Development of the Indicative TEN-T Extensions of the Comprehensive and Core Network in Georgia, the Republic of Moldova and Ukraine









Funded by the European Union

Development of the Indicative TEN-T Extensions of the Comprehensive and Core Network in Georgia, the Republic of Moldova and Ukraine

This publication was funded by the European Union. Its contents are the sole responsibility of the Transport Community and do not necessarily reflect the views of the European Union.







Funded by the European Union

Table of Contents

Lis	t of Fig	gures	3
Lis	t of Ta	bles	5
1.	Introd	uction	7
2.	Execut	ive Summary	9
3.	Metho	dological Notes	11
4.	TEN-T	compliance indicators	14
	4.1	Railways	14
	4.2	Road transport	15
	4.3	Waterborne Transport	17
	4.3.1	Inland Waterways Transport	17
	4.3.2	Maritime Transport Infrastructure	18
	4.4	Airports	18
5.	TEN-T	Network Compliance Assessment	19
	5.1	Georgia	19
	5.1.1	Railways	19
	5.1.1.1	Current Compliance Status	19
	5.1.1.2	Progress from Last Year Reporting	21
	5.1.2	Roads	22
	5.1.2.1	Current Compliance Status	22
	5.1.2.2	Infrastructure Profile and Condition of the Core Road Network	23
	5.1.2.3	Infrastructure Profile and Conditions of the Comprehensive Network	26
	5.1.2.4	Progress Compared to Last Year Report	28
	5.1.3	Waterborne Transport	29
	5.1.4	Airports	31
	5.2	Republic of Moldova	33
	5.2.1	Railways	33
	5.2.1.1	Current Compliance Status	33
	5.2.1.2	Progress from Last Year's Reporting	35
	5.2.2	Roads	37
	5.2.2.1	Current Compliance Status	37
	5.2.2.2	Infrastructure Profile and Condition of the Core Road Network	38
	5.2.2.3	Infrastructure Profile and Conditions of the Comprehensive Road Network	40
	5.2.2.4	Progress from Last Year's Reporting	42
	5.2.3	Waterborne transport	43
	5.2.4	Airports	45

5	5.3	Ukraine	47
5	5.3.1	Railways	47
5	5.3.1.1	Current Compliance Status	47
5	5.3.1.2	Progress from Last Year's Reporting	50
5	5.3.2	Roads	52
5	5.3.3	Waterborne Transport	55
5	5.3.4	Airports	59
6. T	EN-T	Projects	61
e	5.1	Methodological Aspects	61
e	5.2	Georgia	62
e	5.2.1	Rail Projects	62
e	5.2.2	Road Projects	62
e	5.2.3	Waterborne Transport Projects	63
e	5.2.4	Airport Projects	63
e	5.3	Republic of Moldova	64
e	5.3.1	Rail Projects	64
e	5.3.2	Road Projects	64
e	5.3.3	Waterborne Transport Projects	65
e	5.3.4	Airport Projects	65
e	5.4	Ukraine	66
e	5.4.1	Rail Projects	66
6	5.4.2	Other Projects	66
7. T	EN-T	Compliance Indicators Forecast	67
7	7.1	Georgia	67
7	7.1.1	Rail Compliance Indicators Forecast	67
7	7.1.2	Road Compliance Indicator Forecast	68
7	7.2	Republic of Moldova	68
7	7.2.1	Rail Compliance Indicator Forecast	68
7	7.2.2	Road Compliance Indicator Forecast	70
7	7.3	Ukraine	70
7	7.3.1	Rail Compliance Indicator Forecast	70
8. C	Conclu	usions	72

List of Figures

3

Figure 1.	European Transport Corridors extended to Moldova and Ukraine	12
Figure 2.	Indicative extension of the TEN-T rail network to Georgia	19
Figure 3.	Georgia: Train length	20
Figure 4.	Georgia: Condition of the Rail Network	21
Figure 5.	Georgia: Train length comparison (2023/2024)	21
Figure 6.	Georgia: Condition of the Rail Network comparison (2023/2024)	22
Figure 7.	Indicative extension of the TEN-T road network to Georgia	23
Figure 9.	Georgia: road TEN-T Core network condition	25
Figure 10.	Georgia: road TEN-T Comprehensive network profile	26
Figure 11.	Georgia: TEN-T comprehensive road network (Infrastructure condition)	27
Figure 12.	Georgia: TEN-T road network compliance	28
Figure 13.	Georgia: TEN-T road network 2023-2024 compliance rate	28
Figure 14.	Indicative extension of TEN-T ports in Georgia	29
Figure 15.	Indicative extension of TEN-T Comprehensive and Core Airports to Georgia	31
Figure 16.	Indicative extension of the TEN-T rail network to Moldova	34
Figure 17.	Moldova: Train length	34
Figure 18.	Moldova – Condition of the Rail Network	35
Figure 19.	Moldova: Train length comparison (2023/2024)	36
Figure 20.	Moldova: Condition of the Rail Network comparison (2023/2024)	36
Figure 21.	Indicative extension of the TEN-T road network to Moldova	37
Figure 22.	Moldova: road TEN-T core road network infrastructure profile	39
Figure 23.	Moldova: Core Road network condition	39
Figure 24.	Moldova: Comprehensive Road network condition	41
Figure 25.	Moldova: TEN-T network conditions	42
Figure 26.	Moldova: TEN-T network compliance	42
Figure 27.	Moldova: TEN-T road 2023-2024 network compliance rate	42
Figure 28.	Indicative extension of TEN-T ports in the Republic of Moldova	43
Figure 29.	Indicative extension of TEN-T Comprehensive and Core Airports to the Republic of Moldova	45
Figure 30.	Indicative extension of the TEN-T rail network to Ukraine	47
Figure 31.	Ukraine: Electrification	48
Figure 32.	Ukraine: line speed for passenger trains	48
Figure 33.	Ukraine: Train length	49
Figure 34.	Ukraine: track gauge	49
Figure 35.	Ukraine: Condition of the Rail Network	50

Figure 36.	Ukraine: Electrification 2023/2024	50
Figure 37.	Ukraine: train length comparison (2023/2024)	51
Figure 38.	Ukraine: Track gauge comparison (2023/2024)	51
Figure 39.	Ukraine: Condition of the Rail Network comparison (2023/2024)	51
Figure 40.	Indicative extension of the TEN-T road network to Ukraine	52
Figure 41.	Ukraine: core road network infrastructure profile	53
Figure 42.	Ukraine: core road network condition	53
Figure 43.	Ukraine: comprehensive road network infrastructure profile	54
Figure 44.	Ukraine: comprehensive road network condition	55
Figure 45.	Ukraine: TEN-T road network compliance rates	55
Figure 46.	Indicative extension of TEN-T ports and inland connections in Ukraine	56
Figure 47.	Indicative extension of TEN-T Comprehensive and Core Airports to the Ukraine	59
Figure 48.	Georgia: Railway network infrastructure conditions 2023/2024/2030	67
Figure 49.	Georgia TEN-T road network 2023-2030 compliance progress forecast	68
Figure 50.	Moldova: Minimum design speed 100 km/h 2023/2024/2030	68
Figure 51.	Moldova: Train length 100 km/h 2023/2024/2030	69
Figure 52.	Moldova: Railway network infrastructure conditions 2023/2024/2030	69
Figure 53.	Moldova TEN-T Compliance progress forecast (infrastructure profile and condition)	70
Figure 54.	Ukraine: Track gauge 2023/2024/2030	71
Figure 55.	Ukraine: Condition of the Rail Network 2023/2024/2030	71

