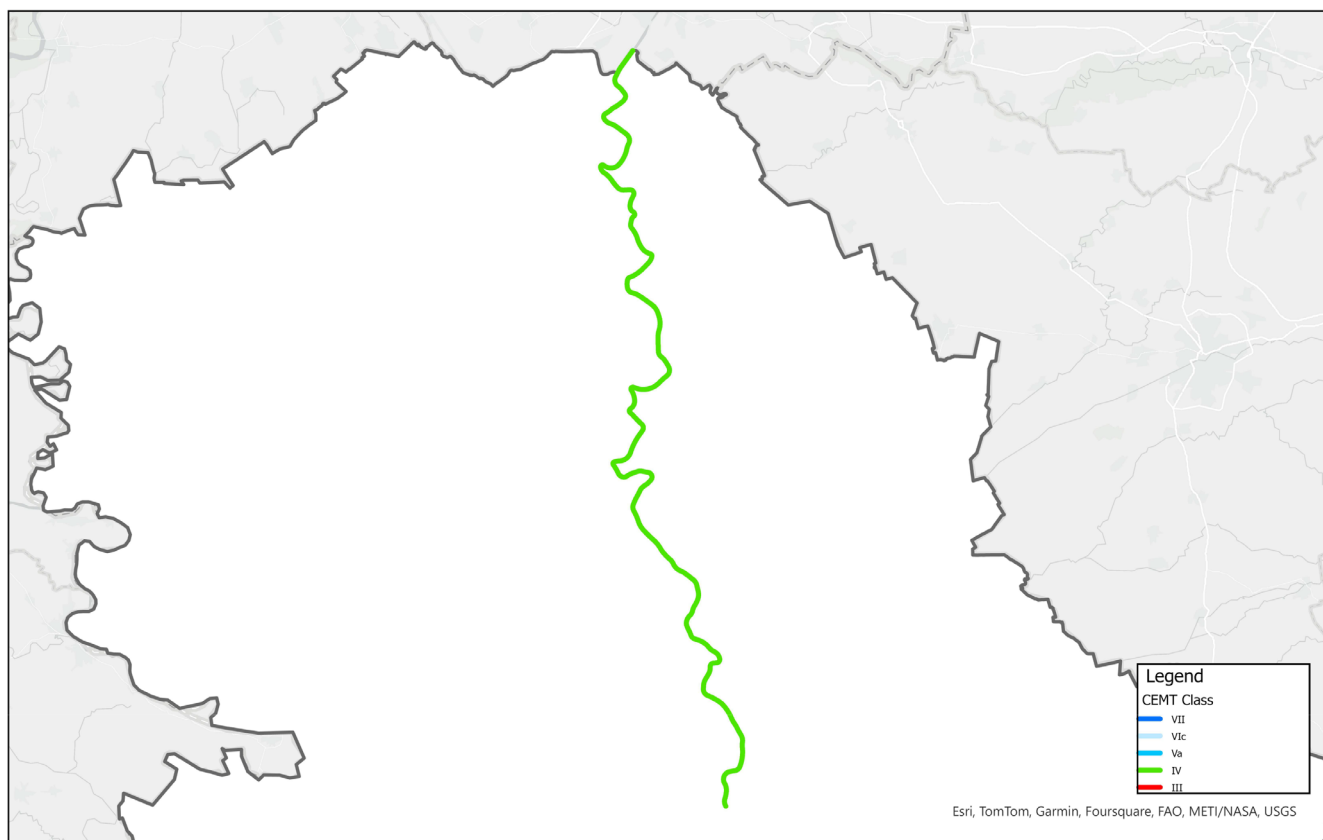


Figure 39. Map of Tisa River and the Status of Good Navigation

The current level of compliance with the TEN-T Key Performance Indicators for the Tisa River is estimated at around 25%, reflecting limited progress in achieving Good Navigation Status (GNS). At present, only the indicator related to maintaining a navigable channel with a minimum depth of 2.5 metres and a bridge clearance of at least 5.25 metres is fully met, ensuring basic navigability along the river's classified section. However, other key indicators—such as the implementation of River Information Services (RIS), the publication of data on water levels and lock waiting times, and the operation and maintenance of locks to minimise delays—remain unfulfilled.

River	Minimum Class IV	Publication on a website	Locks operated & maintained	RIS
Tisa	Yes	No	No	No

Table 8. Compliance indicators in Tisa River

The Recommended Minimum Levels of Service for the Tisa River, as outlined in Article 23 of the TEN-T Regulation, are given below:

- (a) Maintain a navigable channel with **depth of at least 2.5 m** and a minimum height under non-openable **bridges of at least 5.25 m** at specified reference water levels, which are exceeded by a defined number of days per year on a statistical average.

According to the Regulation on Categorisation of International and Interstate Waterways, the entire stretch of the Tisa River in Serbia (km 0-164) is classified as Class IV, which corresponds to fairway parameters that support vessels of medium size, including a minimum depth of 2.5 m and a minimum height under non-openable bridges of 5.25 m. Compliance with these parameters ensures safe and efficient navigation at the specified reference water levels, which are exceeded for a defined number of days per year on a statistical average. While the Tisa River meets these classification standards along its entire navigable stretch, ongoing monitoring and maintenance of the fairway are necessary to account for seasonal water level fluctuations, sedimentation, and other natural or operational factors that may temporarily affect navigability.

(b) **Publish on a website** the number of days per year during which the actual water level exceeds or does not achieve the specified reference water level for navigation channel depth, as well as the average waiting times at each lock.

Currently, information on the number of days per year during which actual water levels exceed or fall below the specified reference levels for navigation channel depth, as well as average waiting times at each lock, is not published on any publicly accessible website.

As a result, this requirement is not yet fulfilled, limiting the availability of essential operational data for shipping companies, port authorities, and other stakeholders. Regular publication of such data is crucial for planning navigation, optimising vessel scheduling, and ensuring safety, as it provides transparency on seasonal and operational fluctuations that may affect navigability. Establishing an accessible online reporting system would contribute to improved efficiency and compliance with TEN-T monitoring indicators, supporting better decision-making across the inland waterway network.

(c) Ensure that **locks are operated and maintained** in such a way that waiting times are minimized.

Currently, there are three locks on the Tisa River: Novi Bečej, Novi Bečej Dam, and Bečej. These locks are essential for regulating water levels and ensuring safe navigation along the river. To enhance operational efficiency, navigability, and service reliability, all three locks are planned for reconstruction and modernisation in the coming years.

In addition, Serbia is planning the construction of a new lock on the Tisa River, with an estimated total cost of EUR 62 million, co-financed equally by the European Investment Bank (EIB) and the Government of Serbia (50% each). This new infrastructure, together with the modernised existing locks, is expected to significantly reduce waiting times, improve the overall capacity of the waterway, and strengthen compliance with TEN-T requirements for inland waterway operations.

(d) Ensure that rivers, canals, lakes and lagoons are **equipped with RIS** to guarantee real-time information to users across borders.

Full compliance with River Information Services (RIS) requirements on the Tisa River has not yet been achieved.

Despite notable progress, the incomplete deployment of RIS continues to limit optimal traffic management, navigational safety, and efficient information exchange on this key inland waterway.

While significant advancements have been made in improving the inland waterway infrastructure across the region, addressing the remaining gaps—particularly in RIS interoperability and draught requirements—remains essential for ensuring seamless and safe transport operations in line with Directive 2005/44/EC and the TEN-T Regulation.

To improve the situation, the Republic of Serbia has initiated several key infrastructure projects within the existing European Investment Bank (EIB) financing framework for the development of river transport infrastructure:

One of the main initiatives is the establishment of a Vessel Traffic Service (VTS) and VHF radio-telephone system on the Tisa River, with a total project value of EUR 2 million, financed equally by the EIB and the national budget.

Another important intervention concerns the expansion of the AIS AtoNs system for navigational monitoring and electronic marking of the waterway on the Tisa River, also valued at EUR 2 million and financed under the same conditions.

These initiatives are crucial for advancing the full deployment of RIS on the Tisa River and ensuring real-time cross-border information exchange for users. In the long term, they will strengthen the reliability and efficiency of inland navigation, contribute to the integration of multimodal transport chains, and foster sustainable connectivity and economic growth across the Western Balkans, consistent with the strategic objectives of the Trans-European Transport Network (TEN-T) and the EU's green and digital transition goals.

## Compliance indicators for Inland Waterway Ports

Compliance indicators for inland waterway ports in the TEN-T network are:

- a. are connected with the road or rail infrastructure;
- b. offer at least one multimodal freight terminal open to all operators and users in a non-discriminatory way and which shall apply transparent and non-discriminatory charges;
- c. are equipped with facilities to improve the environmental performance of vessels in ports, which may include waste reception facilities, degassing facilities, noise reduction measures, as well as measures to reduce air and water pollution.
- d. Ensure that alternative fuels infrastructure is deployed in inland ports in accordance with Regulation (EU) 2023/1804.

### Status of compliance for Inland Ports part of the Core TEN-T Network Extension

Based on data received from regional partners, as of 2025, inland ports within the extended Core TEN-T Network demonstrate solid progress in meeting the TEN-T Key Performance Indicators for port infrastructure and connectivity. All ports comply with the requirements for road accessibility and the provision of multimodal freight terminals that are open to all operators and users on a transparent and non-discriminatory basis, ensuring fair access and supporting efficient logistics operations. However, compliance gaps remain in relation to rail connections, which are either missing or only partially implemented in certain ports, limiting the full potential for multimodal integration.

The most significant area of underperformance concerns the availability of alternative fuels infrastructure and environmental facilities. These indicators remain largely unfulfilled due to limited investments in shore-side electricity, LNG bunkering, and waste reception facilities.

A detailed compliance assessment for each inland waterway port is presented in the table and the chart below:

TEN-T Layer	Port name	Rail connection	Road connection	Alternative fuels availability	Multimodal Terminal availability	Environmental Facilities
Serbia	Belgrade	No	Yes	No	Yes	No
	Novi Sad	Yes	Yes	No	Yes	No
	Pančevo	Yes	Yes	No	Yes	No
Bosnia and Herzegovina	Brčko	Yes	Yes	No	Yes	No
	B. Samac	Yes	Yes	No	No	No

Table 9. Compliance assessment for inland waterway ports part of Core TEN-T Network

## Compliance assessment for the inland ports on the Core Network

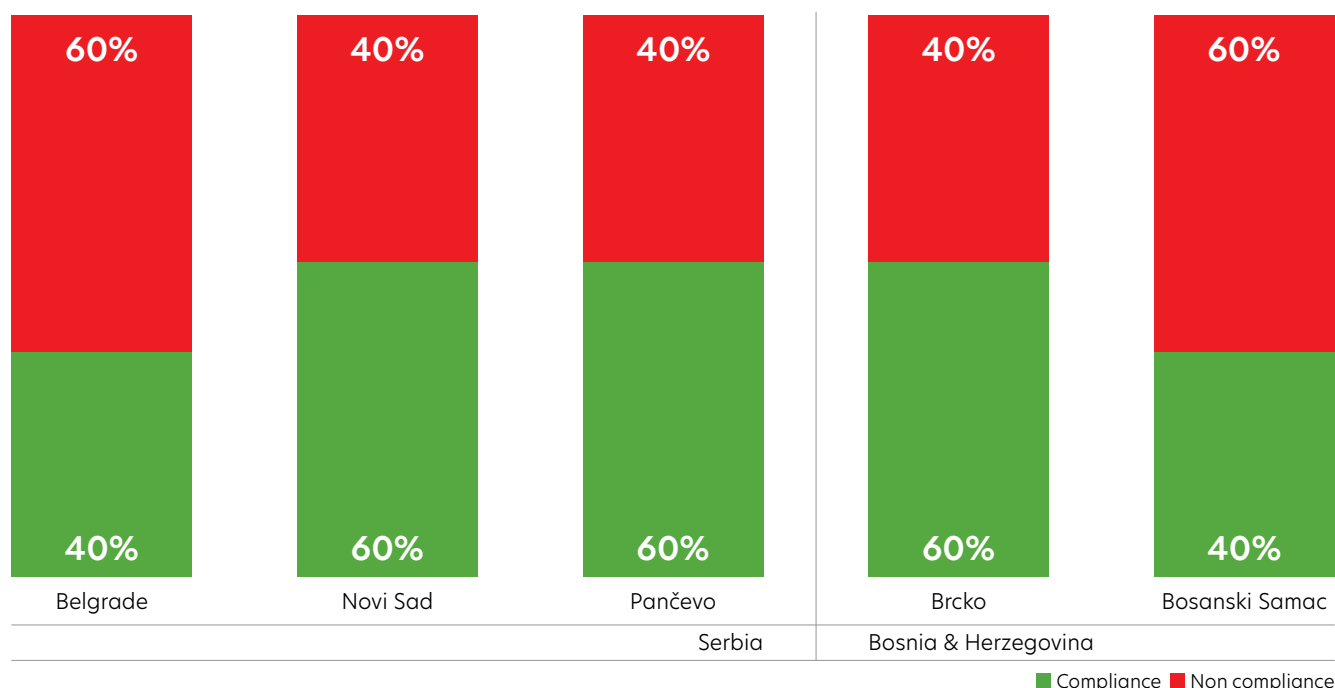


Figure 40. Compliance assessment for the inland ports on the Core Network

The following section provides a detailed explanation of the compliance status of each inland waterway port included in the indicative extension of the TEN-T Core Network:

### 1. Port of Belgrade

The Port of Belgrade in Serbia fully complies with the requirements regarding its connection to road infrastructure and provides at least one multimodal freight terminal accessible to all operators and users on a transparent and non-discriminatory basis.

However, the port is not compliant with the requirements for connection to rail infrastructure and lacks facilities aimed at improving the environmental performance of vessels including waste reception and degassing facilities, noise reduction measures, systems to reduce air and water pollution, and is not compliant with the deployment of alternative fuel infrastructure.

The Government of Serbia is currently considering the relocation of the existing port to a new site, as part of broader efforts to optimise urban development along the riverfront and enhance the port's operational efficiency. The decision aims to separate port-related industrial activities from the city's central area and to enable the development of the existing port zone for commercial and recreational purposes.

However, the process remains at the stage of inter-institutional discussions, as authorities are still assessing potential sites to identify the most suitable location in terms of navigability, accessibility, environmental impact, and integration within the national and TEN-T transport network.

### 2. Port of Novi Sad

The Port of Novi Sad in Serbia fully complies with the requirements regarding its connection to road and rail infrastructure and provides at least one multimodal freight terminal accessible to all operators and users on a transparent and non-discriminatory basis.

However, the port is not compliant with the requirements for facilities aimed at improving the environmental performance of vessels including waste reception and degassing facilities, noise reduction measures, systems to reduce air and water pollution, and is not compliant with the deployment of alternative fuel infrastructure.

### 3. Port of Pančevo

The Port of Pančevo in Serbia complies with the requirements regarding connection to road and rail infrastructure and provides at least one multimodal freight terminal accessible to all operators and users on a transparent and non-discriminatory basis.

However, the port is still missing compliance with the requirements for facilities to improve the environmental performance of vessels including waste reception and degassing facilities, noise reduction measures, systems to reduce air and water pollution, and is not compliant with the deployment of alternative fuel infrastructure.

### 4. Port of Brčko

The Port of Brčko in Bosnia and Herzegovina complies with the requirements regarding connection to road and rail infrastructure and provides at least one multimodal freight terminal accessible to all operators and users on a transparent and non-discriminatory basis.

However, the port is not compliant with the requirements for facilities aimed at improving the environmental performance of vessels including waste reception and degassing facilities, noise reduction measures, systems to reduce air and water pollution, and is not compliant with the deployment of alternative fuel infrastructure.

### 5. Port of Bosanski Samac

The Port of Šamac has undergone privatisation; however, there is currently no publicly available information regarding its ownership structure, operational status, or the condition of its infrastructure and facilities. It remains unclear whether the port is active and engaged in any cargo-handling or transport operations, which poses challenges in assessing its role and potential within the regional inland waterway network.

## Status of Compliance for Inland Ports part of the Comprehensive TEN-T Network Extension

As of 2025, inland ports within the Comprehensive TEN-T Network extension show steady progress toward meeting the TEN-T Key Performance Indicators for port infrastructure, accessibility, and multimodal connectivity.

All ports comply with the requirements for road access, and the availability of multimodal freight terminals open to all operators and users on a transparent and non-discriminatory basis. Nevertheless, rail connectivity remains a partial challenge, with one port lacking direct rail links or having only limited integration, which continues to constrain the full development of multimodal transport potential.

The main shortfall relates to the availability of alternative fuels infrastructure and environmental facilities to enhance the environmental performance of ships in ports.

A summary of the compliance status and implementation progress for each port within the Comprehensive TEN-T Network extension is provided in the table and chart below.

TEN-T Layer	Port name	Rail connection	Road connection	Alternative fuels availability	Multimodal Terminal availability	Environmental Facilities
Serbia	S. Mitrovica	Yes	Yes	No	Yes	No
	Smederevo	Partially	Yes	No	Yes	No
	Prahovo	Yes	Yes	No	Yes	No

Table 10. Compliance for inland ports within the Comprehensive TEN-T Network extension

## Compliance assessment for the inland ports on the Comprehensive Network

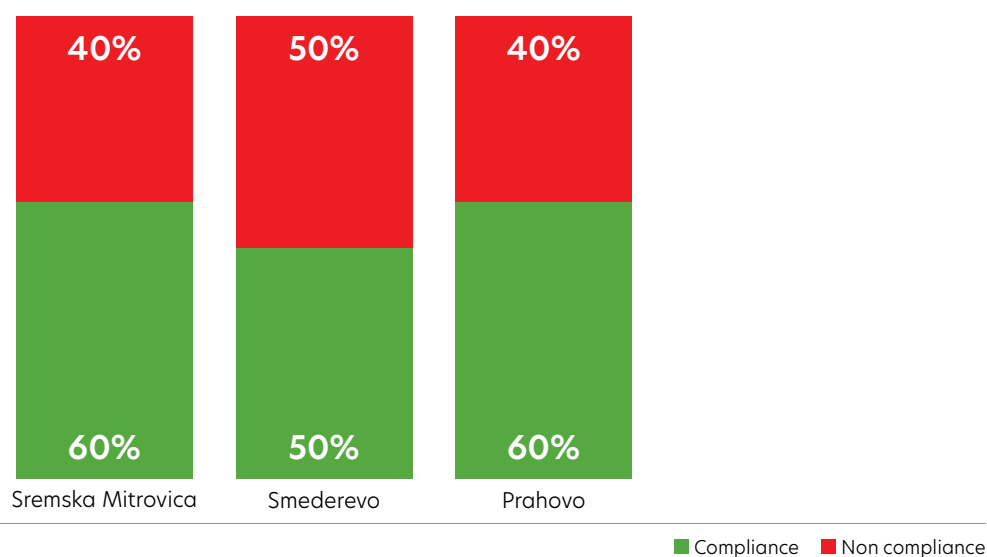


Figure 41. Compliance assessment for the inland ports on the Comprehensive Network

The following section provides a detailed explanation of the compliance status of each inland waterway port included in the indicative extension of the TEN-T Comprehensive Network:

### 1. Port of Sremska Mitrovica

The Port of Sremska Mitrovica in Serbia complies with the requirements regarding connection to road and rail infrastructure and provides at least one multimodal freight terminal accessible to all operators and users on a transparent and non-discriminatory basis.

However, the port is not in compliance with the requirements for facilities for improving the environmental performance of vessels and deployment of alternative fuel infrastructure.

### 2. Port of Smederevo

The Port of Smederevo in Serbia complies with the requirements regarding connection to road infrastructure and provides at least one multimodal freight terminal accessible to all operators and users on a transparent and non-discriminatory basis, while connection with the rail infrastructure is not in all terminals.

However, the port is not compliant with the requirements for facilities aimed at improving the environmental performance of vessels and the deployment of alternative fuel infrastructure.

### 3. Port of Prahovo

The Port of Prahovo in Serbia complies with the requirements regarding connection to road and rail infrastructure and provides at least one multimodal freight terminal accessible to all operators and users on a transparent and non-discriminatory basis.

However, the port is not compliant with the requirements for facilities aimed at improving the environmental performance of vessels and the deployment of alternative fuel infrastructure.

On 18 September 2025, the Transport Community Permanent Secretariat, in cooperation with the Green Inland Port, organised a regional workshop in Constanta titled "Green transition of ports in Western Balkan and Eastern Partnership." The objective of the Regional Workshop was to promote regional cooperation and knowledge exchange among Western Balkan, Ukrainian, and Moldovan ports, along with international and private stakeholders, to advance the decarbonisation, digitalisation, and sustainability of port operations in line with the EU Green Deal and the revised TEN-T Regulation.

## Compliance indicators of Seaports

According to Article 26 of Regulation (EU) 1679/2024, compliance indicators for seaports part of the Core and Comprehensive TEN-T Network Extension is assess road and rail connectivity, offer at least one multimodal terminal open for operators in non-discriminatory manner, and facilities to improve the environmental performance of ships. Full implementation is targeted by 2030 for Core seaports to ensure efficient, safe, and sustainable operations across the TEN-T network, while for Comprehensive seaports, the target year is 2050.

The compliance indicators for Core and Comprehensive seaports are given below:

- (a) **Alternative fuels infrastructure** is deployed in accordance with the Regulation (EU) 2023/1804.
- (b) Are equipped with the necessary infrastructure to **improve the environmental performance of ships in ports**, in particular reception facilities for the delivery of waste from ships in accordance with Directive (EU) 2019/883 of the European Parliament and of the Council (51).
- (c) **VTMIS** and **SafeSeaNet** are implemented in accordance with Directive 2002/59/EC.
- (d) **maritime national single windows** are implemented in accordance with Regulation (EU) 2019/1239.
- (e) **are connected with the rail and road infrastructure**.
- (f) Offer at least **one multimodal freight terminal which is open to all operators and users** in a non-discriminatory way, and which applies transparent and non-discriminatory charges.

## Status of Compliance for Seaports part of the Core TEN-T Network Extension

The only seaports included in the Core TEN-T Network extension are the Port of Bar in Montenegro and the Port of Durrës in Albania. Both ports fully comply with road connectivity and terminal availability, with one port providing rail connections and VTMIS implementation. However, both ports only partially meet the requirements for infrastructure to improve the environmental performance of ships, while one port partially complies with rail connection and the other with the implementation of the Maritime National Single Window (MNSW).

The compliance status of seaports in the Core TEN-T Network extension is presented in the table below:

Partner	Port name	Rail connection	Road connection	Environment Infrastructure	Alternative fuel infrastructure	Terminal availability	VTMIS	MNSW
Albania	Durrës	Partially	Yes	Partially	No	Yes	No	Yes
Montenegro	Bar	Yes	Yes	Partially	No	Yes	Yes	Partially

Table 11. Compliance of seaports in the Core TEN-T Network extension

The following section provides a detailed explanation of the compliance status of each seaport included in the indicative extension of the TEN-T Core Network:

### 1. Port of Durrës

The Port of Durrës complies with key indicators such as road connectivity and terminal availability. However, rail connectivity remains limited, as only the eastern terminal is connected to the national railway network.

Regarding the Maritime National Single Window (NSW), Albania transposed Regulation (EU) 2019/1239 establishing a European Maritime Single Window environment in December 2024, and the system is currently operational. In October 2025, with the assistance of EMSA, Albania underwent an audit of its Albanian Maritime Traffic Centre to assess compliance with the European Maritime Single Window requirements. The results of this audit will determine whether the existing system fully meets the regulatory standards or if additional investments will be required.

The port's infrastructure aimed at improving the environmental performance of ships particularly ship-generated waste reception facilities is not yet fully compliant with Directive (EU) 2019/883 because the Directive has not yet been transposed.

Additional non-compliance issues include the absence of a fully operational Vessel Traffic Monitoring and Information System (VTMIS), the establishment of which is ongoing and expected to be completed by the end of 2025, as well as the lack of clean fuel supply facilities.

The Albanian government has made a strategic decision to transform the current Port of Durrës into a primarily touristic port, redirecting all commercial operations to a new, modern intermodal port in Porto Romano, approximately 12 kilometres north of the existing facility. The construction of the new port, with an estimated investment of €390 million fully secured from the national budget, will provide state-of-the-art maritime, rail, and road connectivity, enabling seamless multimodal operations and improving cargo handling efficiency across the region.

Currently, the tender process for selecting the construction company is ongoing, with completion expected by the first quarter of 2026. Once operational, Porto Romano will serve as a key hub for commercial shipping, incorporating modern container and bulk cargo terminals, intermodal transfer facilities, and advanced environmental and digital infrastructure, including VTMIS and shore-side electricity.

This shift reflects a proactive strategy by the Albanian government to adapt port infrastructure to evolving market demands, enhance the country's logistics capacity, and simultaneously promote the development of tourism at the Port of Durrës, thereby supporting regional economic growth, sustainability, and Albania's integration into the TEN-T transport network.

## **2. Port of Bar JSC**

The Port of Bar JSC complies with key indicators such as road and rail connectivity infrastructure, at least one multimodal freight terminal which is open to all operators and users in a non-discriminatory way and the deployment of fully operational Vessel Traffic Monitoring and Information System (VTMIS).

Regarding the Maritime National Single Window (NSW), Montenegro established the system making it operational but missing the fully transposition of the Regulation (EU) 2019/1239 establishing a European Maritime Single Window environment.

The port's infrastructure aimed at improving the environmental performance of ships particularly the ship-generated waste reception facilities is not yet fully compliant with Directive (EU) 2019/883 because the Directive is not yet transposed.

The Transport Community Permanent Secretariat is actively engaged in ongoing initiatives with maritime ports of the region, including the ports of Bar and Durres. These efforts focus on introducing new technologies and innovations to promote alternative fuels, enhance energy-efficient maritime transport, and modernise and expand port infrastructure capacity. These initiatives are aligned with Regulation (EU) No 2024/1679, which sets out guidelines for developing the trans-European transport network (TEN-T).

On 27 February 2025, in Chişinău, the Transport Community, in cooperation with GIZ Moldova, organised the Winter Academy 2025 to promote dialogue on sustainable maritime transport, multimodality, and trade within the framework of the Indicative TEN-T Extension in the Western Balkans. The event featured panels on Port Decarbonisation and Sustainability, Maritime Digitalisation and Smart Solutions, and Multimodal Transport for Sustainable Trade, bringing together representatives from Western Balkan ports, Eastern Partnership countries, international organisations, and the EU port industry to exchange best practices and enhance regional cooperation.

### Seaports on the Comprehensive TEN-T extension network.

The only seaport included in the Comprehensive TEN-T Network extension is the Port of Vlora in Albania. The port fully complies with road connectivity, terminal availability, and the Maritime National Single Window (MNSW), but it currently lacks rail connections, alternative fuels infrastructure, and VTMS implementation.

The compliance status of the Port of Vlora is presented in the table below:

Partner	Port name	Rail connection	Road connection	Environment Infrastructure	Alternative fuel infrastructure	Terminal availability	VTMIS	MNSW
Albania	Vlore	No	Yes	Partially	No	Yes	No	Yes

Table 12. Compliance with the seaport in the Comprehensive TEN-T Network extension

The following section provides a detailed explanation of the compliance status of seaport of Vlora, part of the indicative extension of the TEN-T Core Network:

### 3. Port of Vlora

The Port of Vlora complies with key indicators such as road connectivity and at least one multimodal freight terminal which is open to all operators and users in a non-discriminatory way.

Regarding the Maritime National Single Window (NSW), Albania transposed Regulation (EU) 2019/1239 establishing a European Maritime Single Window environment in December 2024, and the system is currently operational.

The port's infrastructure aimed at improving the environmental performance of ships is not yet fully compliant with Directive (EU) 2019/883 because the Directive is not yet fully transposed.

Additional non-compliance issues include the absence of rail connectivity and clean fuel supply facilities and the Vessel Traffic Monitoring and Information System (VTMIS), the establishment of which is ongoing and expected to be completed by the end of 2025.

The Albanian government has made a strategic decision to transform Vlore into a tourism-focused port. All commercial operations will be relocated to the new port in Triporti Vlore, situated approximately 10 kilometres north of the existing site. A concession contract has been established for the construction of the tourist port at the current location, with plans to transfer the passenger terminal once the necessary infrastructure is in place at Triporti to accommodate passenger services. Additionally, another concession agreement has been signed between the Ministry and the concessionaire for the construction and operation of the new Triporti port.

### → Overall compliance assessment

#### • Inland Waterway Network

The extension of the TEN-T Core and Comprehensive Network to the inland waterways of the Western Balkans, including the Danube, Sava, and Tisa Rivers, represents a critical opportunity to enhance the region's transport infrastructure and facilitate greater integration into the broader European transport network. These waterways are essential for supporting sustainable multimodal transport solutions, offering efficient, cost-effective alternatives to road and rail transport, and strengthening trade links within the region and beyond.