List of Tables

Table 1	Assessment Methodology Criteria	15
Table 2	Road Compliance Indicators	16
Table 3	Georgia: TEN-T core road network profile	24
Table 4	Georgia: TEN-T core road Network (infrastructure condition)	25
Table 5	Georgia: TEN-T core road Network Compliance (infrastructure profile and condition)	25
Table 7	Georgia: road TEN-T comprehensive network infrastructure condition	27
Table 8	Georgia: TEN-T comprehensive road network compliance (infrastructure profile and condition)	27
Table 9	Maritime ports compliance assessment for Georgia	29
Table 10	Georgia: Airports road and rail connections	31
Table 11	Georgia: Availability of alternative fuels in airports	32
Table 12	Georgia: Airports terminal availability	32
Table 13	Moldova: TEN-T core road network profile	38
Table 14	Moldova: TEN-T core road network condition	39
Table 15	Moldova: TEN-T core road Network Compliance (infrastructure profile and condition)	40
Table 16	Moldova: TEN-T comprehensive road network condition	41
Table 17	Moldova: TEN-T Comprehensive Road Network Compliance (infrastructure profile and condition)	41
Table 18	Compliance assessment for each indicator in Port of Giurgiulești	43
Table 19	Moldova: list of airports with road and rail connections	46
Table 20	Moldova: list of availability of alternative fuels in airports	46
Table 21	Moldova: list of terminal availability	46
Table 22	Ukraine: core road network profile	53
Table 23	Ukraine: TEN-T core road network (infrastructure condition)	53
Table 24	Ukraine: TEN-T core road network compliance (infrastructure profile and condition)	54
Table 25	Ukraine: TEN-T comprehensive road network (infrastructure condition)	54
Table 26	Compliance assessment for each indicator in Ukrainian ports	57
Table 27	Ukraine: list of airports with road and rail connections	59
Table 28	Ukraine: list of availability of alternative fuels in airports	60
Table 29	Ukraine: list of terminal availability	60
Table 30	List of TEN-T rail projects in Georgia	62
Table 31	List of TEN-T road projects in Georgia	62
Table 32	List of TEN-T rail projects in Moldova	64
Table 33	List of TEN-T road projects in Moldova	65
Table 34	List of TEN-T rail projects in Ukraine	66

1. Introduction

The 6th Ministerial Council of the Transport Community (TCT) held on 15 November 2022 endorsed a Joint Statement on the systematic involvement of Ukraine, the Republic of Moldova, and Georgia as observing participants in the work of the Transport Community. The observers' engagement with the Transport Community holds substantial importance in the context of their ongoing efforts to align with EU standards and regulations.

Under the institutional mechanisms established by the Transport Community Treaty, the development status and performance of the indicative extension of the TEN-T network in the South East European Parties are tracked through annual monitoring reports. As part of the overarching commitment to deepen cooperation with Georgia, the Republic of Moldova and Ukraine within the Transport Community framework, the same approach is being applied to the observing participants.

In 2023, a first preliminary assessment of the performance and compliance status of the indicative extension of the TEN-T network in Georgia, the Republic of Moldova, and Ukraine was performed. The 2024 report marks a new milestone in this regard, setting a sound basis for a multi-year monitoring exercise.

2. Executive Summary

- The 2024 TEN-T Report for Georgia, the Republic of Moldova, and Ukraine provides a comprehensive evaluation of their current compliance with the TEN-T Regulation requirements. It serves as a valuable tool for understanding the status and gaps in meeting EU transport infrastructure standards, also highlighting current development trends and their potential impact in terms of compliance forecast.
- Building on the conclusions of the 2023 exercise, this report adopts an enhanced methodology fully aligned with similar work conducted for the Western Balkans. It includes data on the current condition of the TEN-T network and ongoing development projects, providing a compliance forecast exercise for the 2030 horizon.
- 3. While the report is primarily based on the recently repealed Regulation no. 1315/2013, it also considers the modifications introduced by Regulation 1679/2024. The reported indicators reflect the revised network layout as outlined in the new TEN-T regulation. Additionally, the document includes a comparative analysis of the changes introduced by Regulation 1679/2024, laying the groundwork for fully aligned reporting from 2025 onwards. As the infrastructure requirements outlined in Regulation 1315/2013 remain largely relevant, the outcomes will remain fully comparable with next year's reporting.
- 4. The data collection was lengthy and challenging and remains partially incomplete. This process spanned several months and included a mix of review missions, discussions, questionnaires, and online meetings. Despite challenges, the Permanent Secretariat of the Transport Community managed to gather sufficient data to compile the report in line with the adopted methodology. Overall, the completeness and reliability of data vary across the participants, with information from Moldova and Georgia being reasonably complete, while data from Ukraine remains limited.
- 5. Compliance rates vary significantly across sectors and specific indicators, ranging from 0% to 100%. In general, the linear road and rail infrastructure is in suboptimal physical condition due to prolonged underinvestment and maintenance backlogs. However, the railway systems have proven surprisingly resilient to external shocks and still exhibit high compliance rates for certain TEN-T indicators. Legacy railway systems with wide gauges, though incompatible with the European standard set by the TEN-T Regulation, are well-suited for heavy freight transport. As a result, compliance rates for the axle load indicator are high across all three observing participants, despite the lack of maintenance and declining asset quality.
- 6. Significant disparities in performance emerge regarding electrification and train length indicators. While the entire TEN-T network in Georgia is electrified, Moldova records a 0% compliance rate in this area. Conversely, Moldova excels in the train length indicator, achieving 100% compliance on the Core Network, while Georgia struggles, with only 6% of the Core Network able to accommodate freight trains of such length.

- 7. The road network faces maintenance challenges across all three observing participants. Overall, compliance rates with the infrastructure profile and condition criteria range from 10% in Ukraine to approximately 25% in Georgia, highlighting the infrastructure gap and the substantial investment required.
- 8. Ports and airports demonstrate commendable performance, with most compliant indicators being reached. The alternative fuels network is still underdeveloped, though it is expected to align further with the market demand. Notably, Ukraine's performance in the field of maritime ports is remarkable, considering the ongoing Russian war of aggression in the country, the Russian naval blockade and continuous attacks. Despite these challenges, Ukrainian ports have remained a critical gateway to the world, facilitating the uninterrupted flow of goods and supporting the war effort.
- 9. Progress from last year's report is marginal. Changes in compliance rates are largely due to adjustments in the TEN-T maps rather than tangible improvements on the ground. A notable exception is the Georgian road sector, where compliance increase of approximately 5% is attributed to ongoing investments.
- **10. Ongoing projects reflect ambition, but their impact remains limited.** The list of ongoing projects reflects the participants' efforts and ambitions, with the road sector absorbing the majority of available funds. However, the forecasted impact of these projects on TEN-T compliance indicators is marginal, highlighting both the substantial investment gap and the need for a balanced, pragmatic, and coherent investment policy.
- 11. The current status of TEN-T key networks and infrastructure among the observing participants prompts a call for action. Enhancing compliance with the TEN-T standards and progressing towards a unified transport market require significant funding, well-defined strategic frameworks for prioritizing and selecting the most effective projects, and targeted interventions that maximise benefits quickly and efficiently. Smart investment plans focused on clear, strategic objectives are crucial for achieving connectivity goals and advancing towards European transport market integration.

3. Methodological Notes

Scope of the Report

Infrastructure development is addressed under articles 8, 9, and 10 of the Treaty establishing the Transport Community. Such development is deemed taking place alongside the indicative extension of the TEN-T Core and Comprehensive corridors, with the goal of aligning them with the standards outlined in the relevant EU legislation and within the prescribed time limits.

The progress achieved by the contracting parties in this regard is tracked through a monitoring system set up under Article 8 of the Treaty, mandating the Regional Steering Committee to issue annual reports 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.").

In line with the overall context described under Point I above, this report aims to address the following points:

- Benchmark the progress of Georgia, the Republic of Moldova, and Ukraine in achieving compliance with the TEN-T standards, providing insights into the current status of the indicative extensions of the TEN-T Core and Comprehensive Networks, comparing them against the criteria set forth by Regulation 1315/2013.
- Provide an overview of the TEN-T projects currently under implementation in Georgia, the Republic of Moldova, and Ukraine, highlighting current investment efforts targeting compliance with TEN-T technical criteria and indicators.
- Provide a 2030 forecast of the TEN-T network compliance, based on the scheduled completion dates of the aforementioned TEN-T projects.

Compared with the 2023 edition, this year's report aligns with the methodology adopted for the Western Balkans, including project-related data and compliance forecasting.

The New TEN-T Regulatory Framework: Revised Maps and Compliance Indicators

The newly adopted Regulation 1679/2024 introduces significant updates to the TEN-T framework. One key novelty is the increased focus on sustainability, digitalisation, and resilience, ensuring alignment of the TEN-T policy with the Smart and Sustainable Mobility Strategy and, further on, the EU's Green Deal goals. Regulation 1679/2024 takes a firmer stance on transport decarbonisation, mandating the expansion of alternative fuel infrastructure and the integration of sustainable transport modes. It also strengthens requirements for cross-border and urban connectivity to foster regional cohesion, while placing higher priority on digital infrastructure to support intelligent transport systems.

The new regulation also updates the TEN-T maps. Besides adjustments in network layout based on an updated methodology, Regulation 1679/2024 introduces an additional basic layer – the extended core – comprising comprehensive network sections that are part of the European Transport Corridors. Another key innovation, particularly relevant for the Transport Community, is the extension of the European Transport Corridors beyond EU borders. In addition to the Western Balkan Corridor that connects the Transport Community's regional partners to the core of the European transport network, four more transport corridors now extend into the Republic of Moldova and Ukraine, as following:

- **The North Sea Baltic Corridor**, connecting Mariupol port of Ukraine through Kyiv and Lviv with the Baltic countries, Poland, and the North Sea ports in Belgium, the Netherlands, and Germany.
- **The Baltic Sea-Black Sea-Aegean Sea Corridor**, connecting the Republic of Moldova and the port of Odesa (Ukraine) to the north–south route linking Poland, Slovakia, Hungary, Romania, Bulgaria, and Greece.
- **The Mediterranean Corridor**, stretching from the Baltic and North Sea to the Black Sea, including a branch reaching the city of Lviv, Ukraine.
- The Rhine–Danube Corridor, to which Ukraine connects via its Danube access.

The alignment of the most important European Transport Corridors extended in the Republic of Moldova and Ukraine (North Sea–Baltic and Baltic Sea–Black Sea–Aegean Sea) is depicted below, highlighting their important role in the European transport network.



Figure 1 - European Transport Corridors extended to Moldova and Ukraine

Full alignment of TCT reporting with the newly established TEN-T framework will be gradual, with the 2024 report adopting a hybrid approach due to several key factors:

- Regulation 1679/2024 was adopted on 13 June 2024 and came into effect on 18 July 2024, repealing Regulation 1315/2013. By this time, data collection for the 2024 report was already underway under the previous framework.
- Knowledge sharing among key stakeholders is also progressive. By the end of 2024, the TCT Secretariat will organise a workshop focused on the updated TEN-T compliance criteria, aiming to ensure a better understanding of Regulation 1679/2024 and setting a sound basis for the 2025 data collection and reporting.
- While the current Regulation introduces new compliance indicators, the performance criteria established under Regulation 1315/2013 remain largely applicable and fully relevant, as detailed in Section IV of this report.

Given the above, the 2024 TEN-T Report relies on the following basic inputs:

- The key compliance indicators from Regulation 1315/2013 (interpreted in line with Regulation 1679/2024, where applicable)
- The revised TEN-T maps included in Annex III of Regulation 1679/2024

TEN-T Compliance Standards

The compliance standards used in this report are based on the requirements outlined in Regulation 1315/2013, as follows:

- General transport infrastructure requirements for the Comprehensive Network: Outlined under Articles 12, 15, 18, 22, 25, and 28.
- Additional requirements for the Core Network: Specified under Article 39.

These requirements have been consolidated into a set of indicators for each transport mode to facilitate a comprehensive evaluation. Details on individual compliance indicators for each transport mode are included in the dedicated sections of the report.

TEN-T Network Layout

The current layout of the indicative extension of the TEN-T Core and Comprehensive Networks in Georgia, the Republic of Moldova, and Ukraine is included in Annex IV 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.*

To facilitate the compliance assessment, the linear TEN-T Network has been divided into homogenous sections, mirroring the institutional specifics and infrastructure management practices and tools of each observing participant.

Data Collection

Data needed to assess TEN-T Network compliance was gathered through questionnaires addressing the compliance indicators mentioned above, which were distributed among the observing participants. Throughout the survey process, the Transport Community Permanent Secretariat provided continuous feedback and ad-hoc support to relevant stakeholders through meetings and individual consultations.

Information directly obtained from observing participants was complemented by desk review, incorporating insights from various initiatives and studies conducted under the Eastern Partnership framework. These additional sources provided valuable information, enhancing the comprehensive understanding of the TEN-T Network's features and specifics in Georgia, the Republic of Moldova, and Ukraine.

Data from Georgia and Moldova is largely complete. For Ukraine, updated data has been only partially provided; the missing information was supplemented with 2023 figures and desk research where possible.