River	Minimum Class IV	Publication on a website	Locks operated & maintained	RIS
Danube	Yes	No	Yes	Yes
Sava	Partly	No	N/A	Partly
Tisa	Yes	No	No	No

Table 13. Overall compliance assessment for the Inland Waterway Network

## Overall compliance assessment for the IWW network

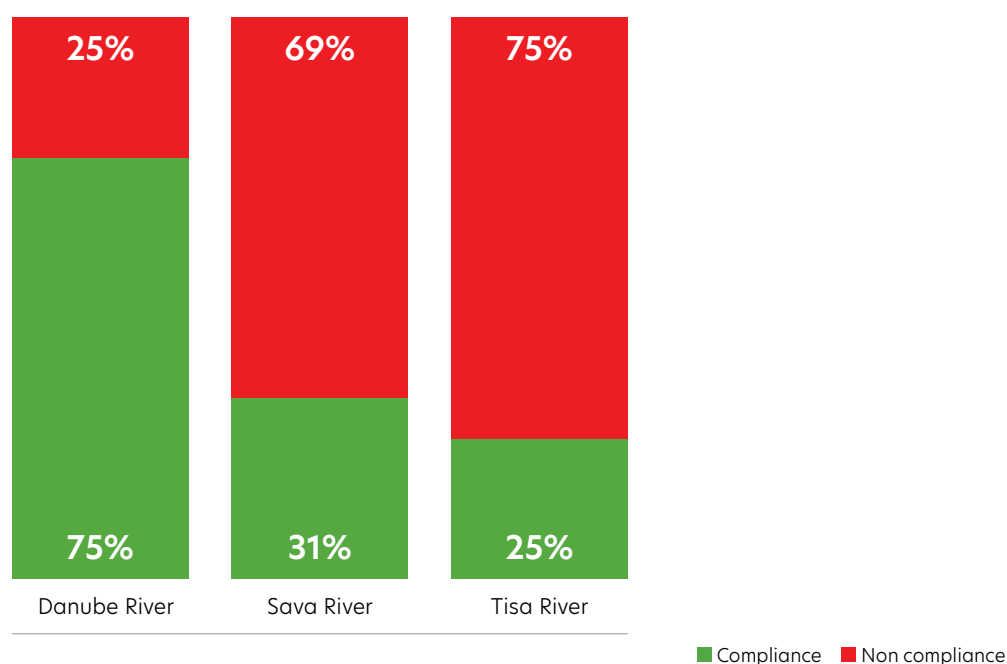


Figure 42. Overall compliance assessment for the IWW network

River	Downstream km	Upstream km	Regional partner	Section length	CEMT Class	Publication	Locks	RIS
Danube	845.5 Confluence of Timok River	1170 Belgrade	Serbia	324.5	VII	No	Yes	Yes
	1170 Belgrade	1433 Bezdan	Serbia	263	VIc	No	Yes	Yes
Sava	0.0 Sava mouth	81.0 Kamičak	Serbia	81.0	Va	No	N/A	Yes
	81.0 Kamičak	176.0 Rača	Serbia-Bosnia & Herzegovina	95.0	IV	No	N/A	Yes
	176.0 Rača	196.0 Domuskela	Serbia-Bosnia & Herzegovina	20.0	III	No	N/A	Yes
	196.0 Domuskela	313.7 Šamac	Croatia-Bosnia & Herzegovina	117.7	IV	No	N/A	Yes
	313.7 Šamac	338.2 Rit Kanal	Croatia-Bosnia & Herzegovina	24.5	III	No	N/A	Yes
	338.2 Rit Kanal	371.2 Brod	Croatia-Bosnia & Herzegovina	33.0	IV	No	N/A	Yes
	371.2 Brod	594 Sisak	Croatia-Bosnia & Herzegovina	222.8	III	No	N/A	Yes
Tisa	0.0	164.0	Serbia	164.0	IV	No	No	No

Table 14. Detailed overall compliance assessment for the inland waterways network

However, the challenges these rivers face, such as seasonal fluctuations in water levels, navigational bottlenecks, and infrastructure gaps, particularly in relation to the River Information Services (RIS), require continued attention. With its strategic position in the Rhine-Danube Corridor, the Danube River presents significant potential but is disadvantaged by critical sectors that impede year-round navigability. While navigable for large vessels along much of its length, the Sava River faces similar constraints, with key sections needing rehabilitation to restore full navigational capacity. The Tisa River, although more stable, still lacks full RIS compliance, limiting its operational efficiency.

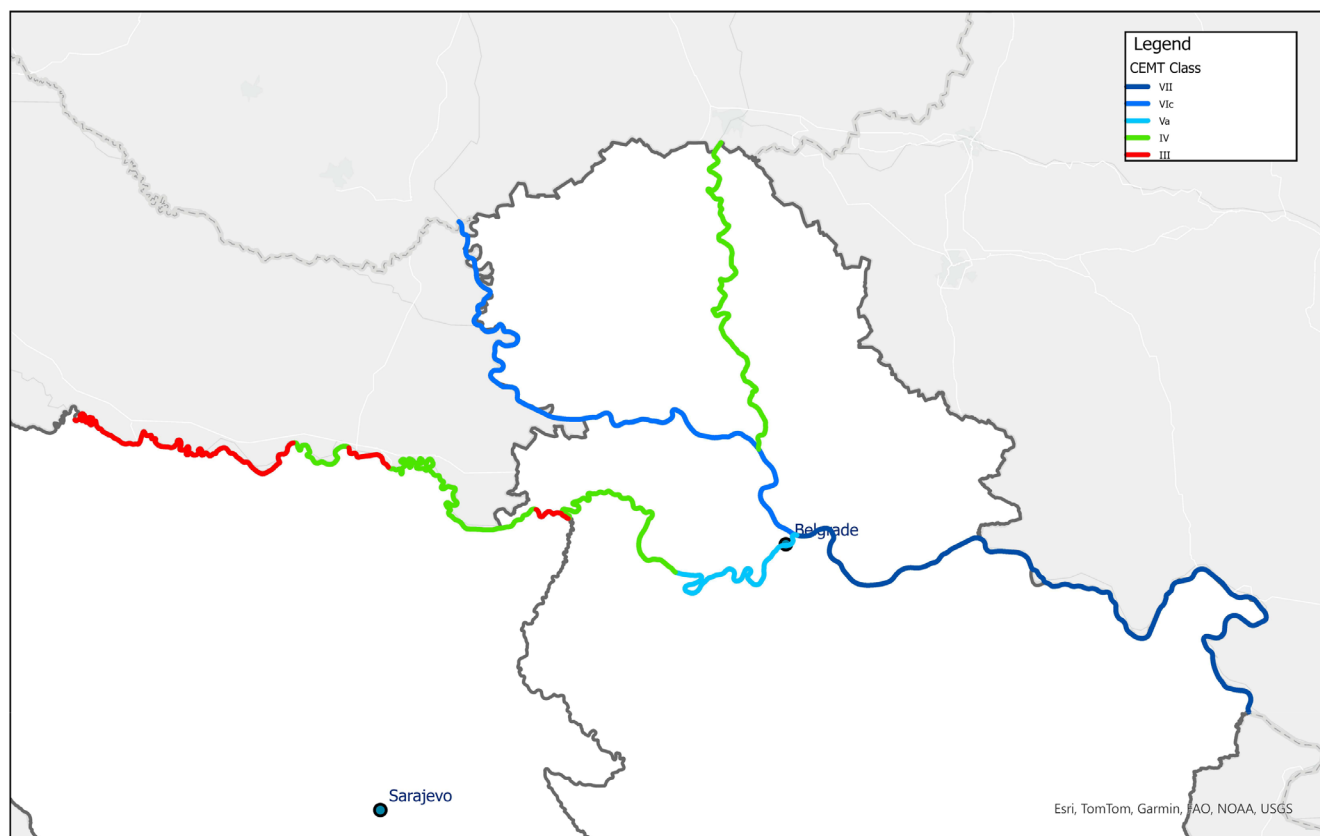


Figure 43. The map of compliance assessment of the Inland Navigation Network

## • Inland Waterway Ports

All core and comprehensive inland waterway ports demonstrate similar compliance with key indicators, meeting requirements for road connections, terminal availability, and CEMT Class standards. Most of these ports are connected by rail, except for the Port of Belgrade, which is not connected to the rail network, and the Port of Smederevo, which has partial rail connectivity. None of the ports currently meet the standards for clean fuel availability or have facilities to improve vessels' environmental performance.

TEN-T Layer	Port name	Rail connection	Road connection	Alternative fuels availability	Multimodal Terminal availability	Environmental Facilities
Core	Belgrade	No	Yes	No	Yes	No
	Novi Sad	Yes	Yes	No	Yes	No
	Pančevo	Yes	Yes	No	Yes	No
	Brcko	Yes	Yes	No	Yes	No
	B. Samac	Yes	Yes	No	No	No
Comprehensive	S.Mitrovica	Yes	Yes	No	Yes	No
	Smederevo	Partially	Yes	No	Yes	No
	Prahovo	Yes	Yes	No	Yes	No

Table 15. Overall assessment of the Inland Waterway Ports

## Overall assessment of the Inland Waterway Ports

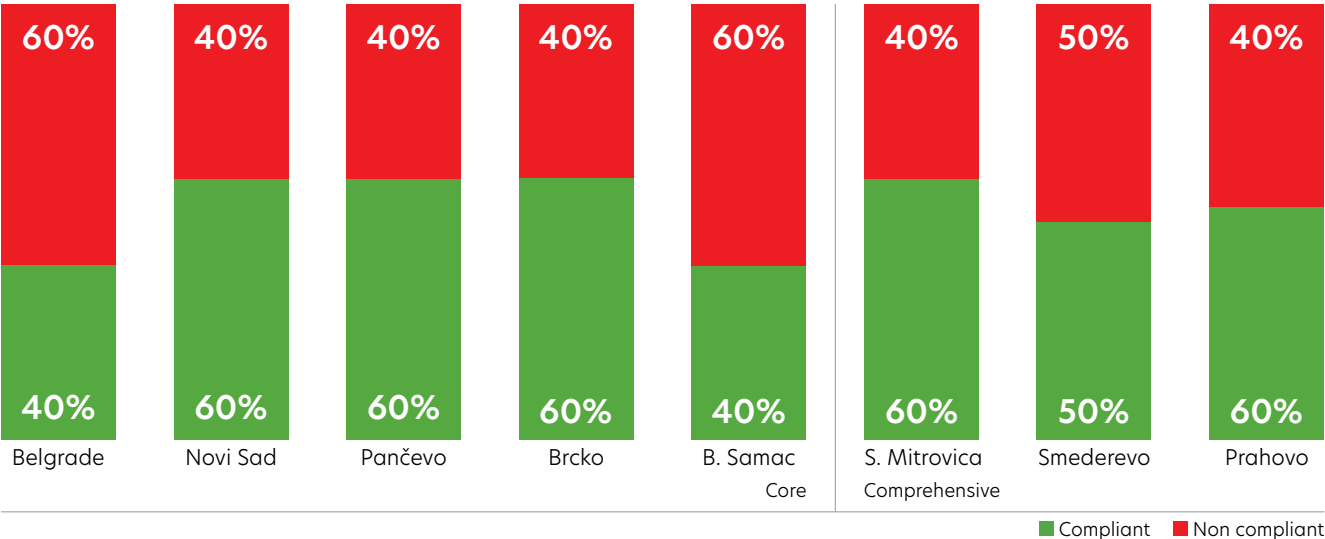


Figure 44. Overall assessment of the Inland Waterway Ports

### • Seaports

All maritime ports have maintained good compliance levels with most indicators in 2024, meeting key standards such as road connections, ship-generated waste reception facilities, and terminal availability. However, the Port of Durrës only has partial rail connectivity, with only the eastern terminal connected to the national rail network, while the Comprehensive Port of Vlora lacks rail access entirely. Additionally, Vessel Traffic Monitoring and Information Systems (VTMIS) are not yet in place at Durrës or Vlora, though Albania’s plans to implement VTMIS are ongoing, with completion expected by 2025. Currently, none of the ports meet the compliance indicator for clean fuel availability.

TEN-T Layer	Port name	Rail connection	Road connection	Environ. Infrastruc.	Altern.f uel infrastruc.	Terminal availability	VTMIS	MNSW
Core	Durrës	Partially	Yes	Partially	No	Yes	No	Yes
	Bar	Yes	Yes	Partially	No	Yes	Yes	Partially
Comprehensive	Vlore	No	Yes	Partially	No	Yes	No	Yes

Table 16. Overall assessment of the Seaports

## Overall assessment of Seaports

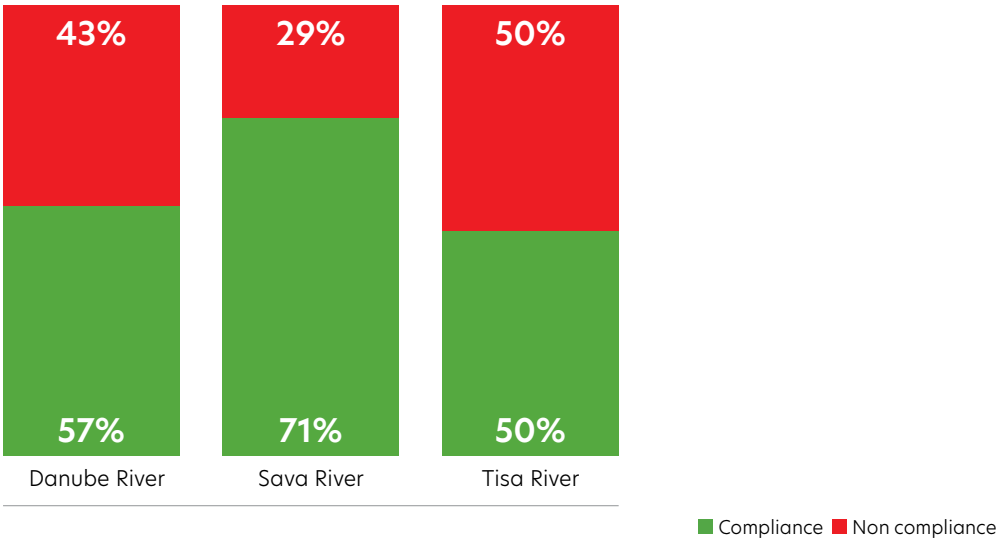


Figure 45. Overall assessment of Seaports

## 4.4. Airports

The legal basis for extending the TEN-T Core and Comprehensive Network to the Western Balkans was originally set in Regulation No. 1315/2013, last updated in 2019. In 2024, however, Regulation 1315/2013 was repealed and replaced by Regulation 2024/1679.

### *Airport Compliance indicators*

The revised TEN-T Regulation (EU) 2024/1679 defines specific airport compliance indicators for the comprehensive and core networks, setting out the applicable standards and implementation deadlines. The focus of this report is on eight indicators in total, of which four represent newly introduced KPIs.

An overall overview of the requirements and corresponding article references is provided in the table below.

- a) **Rail connection:** Is there a functioning rail link from the airport to the long-distance TEN-T railway network
- b) **Clean fuel/alternative fuel readiness:** For core airports, whether infrastructure for clean aviation fuels or ground operations fuel is in place or planned.
- c) **Terminal availability and non-discriminatory access:** Whether the airport terminal(s) are open to international or domestic operators under fair, transparent, and non-discriminatory conditions.
- d) **Pre-conditioned air supply:** Core airports with over 4 million passengers per year must provide pre-conditioned air supply to stationary aircraft by 2030, extended to core and comprehensive airports by 2040.
- e) **ATM/ANS implementation:** Airports must implement modern Air Traffic Management (ATM) and Air Navigation Services (ANS) systems in line with EU interoperability and Single European Sky requirements.

### *→ Primary infrastructure characteristics and equipment*

Currently, **eleven airports** (Tirana, Sarajevo, Banja Luka, Pristina, Podgorica, Tivat, Skopje, Ohrid, Belgrade, Kraljevo, and Niš) are part of the TEN-T Comprehensive in the Western Balkans, six of which are located on the Core Network (Tirana, Sarajevo, Podgorica, Skopje, Belgrade).

The ownership of airports in the Western Balkans varies in structure and this is reflected in the diversity in their management. Belgrade Airport operates under a concession agreement between the Serbian government and VINCI Airports, whereas Sarajevo International Airport is fully owned by the Federation of Bosnia and Herzegovina. In North Macedonia, both Skopje and Ohrid airports are operated by TAV Airports under concession agreements with the government. Podgorica and Banja Luka airports remain fully government-owned by Montenegro and the Republika Srpska, respectively. In Kosovo, Pristina Airport is government-owned but operated by Limak Kosovo International Operator J.S.C. Tirana International Airport in Albania is privately owned by the Kastrati Group, while Niš and Kraljevo airports in Serbia are under full state ownership.

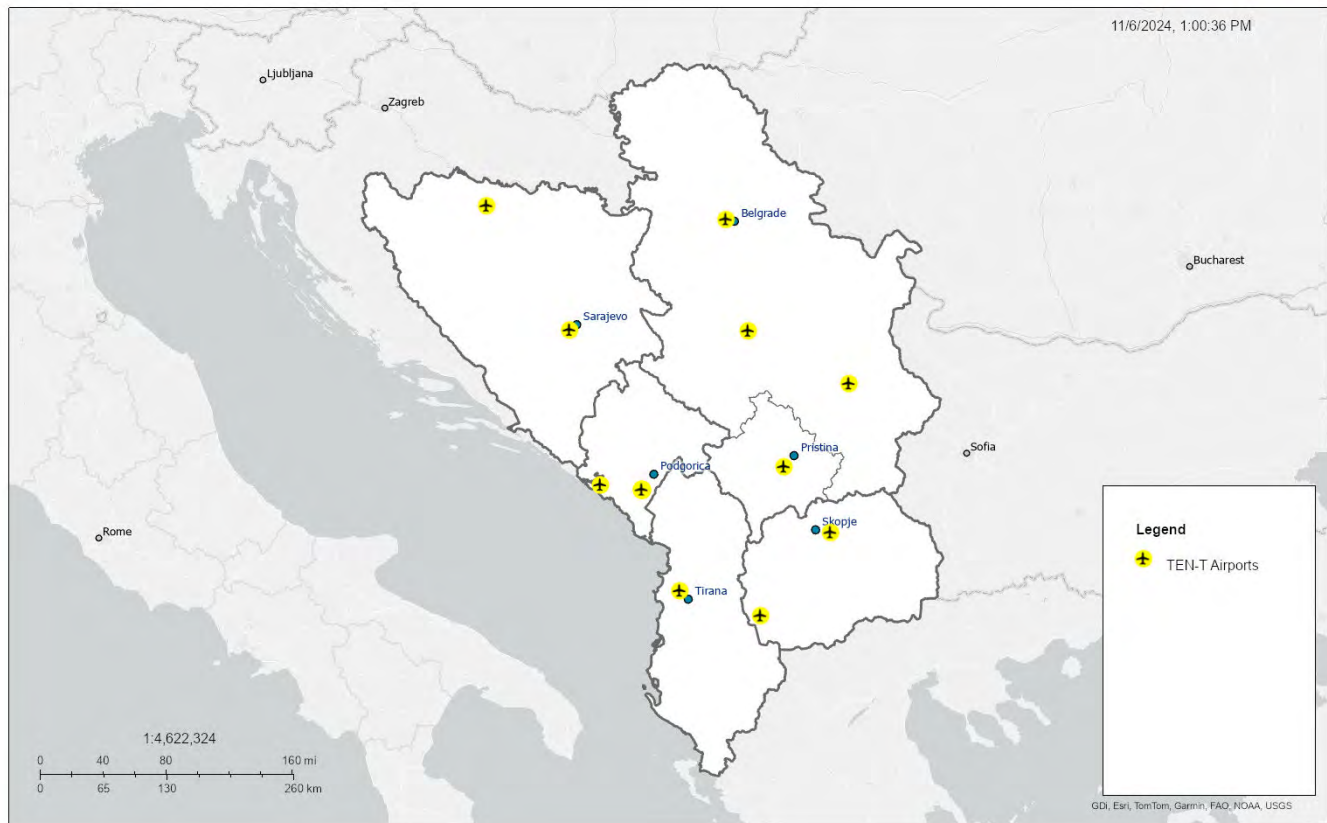


Figure 46. Indicative extension of TEN-T Comprehensive and Core Airports to the Western Balkans Region

## → Overall compliance assessment

Conclusions for each compliance standard are provided below.

### a) Connection to other modes

A key condition to ensure the interoperability of airports on the TEN-T Network is their connection to the railway network. Currently, no airports have a direct rail connection.

Road and rail connection to the status of Airports		Connection to rail				Connection to Motorway/Express Road			
		2022	2023	2024	2025	2022	2023	2024	2025
Albania	Tirana	No	No	No	No	Yes	Yes	Yes	Yes
Bosnia and Herzegovina	Sarajevo	No	No	No	No	Yes	Yes	Yes	Yes
	Banja Luka	No	No	No	No	Yes	Yes	Yes	Yes
North Macedonia	Skopje	No	No	No	No	Yes	Yes	Yes	Yes
	Ohrid	No	No	No	No	Yes	Yes	Yes	Yes
Kosovo	Pristina	No	No	No	No	Yes	Yes	Yes	Yes
Montenegro	Podgorica	No	No	No	No	Yes	Yes	Yes	Yes
	Tivat	No	No	No	No	Yes	Yes	Yes	Yes
Serbia	Belgrade	No	No	No	No	Yes	Yes	Yes	Yes
	Nis	No	No	No	No	Yes	Yes	Yes	Yes
	Kraljevo	No	No	No	No	Yes	Yes	Yes	Yes

Table 17. List of airports with road and rail connections

## b) Availability of alternative fuels

Currently, there are no fixed storage facilities for aviation biofuel at Sarajevo, Podgorica, Belgrade, Skopje, Ohrid, Niš, Kraljevo, or Pristina airports. However, airports must be prepared to provide alternative clean fuels as market needs evolve, in line with regulatory requirements for air transport infrastructure.

Belgrade Airport has begun discussions with suppliers to expand fuel capacity, aiming for alternative fuels within five years. TAV Macedonia joined a global initiative to decarbonise aviation, committing to net zero CO<sub>2</sub> emissions by 2050 through the "Toulouse Declaration." The Civil Aviation Agency of North Macedonia updates its State Action Plan every three years to meet ICAO requirements, with the latest plan focusing on using biodiesel blends to reduce emissions.

For ground services, alternative fuels such as e-mobility, hydrogen, CNG, and LPG are partially available at several airports in the region, including Belgrade, Sarajevo, Skopje, Niš, and Kraljevo. Sarajevo International Airport currently has the highest share of electric-powered ground support equipment. This development is consistent with the overall objective of preparing airports to introduce clean fuel solutions in line with future market demand.

At Belgrade Nikola Tesla Airport, the first all-electric turnaround was recently completed. During this operation, all key ground handling activities were carried out exclusively with electric vehicles and equipment, including the use of an electric pushback tractor for aircraft towing, electric belt loaders and baggage transport vehicles, as well as electric passenger steps for boarding and disembarkation.

Availability of alternative fuels									
Regional partner	Airport	Tank facilities for aviation biofuel				Availability of alternative fuels for airport ground services			
		2022	2023	2024	2025	2022	2023	2024	2025
Albania	Tirana	No	No	No	No		Yes	Yes	Yes
Bosnia and Herzegovina	Sarajevo	No	No	No	No	Yes	Yes	Yes	Yes
	Banja Luka	No	No	No	No				
North Macedonia	Skopje	No	No	No	No	Yes (partly)	Yes (partly)	Yes (partly)	Yes (partly)
	Ohrid	No	No	No	No	No	No	No	No
Kosovo	Pristina	No	No	No	No	No	No	No	No
Montenegro	Podgorica	No	No	No	No				
	Tivat	No	No	No	No				
Serbia	Belgrade	No	No	No		Yes	Yes	Yes	Yes
	Niš	No	No	No		Yes	Yes	Yes	Yes
	Kraljevo	No	No	No		Yes	Yes	Yes	Yes

Table 18. List of availability of alternative fuels at airports

## c) Terminal availability

All airports are open to international traffic, with foreign air carriers operating in and out. Some airports such as Tirana, Podgorica, Sarajevo, and Niš reached or came close to reaching their capacity limit. With its ongoing modernisation project, Sarajevo Airport has expanded its capacity from 1 million to 1.8 million passengers.

Terminal availability			
Regional partner	Airport	Open to international traffic	Adequate terminal capacity
Albania	Tirana	Yes	No
Bosnia and Herzegovina	Sarajevo	Yes	Yes
	Banja Luka	Yes	Yes
North Macedonia	Skopje	Yes	Yes
	Ohrid	Yes	Yes
Kosovo	Pristina	Yes	Yes
Montenegro	Podgorica	Yes	No
	Tivat	Yes	
Serbia	Belgrade	Yes	Yes
	Nis	Yes	Yes
	Kraljevo	Yes	Yes

Table 19. List of terminal availability

#### d) Pre-conditioned air supply

Core airports with over 4 million passengers per year must provide pre-conditioned air supply to stationary aircraft by 2030, extended to core and comprehensive airports by 2040. This measure is essential to reduce greenhouse gas emissions and noise pollution at airports. The implementation of PCA contributes to improved air quality and lower energy consumption at terminals. In Serbia and Bosnia and Herzegovina, major airports (Belgrade, Niš, Kraljevo, and Sarajevo) have already integrated PCA systems into their ground handling infrastructure.

Regional partner	Airport	Pre-conditioned air supply
Albania	Tirana	N/A
Bosnia and Herzegovina	Sarajevo	Yes
	Banja Luka	N/A
North Macedonia	Skopje	N/A
	Ohrid	N/A
Kosovo	Pristina	N/A
Montenegro	Podgorica	N/A
	Tivat	N/A
Serbia	Belgrade	Yes
	Nis	Yes
	Kraljevo	Yes

Table 20. List of Pre-conditioned air supply

#### e) ATM/ANS implementation

Airports must implement modern Air Traffic Management (ATM) and Air Navigation Services (ANS) systems in line with EU interoperability and Single European Sky requirements. These systems are vital for enhancing flight safety, efficiency, and capacity, while reducing delays and optimizing airspace management. Serbia and Bosnia and Herzegovina upgraded ATM/ANS systems operational at Belgrade, Niš, Kraljevo, and Sarajevo.

Regional Partner	Airopport	ATM/ANS implementation
Albania	Tirana	N/A
Bosnia and Herzegovina	Sarajevo	Yes
	Banja Luka	N/A
North Macedonia	Skopje	N/A
	Ohrid	N/A
Kosovo	Pristina	N/A
Montenegro	Podgorica	N/A
	Tivat	N/A
Serbia	Belgrade	Yes
	Nis	Yes
	Kraljevo	Yes

Table 21. List of ATM/ANS implementation

## 5. TEN-T PROJECTS

### 5.1 Methodological aspects

The TCT Secretariat tracks the development of the TEN-T network in the region, collecting and processing relevant information on all ongoing and finance-secured projects. The scope of this exercise is mainly to:

- a) provide an outline of overall efforts currently undertaken by the Regional Partners to upgrade the TEN-T network and
- b) estimate TEN-T future compliance rates based on scheduled project completion dates and their anticipated network impact.

The methodology and criteria for project definition and selection have remained unaltered, making the results of this exercise fully comparable between yearly data series.

### 5.2 Infrastructure projects

#### 5.2.1 Railway projects

In terms of overall investment, the rail sector has been overshadowed by the road sector for the past 20 years. While approximately 80% went on roads, the railway sector only received around 15% of the total investment.

The landscape has evolved, with a notable shift towards prioritising railway transport. Presently, the enhancement of rail systems stands as an integral component of recently published strategic documents by the European Commission (EIP, Green Agenda, Growth Plan). These documents emphasise the importance of greener and more efficient transportation methods, with a distinct focus on railways. The expectation is for the Transport Community to mirror this approach in its forthcoming strategies and concepts.

The EU has played an important role in financing the construction and enhancement of transport corridors within its member states and neighbouring countries. The primary objectives have been to eliminate bottlenecks and facilitate the development of sustainable and interconnected transportation systems. This attempt aligns with the primary Trans-European Transport Network (TEN-T) policy, where the projects play a vital role in realising the Core Network, shaping essential connections between the EU and the broader region. The EU directly supported the implementation of rail projects through the Economic and Investment Plan adopted in 2020 and the Growth Plan for the Western Balkans in 2023. Comprehensive information about ongoing rail projects can be found in Annex II of the current document.

Overall, the Transport Community Permanent Secretariat has identified fifteen finance-secured and ongoing rail projects. The length of rail sections currently undergoing various upgrades is **640 km**. Priority has been given to the Core Network. The overall value of the projects is **EUR 2.806 billion**.

Fifteen rail transport projects have been identified in the region, with completion scheduled between 2025 and 2032. Once finished, these projects will enhance the quality of railway infrastructure and services, leading to significant improvements in both passenger and freight operations.

Since the last report, two railway projects have been completed and are now operational (Novi Sad – Subotica – HU border and Kumanovo – Beljakovce).

The list of TEN-T railway projects currently ongoing in the region is given in the table. In addition, Annex II of this document provides a detailed overview of all categories of railway projects in regional partners.

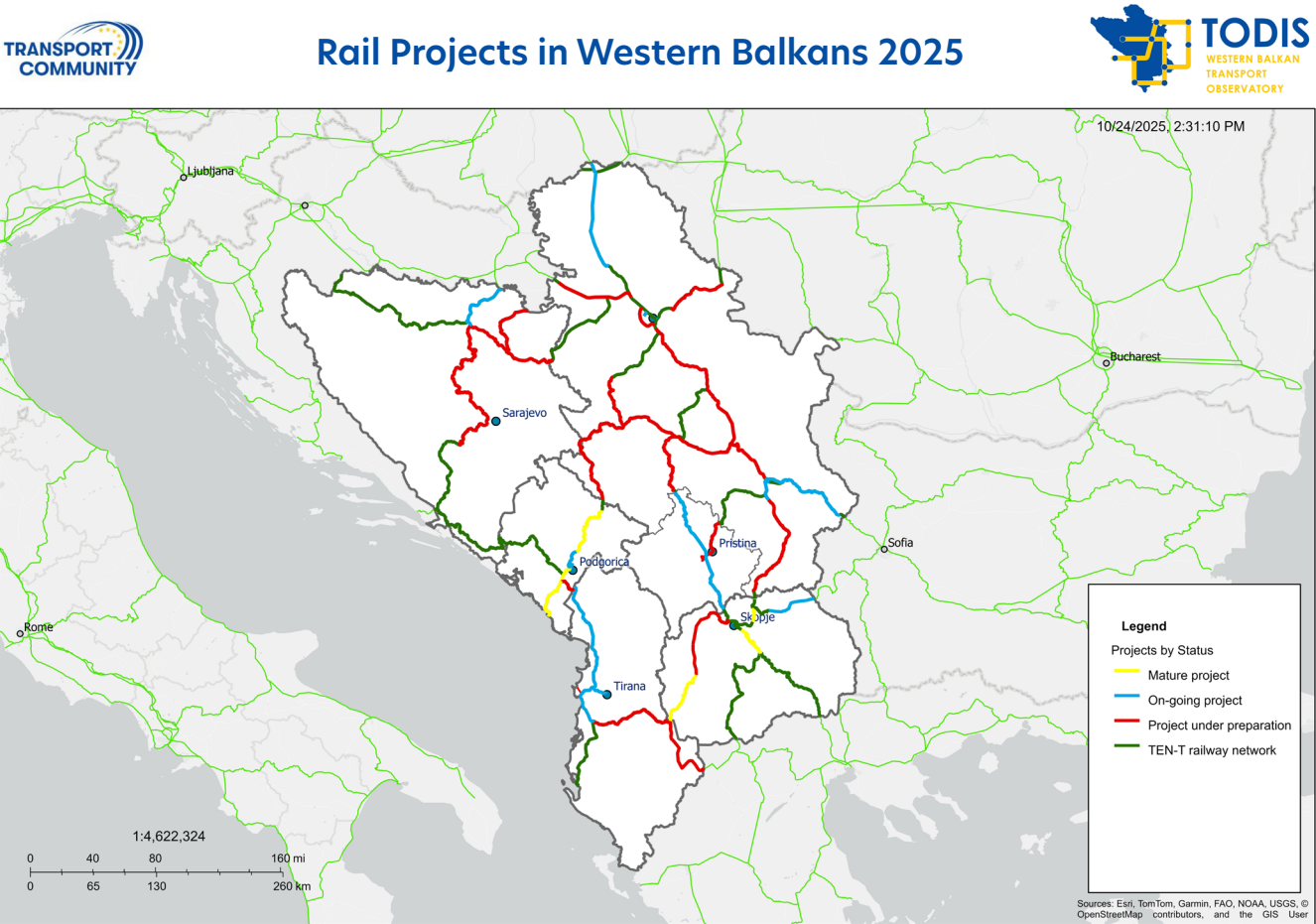


Figure 47. Rail Projects Map

## 5.2.2 Road projects

The region's inventory of ongoing road projects has undergone adjustments based on the latest information and data from regional partners. Compared with last year's report, the following types of modifications occurred:

- Projects that have naturally exited the list upon successful completion and operationalisation,
- Projects de-listed having been downgraded in terms of priority and/or no longer meeting the "secured funding" criterion,
- New projects entered on the list by progressing in terms of maturity and having secured funding since the date of the latest report,
- New relevant interventions identified during the comprehensive data collection exercise performed under the framework of TODIS.