4. TEN-T compliance indicators

4.1. Railways

In line with Section III above, this report primarily adheres to the compliance criteria set out in Articles 12 and 39 of Regulation 1315/2013. Under Regulation 2024/1679, TEN-T railway infrastructure requirements are outlined in Articles. 15 and 16. The key compliance criteria remain basically unchanged, covering aspects such as interoperability, electrification, European Rail Traffic Management System (ERTMS), track gauge, train length, axle load, and freight line design speed. Key updates in Regulation 2024/1679 include the introduction of an extended core network layer with corresponding deadlines, along with new requirements for passenger line design speeds and the operation of freight trains carrying standard semi-trailers up to 4 meters high.

In addition to revised infrastructure requirements, the new regulation also emphasises operational priorities, including dwelling time and on-schedule train arrivals. Priority areas for railway infrastructure development include:

- Developing and deploying innovative technologies for railways based on ERTMS and digital automatic coupling.
- Transitioning to 1,435 mm nominal track gauge.
- Mitigating noise and vibration impacts from rail transport, in particular through rolling stock and infrastructure measures, including noise protection barriers.
- Meeting infrastructure requirements and enhancing interoperability.
- Improving level crossings safety.
- Connecting railway transport infrastructure with inland waterway port infrastructure where relevant.
- Developing innovative alternative fuel technologies for railways, such as hydrogen or battery-powered trains for exempt sections and rail access routes from electrification requirements.
- Increasing capacity in bottleneck sections.

Regulation 1679/2024 sets ambitious goals for creating a unified, high-quality, and fully operational TEN-T rail network. However, it also considers specific ground conditions, allowing Member States to request and obtain various individual exceptions, where appropriate.

The report assesses the compliance of TEN-T railway infrastructure in Georgia, the Republic of Moldova, and Ukraine according to the following indicators:

- **Electrification:** Rail network must be electrified (including sidings where necessary).
- **Axle load**: Freight lines should support an axle load of 22.5 tonnes.
- Line speed: Freight lines must allow speeds of 100 km/h (the speed requirement for passenger lines will be assessed from 2025 onwards).
- Train length: Freight lines should accommodate trains up to 740 metres in length.
- **Track gauge**: The nominal track gauge for new railway lines should be 1,435 mm.
- **ERTMS/signalling system**: The core network should be equipped with ERTMS.

Beyond the compliance indicators listed above, the physical condition of the infrastructure was also evaluated, as it is an essential pre-requisite for a high-quality rail network. To assess this, conditions were categorised into five levels based on the ratio of the current maximum operational speed to the maximum designed speed across the network. This approach aims to provide a clearer representation of the railways' current condition.

Table 1 – Assessment Methodology Criteria

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	

4.2. Road transport

Article 17 of Regulation 1315/2013 defines the core components of road infrastructure, while compliance requirements are outlined in Article 18. In Regulation 1679/2024, road infrastructure requirements for the TEN-T core and comprehensive network are addressed under Articles 30 and 31, respectively.

The previous criteria remain entirely valid, with the new Regulation introducing additional requirements to support the overall policy goals of the Smart and Sustainable Mobility Strategy. In short, the TEN-T road network is deemed to incorporate high-quality roads, specially designed and constructed for motor traffic and ensuring adequate safety levels. Furthermore, Compliance with EU Directives on road tunnels, tolling interoperability, and Intelligent Transport Systems (ITS) is also a critical requirement. In addition to the general conditions for the comprehensive network, the core and extended core network must comply with the following additional requirements:

- Adherence to road profile standards: Roads on the Core network must:
 - Generally, feature separate carriageways for each direction of traffic, separated by a non-traffic divider or equivalent safety measure, except at special point or temporarily.
 - Avoid grade-level crossings with any road, railway or tram track, bicycle path or footpath.

Exceptions to these standards must be explicitly justified and individually approved by the European Commission.

• Establishment of rest areas and secure parking areas: Rest areas are to be placed approximately every 60 km and safe and secure parking every 150 km, in compliance with Regulation 561/2006, to improve traveller convenience and safety.

Compared to previous standards, the new requirements include these main changes:

- Rest areas and safe and secure parking, are now distinguished as separate categories, with rest areas required across the entire comprehensive network.
- Extended availability of alternative fuels infrastructure across the comprehensive network.
- New criteria for deploying weigh-in-motion systems, detecting safety-related events or conditions, and collecting relevant road traffic data to provide minimum universal traffic safety information

The Road compliance indicators are outlined and detailed in the table below.

Table 2 – Road Compliance Indicators

Indicator	TEN-T Network	Details
Road designed, built or upgraded for motor traffic with separate carriageways and without grade crossing	Core	 As per the provisions of points (a) and (b) of Art. 17(3) of Regulation No 1315/2013 and art. 31.2.(a) of Regulation 1679/2024. To be labelled as compliant, Core Network roads should meet following criteria: a) They must be designated as either motorway or express roads, unless the EC grants a specific exemption under Article 31.6 of Regulation 1679/2024 (Article 39(3) of Regulation No 1315/2013). b) They must be adequately maintained, with an international Roughness Index (IRI) below 2.84.
Road designed, built or upgraded for motor traffic	Core & Comprehensive	 For a TEN-T road that is neither a motorway nor an express road to be considered compliant, it should: a) Be part of the Comprehensive Network. b) Serve an important role in long-distance freight and passenger traffic, integrate main urban and economic centres, interconnect with other transport modes, and provide connections between mountainous, remote, landlocked, and peripheral NUTS 2 regions and central regions. c) Be maintained to a standard that ensure safe and secure traffic. Ideally, compliance for a TEN-T road that is neither motorway nor express road should be confirmed through: A feasibility assessment verifying that its current capacity meets demand. An upgrading process to enhance safety and environmental protection, with the pavement condition maintained to an IRI below 2.84.
Availability of alternative fuels	Core & Comprehensive	Infrastructure for alternative fuels is deployed across the road network in line with requirements of Regulation (EU) 2023/1804.
Rest areas	Core & Comprehensive	Rest areas are to be located approximately every 60 km on the Core Network, and every 100 km on the Comprehensive Network in accordance with the newly established distance criteria established under Regulation 1679/2024).
Safe and secure parking	Core	To be deployed at an average maximum interval of 150 km or within 3 km driving distance from the nearest road exit.
ITS compliance	Core & Comprehensive	According to the provisions of Article 18(e) of Regulation 1315/2016, any intelligent transport system deployed by a public authority on road transport infrastructure should comply with Directive 2010/40/EU and be deployed in alignment with the delegated acts adopted under this Directive.
Tolling interoperability	Core & Comprehensive	Where applicable, toll collection systems must ensure interoperability in line with Directive 2004/52/EC and Commission Decision No. 2009/750/EC.
Tolls & users charges	Core & Comprehensive	Where applicable, tolls or user charges are imposed in accordance with Directive 1999/62/EC of the European Parliament and of the Council.
Safety compliance	Core & Comprehensive	The safety of TEN-T roads should be ensured, monitored and, when necessary, improved in accordance with the procedure set out in Directive 2008/96/EC.
Road tunnels compliance	Core & Comprehensive	Road tunnels exceeding 500 m in length should comply with the provisions of Directive 2004/54/EC.

Weight-in motion systems	Core & Comprehensive	To be deployed, on average, every 300 km across a Member State's network.
Means to detect	Core &	To be deployed in order to provide road safety-related minimum
safety-related	Comprehensive	universal traffic information, as defined in Commission Delegated
events or conditions		Regulation (EU) No 886/2013.

The limits of the current exercise were defined by data and logistic constraints. While it is expected that these constraints will be gradually overcome in the upcoming years, the current assessment focused exclusively on the first two indicators listed above.

4.3. Waterborne Transport

Waterborne transport infrastructure is addressed under Articles 15, 22, and 39 of Regulation 1315/2013, and Articles 22, 23, 26, and 27 of the Regulation 1679/2024. As with road and rail transport, the compliance indicators established under Regulation 1315/2013 remain largely relevant. However, the requirement for CEMT Class IV navigation status now applies only to the core network. This has limited practical impact, as all inland waterways are designated as part of the core network.

These infrastructure requirements are designed to foster high-quality, efficient, and sustainable inland and maritime transport, as well as port infrastructure, thereby enhancing seamless connectivity both within the EU and with third countries.

4.3.1. Inland Waterways Transport

The list of relevant indicators for the inland waterways network, as per Regulation 1679/2024 comprises:

- For existing inland waterways: Good Navigation Status, including:
 - Minimum draught: 2.5 m
 - Minimum height under non-movable bridges (Vertical Bridge Clearance): 5.25 m.
- RIS deployment for all services on rivers, canals, lakes, and lagoons in accordance with Directive 2005/44/EC of the European Parliament and of the Council.
- Minimum waiting times at locks and real-time data availability on waiting times and Good Navigation Status data.
- Connection of ports with the rail and road infrastructure to facilitate seamless multimodal transport.
- Availability of at least one multimodal freight terminal open to all operators in a non-discriminatory way, with transparent charges.
- 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.
- Availability of alternative clean fuels infrastructure.

In comparison with Regulation 1315/2013, the new TEN-T Regulation:

- Extends the requirement for alternative fuels infrastructure to the comprehensive network.
- Expands the coverage of facilities to improve the environmental performance of vessels in ports, including degassing facilities, noise and pollution reduction measures, in addition to waste reception facilities.

• Introduces new requirements related to the reduction and monitoring of waiting time at locks.

Most of the indicators listed above are tracked in this report, with the exception of those newly introduced through Regulation 1679/2024 (which will be included in next year's reporting).

4.3.2. Maritime Transport Infrastructure

The compliance indicators for the TEN-T core and comprehensive maritime ports include:

- Connection with railway and road infrastructure and, where possible, with inland waterways, ensuring smooth passenger and cargo traffic.
- Availability of at least one freight terminal open to all operators on a non- discriminatory basis and applying transparent charges.
- Availability of equipment necessary to assist the environmental performance of ships in maritime ports, particularly port reception facilities for the delivery of waste from ships, in accordance with Directive 2019/883.
- Use of telematic applications, particularly VTMIS and SafeSeaNet, e-Maritime Services (Single Maritime Window services, Port Community Systems, etc), to ensure improved efficiency, safety, and security of maritime port operations.
- Availability of alternative clean fuels infrastructure such as LNG, hydrogen, and electricity, to support the transitioning to greener shipping.
- Sea canals, port fairways, and estuaries that connect two seas or provide access from the sea to maritime ports must meet, as a minimum, the compliance criteria for inland waterways.

In addition, ports shall be designed and operated to be resilient to climate change impacts, ensuring they can continue to function effectively under various environmental conditions.

In comparison to Regulation 1315/2013, the updated infrastructure requirements under Regulation 1679/2024 now apply uniformly to both the core and comprehensive networks, with the only difference being the compliance deadlines between the two. The corresponding indicators are monitored accordingly in this report.

4.4. Airports

The compliance indicators for TEN-T airports are specified as infrastructure requirements in Articles 25 and 39 of Regulation 1315/2013. Article 34 of Regulation 1679/2024 retains the requirements from Regulation 1315/2013 and adds new standards to be fully implemented starting with the 2025 report.

The current report assesses the compliance of TEN-T airports in Georgia, the Republic of Moldova, and Ukraine with the following indicators:

- Rail connection (Article 34 of Regulation 1679/2024).
- Clean fuels availability (initially applicable to core network airports only but extended under Regulation 1679/2024 to the entire comprehensive network).
- Terminal availability (at least one terminal should be open to all operators on a non- discriminatory basis, applying transparent, relevant, and fair charges) – an identical requirement under both Regulation 1315/2013 and 1679/2024.

5. TEN-T Network Compliance Assessment

5.1. Georgia

5.1.1. Railways

5.1.1.1. Current Compliance Status

Georgian Railways traces its origins to 1867 with the construction of the first rail link connecting the Black Sea port to manganese mines within Georgia. By 1872, this line was extended to Baku to support the transport of Azerbaijani oil. Originally established for freight purposes, Georgian Railways continues to serve as a key component of the national rail infrastructure.

Georgian Railway operates a total of 1,992 km of railway tracks, of which 714¹ km is on comprehensive network and 585 km on the core network. The broad-gauge railway is strategically located on the western part of the land bridge connecting Azerbaijan and Armenian railways, as well as the three existing ports on the Black Sea (Batumi, Poti, and Kulevi). The Baku-Tbilisi-Kars (BTK) railway project is 95% complete, and pilot shipments resumed in May 2024 after a temporary suspension to expedite construction. This new railway line, linking Azerbaijan, Georgia, and Turkey, is designed to serve as a strategic corridor for goods between Asia and Europe, enhancing connectivity and supporting regional economic integration. In October 2023, a joint venture was created between Georgian, Kazakhstan, and Azerbaijani railways to form a single operator (Middle Corridor Multimodal Ltd), which will focus on unifying tariffs and container shipments in the Trans-Caspian Transport Corridor on China-Europe/Türkiye direction.

The official map of the indicative extension of the TEN-T rail network in Georgia is provided below.



Figure 2 – Indicative extension of the TEN-T rail network to Georgia

1 The difference in length compared to last year's report is due to the inclusion of the Senaki–Khamiskuri railway section on the Comprehensive Network

Below is a summary of Georgia's performance against the TEN-T railway compliance indicators outlined in Section 6.1.

Electrification: The comprehensive network in Georgia is fully electrified, **resulting in a 100% compliance rate**. The electrical power system is an overhead simple catenary with a nominal working voltage of 3.3 kilovolts (kV) direct current (DC). The single narrow-gauge line uses a nominal voltage of 1.5 kV DC.

Axle load: Georgian railway lines on the comprehensive network support an axle load of 23.5 tons, exceeding the TEN-T requirement of 22.5 tons, and **resulting in a 100% compliance rate**.

Line speed: The design line speed across the comprehensive network ranges from 50 to 80 km/h, which is far below the TEN-T requirement for freight lines to accommodate 100 km/h by 2030. The mainline was designed to accommodate speeds of up to 100 km/h for passenger trains and 80 km/h for freight trains, although the geography rarely permits such speeds. Consequently, the **compliance rate against this criterion is still zero**.