Besides the abovementioned changes, data updating also resulted in cost adjustments and/or changes to the completion deadline. For many projects, the estimated completion date was again postponed, which reflects both unrealistic planning and delays in implementation. Although this was not entirely surprising considering the region's track record, the ongoing postponement of completion deadlines from one year to the next remains a cause for concern.

As of 2025, the Transport Community Permanent Secretariat has identified 40 road projects ongoing and financing secured in the region (29 on the Core Network and 11 on the Comprehensive Network). The combined length of road sections currently undergoing various upgrades and financing secured is 938 km (542 km on the Core and 396 km on the Comprehensive Network). The priority given to the Core Network is also reflected in the overall value of projects (EUR 10.5 billion for the entire network, of which EUR 6,8 billion for the Core and EUR 3.7 billion for the Comprehensive Network).

The list of individual interventions is provided in Table 12 below, while a more detailed overview of road projects can be found in Annex II of this document.



### Road Projects Map 2025

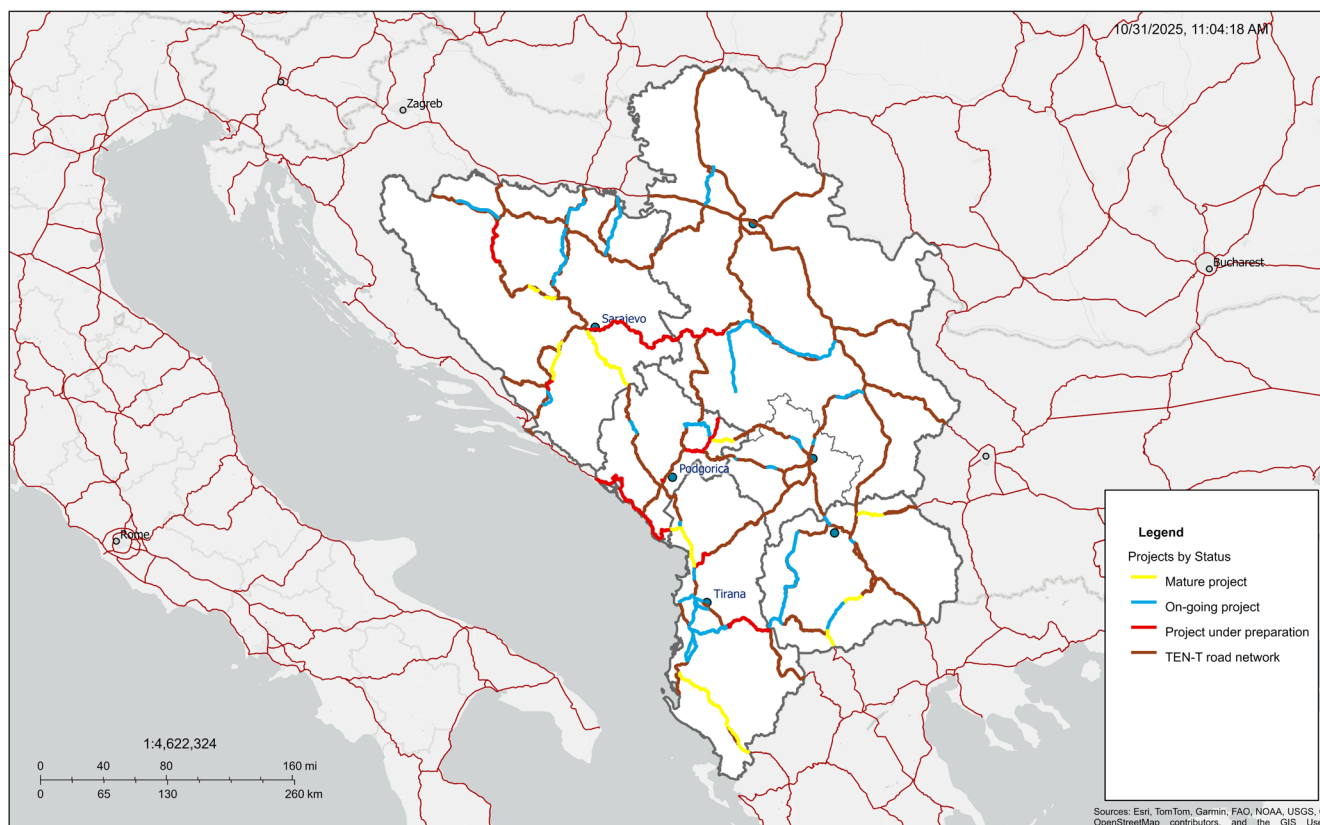


Figure 48. Road Projects in the Western Balkans

### 5.2.3 Waterborne projects

As of 2024, the Transport Community Permanent Secretariat has identified a total of **22** ongoing and financed waterborne transport projects across the Western Balkans region, reflecting a strong commitment to improving navigability, port infrastructure, and multimodal connectivity.

Of these, **12 projects** focus on the Inland Waterway Network within the Rhine Danube Corridor, representing a combined investment of approximately **€233.69 million**. These projects, all part of the Core TEN-T Network, aim to enhance fairway conditions, modernise locks, and implement River Information Services (RIS) to ensure safe and efficient navigation.

A further **seven projects** target **Inland Waterway Ports** within the Rhine Danube Corridor, with a total estimated investment of around **€572 million**. Five of these projects are implemented in Core TEN-T ports, while two are part of the Comprehensive TEN-T Network, focusing on port reconstruction, expansion of multimodal terminals, and environmental upgrades to improve the sustainability and operational efficiency of the ports.

Regarding seaports, **three projects** are currently underway within the WBEM Corridor, with a cumulative investment of **€456 million**. One project is being implemented in a Core TEN-T Port, another in a Comprehensive TEN-T Port, and a third project involves the establishment of a Vessel Traffic Management and Information System (VTMIS) to be deployed across both ports, supporting navigational safety, traffic monitoring, and operational coordination.

Overall, these projects represent a strategic investment in the region's waterborne transport infrastructure, enhancing connectivity, multimodal integration, and compliance with TEN-T objectives, and laying the foundation for sustainable growth in maritime and inland waterway transport.

### 5.2.4 Airport projects

As of 2025, the Transport Community Permanent Secretariat has identified a total of **14 ongoing airport infrastructure projects** across the Western Balkans representing a combined investment of approximately **€86 million**. These projects represent a continued commitment by regional partners to enhance airport capacity, safety, and multimodal connectivity, while ensuring alignment with TEN-T standards and future aviation growth.

**At Tirana airport**, 4 airport-related projects are currently ongoing, primarily focused on Tirana International Airport. The rehabilitation and construction of the 43.7 km Durrës-Tirana railway line, valued at EUR 153 million, will connect Tirana Airport to the national rail system and the Core TEN-T Network. Parallel to this, the North and South Terminal Project, with an investment of EUR 3.25 million, is enhancing passenger terminal infrastructure and is scheduled for completion in 2025. The expansion of Tirana International Airport, budgeted at EUR 8.7 million, is underway to increase operational capacity and meet rising passenger demand, while a EUR 9.5 million rehabilitation project is modernising the runway, connecting roads, and parking facilities, also planned for completion by the end of 2025.

**At Sarajevo International Airport** 4 projects are currently ongoing. The runway reconstruction project, worth EUR 29.45 million, is in the permit-obtaining phase, with completion projected for December 2025. The new rapid exitway, valued at EUR 3.69 million, has completed its design stage and is awaiting construction permits. A new fuel depot, estimated at EUR 2.62 million, is targeted for completion by December 2026, while the Airport Rescue and Firefighting Centre, with an investment of EUR 5.1 million, is in the process of obtaining urbanistic permits. Together, these projects will significantly strengthen the airport's operational capacity, safety, and service quality.

**Niš Constantine the Great Airport** finished phase I of a new Terminal building and put in operation on July 23, 2024. Total of 7,000m<sup>2</sup> new facilities with a total project value of EUR 11.1 million has been built. Commercial contract for the phased construction and reconstruction of internal traffic infrastructure and associated hydrotechnical, electrical and telecommunications installations within the "Niš Constantine the Great Airport" complex, dated March 19, 2024. Due to additional and unpredicted but necessary works, Annex 1 of the contract was signed on September 27, 2024 to implement the commercial contract fully. The contract amount for the works that are the subject of the Contract is EUR 16,855,647.77, and after the conclusion of Annex 1 to the Contract, the total value of the Contract is EUR 18,539,567.08. On September 24, 2025. construction work has been done and fully put in operation.

**At Morava airport (Kraljevo)**, a project to extend the apron and construct a technical service and firefighting facility is in the design phase. As the project is still under development, the exact value has not yet been determined and it will be known upon the finalisation of the designs.

Work on modernising and expanding **Belgrade's Nikola Tesla Airport** began in early 2020. A newly inserted runway (BCIR), de/anti-icing pad, landside access and car parking in front of the Terminal, existing runway reconstruction have been completed. Also, construction works on rapid exit taxiways have been completed. Currently, work is proceeding at several locations: terminal reconstruction, and extension (phases 1.3, 2.). For Phase 1.3, capacity after project implementation will be linked with Phase 1.4 (reconstruction and extension of passenger terminal building which is finished), while Phase 2.2 will provide capacity after implementation together with PTB Phase 1. More than 60,000 m<sup>2</sup> of new aircraft aprons have been constructed to provide additional parking and servicing capacity, including a new de-icing and anti-icing platform.

Additionally, construction works regarding the Railway Network are underway. Technical documentation is under preparation for the Main Transformer Station.

The Landside Access and Car Parks project at Belgrade Airport involves the reconstruction and rehabilitation of access roads and parking facilities in front of the terminal. The process of obtaining the usage permit is underway, and key design phases, including the concept, preliminary, and detailed designs, have been completed.

The operator of **Pristina International Airport** has requested permission from the PPP Committee and CAA to extend the north and south side remote gates to increase the boarding gate capacity of the terminal building from 8 to 12. The project's total value was approximately EUR 3 million and it has now been completed.

Overall, these ongoing airport infrastructure projects demonstrate the Western Balkans' steady progress in enhancing aviation infrastructure and intermodality. With fourteen major projects under implementation, the region is advancing towards a safer, more connected, and sustainable air transport system that supports the broader objectives of the TEN-T Network and the future integration of the Western Balkans into the EU transport area.



## Airport Projects

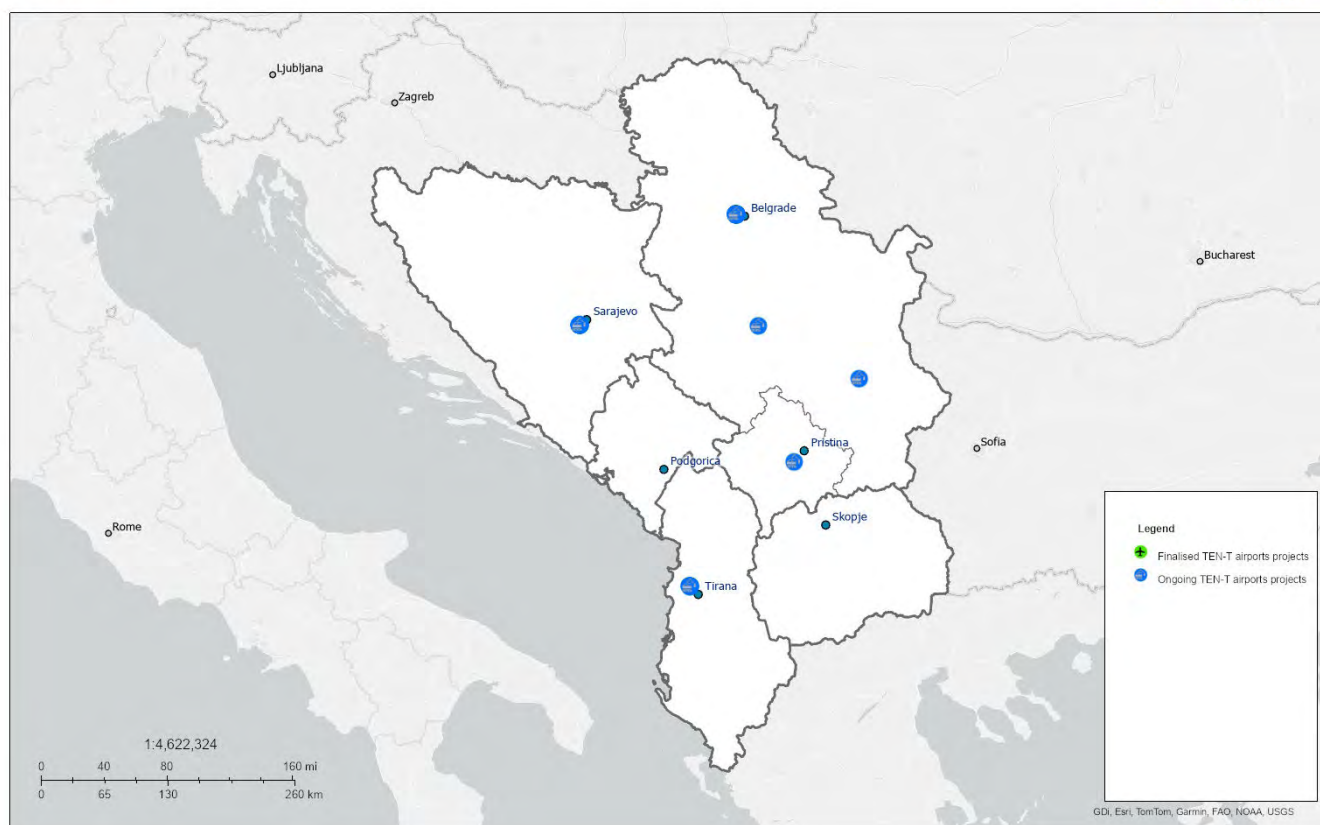


Figure 49. Airport Projects in the Western Balkans

## Ongoing projects overview

Corridor/ Route/Node	Regional Participant	Project name	Core Corridor	Core/ Comprehensive Network	Planned intervention	Total length (km)	CAPEX (M€)	Estimated completion deadline
Road projects								
Corridor VIII	Albania	Construction of Tirana bypass (Kashar - Vagarr - Mullet)	WBEM	Core	New infrastructure	21.5	223	2027
Corridor VIII	Albania	Upgrade of the Elbasan – Perrenjas road	No	Core	Reconstruction/Rehabilitation	31	240	2027
Route 2b	Albania	AIC Section 3: Milot-Thumane	WBEM	Core	Reconstruction/Rehabilitation	14	44.62	2028
Route 2b	Albania	AIC Section 5B: Kashar - Lekaj	WBEM	Core	New infrastructure	34	465.8	2028
Corridor VIII	Albania	AIC Section 5C: Lekaj - Konjat-Fier	WBEM	Core	Reconstruction/Rehabilitation	14	320	2030
Route 2b	Albania	AIC Section 6+7: Konjat - Fier bypass	WBEM	Core	Reconstruction/Rehabilitation	28	320	20 months after contract signing
Corridor VIII	Albania	Widening of Tirane - Durres Motorway	WBEM	Core	Reconstruction/Rehabilitation	35	244	2026
Corridor VIII	Albania	Construction of the Elbasan - Lekaj road section part of Corridor VIII	WBEM	Core	New infrastructure	41	360	2027
Corridor Vc	Bosnia and Herzegovina	Vukoslavije - Johovac	WBEM	Core	New infrastructure	32	470.3	2030
Corridor Vc	Bosnia and Herzegovina	Rudanka - Putnikovo Brdo	WBEM	Core	New infrastructure	5.2	164,9	2026
Corridor Vc	Bosnia and Herzegovina	Putnikovo Brdo - Medakovo	WBEM	Core	New infrastructure	8.5	142,7	2026
Corridor Vc	Bosnia and Herzegovina	Medakovo - Ozimica	WBEM	Core	New infrastructure	21.3	361,7	2026
Corridor Vc	Bosnia and Herzegovina	Poprikuse - Nemila	WBEM	Core	New infrastructure	5.5	251	2026
Corridor Vc	Bosnia and Herzegovina	Nemila - Vranduk	WBEM	Core	New infrastructure	5.7	110.94	2026
Corridor Vc	Bosnia and Herzegovina	Vranduk - Ponirak	WBEM	Core	New infrastructure	5.3	153.45	2026
Corridor Vc	Bosnia and Herzegovina	Ponirak - Vraca	WBEM	Core	New infrastructure	3.4	70.8	2025
Corridor Vc	Bosnia and Herzegovina	Tunnel Kvanj - Buna	WBEM	Core	New infrastructure	5.2	106.9	2027
Corridor Vc	Bosnia and Herzegovina	Buna - Počitelj	WBEM	Core	New infrastructure	7.2	37.2	2027

Corridor/ Route/Node	Regional Participant	Project name	Core Corridor	Core/ Comprehensive Network	Planned intervention	Total length (km)	CAPEX (M€)	Estimated completion deadline
Route 9a	Bosnia and Herzegovina	Banja Luka - Prijedor	No	Comprehensive	New Infrastructure	40.7	297	2027
Route 9a	Bosnia and Herzegovina	Construction of the motorway Orašje - Tuzla	No	Comprehensive	New Infrastructure	67.68		
Route 3	Bosnia and Herzegovina	Reconstruction/Rehabilitation of the intersection on M5 016 Aziza Šaćirbegović-Korija-Ljubogošta, km 1+350	No	Comprehensive	Reconstruction/Rehabilitation		0.26	2027
Corridor Vc-a	Bosnia and Herzegovina	Reconstruction of the intersection with the M17 and the local road for the settlement of Papratnica, section M17_006: Ozimica-Topčić Polje, km 9+180, Žepče municipality	No	Core	Reconstruction/Rehabilitation		0.28	2026
Corridor Vc-b	Bosnia and Herzegovina	Rehabilitation of the damaged road structure on the section M17_013 Jablanica-Potoci, km 6+350, Locality Komadinovo vrelo	WBEM	Core	Reconstruction/ Rehabilitation	0.25	0.44	2025
Route 2a	Bosnia and Herzegovina	Construction of the Donji Vakuf bypass – Phase II	WBEM	Core	New infrastructure	1.6	2.61	2029
Route 6b	Kosovo	Widening of Kjeve-Dallac road section	No	Comprehensive	Reconstruction/Rehabilitation	13.4	32	2025
Route 6b	Kosovo	Widening Route 6b-ko: Dollc-Peje	No	Comprehensive	Reconstruction/Rehabilitation	16.2	45	2028
Route 7	Kosovo	Widening N25: Besi-Luzhan	WBEM	Core	Reconstruction/Rehabilitation	14.78	31.2	2025
Route 6	Montenegro	Berane - Bijelo Polje - Mojkovac	No	Comprehensive	Reconstruction/Rehabilitation	43	36	2026
Route 2b	Montenegro	Sarajevo - Podgorica connection: new bridge over Tara river - Paklice	No	Comprehensive	Reconstruction/Rehabilitation	3	6	2027
Route 2b	Montenegro	Sarajevo - Podgorica connection: Zaborje-Jasenovo Polje	No	Comprehensive	Reconstruction/Rehabilitation	14	15	2026
Route 4	Montenegro	Bar - Boljare highway: Andrijevica-Matesevo	WBEM	Core	New infrastructure	22	550	2030
Corridor VIII	North Macedonia	Construction of the Bukojanci - Kicevo Motorway section	WBEM	Core	New infrastructure	12.7	129	2029
Corridor VIII	North Macedonia	Construction of the Kicevo - Ohrid Motorway	WBEM	Core	New infrastructure	57.7	598	2026
Route 6	North Macedonia	Construction of Blace - Skopje (Stenkovec Interchange) Motorway Section - PHASE II Interchange Stenkovec to Interchange Bllace	WBEM	Core	New infrastructure	10.5	230.41	2029
Corridor Xd	North Macedonia	Construction of the Prilep - Bitola motorway	No	Comprehensive	New infrastructure	39.3		2028
Corridor VIII	North Macedonia	Construction of the Tetovo - Gostivar – Bukojanci Motorway	WBEM	Core	New infrastructure	47.8	1300	2028
Corridor VIII	North Macedonia	Construction of road section Trebeniste - Struga - Kjafasan	WBEM	Core	New infrastructure	21.7		2028

Corridor/ Route/Node	Regional Participant	Project name	Core Corridor	Core/ Comprehensive Network	Planned intervention	Total length (km)	CAPEX (M€)	Estimated completion deadline
Route 7	Serbia	Nis - Pločnik (Merošina - Beloljin)	WBEM	Core	New Infrastructure	32.7	317.8	2029
Route 9a	Serbia	Novi Sad - Rum	No	Comprehensive	New infrastructure	44.41	650	2026
Route 5	Serbia	Pojate - Preljina	No	Comprehensive	New infrastructure	112.39	2147	2026
<b>Railway projects</b>								
Corridor VIII	Albania	Rehabilitation of the railway Durres- Tirana Public transport terminal PTT and construction of the new Tirana - Rinas branch line	WBEM	Core	Reconstruction/rehabilitation	43.7	153	2026
Corridor VIII	Albania	Rehabilitation of the Durres – Rrogzheine	WBEM	Extended Core	Reconstruction/rehabilitation	34	120	2028
Route 2	Albania	Rehabilitation of Vore-Hani i Hotit Railway Line	WBEM	Core	Reconstruction/rehabilitation	120	340	2029
Corridor Vc	Bosnia and Herzegovina	Corridor Vc - Reconstruction and modernisation of the railway section Šamac – Doboj – Rječica	WBEM	Core	Reconstruction/rehabilitation	85	162.5	2025
Route 10	Kosovo	Railway Rehabilitation Route 10; Phase 1, Phase 2 and Phase 3	WBEM	Core	Reconstruction/rehabilitation	149	245	2027
Route 4	Montenegro	Rehabilitation railway line “Vrbnica-Bar” (rail Route 4) on the section Lutovo – Bratonožici – Bioci	WBEM	Core	Reconstruction/rehabilitation	20.2	35	2027
Corridor VIII	North Macedonia	Rail Corridor VIII-PHASE 2-Section Beljakovce-Kriva Palanka	WBEM	Core	New infrastructure	34	155	2026
Corridor X	North Macedonia	Construction of Joint Railway Border Crossing Station (JRBS) and access road at Tabanovce between Republic of North Macedonia and Republic of Serbia	WBEM	Core	New infrastructure	/	5.5	2028
Corridor VIII	North Macedonia	Rail Corridor VIII-PHASE 3-Section Kriva Palanka -Deve Bair, border with RB	WBEM	Core	New Infrastructure	23	560	2032
Corridor Xc	Serbia	Reconstruction and modernization of railway line Niš - Dimitrovgrad	WBEM	Core	Reconstruction/rehabilitation	108	502	2028
Corridor X	Serbia	Reconstruction and modernization of railway line Niš - Brestovac	WBEM	Core	Reconstruction/rehabilitation	23	60	2026
Corridor X	Serbia	Operational Center for Railway Traffic Management	WBEM	Core	New Infrastructure	/	127.5	2027
Corridor X	Serbia	Construction of the Zemun Palje - Nikola Tesla Airport - National Stadium railway	WBEM	Core	New Infrastructure	18,1	188.1	2026
Corridor X	Serbia	Construction works on Main Station, Belgrade Centre (Prokop)	WBEM	Core	Reconstruction/rehabilitation	/	15	2027
Corridor X	Serbia	Construction of the New Belgrade railway station complex with reconstruction of the bridge structure	WBEM	Core	New Infrastructure/ Reconstruction/rehabilitation	/	138	2026

Corridor/ Route/Node	Regional Participant	Project name	Core Corridor	Core/ Comprehensive Network	Planned intervention	Total length (km)	CAPEX (M€)	Estimated completion deadline
<b>Airport projects</b>								
Tirana	Albania	Rail connection to the airport (construction of new Tirana-Rinas branch line and rehabilitation of Durrës-Tirana)	WBEM	Core	Reconstruction/rehabilitation	43.7	153	2026
Tirana	Albania	Modernisation and expanding of Tirana Airport (multiple projects)	WBEM	Core	Reconstruction/rehabilitation	/	21.5	2026
Belgrade	Serbia	Modernisation and expanding Belgrade's Nikola Tesla Airport (multiple projects)	WBEM	Core	Construction/reconstruction	/	N/A	2026
Sarajevo	Bosnia and Herzegovina	Modernisation of Sarajevo International Airport (multiple projects)	WBEM	Core	Construction/reconstruction	/	40.9	2026
Niš	Serbia	Reconstruction of existing area and construction of new facilities	No	Comprehensive	Construction/reconstruction	/	29.6	2026
<b>Inland waterway projects</b>								
Rhine Danube Corridor	Serbia	Removal of the sunken vessels from the Danube River	Rhine Danube	Core Network	Rehabilitation/maintenance	N/A	31	2028
Rhine Danube Corridor	Bosnia and Herzegovina	Demining the Right Bank of the River Sava in Bosnia and Herzegovina	Rhine Danube	Core Network	Rehabilitation/maintenance	40	38.9	2028
Rhine Danube Corridor	Bosnia and Herzegovina	Rehabilitation of the Sava River waterway	Rhine Danube	Core Network	Reconstruction/rehabilitation	/	23.8	2027
Rhine Danube Corridor	Serbia	Implementation of a network of hydro- meteorological stations along Danube and Sava rivers	Rhine Danube	Core Network	Rehabilitation/maintenance	/	5.38	2027
Rhine Danube Corridor	Serbia	Data Collection, hydraulic & morphological modelling of the Danube and Sava River in the Republic of Serbia	Rhine Danube	Core Network	Rehabilitation/maintenance	100	0.6	2025
Rhine Danube Corridor	Serbia	Hydraulic and morphological modeling of Danube and Sava rivers in the Republic of Serbia, Lot 2	Rhine Danube	Core Network	Rehabilitation/maintenance	/	3.81	2025
Rhine Danube Corridor	Serbia	Supply of Marking & Hydrographic Vessels for the Danube, Sava, and Tisa Rivers	Rhine Danube	Core Network	Rehabilitation/maintenance	/	4	2025
Rhine Danube Corridor	Serbia	Hydrotechnical and dredging works at the mouth of the Drina River into Sava River	Rhine Danube	Core Network	Rehabilitation/maintenance	/	12	2028
Rhine Danube Corridor	Serbia	National academy for emergencies and training of ship crew members	Rhine Danube	Core Network	Construction	//	47	2030
Rhine Danube Corridor	Serbia	Construction of the new lock on the Tisa River	Rhine Danube	Core Network	Construction	/	62	2030
Rhine Danube Corridor	Serbia	Establishment of a VTS and VHF radio-telephone system on the Tisa River	Rhine Danube	Core Network	Rehabilitation/maintenance	/	2.7	2028

Corridor/ Route/Node	Regional Participant	Project name	Core Corridor	Core/ Comprehensive Network	Planned intervention	Total length (km)	CAPEX (M€)	Estimated completion deadline
Rhine Danube Corridor	Serbia	Expansion of the AIS AtoNs system for navigational monitoring and electronic marking of the waterway on the Tisa River	Rhine Danube	Core Network	Rehabilitation/maintenance	/	2.5	2028
<b>Inland Waterway Ports</b>								
Rhine Danube Corridor	Bosnia and Herzegovina	Reconstruction and Modernisation of the River Port of Brčko Phase 1	Rhine Danube	Core Network	Construction/reconstruction	/	10	2025
Rhine Danube Corridor	Serbia	Expansion and Construction of the Port of Sremska Mitrovica	Rhine Danube	Comprehensive Port	Construction/reconstruction		55	2030
Rhine Danube Corridor	Serbia	Expansion of capacities of the Port of Prahovo	Rhine Danube	Comprehensive Port	Construction/reconstruction		45	2028
Rhine Danube Corridor	Serbia	Construction of a new port in Belgrade	Rhine Danube	Core Port	Construction/reconstruction		300	2030
Rhine Danube Corridor	Serbia	Construction of a bulk cargo terminal in Belgrade, location of Krnjača	Rhine Danube	Core Port	Construction/reconstruction		82	2030
Rhine Danube Corridor	Serbia	Green ports	Rhine Danube	Core and Comprehensive Ports	Construction/reconstruction		50	2028
Rhine Danube Corridor	Serbia	Expansion of the port of Novi Sad	Rhine Danube	Core Port	Construction/reconstruction		30	2026
<b>Maritime projects</b>								
Western Balkan Eastern Mediterranean	Albania	"Provision, Installation and Commissioning of Equipment for VTMS Implementation and ITS"	WBEM	Core	New infrastructure		6	2025
Western Balkan Eastern Mediterranean	Albania	The Construction of the New Integrated Port in Porto Romano and the Transfer of Services Phase I	WBEM	Core Port	New infrastructure		390	2030
Western Balkan Eastern Mediterranean	Albania	Construction of the New Integrated Port in Triporti, Vlore and Transfer of Services	WBEM	Comprehensive Port	New infrastructure		60	2028

# 6. TEN-T KEY PERFORMANCE INDICATORS PROGRESS FORECAST

## 6.1 Railway indicators

With the ongoing and financially supported projects scheduled for completion by 2030, the upcoming projections for each TEN-T performance metric will focus on this period. Importantly, sections of the rail network that are not planned for upgrades are expected to, at a minimum, retain their current standards.