Train length: Currently, only 37 km, or 6.32% of the core network, can accommodate freight trains of 740 meters or more. All other segments of the core and comprehensive network can accommodate freight trains ranging from 420 to 658 meters in length.



Figure 3. Georgia: Train length

Track gauge: The Georgian railway network operates on a broad gauge, primarily using a track gauge of 1,520 mm, which does not align with the TEN-T standard gauge requirement of 1,435 mm. Additionally, a small branch line utilises a narrow gauge of 912 mm. Consequently, the **compliance rate against this criterion is still zero**.

ERTMS: Georgian Railways has not implemented the European Rail Traffic Management System (ERTMS). Train safety and movement within the Georgian Railway system are currently managed through a centralised signalling system and block segments, providing control and coordination across the network. Consequently, the **compliance rate against this criterion is still zero**.

Infrastructure Conditions

The current condition of the network was assessed based on data received from the Georgian authorities, focusing on the ratio between the designed and operational speed. Due to the specific terrain in Georgia, operational speeds are limited to a maximum of 80 km/h, which impacts the overall condition assessment.

50.77% of the core rail network and 56.16% of the comprehensive network are currently reported to be in average condition, with approximately 82% of the designed speed achievable.





5.1.1.2. Progress from Last Year Reporting

Compared to 2023, there has been no significant progress in meeting the specific requirements for train lengths along Georgia's railway network. Differences from last year's indicators stem from the network layout modification, including the addition of a new railway section (Senaki – Khamiskuri), to the Comprehensive Network. Below is a comparison of the train length compliance rates for 2023 and 2024, illustrating the current status and lack of substantial progress in infrastructure development during this period.



Figure 5. Georgia: Train length comparison (2023/2024)

Based on the track condition methodology, a comparison with 2023 shows a slight shift: 1.68% of the core network has moved from poor to average condition, while 0.40% of the comprehensive network has shifted from average to poor condition. This change is primarily due to the statistical effect of adding a new railway section to the Comprehensive Network and does not reflect any significant improvements in the actual condition of the network on the ground.

The comparison is illustrated in the following chart.





5.1.2. **Roads**

5.1.2.1. Current Compliance Status

Georgia holds a strategically pivotal position along the Europe-Asia transport corridor, serving as a crucial link between the two continents. Positioned at the crossroads of Eastern Europe and Western Asia, Georgia boasts a unique geographical location that facilitates vital trade and transportation routes. The country's key infrastructure positions it as a critical transit hub for goods and energy resources.

The official map of the indicative extension of the TEN-T road network in Georgia is provided below.



Figure 7 – Indicative extension of the TEN-T road network to Georgia

The indicative extension of the TEN-T road network in Georgia spans over 854.7 km, of which 767.7 lie on the core network. Of these, 265.9 km (all on the core network) have been upgraded to motorway standards and another 44 km fit an express road profile. of the remaining 544.8 km still adhere to conventional road standards, with 457.8 km on the core network.

5.1.2.2. Infrastructure Profile and Condition of the Core Road Network

Under the provisions of provisions of points (a) and (b) of Article 17(3) of Regulation 1315/2013 and Article 31.2.(a) of Regulation 1679/2024, roads on the TEN-T Core Network must meet the standards of either a motorway or an express road (despite these terms are no longer used under Regulation 1679/2024).

Both Regulations 1315/2013 and 1679/2024 allow the European Commission to grant exemptions from the motorway/express road criterion for conventional roads if they meet appropriate safety standards. However, no such exemption has been requested or granted in Georgia. Therefore, the compliance assessment of the Core Network has been based solely on the motorway/express road criterion, labelling conventional road sections within the TEN-T Core as non-compliant.

A comprehensive evaluation of safe and secure parking facilities across the TEN-T Network in Georgia is yet to be conducted. The significance of this issue extends beyond a mere infrastructure compliance criterion, having also a social impact. An assessment of the existing inventory and demand for safe and secure parking facilities should therefore be conducted, as part of the process of approximating Regulation 561/2006.

Regarding the rest areas, this report assumes that all road sections built to motorway/express road profile meet this criterion. This assumption will be revised in future, subject to the availability of additional data and a consistent ranking methodology.

In summary, within the framework of the current analysis, roads on the Core Network are considered compliant with infrastructure profile and condition criteria if they cumulatively meet the following conditions:

- Achieve motorway or express road standards.
- Receive adequate maintenance to uphold a road surface condition rated as either very good or good, ensuring smooth traffic flow and high safety standards.

Road condition has been rated under five 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)

The outcomes of the compliance assessment exercise are given in the charts below.

Table 3 – Georgia: TEN-T core road network profile

Road profile	Kilometres (km)	%
Motorway	265.9	34.64%
Express road	44	5.73%
Conventional road	457.8	59.63%





The quality of road infrastructure in Georgia is generally satisfactory, with 58.43% of the core TEN-T network currently rated as either very good or good. This marks an improvement of nearly 7% compared to last year. Despite this progress, there is still significant potential for further enhancements. Below is a detailed assessment, supported by additional data and figures:

Table 4 – Georgia: TEN-T core road Network (infrastructure condition)

Road condition	Kilometres (km)	%
Very good	11	1.43%
Good	437.6	57.00%
Medium	319.1	41.57%
Poor	0	0.00%
Very poor	0	0.00%





Table 5 – Georgia: TEN-T core road Network Compliance (infrastructure profile and condition)

Road profile	Road condition	КМ	%
	Very Good	11	1.43%
Motorway	Good	154.9	20.18%
	Medium/Poor/Very Poor	100	13.03%
	Very Good	0	0.00%
Express road	Good	44	5.73%
	Medium/Poor/Very Poor	0	0.00%
	Very Good	0	0.00%
Conventional road	Good	238.7	31.09%
	Medium/Poor/Very Poor	219.1	28.54%

Beyond the core network, the extensive network comprises only 87 km of comprehensive network in a moderately maintained condition, making it non-compliant with TEN-T standards.

5.1.2.3. Infrastructure Profile and Conditions of the Comprehensive Network

As outlined in Article 18 of Regulation 1315/2013, TEN-T roads should consist of motorways, express roads, or conventional strategic roads. Conventional strategic roads, as defined under Article 17(3)(c), are roads that are neither motorways nor express roads but still meet the following criteria:

a) Play an important role in long-distance freight and passenger traffic

- b) Integrate the main urban and economic centres.
- c) Interconnect with other transport modes
- d) Link mountainous, remote, landlocked and peripheral NUTS 2 regions to central regions of the Union.

Such roads should be "adequately maintained to allow safe and secure traffic."

Regulation 1679/2024 no longer refer to conventional strategic roads. Instead, it stipulates that roads within the comprehensive network must be "designed, built, or upgraded for motor traffic." Unlike the core network, however, these roads are not required to meet the specific standards typically associated with motorways or express roads. Until a more robust methodology is established to assess compliance with safety and environmental protection standards, this report evaluates the comprehensive network's compliance (outside the core network) based on the current physical condition of the infrastructure.