### a) Electrification

Network electrification is one of the most significant performance indicators for railways within the TEN-T framework, as it enhances efficiency, reduces greenhouse gas emissions, and lowers operational and maintenance costs, all contributing to its environmentally sustainable profile.

Projections indicate modest growth in electrification, with the Core Network expected to increase by about 29%, reaching a total of 91%. This highlights the need to accelerate efforts to electrify the Core Network across the region fully.

Higher electrification rates are expected based on plans for electrification in all ongoing, finance-secured, mature projects and projects under preparation scheduled for completion by 2030.

### Electrification 2023-2030

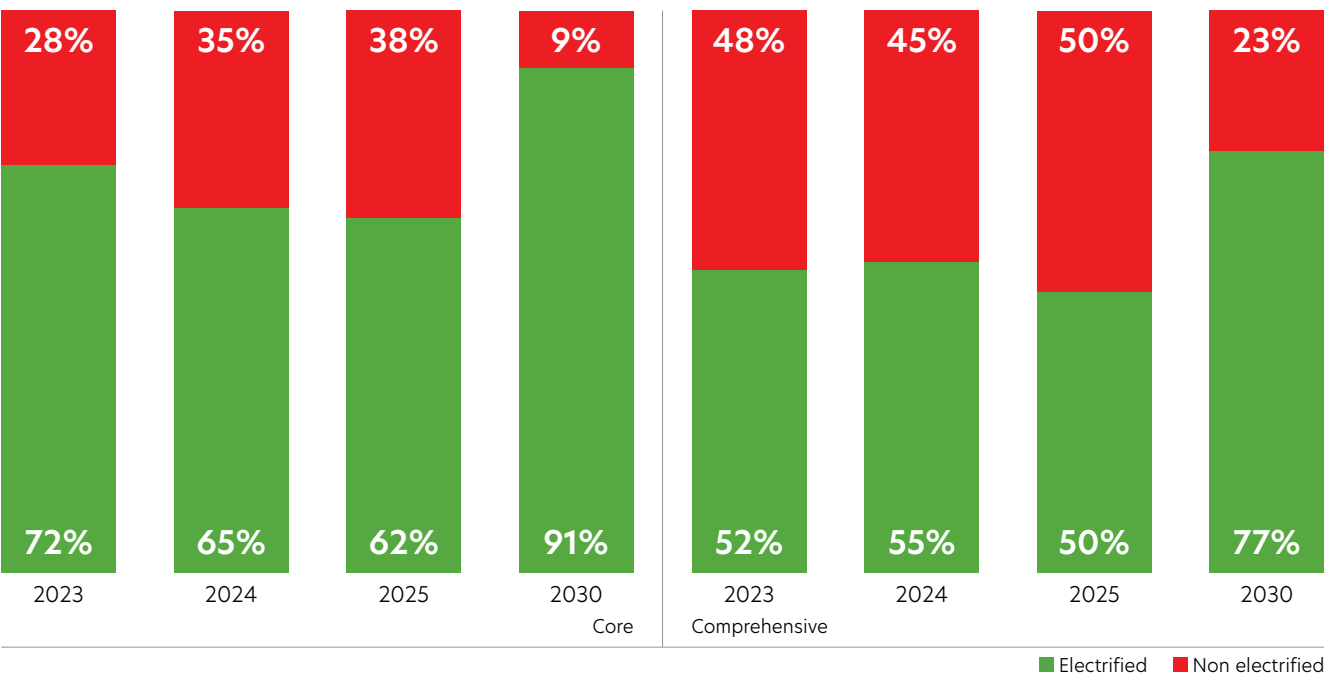


Figure 50. Western Balkans rail network electrification progress forecast for 2030

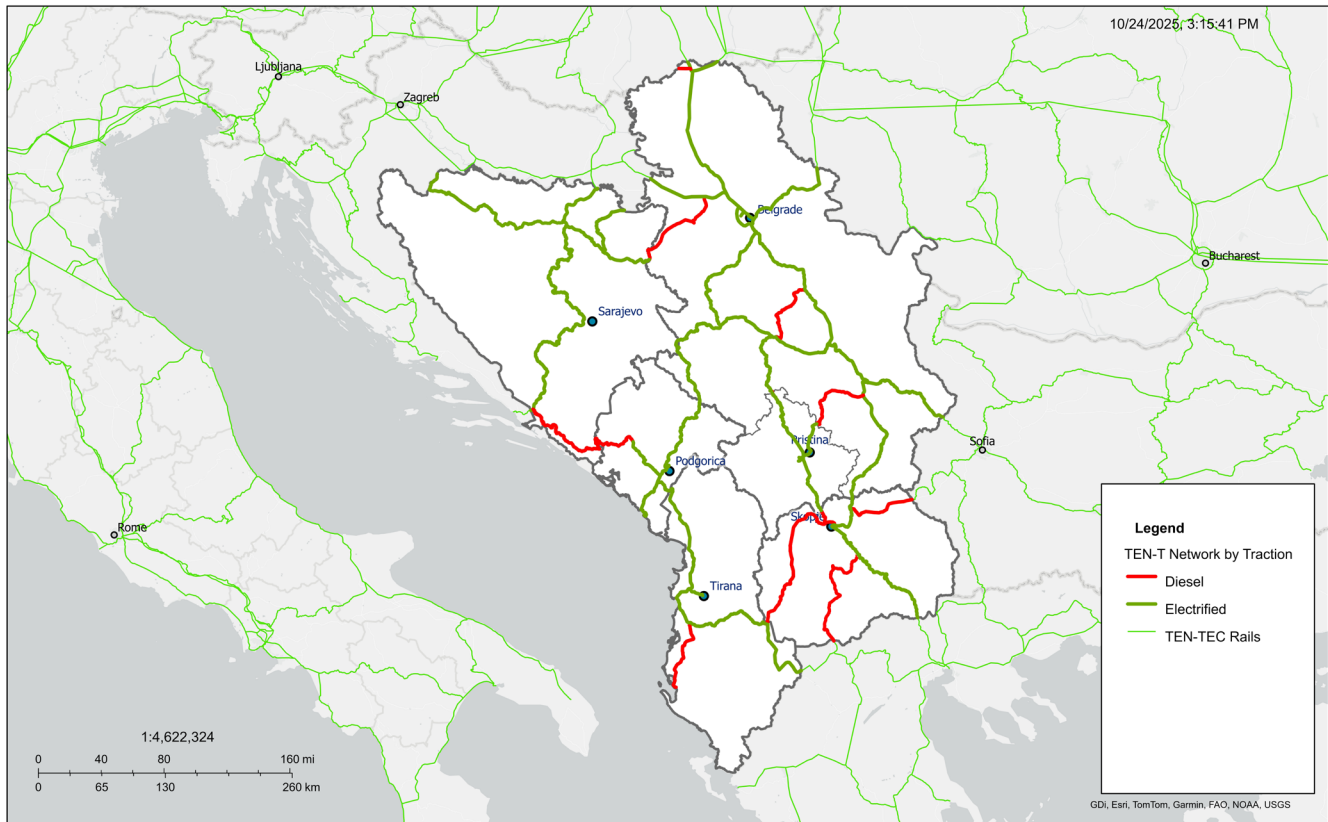


Figure 51. Electrification Forecast 2030

## b) Axle Load

By 2030, the axle load indicator for the rail network is projected to meet TEN-T criteria across 97% of the Core Network and 83% of the Comprehensive Network, reflecting a modest improvement in track performance. However, the ideal benefit of this criterion will only occur with 100% compliance across both the Core and Comprehensive network.

## Axle Load 2023-2030

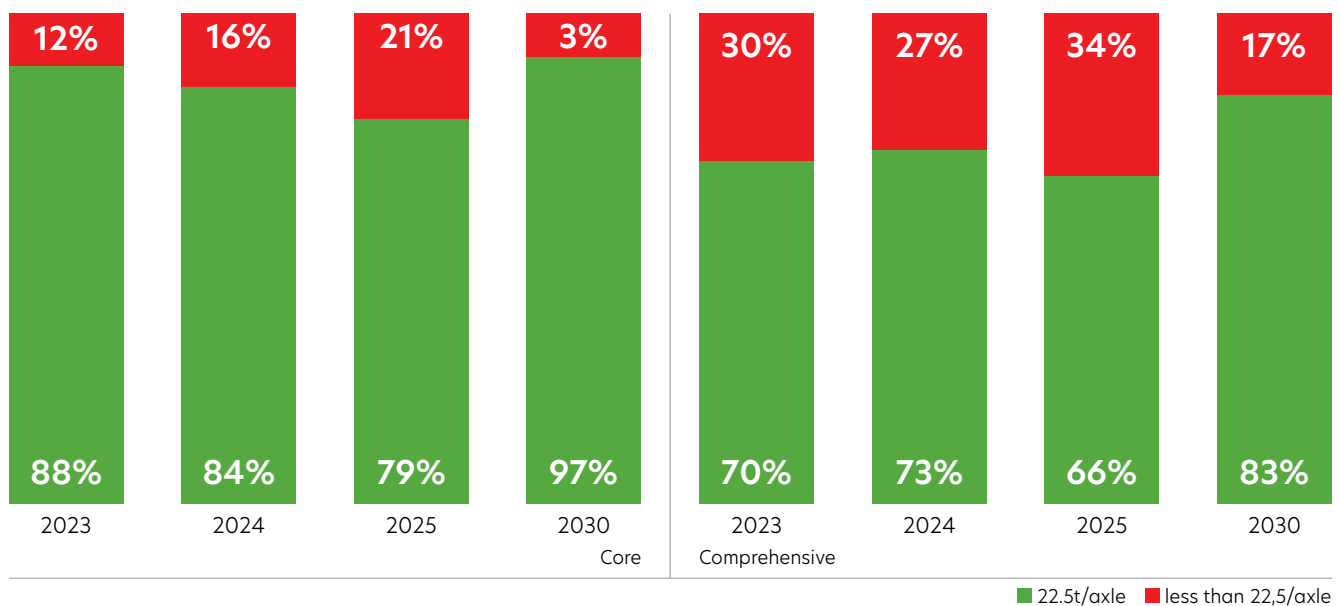


Figure 52. Western Balkans Rail network axle load progress forecast for 2030

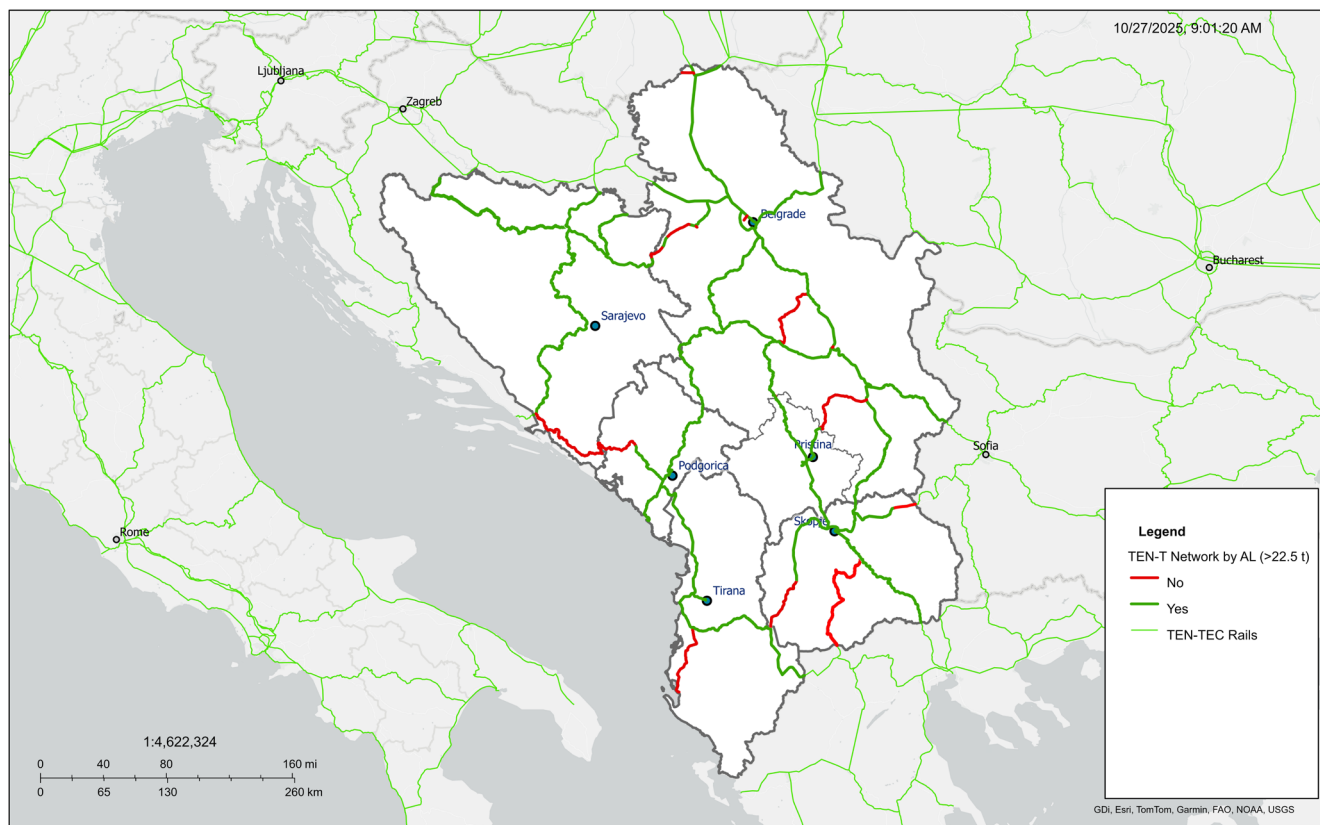


Figure 53. Axle Load Forecast 2030

## c) Train length

Train length, a critical performance indicator within the TEN-T framework, is among the newest requirements for alignment across European and Western Balkans rail networks. Currently, the Western Balkans region does not fully meet this criterion.

Consequently, infrastructure managers in the region must recognise and prioritise this challenge as an important TEN-T requirement. The need for longer trains is further emphasised in the freight transport sector, as they offer greater efficiency and cost-effectiveness compared to shorter trains.

Over the following years, operational adjustments could enhance longer trains on 68% of the Core Network and 56% of the Comprehensive Network. While some stations can accommodate longer trains, their numbers remain insufficient to meet demand.

## Train length 2023-2030

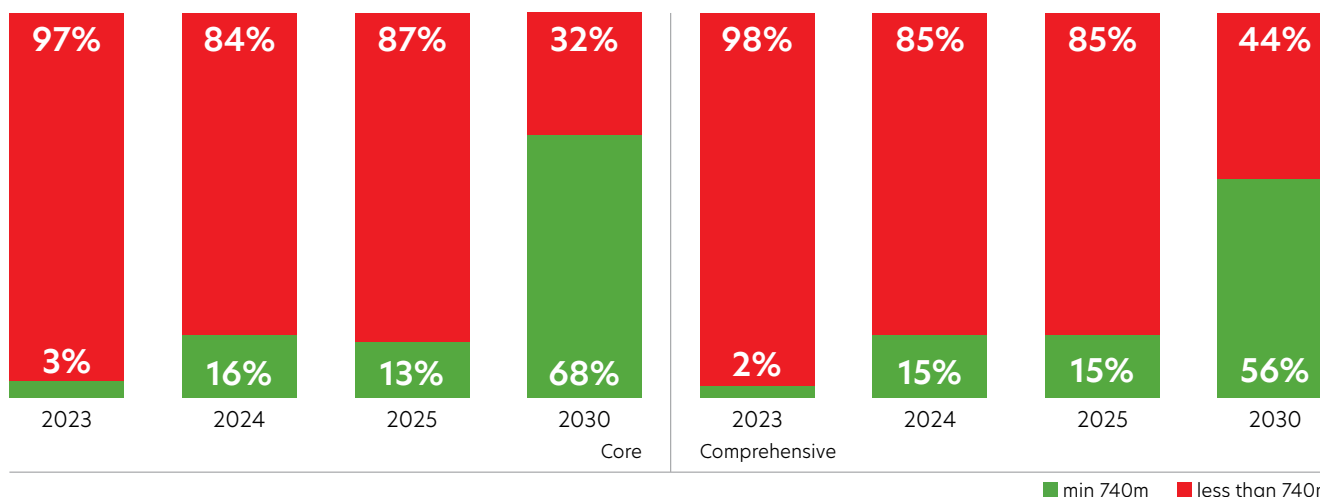


Figure 54. Western Balkans Rail Network train length progress forecast for 2030

## d) Design Speed

The figures show enhancements in both design and operational speeds. It is evident that with the full execution of the projects, anticipated by 2030, there will be a steady 31% improvement in design speed on the Core network, marking a remarkable accomplishment. Nevertheless, achieving a consistent design speed of 100 km/h across the entire network is the ultimate goal.

### Minimum Design Speed (100km/h) for Freight Trains 2023-2030

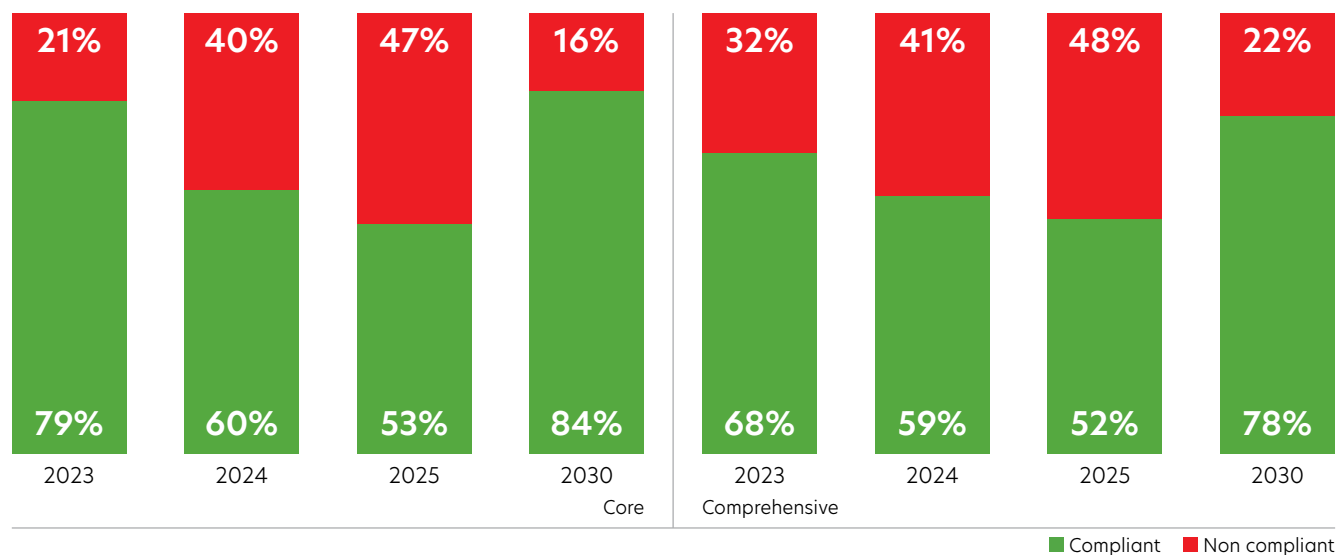


Figure 55. Western Balkans Rail network - Minimum design speed compliance progress forecast for 2030

## e) Operational Speed

Similarly, important improvements are anticipated in the operational speed compliance indicator. Currently, at 21% for the Core Network and 18% for the Comprehensive Network, projections for 2030 show a significant increase to 76% and 66%, respectively. This highlights both the challenges facing railways in the Western Balkans and the adverse impact of maintenance shortfalls on rail competitiveness. However, it also reflects a strong commitment within the region to make substantial efforts toward improving railway infrastructure conditions.

### Minimum Operating Speed (100km/h) for Freight Trains 2023-2030

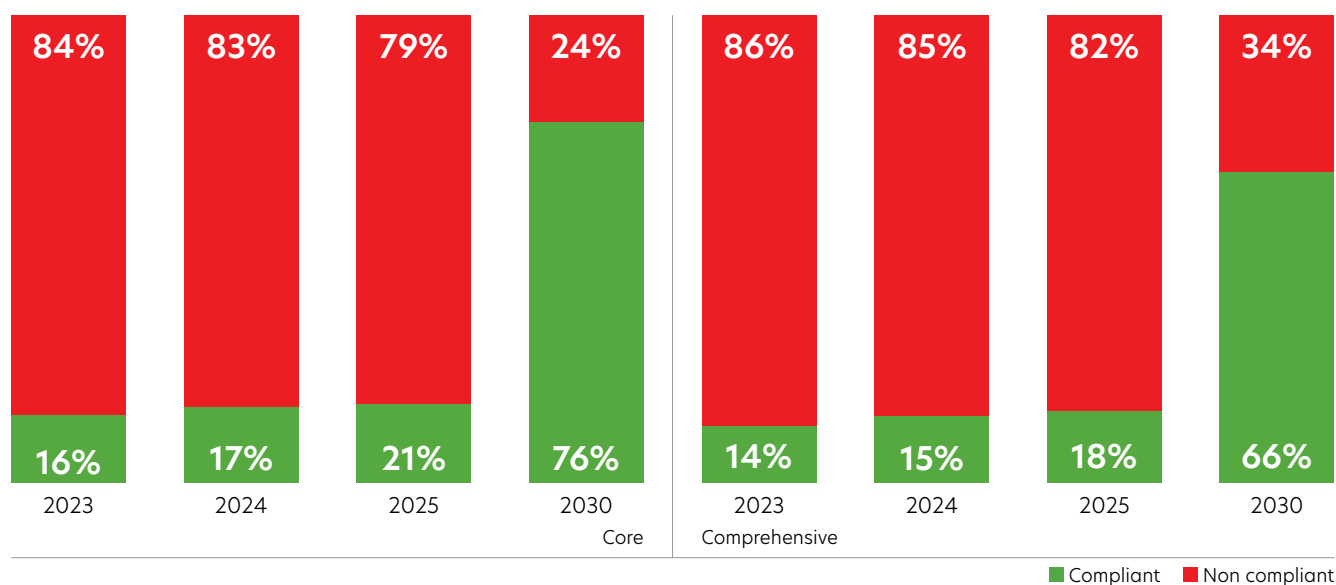


Figure 56. Western Balkans Rail network - Minimum operating speed compliance progress forecast for 2030

f) ERTMS

While ERTMS track-side deployment is integrated into several ongoing projects, the progress expected by 2030 will be increased to 43% of the Core Network. It is notable that in 2025, operational ERTMS covers 7% of the Core Network owing to the recently reconstructed Belgrade – Subotica and Kumanovo Beljakovce lines. Nonetheless, substantial efforts are currently being made to ensure that, at a minimum, the Core Network will be equipped with ERTMS in the future.

ERTMS 2023-2030

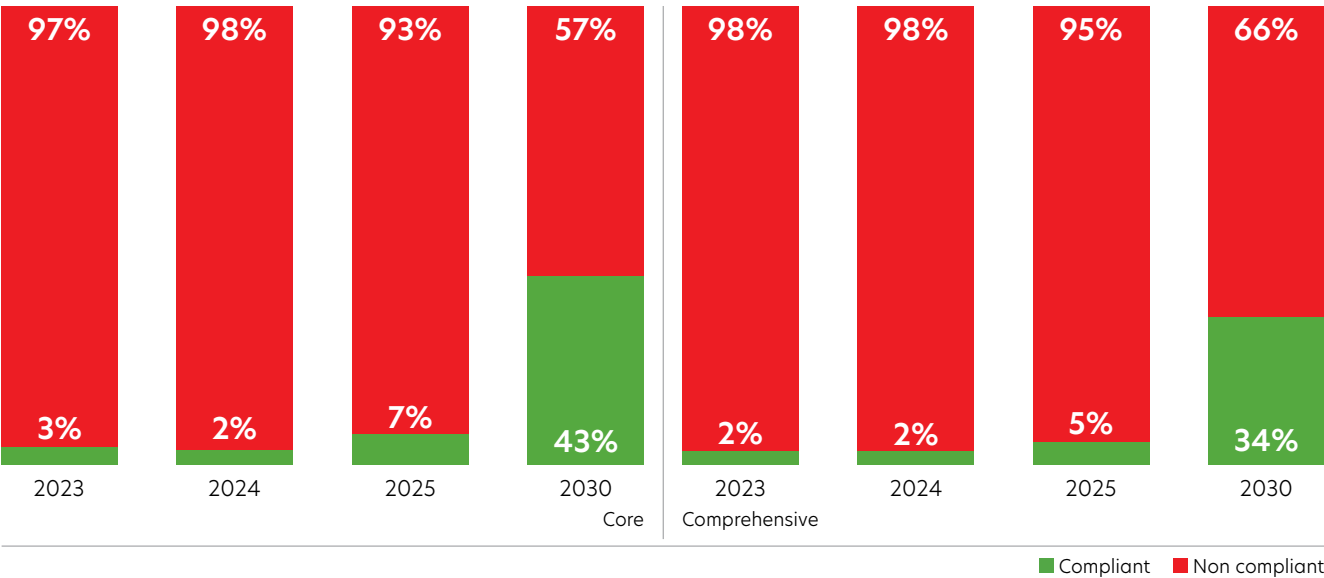


Figure 57. Western Balkans Rail Network ERTMS compliance progress forecast for 2030

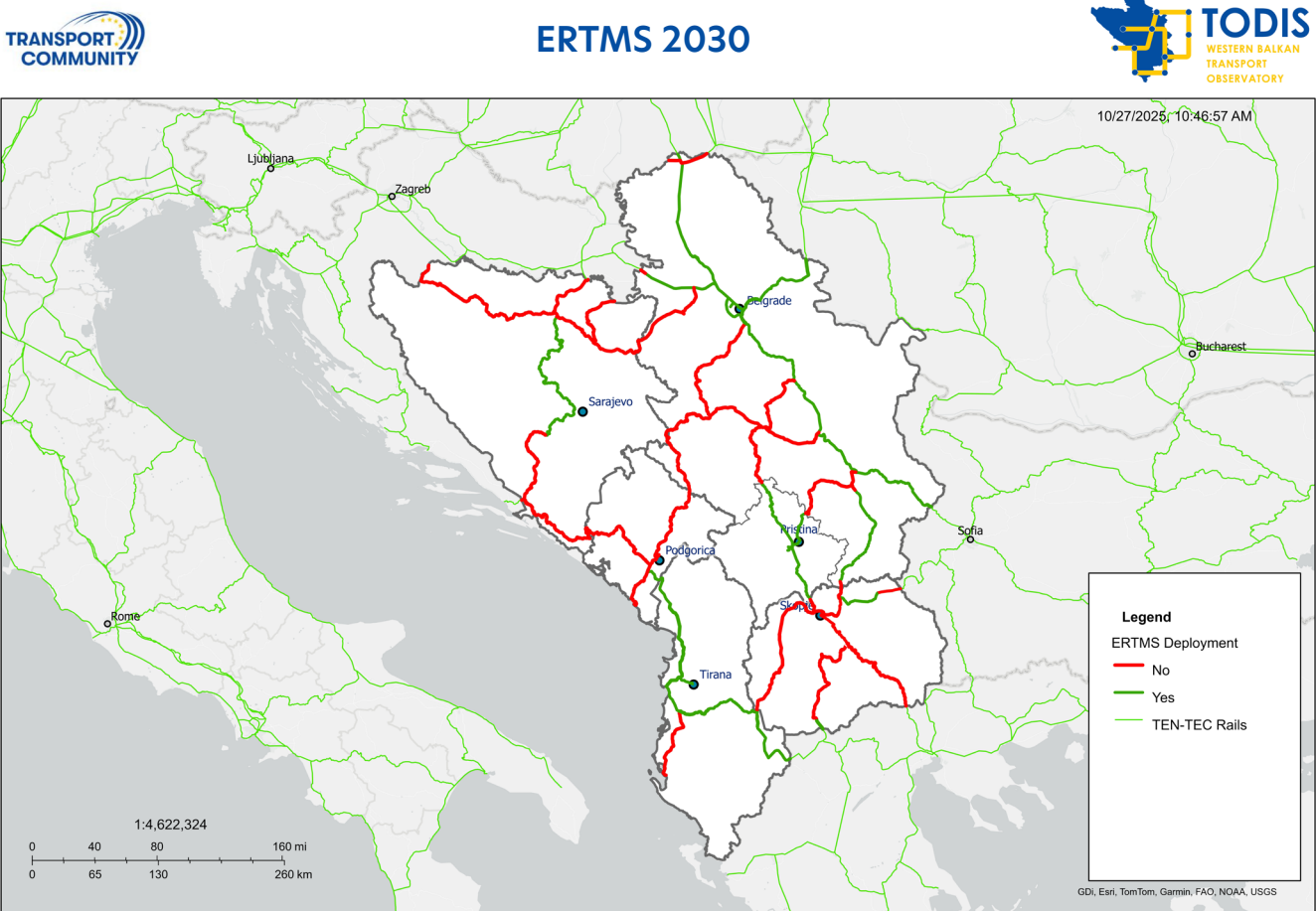


Figure 58. ERTMS Forecast 2030

### g) Passenger Speed $\geq 160$ km/h - forecast

This new indicator is related to the passenger speed forecast. It is a strong indicator of the future state of the rail network in the Western Balkans related to the passenger services comfort and attractiveness. Financially secured and ongoing projects are expected to significantly improve the passenger speed by more than 160 km/h, on the Core Network up to 16% and 14% on the Comprehensive.

### Passenger speed $\geq 160$ km/h 2025-2030

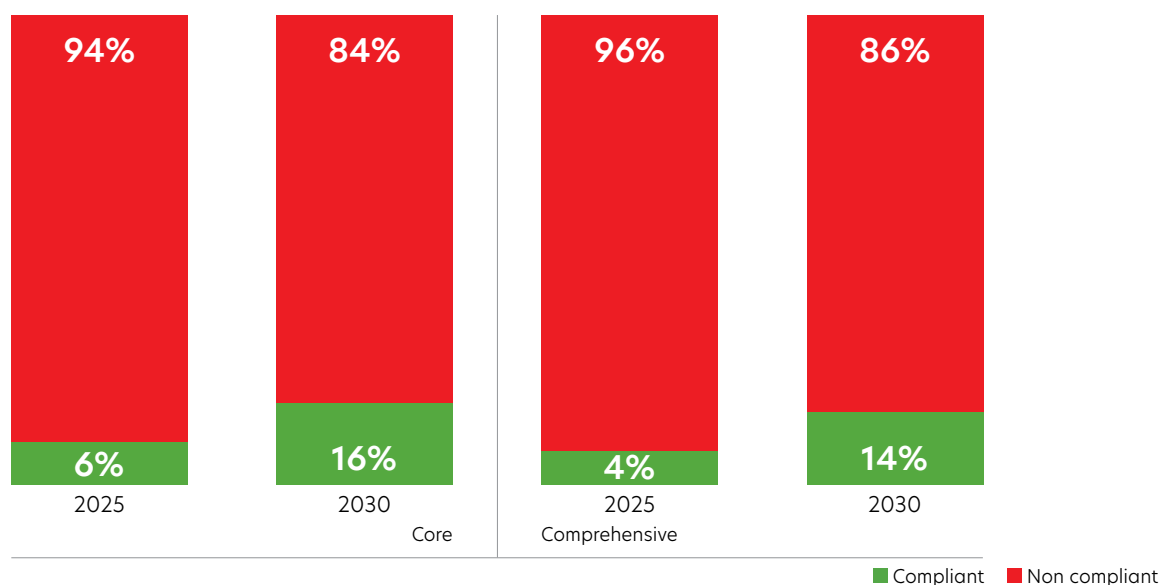


Figure 59. Passenger Speed  $\geq 160$  km/h forecast 2030

### h) Loading Gauge P400 - forecast

By 2030, the Region is expected to advance compliance with the TEN-T Regulation requirement for Loading Gauge P400, which enables the transport of semi-trailers on pocket wagons and supports efficient intermodal freight. Infrastructure upgrades, including tunnel and bridge modifications, are underway across the Network to meet this standard, positioning the region to meet EU freight transport goals and enhance its integration into the European logistics network.

### Loading gauge P400 2025-2030

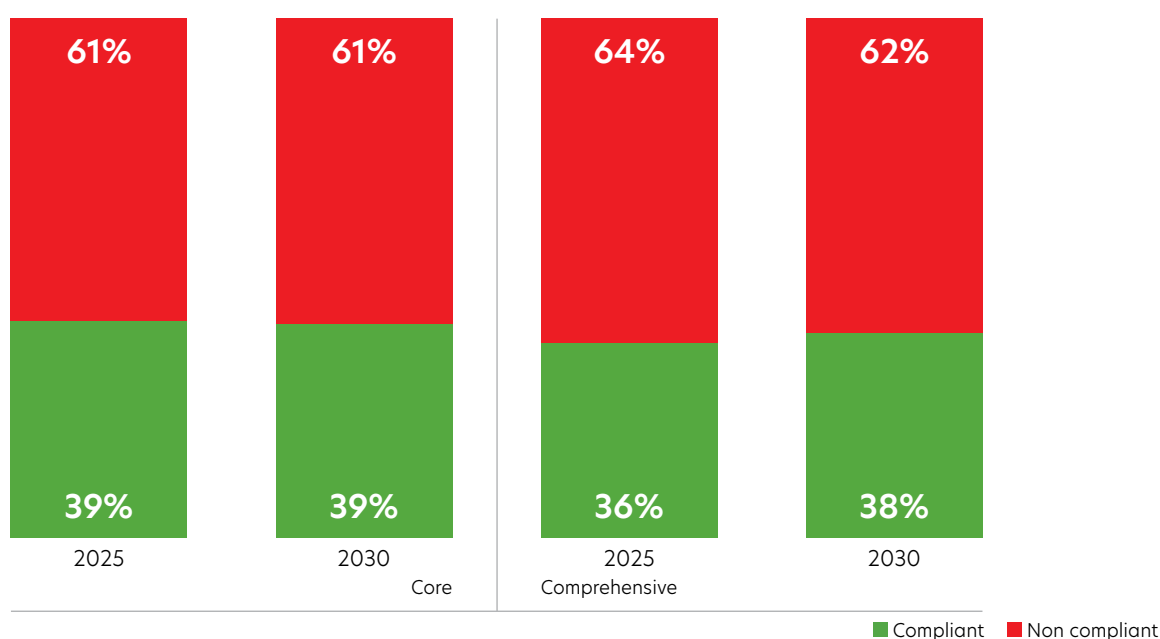


Figure 60. Loading Gauge P400 Forecast 2030

**i) No Strong Inclination – forecast**

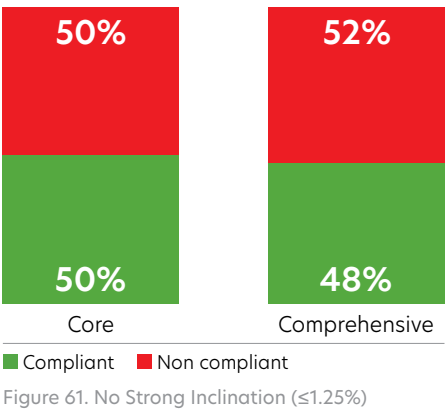
By 2030, the Region is expected to progress toward compliance with the TEN-T Regulation requirement that railway lines on the core network maintain a maximum gradient of 1.25%, ensuring efficient and interoperable freight transport. This standard reduces energy consumption, and is being addressed through infrastructure upgrades, alignment improvements, to meet the technical specifications and climate objectives of the TEN-T network.

**j) Infrastructure conditions – forecast**

The infrastructure condition forecast below provides a strong indicator of the future state of the rail network in the Western Balkans. Financially secured and ongoing projects are expected to significantly improve infrastructure conditions, with the proportion of the Core Network rated as ‘good’ or ‘very good’ projected to increase from the current 41% to 95%.

However, it is crucial that regional partners remain vigilant. Maintaining the network is an ongoing responsibility. Neglect in this area would risk reversing all improvement investments, leading to exponentially higher costs over time due to delayed maintenance.

**No Strong Inclination —  
2030 (≤1.25%)**



**Infrastructure Conditions Forecast 2030**

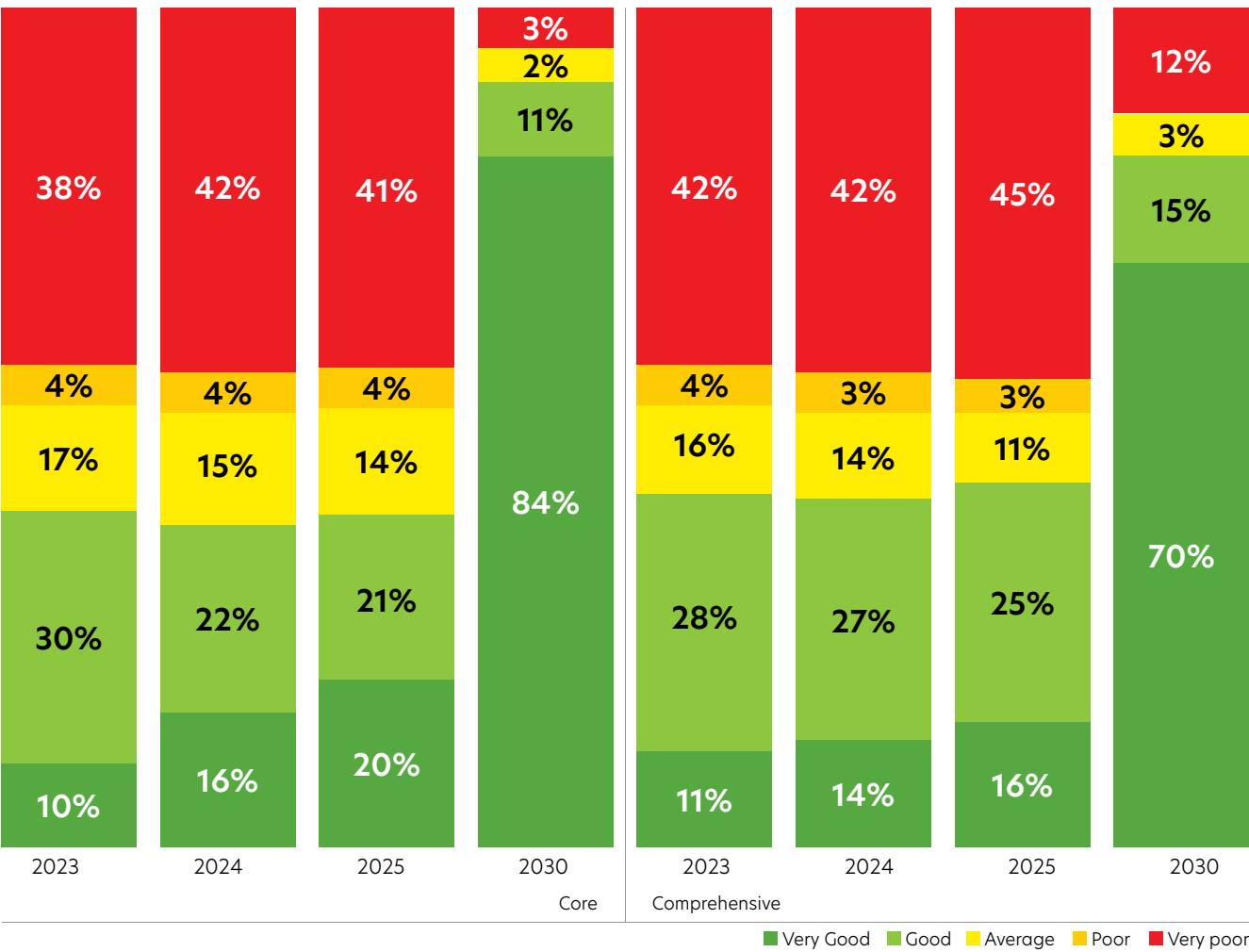


Figure 62. Western Balkans Rail Network Infrastructure Condition Forecast for 2030

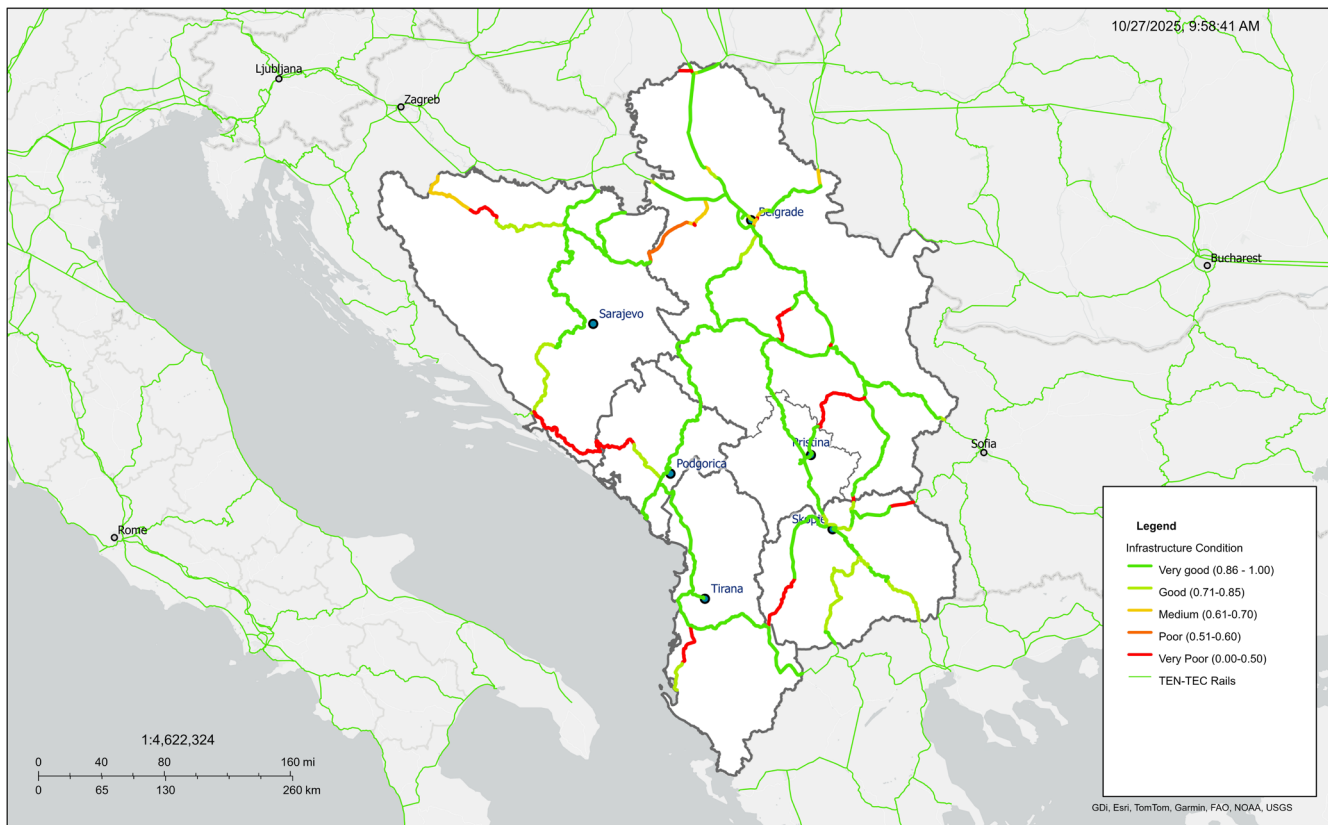


Figure 63. Rail infrastructure conditions forecast 2030

## 6.2 Road indicators

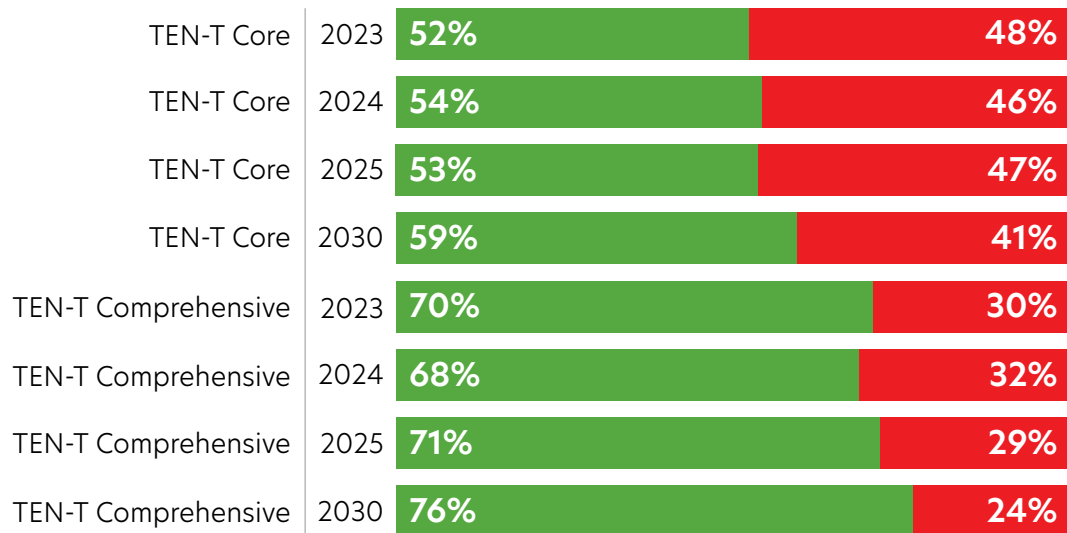
The TEN-T compliance forecast is based on the estimated completion date for the ongoing TEN-T projects listed under Section V above.

The compliance indicators previously assessed in Chapter 3.2.2 were updated under the following assumptions:

- Projects shall be completed as per the currently estimated implementation deadline,
- Compliance with TEN-T indicators shall be achieved as planned,
- There will be no compliance downgrading on any of the existing network sections (adequate maintenance of assets shall be ensured).

The results of this exercise are given below. As information on the new KPIs is not available that would enable a better picture of the full compliance, the compliance forecasting exercise refers solely to the infrastructure profile, condition criterion and separation of the carriageway and at-grade crossings.

## TEN-T Road network - 2030 compliance forecast



■ Compliant ■ Non compliant

Figure 64. TEN-T Compliance progress forecast 2030 (infrastructure-related KPIs)



## Road Compliance Map 2030



Figure 65. TEN-T road network - 2030 compliance forecast (infrastructure-related KPIs)

The compliance figures for the TEN-T Core and Comprehensive networks indicate progress from 2023 to 2027, with notable improvements anticipated as delayed projects reach completion. Compliance for the TEN-T Core network is expected to increase from 52% in 2023 to 58,5% by 2030 due to ongoing infrastructure improvements. Similarly, the TEN-T Comprehensive network shows a projected rise in compliance from 70% in 2023 to 75,71% in 2030. These improvements reflect a strategic push to address project delays, ultimately moving closer to full compliance across both networks.

Nevertheless, the reliability of such predictions is doubtful, considering the delays accumulated in projects.

### 6.3 Waterborne transport indicators

The TEN-T Key Performance Indicators (KPI) assessment for waterborne transport shows steady progress across inland waterways, inland ports, and seaports, with further improvements expected by 2030. While core navigability parameters are largely met on the Danube and Tisa, the Sava River still requires targeted interventions. Inland ports comply with road and multimodal terminal requirements, but rail connections remain partial, while environmental and alternative fuel infrastructure is still missing. Seaports provide essential trade and transport links, though full implementation of environmental facilities is ongoing. Planned projects are expected to significantly enhance navigability, efficiency, and sustainability across the network.

#### Inland Waterway Network

Maintaining Good Navigation Status (GNS) is a key TEN-T objective for the inland waterway network. Compliance with navigability indicators with minimum 2.5 m fairway depth and 5.25 m bridge clearance is fully achieved on the Danube and Tisa Rivers, while the Sava River meets these conditions on about 55% of its length.

Locks maintenance and RIS implementation are complete for the Danube, partially achieved on the Sava (Serbian section), and pending on the Tisa. The indicator for publishing water level and lock waiting time data remains unmet, resulting in an overall 44% TEN-T compliance rate.

Ongoing projects on the Tisa River, including the establishment of VTS/VHF systems and Automatic Identification System (AIS) and Aids to Navigation (AtoNs) expansion, and the possibility for publication of the necessary information about the number of days per year during which the actual water level exceeds or does not achieve the specified reference water level for navigation channel depth are expected to raise implementation levels to around 77% by 2030, significantly improving RIS coverage and data transparency.

Below is a chart illustrating the forecast for the Inland Waterway Network Indicators.

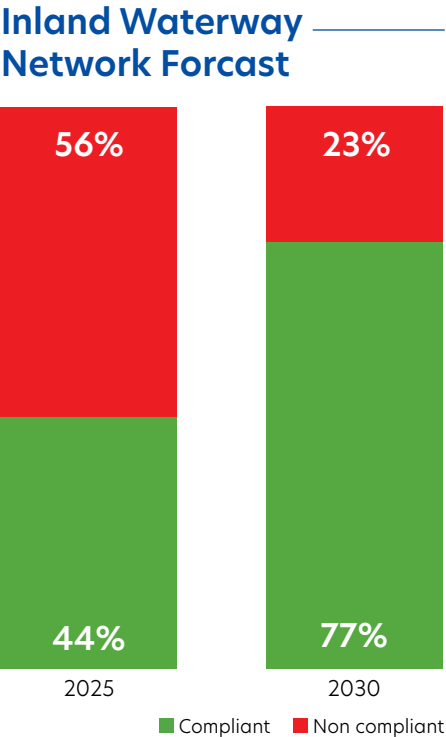


Figure 66. Forecast for Inland Waterway Network

#### Inland Waterway Ports

Ports within the Inland Waterway Network play a key role in ensuring multimodal connectivity. Currently, five ports are part of the TEN-T Core Network extension, and three ports are included in the Comprehensive Network extension.

All ports fully comply with the requirements for road connections and provide at least one multimodal freight terminal accessible to all operators under transparent and non-discriminatory conditions. However, rail connections are missing in one core network port and are only partially implemented in one comprehensive port.

The indicators on the availability of alternative fuels and environmental facilities are not yet met in any port, resulting in an overall implementation level of 55% for core network ports and 57% for comprehensive network ports.

With the implementation of ongoing and planned projects for port reconstruction, modernisation, and the Green Ports initiative, compliance levels are expected to increase by 2030 to approximately 80% for the core network and 87% for the comprehensive network.

Below is the chart illustrating the forecast for the inland waterway ports Indicators

## Inland Ports Forecast

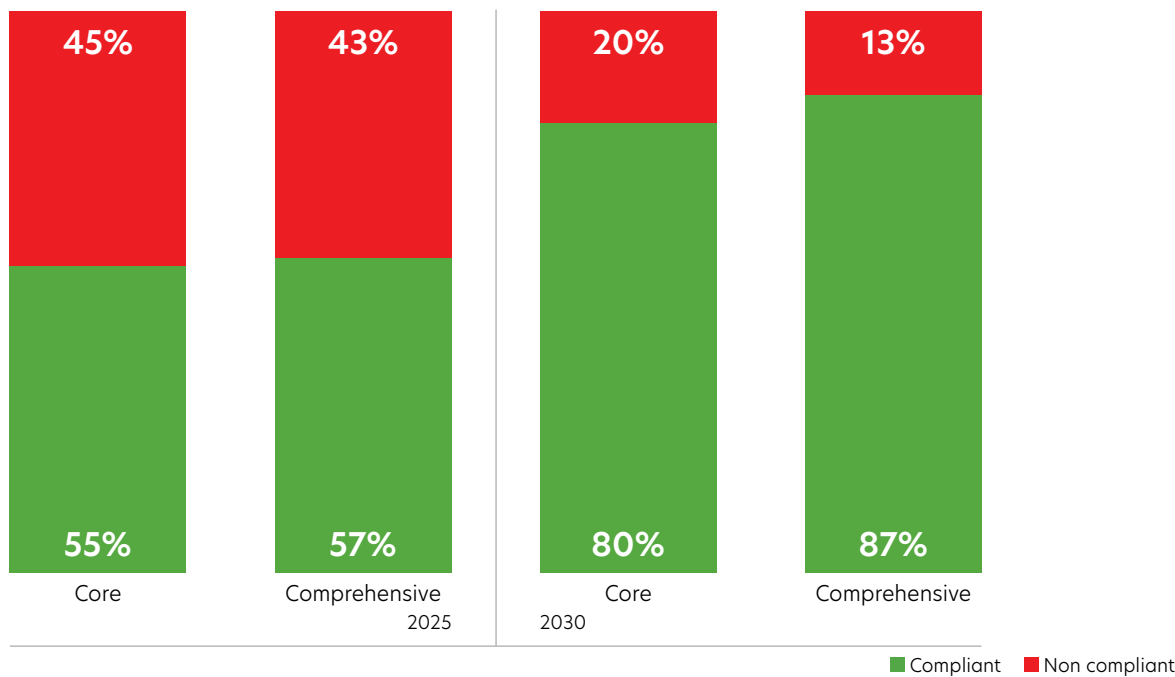


Figure 67. Forecast for Inland Ports

## Seaports

Seaports are vital gateways for international trade, connecting maritime and inland transport networks and enabling the efficient movement of goods and passengers. In the region, there are three seaports, two included in the TEN-T Core Network extension and one in the Comprehensive Network extension.

All seaports fully comply with road connectivity requirements and provide at least one multimodal freight terminal open to all operators on a transparent and non-discriminatory basis. However, the infrastructure for improving the environmental performance of ships, including port reception facilities, is only partially implemented, mainly due to ongoing alignment with the new EU acquis. As a result, the overall implementation level currently stands at 64% for ports part of the core TEN-T extension network and 50% for the port part of the Comprehensive TEN-T network extension.

With ongoing projects such as the implementation of the Vessel Traffic Monitoring and Information System (VTMIS), the construction of two new multimodal ports in Albania, the full transposition of the EU Directive on Port Reception Facilities from all partners and the transposition of the Directive reporting formalities in Montenegro, the TEN-T KPI implementation is expected to reach 90% for ports that are part of the core TEN-T extension network and 71% for port that are part of the Comprehensive TEN-T network extension by 2030.

Below is the chart illustrating the forecast for seaport Key Performance Indicators.

Seaports Forecast

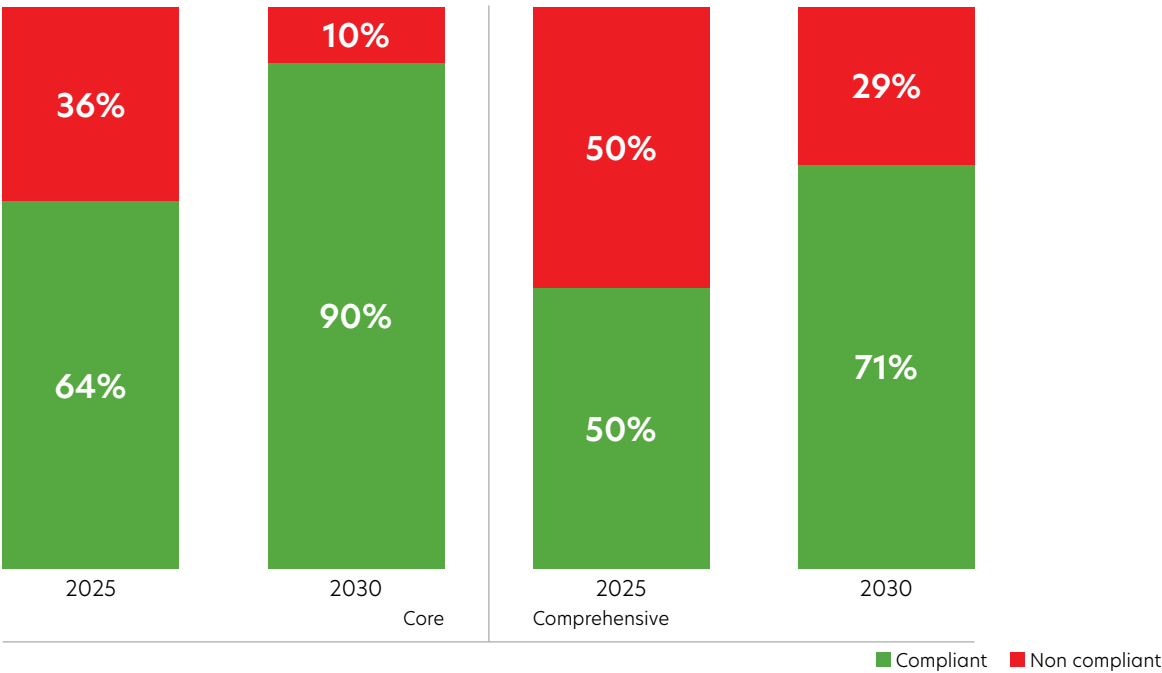


Figure 68. Forecast for Seaports

## 6.4 Airport indicators

With ongoing developments across the region, several airports in the Western Balkans are steadily advancing towards meeting the TEN-T airport compliance indicators. Major modernisation projects in Sarajevo, Tirana, Niš, and Belgrade continue to address capacity expansion, safety, and service quality. Sarajevo Airport finalised its Terminal B Extension and Apron Extension – East in 2024, while additional projects—such as the Runway Reconstruction and New Fuel Depot—are underway and expected to be completed by 2026. In Tirana, the ongoing railway connection project (Durrës–Tirana–Airport line) and multiple terminal and infrastructure upgrades will significantly enhance multimodal access and operational capacity by 2026.

In Serbia, the modernisation of Belgrade Airport remains the most comprehensive, with works progressing on terminal expansion, runway reconstruction, and landside access improvements, while Niš Airport is nearing completion of its new terminal and internal infrastructure upgrades. Kraljevo (Morava) Airport is in the design phase for apron extension and service facilities.

While no airport yet meets the rail-connection requirement, the inclusion of the Tirana link marks the first tangible progress toward multimodal integration. Alternative fuel availability remains partial, though Belgrade, Niš, Sarajevo, and Skopje have begun introducing electric ground-handling equipment and related infrastructure. Pre-conditioned air supply and ATM/ANS upgrades are in place at Belgrade, Niš, Kraljevo, and Sarajevo, setting positive examples for the region.

These advancements reflect the regional partners' commitment to meeting TEN-T standards and fostering a more integrated, sustainable aviation network in the region.

Overall, the ongoing and planned investments demonstrate strong regional commitment to achieving TEN-T compliance and building a modern, efficient, and environmentally sustainable airport network by 2030–2040.

Below are tables indicating the forecast for the airport KPIs by 2030. As there is scant information on availability of alternative fuels, pre-conditioned air supply ATM/ANS implementation and adequate terminal capacity that would ensure full compliance with the sufficiency requirements under the directive, the compliance forecasting exercise refers solely to the connection to other modes.

Road and rail connection to the status of Airports		Connection to rail					Connection to Motorway/Express Road				
		2022	2023	2024	2025	2030	2022	2023	2024	2025	2030
<b>Albania</b>	<b>Tirana</b>	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
<b>Bosnia and Herzegovina</b>	<b>Sarajevo</b>	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
	<b>Banja Luka</b>	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
<b>North Macedonia</b>	<b>Skopje</b>	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
	<b>Ohrid</b>	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
<b>Kosovo</b>	<b>Pristina</b>	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
<b>Montenegro</b>	<b>Podgorica</b>	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
	<b>Tivat</b>	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
<b>Serbia</b>	<b>Belgrade</b>	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	<b>Niš</b>	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
	<b>Kraljevo</b>	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes

## 7. Overall Conclusions and Recommendations

Compliance with TEN-T standards, as outlined by Regulation 1315/2013 and updated by Regulation 1679/2024, remains a demanding objective for the Western Balkans, requiring a coordinated and systematic approach from all Regional Partners, coupled with significant financial investment.