For reporting purposes, it is assumed that a conventional road in very good or good condition generally meets basic safety requirements, although this assumption may not always hold true in practice. It is expected that Georgia's ongoing progress in transposing EU road safety legislation, along with routine road safety inspections on the TEN-T Network, will provide critical data to support a more detailed and refined methodological approach in future assessments.

The results of this analysis are presented in the tables and charts below.

Table 6 – Georgia: TEN-T comprehensive road network profile

Road profile	КМ	%
Motorway	0	0.00%
Express road	0	0.00%
Conventional road	87	100.00%





Table 7 – Georgia: road TEN-T comprehensive network infrastructure condition

Road condition	Road condition	%
very good	0	0.00%
good	0	0.00%
medium	87	100.00%
poor	0	0.00%
very poor	0	0.00%





Table 8 – Georgia: TEN-T comprehensive road network compliance (infrastructure profile and condition)

Road profile	Road condition	КМ	%
	Very Good	0	0.00%
Motorway	Good	0	0.00%
	Medium/Poor/Very Poor	0	0.00%
	Very Good	0	0.00%
Expressway	Good	0	0.00%
	Medium/Poor/Very Poor	0	0.00%
	Very Good	0	0.00%
Conventional road	Good	0	0.00%
	Medium/Poor/Very Poor	87	100.00%

In total, 24.56% of Georgia's TEN-T road network currently observes the relevant standards. The chart below illustrates the overall compliance of Georgia's TEN-T road network with the infrastructure profile and condition criteria. Compared to the last year, this represents an improvement of almost 5% in favour of the overall TEN-T road network compliance in Georgia.



Figure 12. Georgia: TEN-T road network compliance

5.1.2.4. Progress Compared to Last Year Report

Since the last year, Georgia has made significant progress in aligning with the TEN-T road network standards. The percentage of compliant road segments has risen by nearly 5%, from 19.97% to 24.56%, as illustrated in the graph below.

This improvement reflects Georgia's ongoing commitment to infrastructure upgrades that align with TEN-T standards, which will be essential for deeper integration into the wider European transport network, fostering safety, efficiency, and regional connectivity.





5.1.3. Waterborne Transport

The indicative extension of the Trans-European Transport Network (TEN-T) to Georgia is currently outlined in Annex IV of Regulation 1679/2024. Georgia's TEN-T waterborne transport infrastructure encompasses maritime ports only, with no designated inland waterways and inland ports.

Georgia's primary maritime ports are:

- The multipurpose port of Poti, the only TEN-T core network port of Georgia.
- The multipurpose port of Batumi, classified as a comprehensive port according to Annex IV of Regulation 1679/2024.
- The port of Anaklia, designated as a TEN-T comprehensive port, as per the provisions of Annex IV of Regulation 1679/2024.

A map of Georgia's TEN-T maritime ports is provided below.

Figure 14 – Indicative extension of TEN-T ports in Georgia



The compliance of Georgia's maritime ports with the relevant TEN-T criteria is outlined in the table below.

Table 9 – Maritime ports compliance assessment for Georgia

Port name	Network layer	Rail connection	Road connection	IWW connection	Port Reception Facilities	Clean fuel availability	Terminal availability	VTMIS	SafeSeaNet	MNSW
Poti	Core	Yes	Yes	N/A	Yes	No	Yes	Yes	Yes	Yes
Batumi	Compr.	Yes	Yes	N/A	Yes	No	Yes	Yes	Yes	Yes
Anaklia	Compr.	No	No	N/A	No	No	No	No	Yes	Yes

The core network port of Poti and the comprehensive network port at Batumi have functional road and rail connections. In contrast, the comprehensive network Port of Anaklia currently lacks these, as it is under development and not yet fully operational.

Inland Waterway (IWW) connections: This criterion does not apply to Georgia's maritime ports due to geographical reasons and the absence of designated inland waterways within the extended TEN-T Network.

Port Reception Facilities: Waste from all types of vessels is collected and transferred to private companies at Poti and Batumi. Easte is sorted into designated containers or cisterns (for liquid waste) and then transported to contractors for recycling or disposal. The Port of Anaklia, however, currently lacks established Port Reception Facilities for ship waste, as its infrastructure is still being developed.

Clean fuels: Clean fuel infrastructure is not yet available at any Georgianmaritime ports. Although Poti has facilities for handling clean petroleum products, it lacks infrastructure for alternative fuels such as electric or hydrogen refuelling stations. However, ongoing expansion projects at the Poti include investments in modern, environmentally friendly infrastructure. Similarly, the Port of Batumi has facilities for handling clean petroleum products, including an oil terminal that manages a range of petroleum products in compliance with cleanliness and safety standards. Nevertheless, the port does currently lacks infrastructure for alternative fuels, such as electric or hydrogen refuelling stations.

Terminal Access: Terminals at Poti and Batumi are accessible to all users on a non-discriminatory basis, with transparent charges. However, the Port of Anaklia currently lacks a freight terminal as its development continues.

The current deployment status of telematic applications for maritime transport, including VTMIS (Vessel Traffic Management and Information Systems), e-Maritime services, and single-window services such as the National Maritime Single Window, SafeSeaNet, Port Community Systems, and relevant customs information systems, is as follows:

- VTMIS: The Vessel Traffic Management and Information System (VTMIS) is operational at the ports of Poti and Batumi but is still under development at the Port of Anaklia. This 24-hours service provides crucial navigational information to vessels, assisting in decision-making under challenging navigational, meteorological, or unforeseen conditions. It also coordinates vessel movements to prevent accidents and supports strategic route planning.
- SafeSeaNet: Fully operational at all Georgian maritime ports, SafeSeaNet enables comprehensive vessel traffic monitoring and provides real-time information exchange. It enhances maritime safety, port and maritime security, environmental protection, and traffic efficiency, acting as a vital data exchange network, linking maritime authorities and stakeholders to ensure smooth operations.
- National Maritime Single Window System (NMSW): This system is active across all Georgian ports, aiming to streamline and harmonize administrative procedures for ship clearance. By aligning with International Maritime Organization (IMO) standards, NMSW simplifies communication among maritime stakeholders, reduces paperwork, and promotes transparency in data sharing. It was successfully launched in Georgia in October 2024
- Other E-Maritime Solutions: A Port Community System (PCS) is currently under implementation (since October 2023). PCS connects various port management systems and facilitates secure information exchange between public and private entities. The implementation is expected to be completed by the end of 2025, and it is anticipated to significantly improve operational efficiency, reduce administrative burdens, and enhance coordination among stakeholders.

5.1.4. Airports

Georgia currently has two airports within the TEN-T comprehensive network. Among these, Tbilisi International Airport is part of the core network, while Kutaisi International Airport is included in the comprehensive network.



Figure 15 – Indicative extension of TEN-T Comprehensive and Core Airports to Georgia

Below is an overview of the basic compliance data for Georgian TEN-T airports, assessed against the criteria outlined in Section 4.

a) Connection to other modes

A critical condition for ensuring interoperability of TEN-T Network airports is their connection to the railway network. Currently, both airports have direct rail and road connections, meeting this essential requirement for integrated transport accessibility.