Achieving the necessary alignment with these standards will demand continuous collaboration and the mobilisation of substantial resources. A significant portion of funding has already been dedicated to critical infrastructure projects that are projected to improve the TEN-T Network by 2030. This Report highlights that nearly €17.136 billion has been committed to ongoing and finance-secured projects aimed at advancing both the Core and Comprehensive Network.

Roads have received the largest portion of total investments, amounting to €13.10 billion, followed by €2.806 billion for railways, €1.23 billion for waterborne projects, and €86 million for air projects – highlighting a strong regional commitment to improving connectivity and transport infrastructure.

- **Progress towards achieving TEN-T compliance remains uneven across transport modes.** Road networks are advancing the fastest, driven by significant investments and improved compliance rates, bringing the Core Network to 54% compliance—largely due to enhancements in road quality. Rail infrastructure, however, continues to lag, showing only modest improvements in speed and train length, with 45% of the network rated as “poor” or “very poor” and 41% as “good” or “very good.” The rail electrification rate stands at 62%, while ERTMS deployment has increased to 7%, up from 2% last year. In waterborne transport, the inland waterway network shows 45% TEN-T compliance, though ports still require targeted investments to close gaps in rail connections and to develop environmental and alternative fuel infrastructure. In air transport, compliance is constrained by insufficient rail links to key airports and a lack of green infrastructure, limiting full TEN-T alignment. Strengthening compliance across all modes—rail, road, waterborne, and air—through focused investments and enhanced cross-border cooperation remains essential to achieving balanced TEN-T integration by 2030.
- **The implementation pace of large projects remains sub-optimal.** Delays keep accumulating at each project stage and progressing from “under preparation” to “ongoing” status remains challenging, primarily due to funding uncertainties and a lack of human resources to complete project preparation. The long-term planning and prioritisation tool is in need of improvement, along with donor coordination and strengthening capacities for attracting EU funds and project management.
- While the overall quality of the road network seems to have improved, rail infrastructure remains as it is and **maintenance continues to be a challenge.** It is essential that long-term planning should include sufficient resources for upkeep of the infrastructure, ensuring that both road and rail systems remain functional, safe, and capable of supporting future transport needs.
- **Investment in rail and waterborne transport needs to be accelerated.** Increased investment for rail infrastructure is essential to bridge existing gaps in axle load (currently at 79% compliance for the Core Network), operational speed (20%), and electrification (62%) while modernisation of port infrastructure and superstructure through greater investment and faster implementation of ongoing projects is crucial for the enhancement of operational efficiency, improved environmental performance, support for larger vessels, and in order to meet TEN-T Key Performance Indicators (KPIs) while reducing congestion across the network.
- **The uptake of alternative fuels across all transport modes remains limited.** The Western Balkans should view this as an opportunity to accelerate transition towards cleaner mobility. Advancing coordinated planning for refuelling and recharging along the core corridors, integrating sustainable energy solutions at ports, terminals, and logistics hubs, and aligning with the EU Alternative Fuels Infrastructure Regulation (AFIR) will be key to ensuring interoperability, reducing emissions, and strengthening multimodal connectivity across the region.

- **Maintaining Good Navigation Status (GNS)** on the Inland Waterways Network remains a critical requirement with 44% of compliance. Effective implementation of National Action Plans (NAPs), including increased funding for dredging work, regular channel maintenance, and the updating of navigational aids, is essential to ensure safe and reliable transport to support the functionality and connectivity of the inland waterway network, enhance operational efficiency, and contribute to achieving the TEN-T Key Performance Indicators.
- **Environmental performance for vessels in ports remains insufficient.** Increased investment in environmental infrastructure like waste reception facilities, degassing facilities, noise reduction measures, as well as measures to reduce air and water pollution, in ports is essential to improve compliance with TEN-T standards and support the region's environmental goals.
- **Digitalisation across all modes of transport needs to be further advanced.** Strengthening data exchange, real-time information systems, and intelligent network management will enhance safety, efficiency, and cross-border interoperability, while supporting seamless multimodal operations and contributing to a more resilient and sustainable European transport network.
- Out of the eleven airports on the Core and Comprehensive TEN-T Network, **three airports** – Tirana, Belgrade, and Pristina – are expected to be **connected to the railway system by 2030**. This achievement will enable them to meet one of the key performance indicators under the TEN-T compliance assessment.

As the problems are similar to those previously identified, last year's recommendations remain fully valid. Furthermore, there should be greater emphasis on the deployment of Intelligent Transport Systems (ITS) and alternative fuels infrastructure across all modes of transport:

- There is a clear need for a **shift in the way infrastructure projects are designed and implemented across the region**. Future projects should **integrate the new requirements of the TEN-T Regulation** from the earliest planning and design stages. This proactive approach will not only enhance compliance and accelerate progress towards achieving the 2030 and 2050 TEN-T objectives but will also contribute to building a transport network in the Western Balkans that is safe, efficient, sustainable, and future-ready.
- Enhance mid-to long-term project planning and prioritisation quality and reliability with integrated strategic planning and set up a stable list of priorities, aligning the Single Project Pipeline with transport strategies, the Economic and Investment Plan, and the Growth Plan Agenda, allowing efforts to focus on implementation and delivery.
- Prioritise maintenance improvements, encompassing policy planning and tools, in alignment with the Transport Community's Next Generation Action Plans. This should be accompanied by political commitment and the allocation of funds, while working alongside large infrastructure investments to secure their intended benefits.
- Strengthen administrative capacity and develop institutional policies to hire and retain skilled staff to manage infrastructure projects and increase the capacity to absorb funding.
- If the support for small-scale initiatives under the Safe and Sustainable Transport Programme is to continue, it will be essential to focus on projects that maximise impact while using limited resources effectively. This approach allows for effective outcomes by efficiently utilising resources, aligning with the "more with less" philosophy.

# ANNEX I Road projects overview

## Albania

Albania is currently implementing a total of 7 TEN-T projects on Core Network. The combined length of road sections currently subject to upgrading is 218.5 km. The value of the currently ongoing projects is EUR 2.22 billion on the Core Network.

An overview of TEN-T projects (under preparation, mature, ongoing) in Albania is given in the table below:

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Length (km)	Cost (M€)	Estimated completion deadline	Status
Construction of Tirana bypass (Kashar - Vagarr - Mullet)	Core	WBEM	New infrastructure	21.5	223	2027	Ongoing
Upgrade of the Elbasan - Perrenjas road	Core	WBEM	Reconstruction/ rehabilitation	31	240	2027	Ongoing
AIC Section 1: Murriqan - Balldren	Core	WBEM	Rehabilitation /new infrastructure	41	469.41	2030	Mature
AIC Section 2: Balldren (starting from Lezha Bypass) - Milot	Core	WBEM	Rehabilitation /new infrastructure	16	364	2028	Mature
AIC Section 3: Milot-Thumane	Core	WBEM	Reconstruction/ rehabilitation	14	44.62	2028	Ongoing
AIC Section 5B: Kashar - Lekaj	Core	WBEM	New infrastructure	34	465.8	2028	Ongoing
AIC Section 5C: Lekaj - Konjat-Fier	Core	WBEM	Reconstruction/ rehabilitation	14	320	2030	Ongoing
AIC Section 6+7: Konjat - Fier bypass	Core	WBEM	Reconstruction/ rehabilitation	28	320	20 months after contract signing	Ongoing
AIC Section 9A-2: Fier bypass (Levan) - Pocem	Core	WBEM	Reconstruction/ rehabilitation	26	160	2040	Mature
AIC Section 9B-2: Pocem-Mamaliaj	Core	WBEM	New infrastructure	38	597	2040	Mature
AIC Section 10: Memaliaj - Subashi Bridge	Core	WBEM	New infrastructure	20	260	2030	Mature
AIC Section 11: Subashi Bridge - Gjirokaster bypass	Core	WBEM	Reconstruction/ rehabilitation	10	66	2040	Mature
AIC Section 12A: Gjirokaster bypass	Core	WBEM	New infrastructure	10	64	2040	Mature
AIC Section 13A: Gjirokaster bypass - Kakavije	Core	WBEM	Reconstruction/ rehabilitation	24	138	2028	Mature
Widening of Tirane - Durres Motorway	Core	WBEM	Reconstruction/ rehabilitation	35	244	2026	Ongoing
Construction of the Elbasan - Lekaj road section part of Corridor VIII	Core	WBEM	New infrastructure	41	360	2027	Ongoing
Construction of the Bushtrice - Cross border Point road section part of Corridor VIII	Core	WBEM	New infrastructure	12	216	2028	Under preparation
Construction of Elbasan bypass	Core	WBEM	New infrastructure	16	200	2027	Mature
Widening and completeness of Milot-Rreshen road section	Core	WBEM	Reconstruction/ rehabilitation	28	60	2026	Under preparation
Rehabilitation of the Fier-Frataj road section	Core	WBEM	Reconstruction/ rehabilitation	39	42	2027	Under preparation

Table 22. List of TEN-T projects in Albania

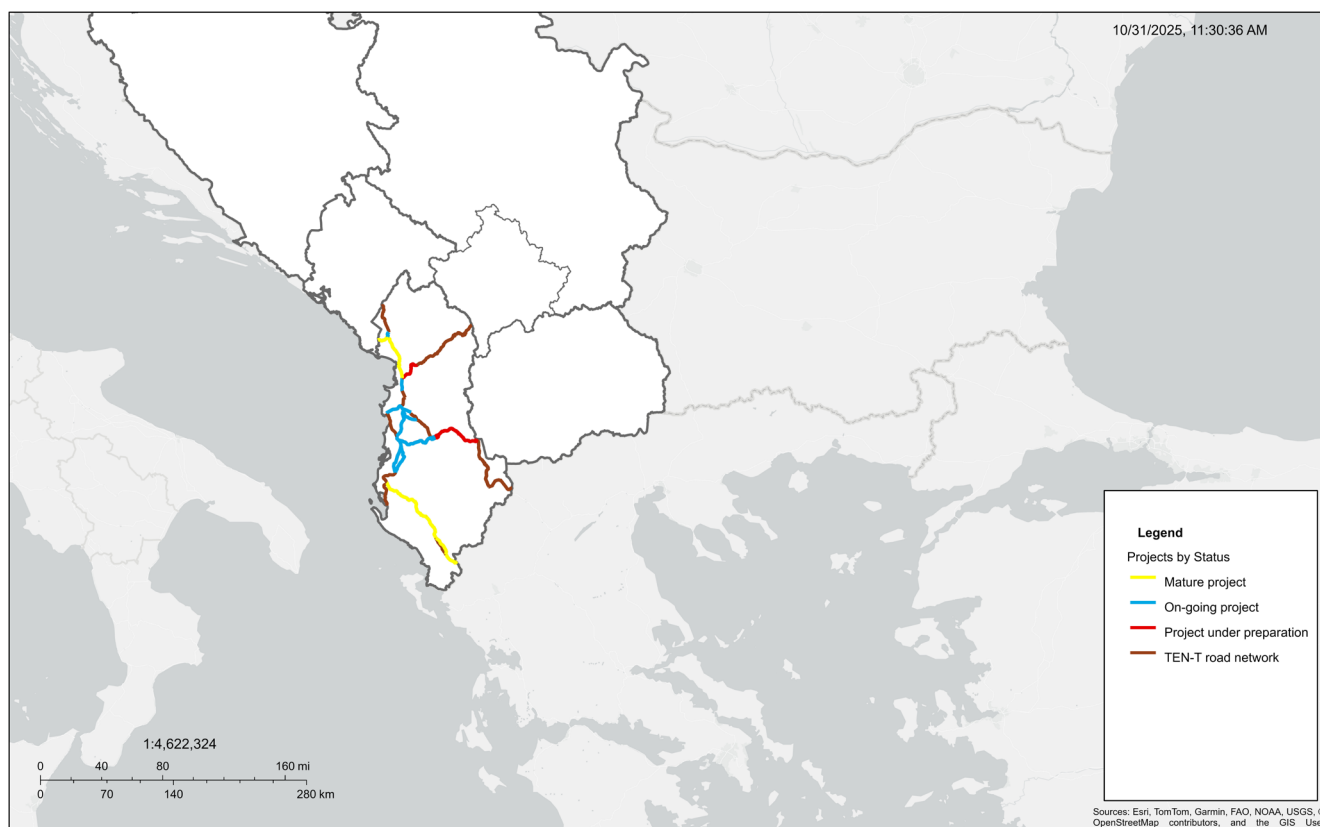


Figure 69. Map of TEN-T Projects in Albania

Since last year's report, the Elbasan-Lekaj road section has advanced from under preparation to ongoing, and the Elbasan bypass from under preparation to mature. There have been no newly completed projects in the meantime. Progress on the key road axis in Albania (Adriatic Ionian Corridor and Corridor 8) emphasises the Albanian government's commitment to upgrading and enhancing the Core TEN-T Road Network. Completion deadlines for almost all projects in the list have been updated.

## Bosnia and Herzegovina

Bosnia and Herzegovina is currently implementing 16 TEN-T projects in total, with a combined value of EUR 2.2 billion (EUR 1.9 billion on the Core Network).

The combined length of road sections currently undergoing various upgrades is about 213 km, of which 103 km is on the Core Network.

An overview of TEN-T projects (under preparation, mature, ongoing) in Bosnia and Herzegovina is given in the table below:

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Length (km)	Cost (M€)	Estimated completion deadline	Status
Vukosavlje - Johovac	Core	WBEM	New infrastructure	32	470.3	2030	Ongoing
Rudanka - Putnikovo Brdo	Core	WBEM	New infrastructure	5.2	164.9	2026	Ongoing
Putnikovo Brdo - Medakovo	Core	WBEM	New infrastructure	8.5	142.7	2026	Ongoing
Medakovo - Ozimica	Core	WBEM	New infrastructure	21.3	361.7	2026	Ongoing
Ozimica - Poprikuse	Core	WBEM	New infrastructure	12	306	2027	Under preparation
Poprikuse - Nemila	Core	WBEM	New infrastructure	5.5	251	2026	Ongoing
Nemila - Vranduk	Core	WBEM	New infrastructure	5.7	110.94	2026	Ongoing
Vranduk - Ponirak	Core	WBEM	New infrastructure	5.3	153.45	2026	Ongoing
Ponirak - Vraca	Core	WBEM	New infrastructure	3.4	70.8	2025	Ongoing
Mostar South - Tunnel Kvanj	Core	WBEM	New infrastructure	9.2	93.5	2027	Under preparation
Tunnel Kvanj - Buna	Core	WBEM	New infrastructure	5.2	106.9	2027	Ongoing
Buna - Počitelj	Core	WBEM	New infrastructure	7.2	37.2	2027	Ongoing
Banja Luka - Prijedor	Comprehensive	No	New infrastructure	40.7	297	2027	Ongoing
Orašje - Tuzla	Comprehensive	No	New infrastructure	67.68			Ongoing
Ivan - Konjic (Ovcari) - entrance to Prenj tunnel - tunnel Prenj	Core	WBEM	New infrastructure	32.7	1,048	2027	Mature
Exit from Prenj Tunnel (Salakovac) - Mostar North	Core	WBEM	New infrastructure	12.34	188.8	2028	Mature
Improvement and construction of the road route Sarajevo - Foca (Brod na Drini) - Hum (Scepan Polje) with the interstate bridge at the BIH/ MNE border	Comprehensive	No	New infrastructure	45.8	300	2028	Under preparation
Construction of the expressway section Turbe - Nevića Polje - Lašva	Core	No	New infrastructure	5.2	22	2027	Under preparation
Reconstruction/Rehabilitation of the intersection on M5 016 Aziza Šaćirbegović-Korija-Ljubogošta, km 1+350	Comprehensive	No	Reconstruction/rehabilitation	2	0.26	2027	Ongoing
Reconstruction of the intersection with the M17 and the local road for the settlement of Papratnica, section M17_006: Ozimica-Topčić Polje, km 9+180, Žepče municipality	Core	WBEM	Reconstruction/rehabilitation	2	0.68	2026	Ongoing
Rehabilitation of the damaged road structure on the section M17_013 Jablanica-Potoci, km 6+350, locality Komadinovo vrelo	Core	WBEM	Reconstruction/rehabilitation	0.25	0.44	2025	Ongoing
Construction of the Donji Vakuf bypass - Phase II	Core	WBEM	New infrastructure	1.6	2.61	2029	Ongoing

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Length (km)	Cost (M€)	Estimated completion deadline	Status
Rehabilitation of the existing road structure (M1.8_003 Granica entiteta FBiH/RS-Srebrenik)	Comprehensive	No	Reconstruction /rehabilitation	6.8	1.54	2030	Under preparation
Rehabilitation of the existing road structure (M1.8_004 Srebrenik-Šiški Brod 3)	Comprehensive	No	Reconstruction /rehabilitation	15.44	3.42	2030	Under preparation
Rehabilitation of the existing road structure (M4_009 (M4-009 Doboj/Entitetska linija - Donja Orahovica)	Comprehensive	No	Reconstruction /rehabilitation	21.98	2.62	2030	Under preparation
Rehabilitation of the existing road structure (M4_010 Donja Orahovica - Šiški Brod 1)	Comprehensive	No	Reconstruction /rehabilitation	22.63	2.72	2030	Under preparation
Rehabilitation of the existing road structure (M5_010 Donji Vakuf 1 - Turbe)	Core	WBEM	Reconstruction /rehabilitation	3.99	0.46	2030	Under preparation
Rehabilitation of the existing road structure (M 5_011 Turbe - Nević Polje)	Core	WBEM	Reconstruction /rehabilitation	10.07	2.30	2030	Under preparation
Rehabilitation of the existing road structure (M 5_016 Azize Šaćirbegović - Korija - Ljubogosta)	Comprehensive	No	Reconstruction /rehabilitation	7.9	1.85	2030	Under preparation
Rehabilitation of the existing road structure (M18_002 Trnovo 1 - Trnovo)	Comprehensive	No	Reconstruction /rehabilitation	1.75	0.21	2030	Under preparation
Rehabilitation of the existing road structure (M17-011 (Tarčin - Konjic)	Core	WBEM	Reconstruction /Rehabilitation	13.87	1.62	2030	Under preparation
Rehabilitation of the existing road structure (M17-012 Konjic - Jablanica 1)	Core	WBEM	Reconstruction /Rehabilitation	21.25	2.72	2030	Under preparation
Rehabilitation of the existing road structure (M17-013 Jablanica 1 - Potoci)	Core	WBEM	Reconstruction /Rehabilitation	6.1	0.76	2030	Under preparation
Rehabilitation of the existing road structure (M17-015 Mostar (centar) - Gnojnice)	Core	WBEM	Reconstruction /Rehabilitation	2.997	0.41	2030	Under preparation
Rehabilitation of the existing road structure (M17-017 Buna - Tasovčići)	Core	WBEM	Reconstruction /Rehabilitation	2.997	0.67	2030	Under preparation
Betterment of the main road section (bypass) Banja Luka - Jajce - Lašva	Core	No	New infrastructure	63.86	169	2028	Under preparation
Construction of expressway Sarajevo - Visegrad - Border BiH/SRB	Comprehensive	No	New infrastructure	140.49	1145	2030	Under preparation

Table 23. List of TEN-T projects in Bosnia and Herzegovina

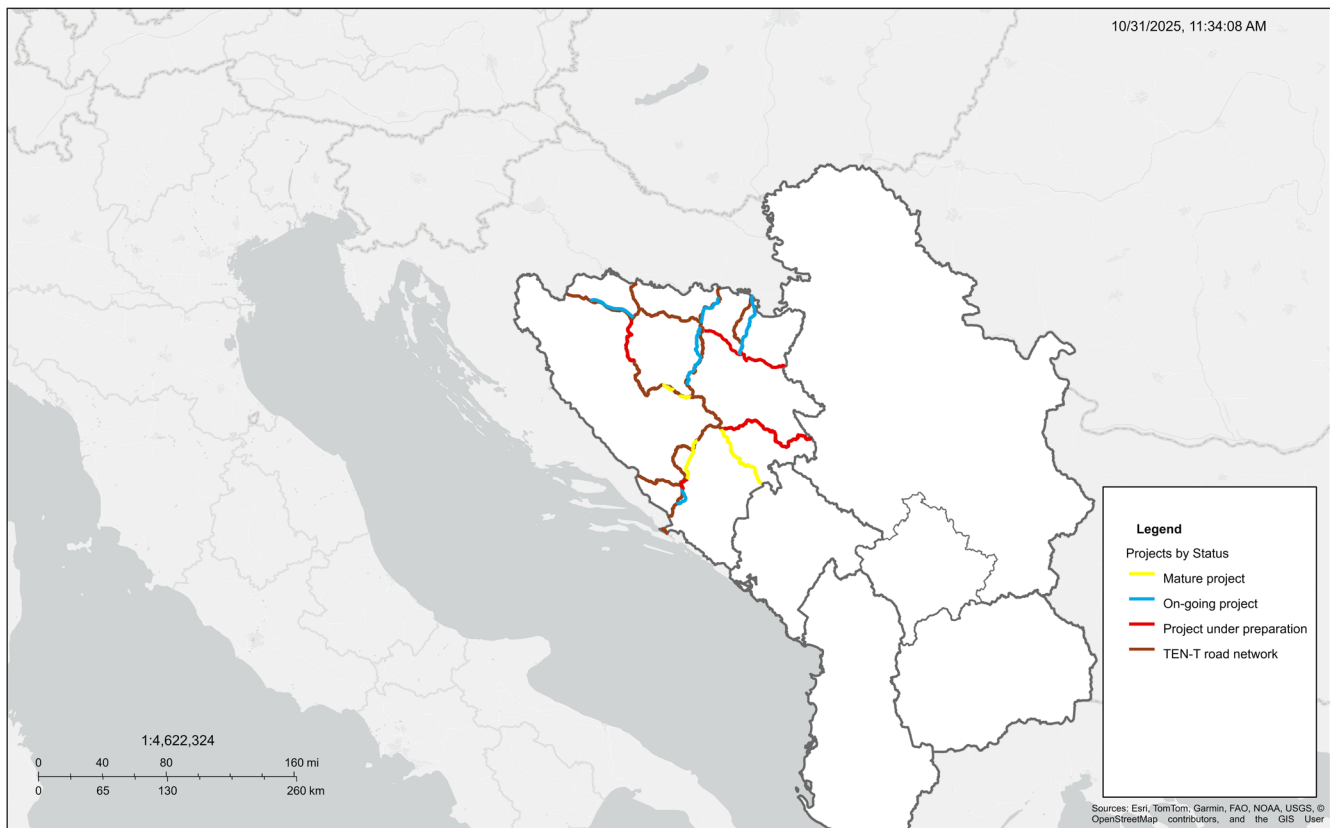


Figure 70. Map of TEN-T Projects in Bosnia and Herzegovina

Since last year's report, the following projects have been completed: Vraca (Zenica tunnel) - Donja Gračanica, Nević Polje - Vitez section (part of Jajce-Lašva expressroad). Bosnia and Herzegovina upholds its unwavering commitment to complete Corridor Vc to motorway standards. However, the funding gap for the remaining sections has yet to be closed. Completion deadlines for basically all projects in the list have been updated.

## Kosovo

Kosovo is currently implementing 3 TEN-T projects in total, with a combined value of EUR 108.2 million (Core Network EUR 31.2 million). The combined project length is 45 km, where 14.8 km is Core Network.

An overview of TEN-T projects (under preparation, mature, ongoing) in Kosovo is given in the table below:

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Length (km)	Cost (M€)	Estimated completion deadline	Status
Widening of Kjeve-Dollac road section	Comprehensive	No	Reconstruction/ rehabilitation	13.4	32	2025	Ongoing
Widening Route 6a: Vushtrri-Mitrovica section	Comprehensive	No	Reconstruction/ rehabilitation	5	15	2027	Mature
Widening Route 6b-ko: Dollc-Peje	Comprehensive	No	Reconstruction/ rehabilitation	16.2	45	2028	Ongoing
Widening N25: Besi-Luzhan	Core	No	Reconstruction/ rehabilitation	14.78	31.2	2025	Ongoing
Prishtina-Merdare (Peace highway)	Core	WBEM	New infrastructure	28	336	2030	Mature

Table 24. List of TEN-T projects in Kosovo



Figure 71. Map of TEN-T Projects in Kosovo

While Kosovo has already upgraded most of its Core Network to the required standards, the missing link between Pristina and Merdare (also one of the EIP Flagships) continues to fall short of the desired pace of progress. There have been no newly completed projects in the meantime. Completion deadlines for basically all projects in the list have been updated.

## Montenegro

Montenegro is currently implementing 4 TEN-T projects, with a combined value of EUR 607 million of which EUR 550 million is the Core Network.

The combined length of road sections undergoing various upgrades is 82 km, of which 22 km is the Core Network. The list of projects (under preparation, mature, ongoing) in Montenegro is shown in the table below.

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Length (km)	Cost (M€)	Estimated completion deadline	Status
Berane - Bijelo Polje - Mojkovac	Comprehensive	No	Reconstruction/ rehabilitation	43	36	2026	Ongoing
Berane - Rozaje	Comprehensive	No	Reconstruction/ rehabilitation	33	55	2028	Mature
Sarajevo - Podgorica connection: new bridge over Tara river - Paklice	Comprehensive	No	Reconstruction/ rehabilitation	3	6	2027	Ongoing
Sarajevo - Podgorica connection: Paklice - Pluzine	Comprehensive	No	Reconstruction/ rehabilitation	18	120	2031	Under preparation
Sarajevo - Podgorica connection: Pluzine - Seljani	Comprehensive	No	Reconstruction/ rehabilitation	13	22	2029	Under preparation
Sarajevo - Podgorica connection: Seljani-Zaborje	Comprehensive	No	Reconstruction/ rehabilitation	9	15	2028	Under preparation
Sarajevo - Podgorica connection: Zaborje-Jasenovo Polje	Comprehensive	No	Reconstruction/ rehabilitation	14	15	2026	Ongoing
Sarajevo - Podgorica connection: Niksic bypass	Comprehensive	No	New infrastructure	13	10	2014	Completed
Sarajevo - Podgorica connection: Niksic-Danilovgrad	Comprehensive	No	Reconstruction/ rehabilitation	33	430	2032	Under preparation
Sarajevo - Podgorica connection: Danilovgrad-Podgorica	Comprehensive	No	Reconstruction/ rehabilitation	15	25	2022	Completed
Sarajevo - Podgorica connection: Podgorica-Cijevna	Comprehensive	No	Reconstruction/ rehabilitation	6	10	2023	Completed
Sarajevo - Podgorica connection: Cijevna-Tuzi	Comprehensive	No	Reconstruction/ rehabilitation	9	20	2028	Under preparation
Sarajevo - Podgorica connection: Tuzi-ALB border	Comprehensive	No	Reconstruction/ rehabilitation	9	10	2015	Completed
Pristina (Kosovo) - Peje/ Pec (Kosovo) - Kolasin (Montenegro): Andrijevisa-KOS border	Comprehensive	No	New infrastructure	27	470	2035	Under preparation
Bar - Boljare highway: Boljare- Crnca	Core	WBEM	New infrastructure	23	415	2032	Under preparation
Bar - Boljare highway: Crnca- Andrijevisa	Core	WBEM	New infrastructure	28	470	2032	Under preparation
Bar - Boljare highway: Andrijevisa-Matesevo	Core	WBEM	New infrastructure	22	550	2030	Ongoing
Bar - Boljare highway: Matesevo-Smokovac	Core	WBEM	New infrastructure	42	860	2022	Completed
Bar - Boljare highway: Smokovac-Tolosi-Farmaci	Core	WBEM	New infrastructure	50	730	2030	Under preparation
Bar - Boljare highway: Farmaci-Djurmani	Core	WBEM	New infrastructure	40	580	2030	Under preparation
Blue highway: Virpazar-Stari Bar	Core	No	New infrastructure	26	420	2030	Under preparation
Blue highway: CRO border - Budva	Core	No	New infrastructure	43	1,075	2035	Under preparation
Blue highway: Budva - connection with the Bar-Boljare highway	Core	No	New infrastructure	16	400	2030	Under preparation
Blue highway: Stari Bar-ALB border	Core	No	New infrastructure	26	420	2035	Under preparation

Table 25. List of TEN-T projects in Montenegro



Figure 72. Map of TEN-T Projects in Montenegro

Since last year's report, there have been no newly completed projects. Significant efforts are being made to improve regional connectivity. 2025 saw the start of the continuation of the Bar-Boljare highway, through the Matesevo-Andrijevisa section, as part of the WBEM and the bypass around Budva as part of the Blue Highway. The final alignment of this road through Montenegro was defined following adoption of a new Spatial Plan of Montenegro up to 2040. Completion deadlines for almost all projects in the list have been updated.

## North Macedonia

North Macedonia is currently implementing 6 TEN-T projects in total, with a combined value of EUR 2,3 billion, of which EUR 1,8 billion is the Core Network.

The combined length of road sections currently undergoing various upgrades is 189.7 km, of which 150.4 km is on the Core Network.

An overview of TEN-T projects (under preparation, mature, ongoing) in North Macedonia is given in the table below:

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Length (km)	Cost (M€)	Estimated completion deadline	Status
Construction of the Bukojcani - Kicevo Motorway section	Core	WBEM	New infrastructure	12.7	129	2029	Ongoing
Construction of the Kicevo - Ohrid Motorway	Core	WBEM	New infrastructure	57.7	598	2026	Ongoing
Construction of Blace - Skopje (Stenkovec Interchange) Motorway Section - PHASE II Interchange Stenkovec to Interchange Blace	Core	WBEM	New infrastructure	10.5	230.4	2029	Ongoing
Construction of the Prilep - Bitola motorway	Comprehensive	No	New infrastructure	39.3	1300	2028	Ongoing
Construction of the Tetovo - Gostivar - Bukojcani Motorway	Core	WBEM	New infrastructure	47.8		2028	Ongoing
Construction of road section Trebeniste - Struga - Kjafasan	Core	WBEM	New infrastructure	21.7		2028	Ongoing
Construction of new expressway Romanovce - Stracin	Core	WBEM	New infrastructure	30	150	2030	Mature
Reconstruction of state road A1, section 1: village Belovodica - quarry Mavrovo, length = 5,0 km, section 2: Prilep - Leniska reka, length 2,5 km	Comprehensive	No	Reconstruction/ rehabilitation	8	9	2030	Mature
Construction of expressway Bitola - Medzitlija, including Bitola interchange	Comprehensive	No	New infrastructure	22.62	90	2030	Mature
Construction of motorway Veles - Prilep	Comprehensive	No	New infrastructure	63	295	2025	Mature
Reconstruction of road section Gevgelija - Greek border (Bogorodica)	Core	WBEM	Reconstruction/ rehabilitation	5	10	2030	Mature
Rehabilitation of road section Gradsko - Stobi	Core	WBEM	Reconstruction/ rehabilitation	4	4.5	2030	Mature

Table 26. List of TEN-T projects in North Macedonia

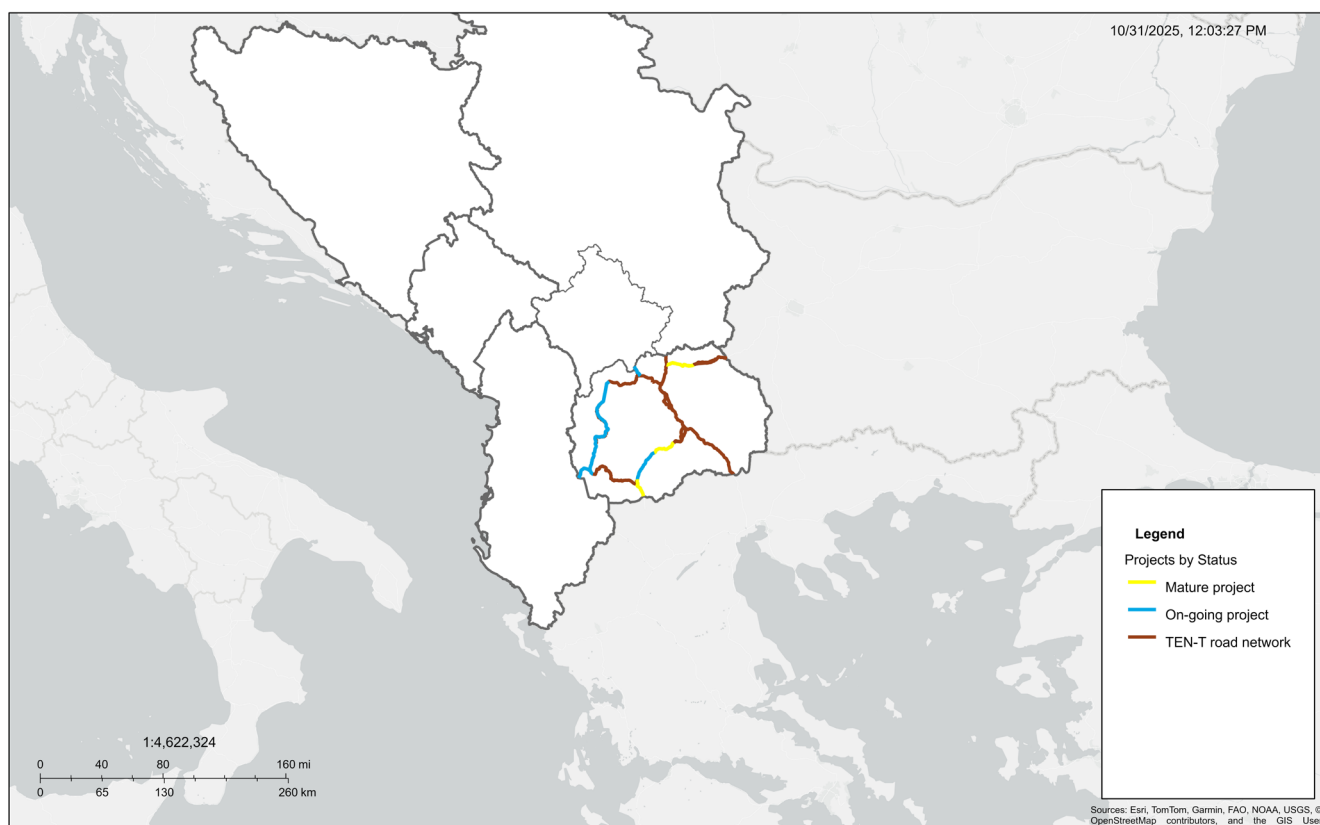


Figure 73. Map of TEN-T Projects in North Macedonia

Since last year's report, two projects have been successfully completed: construction of the Kriva Palanka – Stracin and Blace-Skopje road sections. Completion deadlines for almost all projects in the list have been updated.

## Serbia

Serbia is currently implementing 3 TEN-T projects in total, with a combined value of EUR 3.2 billion, of which the Core Network accounts for EUR 317.8 million.

The combined length of road sections currently undergoing various upgrades is 189.6 km, of which 32.7 km is on the Core Network.

An overview of TEN-T projects (under preparation, mature, ongoing) in Serbia is given in the table below:

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Length (km)	Cost (M€)	Estimated completion deadline	Status
Nis - Plocnik (Merošina - Beloljin)	Core	No	New Infrastructure	32.7	317.8	2029	Ongoing
Novi Sad - Ruma	Comprehensive	No	New infrastructure	44.41	650	2026	Ongoing
Pojate - Preljina	Comprehensive	WBEM	New infrastructure	112.396	2147	2026	Ongoing
Pozega - Duga Poljana	Core	WBEM	New infrastructure	74.9	2500	2032	Under preparation
Construction of highway E-761 / M-5 / Bosnia and Herzegovina Border- Kotroman-Uzice-Pozega	Comprehensive	No	New infrastructure	59.6	1100	2031	Under preparation

Table 27. List of TEN-T projects in Serbia



## Road Projects Serbia 2025



Figure 74. Map of TEN-T Projects in Serbia

Since last year's report, construction of the Preljina-Pozega road section has been completed. Completion deadlines for almost all projects on the list have been updated. Serbia is constantly upgrading its TEN-T Road Network, investing considerable amounts in the undertaking.

## ANNEX II Rail projects overview

### Albania

Albania is implementing 3 TEN-T projects, while 3 projects are under preparation. Total value of ongoing and finance secured projects is EUR 613 million, while the value of projects under preparation is EUR 475.5 million.

The length of sections currently undergoing various upgrades is 200 km, while the length of the project under preparation is 199 km.

The reconstruction and modernisation of the Durres-Tirana section, along with the construction of a new branch line to Tirana International Airport, are underway. The project is on schedule, with approximately 98% of the civil works physically completed. The overall status of works, including signalling and telecommunications, is 85% complete. Work is also going ahead on signalling and telecommunications. The Design & Build Contract was activated in March 2021, and construction officially started in January 2022. The project should be completed in 2026.

This project is supported by the European Union, which has provided a grant of €35.5 million under the Connectivity Agenda for the Western Balkans, and the European Bank for Reconstruction and Development (EBRD), which is providing a loan of €36.9 million. In the fourth quarter of 2023, the Albanian Government requested additional funds from the EBRD to cover four extra components: (1) €29 million for adjustments to the works contract due to market price increases; (2) €10.5 million for the construction of new railway station buildings along the existing segment; (3) €16.1 million for a 4 km extension project of the railway infrastructure from Tirana PTT to the Tirana City Centre Stop; and (4) €25 million for electrification. With these additions, and own contribution the project's total value is expected to reach €153 million.

As part of this contract, over 34.3 km of the existing railway track between Tirana PTT and the Port of Durres is being rehabilitated. A new 6.4 km track is also being constructed to connect the capital with Tirana International Airport.

Another ongoing project involves the reconstruction of the Vore - Hani Hotit section. Funding has been secured, and tender/procurement is ongoing. The project is now at the prequalification phase, which is about to finalise in Q4 2025. The contract is expected to be awarded during Q1 2026. This project covers a total length of 120 km, with estimated costs reaching €340 million, excluding the final component for electrification.

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Length (km)	Cost (M€)	Estimated completion deadline	Status
Rehabilitation of the railway Durres - Vora - Shkodra - Hani Hotit, border with Montenegro (Mediterranean Corridor Rail R2 ROUTE 2)	Core Network	WBEM	Reconstruction/ rehabilitation	120	340	2029	Ongoing
Construction of the new railway Pogradec- Korca - border to Greece (CB RAILWAY)	Comprehensive network	No	New infrastructure	60	240.5	2030	Under preparation
Rehabilitation of the railway Rogozhine-Pogradec-Lin and construction of new railway link to North Macedonian border	Core Network	WBEM	New infrastructure, Reconstruction/ rehabilitation	130	220	2030	Under preparation
Rehabilitation of the railway Durres- Tirana Public transport terminal PTT and construction of the new railway Tirana-Rinas branch. Construction of Eight (8) Railway Station Buildings and External Areas along the Tirana - Durres Railway Line and the new Rail Connection to the Rinas International Airport (TIA) and electrificaiton	Core Network	WBEM	New construction	46	153	2026	Ongoing
Rehabilitation of the railway Durres - Rogozhine	Core Network	WBEM	Reconstruction/ rehabilitation,	34	120	2028	Finance secured
Rail connection with Porto Romano (Fuel transport) and to the Energy and Industrial Park adjacent to it	Core network	WBEM	New infrastructure	9	15	2030	Under preparation

Table 28. List of TEN-T projects in Albania

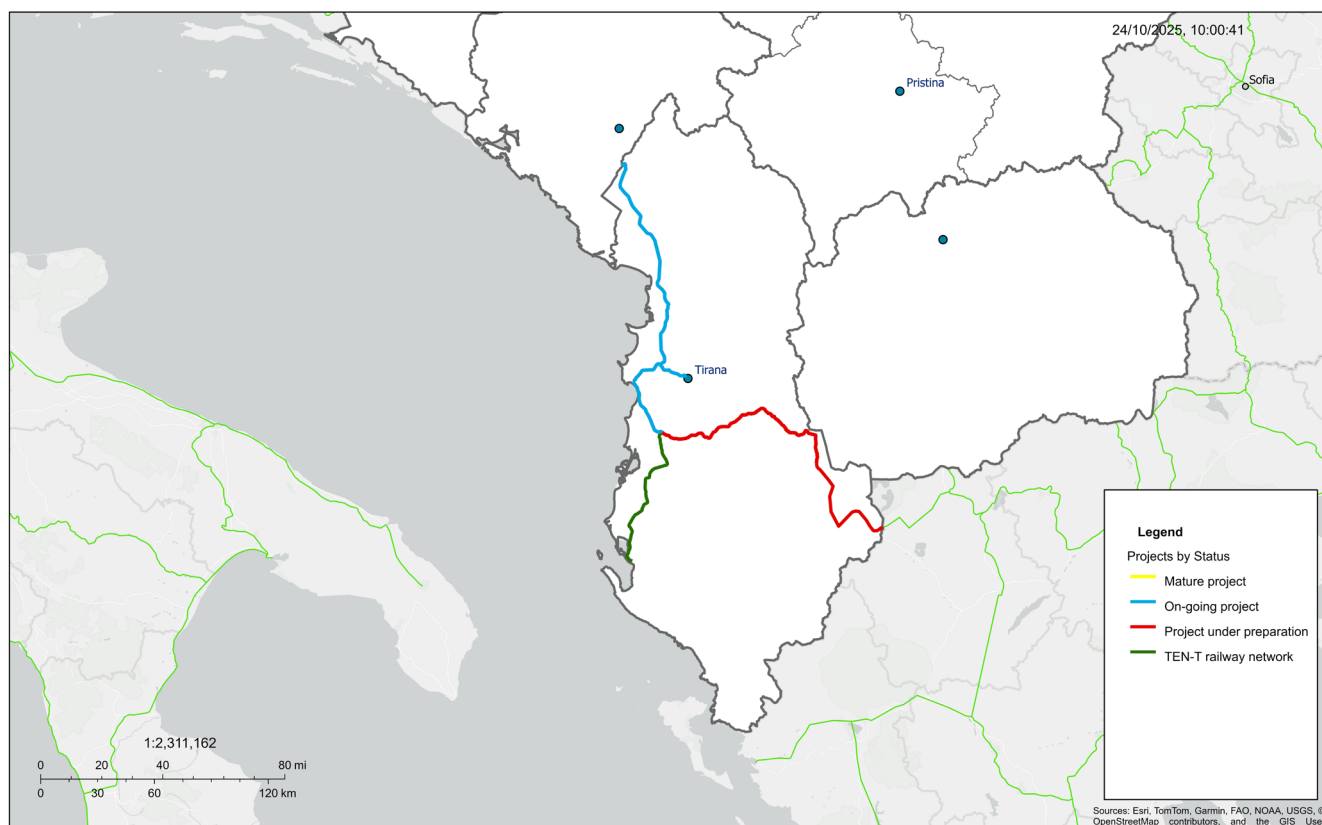


Figure 75. Railway projects in Albania

## Bosnia and Herzegovina

Bosnia and Herzegovina has 8 TEN-T projects in the pipeline, of which three are mature or finance secured and five are under preparation. The total value of the mature and finance secured projects is EUR 210 million, while the value of projects under preparation is EUR 2.54 billion.

The length of sections currently mature for various upgrades is 142 km, while the length of the project under preparation is 494 km.

Overhaul and modernisation of the Samac – Doboj – Rječica rail section. This project is part of a broader initiative to complete the rail connection between the southern and northern borders of Croatia and Bosnia and Herzegovina. This section is essential for linking the Port of Ploče on the Croatian Adriatic coast with Budapest. Over 325 km of the entire distance crosses Bosnia and Herzegovina.

On completion, the railway line will be upgraded to a standard reflecting this corridor's importance. The enhancement in connectivity will benefit Bosnia and Herzegovina and its neighbouring countries, while also strengthening ties between Southeast Europe and the European Union. The project has been designated as a Flagship 2 project under the Economic and Investment Plan for the Western Balkans.

The 85 km section from Šamac to Doboj is still pending approval under the Western Balkans Investment Framework (WBIF). The estimated cost of this project is €162.5 million, with an €82 million grant allocated for its development. The initial construction deadline was set for 2025, and the project meets all TEN-T compliance indicators except those related to ERTMS and train length.

However, progress has been stalled since December 2021 due to difficulties in securing financing. Bosnia and Herzegovina must resolve all outstanding issues with international financial institutions (IFIs) and initiate tender procedure.

Additionally, there are plans for a track overhaul on the railway section between Podlugovi and Sarajevo and between Visoko and Konjic both on Corridor Vc, with similar upgrades on the Doboj-Maglaj and Jelina-Zenica sections. While the necessary documentation for these projects is complete, financing has not yet been secured. These projects are well-developed but lack the funding to proceed.

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Length (km)	Cost (M€)	Estimated completion deadline	Status
Provision of designs and studies for specific railway sections on Corridor Vc in BiH, Conceptual Design (Doboj-Maglaj-Rasputnica Miljacka)	Core Network	WBEM	New infrastructure	190	1500	2030	Under preparation
Provision of design and studies for railway section Visoko – Konjic (Corridor Vc): Resolution of Ivan-Bradina bottleneck, Mostar-International airport Mostar	Core Network	WBEM	New infrastructure	87	340	2030	Under preparation
Provision of preliminary designs and studies for the railway section (Route 9a): Doboj-Tuzla-Brčko	Comprehensive Network	No	Reconstruction /rehabilitation	120	450	2030	Under preparation
Preliminary design and studies for sections: Tuzla-Zvornik, Tuzla- International airport Tuzla	Comprehensive Network	No	New infrastructure	75	279	2030	Under preparation
Track Overhaul of Railway Section Podlugovi- Zenica on Corridor Vc	Core Network	WBEM	Rehabilitation	22	24	2027	Under preparation
Track overhaul of the railway sections Doboj-Maglaj and Jelina-Zenica on Corridor Vc	Core Network	WBEM	Rehabilitation	32	22.5	2027	Mature
Track overhaul of the railway sections Podlugovi- Sarajevo on Corridor Vc	Core Network	WBEM	Rehabilitation	25	25	2027	Mature
Corridor Vc-Overhaul and modernization of the railway section Šamac – Doboj – Rječica	Core Network	WBEM	Reconstruction /rehabilitation	85	162.5	2025	Finance secured

Table 29. List of TEN-T projects in Bosnia and Herzegovina

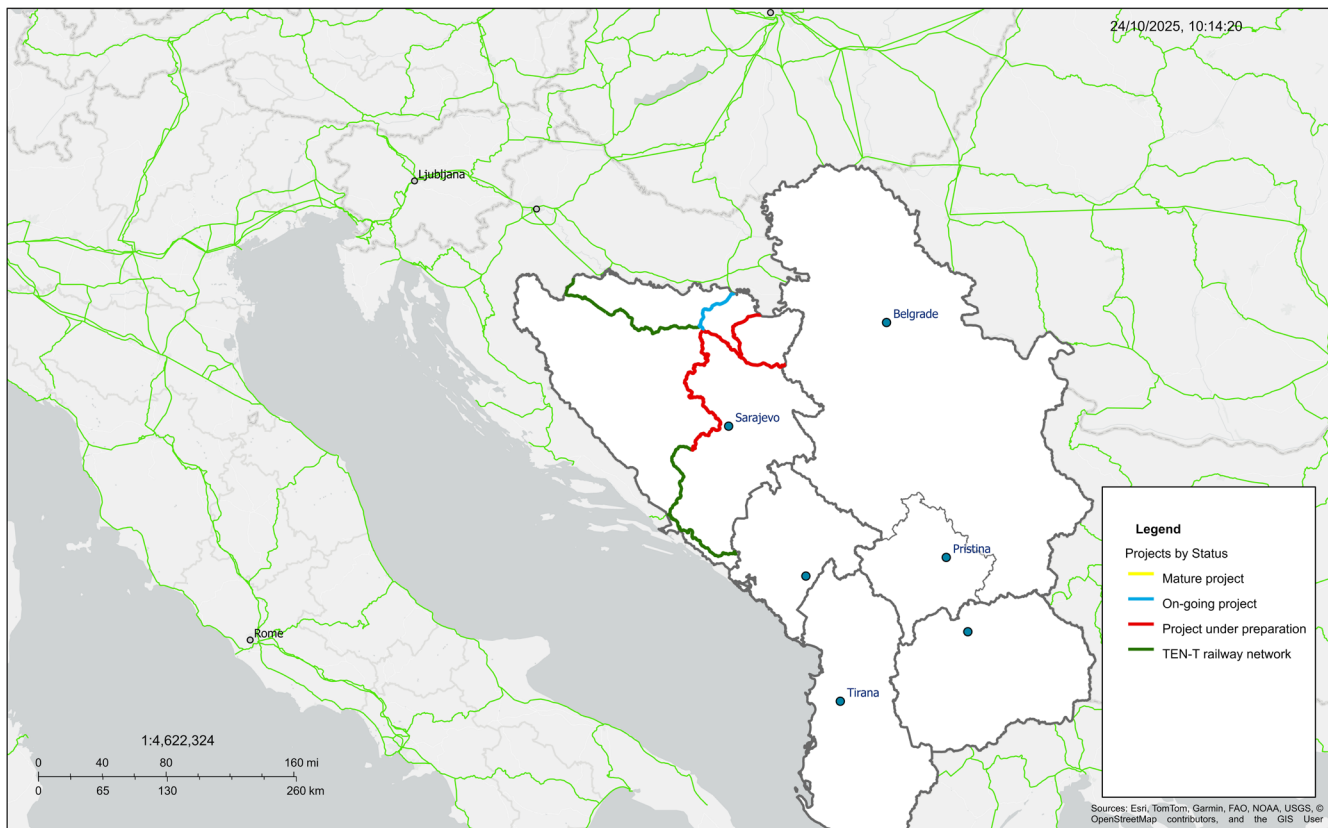


Figure 76. Railway projects in Bosnia and Herzegovina

## Kosovo

Kosovo has one major ongoing TEN-T project consisting of 3 sections and 2 projects under preparation. The total value of the ongoing project is EUR 245 million, while the value of the projects under preparation is EUR 107.5 million.

The length of all sections of the ongoing project is 149 km, while the length of the projects under preparation is 55 km.

Rehabilitation and modernisation of the section Hani Elezit and Leshak in Kosovo covers 149 km, extending from the common crossing point with Serbia in northern Kosovo (near Leshak rail station) to the border with North Macedonia at Hani i Elezit station. This section branches off from Lapovo in Serbia and provides an alternative route to Skopje, connecting Belgrade – Lapovo – Kraljevo – Fushe Kosovo – Skopje.

This project is of regional significance and focuses on comprehensive rehabilitation and modernisation to align with EU standards, specifically the technical specifications for interoperability. However, it is important to note that this phase does not include electrification. Additionally, it is a key component of the Flagship 2 projects outlined in the Economic and Investment Plan for the Western Balkans.

The implementation of this project will enhance regional connectivity, facilitating trade and passenger travel. It promotes regional cohesion and helps develop seamless connections for passengers and freight across the Western Balkans. Notably, this railway is the primary direct connection between Serbia, Kosovo, and North Macedonia.

The progress schedule for the general rehabilitation of the railway line is as follows:

a) Phases one and two, including general rehabilitation and modernisation, commenced in August 2019 and finished civil engineering work in 2025. Works related to signalling and telecommunications are to be finalised by the end of 2027 on the sections Kosovo Polje – Hani Elezit and Kosovo Polje – Mitrovica.

b) Phase three - preliminary design work for the Mitrovica - Lesak section is ongoing under IPF 9.

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Length (km)	Cost (M€)	Estimated completion deadline	Status
Railway Rehabilitation Route 7	Comprehensive network	No	Reconstruction/ rehabilitation	45	67.3	2030	Under preparation
Construction and modernisation of a Railway Line Pristina - Fushe Kosove - Pristina Airport "Adem Jashari"	Comprehensive network	No	New Construction	10	40.2	2025	Under preparation
Railway Rehabilitation Route 10 Phase 1, Phase 2 and Phase 3	Core Network	WBEM	Reconstruction/ rehabilitation	149	245	2027	Ongoing

Table 30. List of TEN-T projects in Kosovo



## Railway Projects in Kosovo 2025

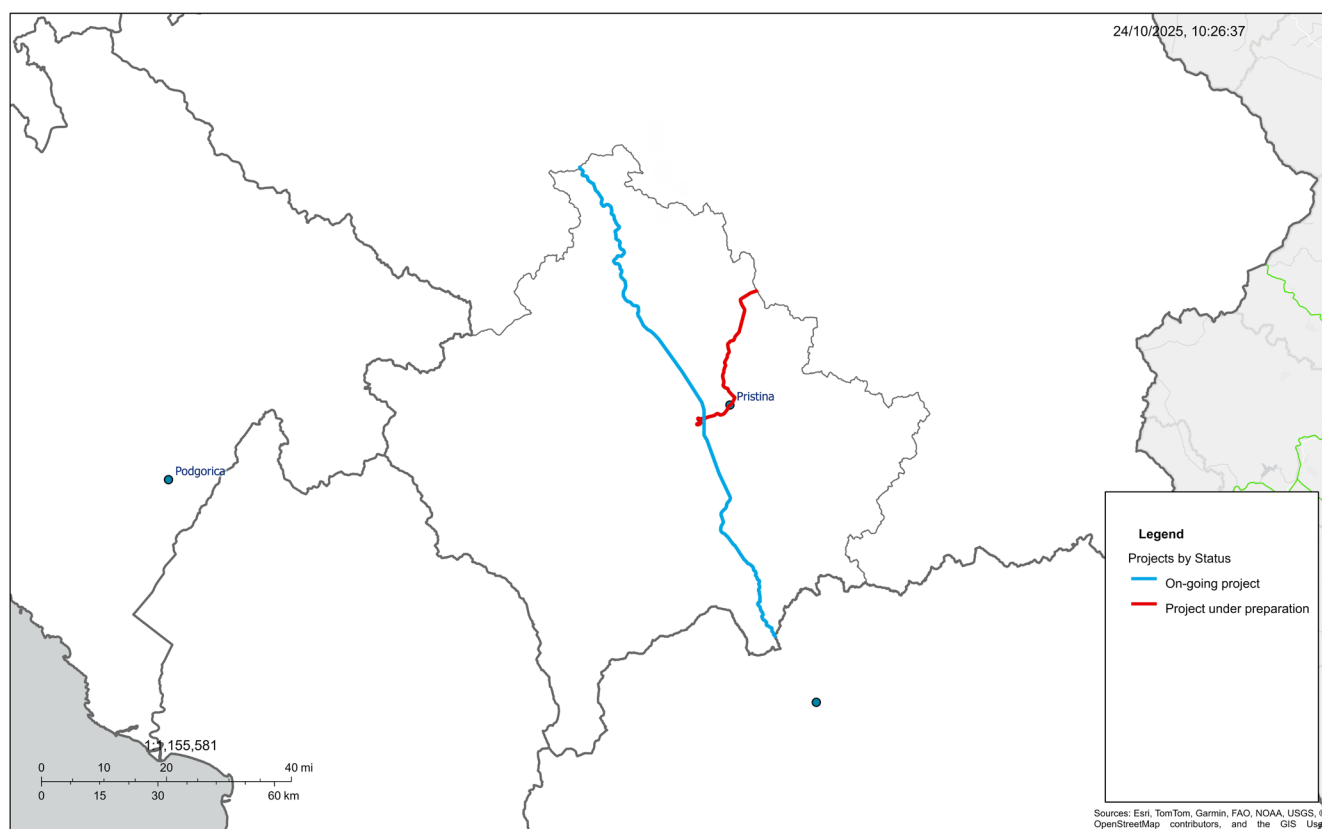


Figure 77. Railway projects in Kosovo

## Montenegro

Montenegro has 8 TEN-T projects in the pipeline, of which one project is finance secured and seven are under preparation. The total value of the finance secured project is EUR 35 million, while the value of projects under preparation is EUR 267.45 million. The length of sections currently undergoing various upgrades is 20.2 km, while the length of the project under preparation is 113 km.

Preparation of technical documentation for the Power Supply System and Video Surveillance on the Vrbnica – Bar railway section, as well as for preparation of the main design for rehabilitation of three sections (Trebešica – Lutovo, Bioče – Podgorica, and Podgorica – Golubovci), has been completed.

Preparation of technical documentation for two sections is ongoing, for the improvement of conditions on the Vrbnica – Bar section and one project concerns the preparation of the Main Design for the Podgorica – Albania border railway line. There is another ongoing project for rehabilitation of the superstructure on the Lutovo – Bratonožići – Bioče railway section. Furthermore, two projects are under preparation on the Vrbnica – Bar line: one for the comprehensive reconstruction and modernization of the Golubovci – Bar section, the other for the rehabilitation of 13 steel bridges and 8 tunnels.

The main design for the modernisation of the Golubovci – Bar section foresees the inclusion of the ETCS. However, the decision on whether the implementation of the system will be included within the works has not yet been made, taking into consideration several factors: the need for appropriate national legislation, the status of the operators' rolling stock, modernisation plans for other sections, and the overall project timeline.

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Total length (km)	Total Cost (M€)	Estimated completion deadline	Status
Corridor East (Orient)/East-Med, Railway interconnection R4 Montenegro-Serbia, section Bar-Vrbnica/Preparation of technical documentation for Power Supply, System and Video Surveillance) WB24-MNE-TRA-01	Core Network	WBEM	Preparation of technical documentation for Power Supply, System and Video Surveillance	N/A	0.5	2024	Completed
Technical assistance for project preparation of investment projects in the transport sector in Montenegro -railways 01 IPA 2017	Core Network	WBEM	Development of the Main Design for reconstruction/ rehabilitation	37	1.98	2025	Completed
Preparation of technical documentation for Modernisation of railway route 4, Golubovci-Bar WB21-MNE-TRA-01	Core Network	WBEM	Preparation of technical documentation for Reconstruction and Modernization	40	3.5	2025	Under preparation
Preparation of technical documentation for the Sozina tunnel rehabilitation WB29-MNE-TRA-01	Core Network	WBEM	Preparation of technical documentation for Reconstruction /rehabilitation	6.17	0.85	2027	Under preparation
Preparation of technical documentation for the project of Reconstruction and Modernization Railway Line Podgorica - Tuzi - Cross Border Albania WB29-MNE-TRA-02	Core Network	WBEM	Preparation of the Main Design for Reconstruction and modernization	25	2.6	2027	Under preparation

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Total length (km)	Total Cost (M€)	Estimated completion deadline	Status
Interconnection Montenegro - Serbia, Section Bar/Vrbnica Rehabilitation of superstructure along the section Lutovo-Bratonožići-Bioče, reconstruction of 3 steel bridges and modernization of workshops WB-IG03-MNE→TRA-02	Core Network	WBEM	Reconstruction /rehabilitation	20.2	35	2027	Ongoing
Bar-Vrbnica section, tunnels and bridges in the north of Montenegro - Reconstruction of 13 steel bridges and 8 tunnels WB-IG05-MNE-TRA-01	Core Network	WBEM	Reconstruction /rehabilitation	5.12	40	2027	Under preparation
Interconnection Montenegro - Serbia, Section Bar/Vrbnica; Reconstruction and Modernization Railway Line Golubovci - Bar	Core Network	WBEM	Reconstruction /modernization	40	218	2030	Under preparation

Table 31. Overview of rail TEN-T projects in Montenegro



## Railway Projects in Montenegro 2025

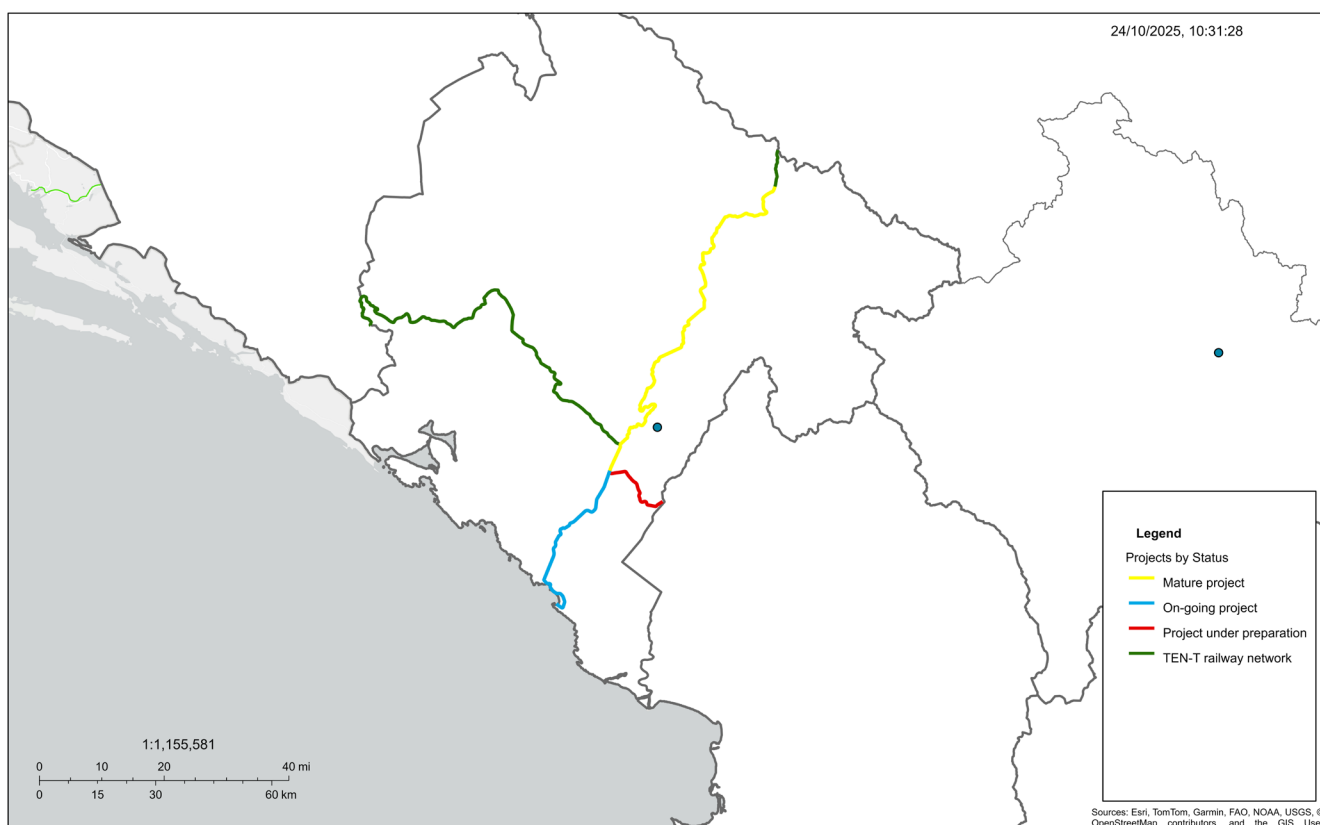


Figure 78. Railway projects in Montenegro

## North Macedonia

The Macedonian railway network is set to undergo significant improvements on the back of projects for new railway infrastructure in the eastern part of Corridor VIII and a rehabilitation project on Corridor X.

North Macedonia is currently implementing four TEN-T projects, with a total value of EUR 1,1465 billion (all on the Core Network). At the same time, one project is mature, two finance secured, one ongoing and two under preparation, with a total value of EUR 2,9215 billion.

The length of rail sections undergoing various upgrades is 58 km (all on the Core Network), length of the project under preparation is 365 km.

An overview of the TEN-T projects is presented in the table below:

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Total length (km)	Total Cost (M€)	Estimated completion deadline	Status
Rehabilitation of Eastern Part of Rail Corridor VIII-PHASE I-Section Kumanovo - Beljakovce	Core Network	WBEM	New infrastructure	30.8	44	2024	Completed
Rail Corridor VIII-PHASE 2-Section Beljakovce - Kriva Palanka	Core Network	WBEM	New infrastructure	34	155	2026	Ongoing
Rail Corridor VIII-PHASE 3-Section Kriva Palanka -Deve Bair, the border with the Republic of Bulgaria	Core Network	WBEM	New infrastructure	23.4	560	2032	Finance secured
Construction works of the railway section along the corridor VIII Kicevo – Border with Albania	Extended Core Network	WBEM	New infrastructure	62	426	2032	Mature
Construction of Joint Railway Border Crossing Station (JRBS) and access road at Tabanovce between Republic of North Macedonia and Republic of Serbia	Core Network	WBEM	New infrastructure	n/a	5.5	2028	Finance secured
Renewal and/or reconstruction works on Railway Corridor X	Core Network	WBEM	New infrastructure	200	1500	2032	Under preparation
Reconstruction of the Central part of the Rail Corridor VIII, section Skopje – Kicevo	Extended Core Network	WBEM	Existing Infrastructure	103	275	2032	Under preparation

Table 32. Overview of rail TEN-T projects in North Macedonia

Civil works including signalisation and telecommunication on the Kumanovo – Beljakovce section were completed in 2024. Works are ongoing on the second section Beljakovce – Kriva Palanka. Deadline for completion 2026.

However, at tender for the third phase, covering the section from Kriva Palanka to the Bulgarian border, was launched at the end of 2023 but was cancelled in September 2024. The tender documentation will be revised, and tender procedure repeated.

Electrification for the whole section, from Kumanovo till the Bulgarian border will be completed parallel to completion of third section.

Implementation of the eastern, central and western part of Rail Corridor VIII aims to ensure compliance with Directive 2008/57/EC on the interoperability of the rail system. The project includes electrification, a line speed of 100 km/h for freight, an axle load of 22.5 t, a track gauge of 1435 mm, implementation of the European Train Control System (ETCS). The only aspect of the project that does not meet TEN-T standards at the maximum train length of 740 m.

The Tabanovce rail border crossing is on former Corridor X and linked to the TEN-T Networks. Strategically, it is one of the most important border crossings for both North Macedonia and Serbia and for transport from Central Europe to SEE including Turkey and Central Asia. The existing railway station is located approximately 0.9 km north-east of Tabanovce village. The road and railroad Corridors X run almost in parallel, both stretching in a north - south direction, at an approximate distance of 0.5 km from each other. Construction works includes building all facilities for border police, inspections, customs and railway staff.

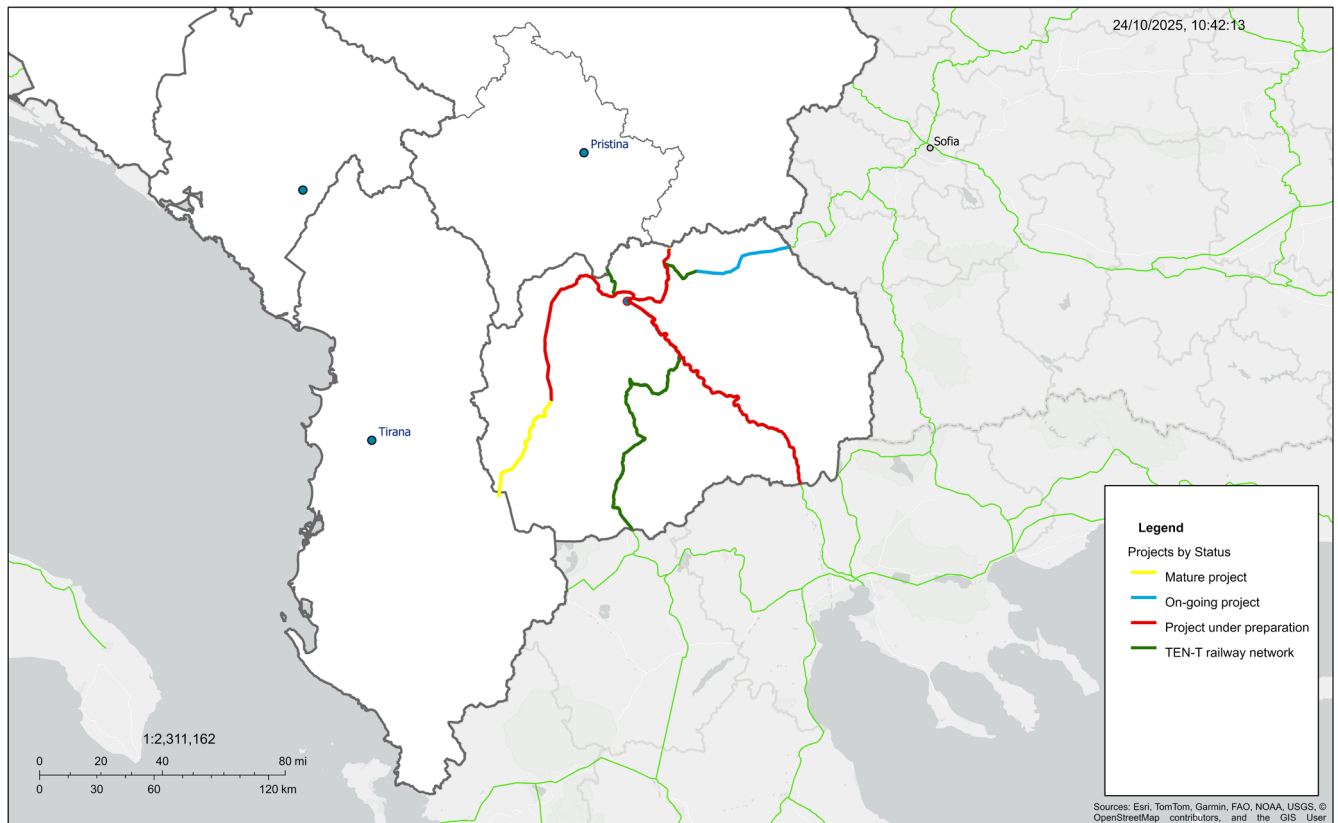


Figure 79. Railway projects in North Macedonia

## Serbia

Serbia is implementing 6 TEN-T rail projects, while 9 others are in preparation. Total value of ongoing projects is EUR 1030 million, while the value of projects under preparation is EUR 7.415 billion.

The length of sections currently undergoing various upgrades is 149 km, while the length of the project under preparation is 949 km.

An overview of TEN-T projects in Serbia is given in the table below:

Project name	Core/ Comprehensive Network	Core Corridor	Foreseen intervention	Total length (km)	Total Cost (M€)	Estimated completion deadline	Status
Reconstruction and modernisation of rail line Novi Sad - Subotica - Kelebija - state border with Hungary	Core Network	WBEM	New infrastructure	108	1068	2025	Completed
Reconstruction and modernisation of Niš-Dimitrovgrad railway line	Core Network	WBEM	Reconstruction/ rehabilitation	108	502	2028	Ongoing
Construction of a new line Zemun polje - Nikola Tesla Airport - National Stadium	Core Network	WBEM	New infrastructure	18	188	2026	Ongoing
Construction of a single operational centre for railway traffic management on the railway network of the Republic of Serbia	Core Network	WBEM	New infrastructure	/	127	2027	Ongoing
Construction works on the Main Railway station - phase 2	Core Network	WBEM	New infrastructure	/	15	2027	Ongoing
Construction of the New Belgrade railway station complex with reconstruction of the bridge structure	Core Network	WBEM	New infrastructure Reconstruction/ rehabilitation	/	138	2026	Ongoing
Reconstruction and modernisation of railway line Niš - Brestovac	Core Network	WBEM	Reconstruction/ rehabilitation	23	60	2026	Ongoing
Reconstruction and modernisation of the Stara Pazova - Šid railway section	Core Network	WBEM	Reconstruction/ rehabilitation	92	803.5	2030	Under preparation
Reconstruction and modernisation of the Kraljevo - Rudnica railway section	Core Network	WBEM	Reconstruction/ rehabilitation	77	440	2030	Under preparation
Reconstruction and modernisation of the Stalac - Kraljevo railway section	Core Network	WBEM	Reconstruction/ rehabilitation	72	290	2030	Under preparation
Reconstruction and modernisation of the Pancevo main - Vrsac railway section	Core Network	WBEM	Reconstruction/ rehabilitation	83	425	2029	Under preparation
Reconstruction and modernisation of the Belgrade - Niš railway section	Core Network	WBEM	New infrastructure/ rehabilitation	230	2775	2030	Under preparation
Reconstruction and modernisation of the railway section Brestovac - Preševo - state border	Core Network	WBEM	Reconstruction/ rehabilitation	135	700	2030	Under preparation
New construction and rehabilitation of a second track on the Ostružnica - Batajnica railway section	Core Network	WBEM	New infrastructure/ rehabilitation	20	182.3	2030	Under preparation
Reconstruction of the Valjevo - Vrbnica - state border with MNE railway section	Core Network	WBEM	Reconstruction/ rehabilitation	210	1500	2030	Under preparation
Construction of the by-pass railway line Beli Potok - Vinča - Pancevo with road-railway bridge over the Danube River near Vinča	N/A	N/A	New infrastructure	30	300	2030	Under preparation

Table 33. Overview of TEN-T projects for rail in Serbia

Construction on the Novi Sad – Subotica – Hu Border section is completed and traffic is in operation from October 2025. All TEN-T requirements are respected. The entire line between Belgrade and Novi Sad is now interoperable, with a maximum speed of 200 km/h and coverage by ETCS Level 2.

The Nis - Dimitrovgrad section is under construction since 2023. And completion should be by 2028, improvements will be made to 108 km of railway on the Core network, ensuring compliance with all TEN-T indicators and coverage by ETCS Level 1 except for GSM-R. The estimated cost for these enhancements is €502 million, with funding sourced from a WBIF grant, an EIB loan, and the Serbian budget.

In 2024, Serbia secured financing and began implementing three additional projects:

- Construction of a single operational centre for railway traffic management on the national railway network of Serbia. The project consists of constructing a unique dispatching centre for monitoring, managing and regulating traffic for the whole public infrastructure in Serbia. A contract with a selected contractor was signed in December 2022. Work started in February 2024, and the deadline for completion is the end of 2027.
- Construction of a new line Zemun polje - Nikola Tesla Airport - National Stadium Surcin. Work is being carried out on three facilities and preparatory work on two bridges, as well as on the railway route.
- Construction of the New Belgrade railway station complex with reconstruction of the bridge structure.

Furthermore, in February 2022, Serbia signed a grant agreement with the European Commission for a major infrastructure project connecting Belgrade to Niš. The grant is expected to be worth approximately EUR 600 million, with an estimated total investment of EUR 2.7 billion. Technical documentation should be completed by the end of 2025 for section Paracin - Trupale and the tender procedure to be published in the first half of 2026. For the Resnik - Velika Plana and Velika Plana - Paracin sections, the completion of technical documentation is expected during 2026.

Also, the procedure for signing a contract with the selected contractor for the section Stalac - Djunis - LOT 2 is underway.

In regards the Construction of tunnel no. 4 on the Stalac - Djunis section as part of the Belgrade-Niš project. Preparatory works have been completed, but the contract with the Contractor was terminated by mutual agreement on October 9, 2025.



Figure 80. Railway projects in Serbia

# ANNEX III Waterborne projects overview

## Albania

Project name	Core/ Comprehensive Network	Core corridor	Foreseen intervention	Total Cost (M€)	Starting deadline	Estimated completion deadline	Status
The Construction of the New Integrated Port in Porto Romano and the Transfer of Services Phase	Core Port	WBEM	New infrastructure	390	2025	2030	Ongoing tender evaluation
Construction of the New Integrated Port in Triporti, Vlore and Transfer of Services	Comprehensive Port	WBEM	New infrastructure	60	2025	2028	Ongoing
Establishment of the VTMS	Core Network	WBEM	New infrastructure	6	2022	2025	Ongoing

Table 34. List of Waterborne TEN-T projects in Albania

### Waterborne Projects in Albania – Current Status (2025)

#### 1. Construction of the New Integrated Port in Porto Romano and Transfer of Services

Objective: Transform Porto Romano into Albania's main commercial port, enabling the transfer of cargo services from Durrës and restructuring Durrës into a landlord/logistics authority with multi-site management (Durrës & Porto Romano). Phase I: essential infrastructure + container terminal facilities.

Financing: €390 million (national budget) for Phase I.

Status: International tender for Phase I launched in 2025.

Contract signature expected in 2025, with construction duration of 40 months after signing.

#### 2. Construction of the New Integrated Port in Triporti, Vlorë and Transfer of Services

Objective: Develop a new integrated commercial port in Triporti, transferring port services from Vlorë city port to enhance capacity, safety, and multimodality.

Financing: €60 million (national budget).

Status: Contract signed between contracting authority and concessionaire. Concessionaire is collecting all the necessary licences and permits to start the construction. Construction period is planned to last 36 months.

#### 3. Establishment of Vessel Traffic Monitoring and Information System (VTMIS)

Objective: Strengthen maritime safety and security by establishing a modern VTMIS, ensuring compliance with EU maritime acquis and IMO standards.

Status: Project is ongoing, scheduled for completion in 2025.

Radars and antennas installed. Operating room construction underway. Training of 25 VTS operators completed (in collaboration with the University of Rijeka). Operators are ready to manage the system once it becomes operational.

## Bosnia and Herzegovina

Project name	Core/ Comprehensive Network	Core corridor	Foreseen intervention	Total Cost (M€)	Starting deadline	Estimated completion deadline	Status
Reconstruction and Modernisation of the River Port of Brčko, Phase 1	Core IWW Port	Rhine Danube	Reconstruction/ rehabilitation	10.0	2020	2025	Ongoing
Demining the Right Bank of the Sava River in Bosnia and Herzegovina	Core Network	Rhine Danube	Reconstruction/ rehabilitation	38.9	2025	2027	Ongoing Tender
Rehabilitation of the Sava River waterway	Core Network	Rhine Danube	Reconstruction/ rehabilitation	23.8	2025	2027	Ongoing

Table 35. List of Waterborne TEN-T projects in Bosnia and Herzegovina

### WBIF Project – Reconstruction and Modernisation of Brčko River Port

Objective: Revitalisation of Brčko River Port to improve intermodal connectivity, efficiency, and capacity.

Status:

Phase 1 – Quay platform (8,000 m<sup>2</sup>): Completed and operational.

Phase 2 – Port equipment: Installation of 27-ton port crane and 150-ton bulk cargo hopper  
– Completed and operational.

Phase 3 – Road and rail connections:

- Construction of 4.5 km new rail track and 2 km new road.
- Redesign introduced additional works for Agro-industrial track (150 m extractor).
- Current progress: ~70% completed.

Timeline: Final phase expected to be completed by end of 2025.

### 2. Demining of the Right Bank of the Sava River (World Bank supported)

Objective: Improve navigability and safety of the Sava River by removing mines and explosive remnants of war from its right bank.

Status:

- Environmental & Social Management Plan (ESMP) prepared. Under review by the World Bank and institutions in Bosnia and Herzegovina.
- Public consultations scheduled for October 2025 in two Sava River cities.
- ESMP will form part of the tender documentation for demining works.
- Public call for bids expected mid-October 2025.

Implementation: Once contractor is selected, works are planned to last 18 months.

## Montenegro

Project name	Core/ Comprehensive eNetwork	Core corridor	Foreseen intervention	Total Cost (M€)	Starting deadline	Estimated completion deadline	Status
Improving navigability, port infrastructure and multimodal systems	Core Port	WBEM	Reconstruction/ rehabilitation		2026	2030	Under preparation

The project for Improving Navigability, Port Infrastructure, and Multimodal Systems is currently in the planning phase, focusing on the preparation of technical documentation for several key initiatives, including dredging works, quay extension, rehabilitation of port facilities, modernisation of power supply, and railway connections with the Port of Bar, all supported through WBIF technical assistance.

## Serbia

Project name	Core/ Comprehensive Network	Core corridor	Foreseen intervention	Total Cost (M€)	Starting deadline	Estimated completion deadline	Status
Supply of Marking & Hydrographic Vessels for the Danube, Sava, and Tisa Rivers	Core	Rhine Danube	Procurement of 2 vessels	4	2024	2025	Ongoing
Implementation of a network of hydro-meteorological stations along the Danube and Sava Rivers	Core	Rhine Danube	Reconstruction/ rehabilitation	5.38	2024	2027	Ongoing
The removal of the sunken German fleet from World War II	Core	Rhine Danube	Reconstruction/ rehabilitation	31	2023	2028	Ongoing
Hydraulic and morphological modeling of Danube and Sava rivers - Lot 1	Core	Rhine Danube	Study	0.6	2024	2025	Completed
Hydraulic and morphological modelling of Danube and Sava rivers - Lot 2	Core	Rhine Danube	Modelling	3.81	2024	2025	Ongoing
Hydrotechnical and dredging works at the mouth of the Drina River into Sava River	Core	Rhine Danube	Reconstruction/ rehabilitation	12	2025	2028	Ongoing
Expansion capacities of the Port of Sremska Mitrovica	Compr. port	Rhine Danube	Reconstruction/ rehabilitation	55	2027	2030	Under preparation
Expansion capacities of the Port of Bogojewo	R-D corridor	Rhine Danube	Reconstruction/ rehabilitation	60	2026	2029	Under preparation
Expansion capacities of Port of Prahovo	Comprehe. port	Rhine Danube	Reconstruction/ rehabilitation	45	2025	2028	Ongoing
Establishment of National Academy for emergencies and training of ship crew members	Core	Rhine Danube	Reconstruction/ rehabilitation	47	2027	2030	Under preparation
Construction of the new lock on the Tisa River	Core	Rhine Danube	Reconstruction/ rehabilitation	62	2027	2030	Under preparation
Construction of a bulk cargo terminal in Belgrade, location of Krnjača	Core Port	Rhine Danube	Reconstruction/ rehabilitation	82	2026	2030	Under preparation
Construction of a new port in Belgrade	Core Port	Rhine Danube	Reconstruction/ rehabilitation	300	2026	2030	Under preparation

Project name	Core/ Comprehensive Network	Core corridor	Foreseen intervention	Total Cost (M€)	Starting deadline	Estimated completion deadline	Status
Establishment of a VTS and VHF radio-telephone system on the Tisa River	Core	Rhine Danube	Reconstruction/ rehabilitation	2,7	2026	2028	Under preparation
Expansion of the AIS AtoNs system for navigational monitoring and electronic marking of the waterway on the Tisa River	Core	Rhine Danube	Reconstruction/ rehabilitation	2,5	2026	2028	Under preparation
The Project "Green ports"	Core	Rhine Danube	Reconstruction/ rehabilitation	50	2026	2028	Under preparation
The expansion of the port of Novi Sad	Core Port	Rhine Danube	Reconstruction/ rehabilitation	30	2022	2025	Completed

Table 36. List of Waterborne TEN-T projects in Serbia

The project for the **Supply of Marking and Hydrographic Vessels for the Danube, Sava, and Tisa Rivers** is part of the "FAIRway works in the R-D Corridor." This project focuses on procuring a marking vessel and a hydrographic vessel equipped with multibeam and ADCP capabilities.

- Value: 4 million euros. EIB financing 48%, CEF 40%, RS budget 12%.
- Status: Contracts signed for Lot 1 in November 2024; The construction of the ship's hull is currently underway; Lot 2 Contract signed in September 2024. The project has been completed
- Technical supervision: Procurement of technical supervision for the construction of the hydrographic vessel has been carried out, EIB has approved the evaluation report. Contract signed in November 2024.

The project for **Implementation of a network of hydro-meteorological stations along the Danube and Sava rivers in Serbia** aims at creating a network of 38 hydro-meteorological stations along the Danube and Sava rivers. These stations will be equipped with sensors to monitor various parameters, including pressure, temperature, wind, waves, and fog.

- Project value: 5.38 million euros. Financing: 50% EIB, 50% RS budget.
- Status: Supervision contract signed on 14 September 2022. Contract value: 989,500 euros. Implementation deadline: 30 months.
- Establishment of a system of hydro-meteorological stations on Danube and Sava rivers in the Republic of Serbia. Estimated contract value: 4,387,760 euros. Contract signed on 12 February 2024. Implementation deadline: 30 months.

**The removal of the sunken German fleet from World War II** is also underway, with four extracted sunken vessels so far. The vessels should be removed from km 857 to km 862 of the Danube in order to provide a prescribed fairway width of 180 m and to improve conditions for safe navigation on the Danube, during the low water level periods. During this operation, the fairway will be temporarily shifted to the Gogoş channel on the Romanian side.

- Project value: EUR 31 million. Financing: EIB (46%), approved grant funds from the WBIF fund (46% - EUR 16 million) and the RS budget 8%.

Status: Contracts have been signed with the supervisor and contractor for the removal of sunken World War II vessels from the Danube near Prahovo. The contract with the contractor was signed on 29 June 2023. Starting date of the works is 27 July 2023. Project completion: 27 July 2028. Four vessels have been removed. The removal of the next two vessels is currently underway.

### **- Hydraulic and morphological modeling of Danube and Sava rivers in the Republic of Serbia**

Estimated value: Lot 01 Danube, joint sector Serbia-Croatia. Financing: EUR 599,200, CEF financing 50%, EIB 50%.

- Status: Contract signed on 11 June 2024. The contract has been implemented

Lot 02 Danube River and Sava River: EUR 3,810,000, EIB 100%.

- Status: Contract signed on 29 August 2024. Implementation underway.

### **- Hydrotechnical and dredging works at the mouth of the Drina where it enters the Sava**

- Project value is 12,000,000 euros.
- Financing : EIB 50%, RS budget 50%.
- Status: An Environmental Impact Assessment Study has been adopted, the construction permit project prepared, and the construction permit has been issued. Tender documentation for work and supervision has been completed, approval has been obtained from the EIB. The contractor has been selected, and the contract is expected to be signed in 2025. The evaluation of the supervision bids has been sent to the EIB for approval. Funds have been allocated by the EIB.

**The Port of Sremska Mitrovica** is undergoing capacity expansion, supported by the World Bank and EIB, as part of the Integrated Development Program of the Sava and Drina River Corridors. The project consists of construction of a bulk cargo terminal, an agriculture products terminal, including silos with 18,900 m<sup>3</sup> of capacity, and a smaller capacity oil terminal.

The value of the project is €55 million. Financing is provided through a World Bank loan under the Drina-Sava Corridor Integrated Development Program, a financing agreement with the European Investment Bank, and contributions from the Republic of Serbia budget. This encompasses both coastal and water surface areas along the left bank of the Sava, downstream from the town centre, constructing a 200-metre embankment on the left bank, as well as a vertical wharf structure measuring 177 metres adjacent to the bulk cargo terminal.

**Expansion of the port of Prahovo** on the Danube is projected to cost €45 million, funded through the state budget. This upgrade will increase the port's throughput capacity from 1.5 million to approximately 3.5 million tonnes per year. Reconstruction will involve closing the winter facility and constructing new facilities, including a head office building that will house the customs office, harbour master's office, and other official premisses and a green terminal for the environmental performance of vessels. Construction is expected to take around three years, during which the port will remain operational.

Status: Following public procurement procedure in December 2024, a Works Contract was signed with the selected contractors. The contract for professional supervision of the works on the reconstruction and expansion of existing capacities, as well as the construction of new capacities at the Port of Prahovo, was signed on July 22, 2025. The commencement of works was registered on April 1, 2025. The contractor was mobilized on July 30, 2025

**The expansion of the port of Novi Sad.** In May 2022, DP World has invested 30 million euros in the reconstruction and modernisation of the port. Project was completed in 2025. The reconstruction consisted of a new vertical quay, container terminal, and wheat silos with the capacity of 40,000 m<sup>3</sup>.

## ***Projects in the design phase***

### **National Academy for emergencies and training of ship crew members**

- Total project value: The estimated value of the infrastructure construction and supervision works is a total of 47 million euros, of which the EIB is 50% and the RS budget is 50%.
- Status: Location conditions were obtained on 20 March 2023. The construction permit was obtained on March 4th, 2025. Tender documentation for supervision and works on the construction of the national academy has been prepared and approval of the tender documentation by the EIB is awaited. It is planned that international tenders for works, and supervision will be announced in 2026.

### **Construction of the new lock on the Tisa River**

- Contract value 62 million euros. EIB financing 50% and RS budget 50%
- Status: Previous feasibility study with General Design adopted by the State Audit Commission. Feasibility Study with Preliminary Design are currently being prepared. Plan of the Special Purpose Area of the Tisa Dam adopted in December 2024. The preparation of tender documents is planned for 2026.

### **Construction of a bulk cargo terminal in Belgrade, location of Krnjača**

- Status project: Port Government Agency is conducting public procurement. Environmental Impact Assessment Study was finalised in 2025.
- Estimated investment value of the project: 82 million euros. Proposed financing 50% EIB, 50% Republic of Serbia - budget.

## ***Planned projects***

### **Construction of a new port in Belgrade**

- Estimated value: 300 million euros (port infrastructure 160 million euros).
- Status: The final location of the port has not yet been decided..

### **Establishment of a VTS and VHF radio-telephone system on the Tisa river**

- Project value 2.7 million euros. Financing 50% EIB, 50% RS budget.
- Status: Included in the European Investment Bank Procurement Plan within the existing financing agreement for the development of river transport infrastructure in Serbia between the Republic of Serbia and the EIB.

### **Expansion of the AIS AtoNs system for navigational monitoring and electronic marking of the waterway on the Tisa river**

- Project value: 2.5 million euros. Financing 50% EIB, 50% RS budget.
- Status: Included in the European Investment Bank Procurement Plan within the existing financing agreement for the development of river transport infrastructure in Serbia between the Republic of Serbia and the EIB.

## Green ports

- Description: "Green ports" project implies introduction of clean, green energy in ports and docks in Serbia as well as solving questions of ship waste management "Green Ports" project includes the following:
  - Monitoring system for accidents and nautical conditions, which should collect, process and display data obtained from buoys equipped with sensors for nautical conditions and sensors for detecting accidents in port areas.
  - Green (solar) energy, that is placing solar panels in ports and international passenger ports in the Republic of Serbia.
  - Supplying cruise vessels with electricity.
- Total estimated investment value: EUR 50 million euros. Financing 50% EIB, 50% Republic of Serbia budget.