Table 10 – Georgia: Airports road and rail connections

Country code	Airport name	TEN-T (Core/Comprehensive)	Connection to other modes		
		Network	Road connection	Rail connection	
GE	Tbilisi International Airport	Core	Yes	Yes	
GE	Kutaisi International Airport	Comprehensive	Yes	Yes	

b) Availability of alternative fuels

Currently, no fixed storage tank facilities for aviation biofuel are reported at either airport. According to Regulation 1315/2013, this criterion applies only to core network airports, which are expected to be prepared to make alternative clean fuels available based on market demand. However, Regulation 1679/2024 has expanded these requirements to the entire comprehensive network, removing the dependency on market demand and emphasizing that all airports must proactively accommodate alternative clean fuels within the prescribed deadlines.

Table 11 – Georgia: Availability of alternative fuels in airports

Country	Airport name	TEN-T (Core/Comprehensive) Network	Clean fuels availability		
code			Tank facilities for aviation biofuel	availability of alternative fuels for airport ground services	
GE	Tbilisi International Airport	Core	No	No	
GE	Kutaisi International Airport	Comprehensive	No	No	

Terminal availability

All airports are open to international traffic, with foreign air carriers operating in and out, and have sufficient terminal capacity to meet the current traffic demands.

Table 12 – Georgia: Airports terminal availability

Country Airpo code	Airport name	TEN-T (Core/Comprehensive) Network	Terminal availability		
			Terminal availability (open to all market players on non-discriminatory basis)	Terminal availability (sufficient capacity to operate)	
GE	Tbilisi International Airport	Core	Yes	Yes	
GE	Kutaisi International Airport	Comprehensive	Yes	Yes	

5.2. Republic of Moldova

5.2.1. Railways

5.2.1.1. Current Compliance Status

The operational Moldovan rail network comprises 1,126.2 km of main lines, with 875.8² km designated as comprehensive network and 207.8 km as core network. Most lines are single-track with a 1,520 mm gauge, with only 40 km of double track.

The Moldovan rail network, with a standard axle load of 25 tons, accommodates trains of up to 57 wagons, though operational constraints limit some rolling stock to 22.5 tonnes. The non-electrified system comprises 226 level crossings, with 181 featuring automatic signalling, 39 equipped with rail barriers, and 37 employing guarded rail signalling.

Three crucial corridors form the backbone of the network:

- North Corridor: Connects Moldova with Ukraine through various Border Crossing Points (BCPs), serving the cities Balti and Ungheni cities, a key entry point to Romania's Port of Constanta. Rehabilitation of this route is currently in the preparation phase, with work expected to commence shortly.
- **Central Corridor:** Connects Ungheni to Chisinau and extends to Ukraine (Odesa region) through Transnistria. Due to political and technical issues, a bypass solution is being implemented, focusing on the Chisinau–Cainari section. Rehabilitation of this route is currently in the preparation phase, with work expected to commence shortly.
- **Southern Corridor:** Connects the central network to Odesa region in Ukraine via Basarabeasca station, bypassing Transnistria. Infrastructure refurbishment is in the preparation phase, with the only operational connection to Romania in the South passing through Giurgiulesti, reaching Danube port facilities in Galati.

In line with the revised TEN-T regulation, which came into force in July 2024, the Baltic Sea - Black Sea - Aegean Sea corridor has been extended on the territory of Moldova.

² The difference in length compared to last year's report is due to the update the Indicative Extension to Neighbouring Countries in accordance with Regulation 2024/1679, specifically in the coverage of the Core and Comprehensive Networks.

The layout of the indicative extension of the TEN-T rail network in the Republic of Moldova is provided below.



Figure 16 – Indicative extension of the TEN-T rail network to Moldova

The compliance status of Moldova's railway infrastructure according to the key indicators is as follows:

Electrification – Moldova's entire Comprehensive network is currently non-electrified.

Axle load – Although Moldovan railway lines on the Comprehensive network were designed for a 25-tonne axle load, exceeding the TEN-T requirement of 22.5 tonnes, inadequate maintenance has reduced this capacity to 22.5 tonnes.

Line speed – The design line speed across the Comprehensive network ranges from 50 to 80 km/h, which is significantly below the TEN-T requirement of 100 km/h for freight lines by 2030.

Train length – The entire core network and 69.86% of the comprehensive network can accommodate freight trains of up to 740 metres in length.

The data is displayed in the following chart.



Figure 17. Moldova: Train length
Track gauge – Moldova's railway network uses a 1,520 mm wide gauge, which does not align with the TEN-T standard gauge of 1,435 mm.

ERTMS – The European Rail Traffic Management System (ERTMS) is not currently available on the Moldovan railways.

Infrastructure Conditions

The current condition of the network was assessed based on data received from the Moldovan authorities using the ratio between the designed and operational speed.

The entire core network is reported to be in a poor condition, with around 60% of the Comprehensive Network considered to be in very poor condition. Currently, only about 48% of the design speed can be achieved, with a maximum speed of 80 km/h.

Figure 18. Moldova – Condition of the Rail Network



5.2.1.2. Progress from Last Year's Reporting

Changes in the network layout were introduced with the newly adopted Regulation 1679/2024. The railway sections Chisinau - Cainari - Basarabeasca have now been included in the Core Network, while the Revaca - Bender section is now part of the Comprehensive Network. The Bender - Cainari section is no longer included in either the Core or Comprehensive Networks.

There has been no progress in meeting the TEN-T specific requirements, since 2023. Changes in compliance rates for train length and railway network condition reflect the recent adjustments of the core and comprehensive network layout, not modifications of the conditions on the ground.

The results of the comparison, including train length and the condition of the railway network, are provided in the charts below.









No changes regarding the other TEN-T requirements were noted.

5.2.2. **Roads**

5.2.2.1. Current Compliance Status

The road infrastructure in the Republic of Moldova varies in condition, with a significant portion facing major challenges in terms of maintenance and expansion needs. The indicative extensions of the TEN-T network in Moldova cover the country's main transport and trade corridors, comprising 898.242 km of roads, of which 350.263 km are on the Core network.

Figure 21 – Indicative extension of the TEN-T road network to Moldova



Under Regulation 1679/2024, several notable changes to the network layout include:

- Strengthened connection with Ukraine through a new comprehensive network route (Rîşcani Soroca UA border).
- A new core network route connecting Chișinău to the port of Odesa, bypassing Transnistria.
- The inclusion of the Chișinău ring road within the core network.

Almost the entire network consists of conventional roads, with some small segments expanded to two lanes per direction. his year's report marks the opening of Moldova's first express road on the Chişinău bypass, meeting the TEN-T core network standards.

The lack of high-speed roads meeting motorway or express road standards has resulted in almost the entire core network being currently non-compliant with the relevant TEN-T requirements. Additionally, maintenance issues are a significant concern, as only 8.9% of the core network is currently in a good condition, as shown below. This represents a decline of over 5% from last year, reflecting a broader downward trend. Similar deterioration has been observed across the network, with an increase in sections classified as being in medium or poor condition compared to the previous year.

5.2.2.2. Infrastructure Profile and Condition of the Core Road Network

According to Articles 17(3)(a) and (b) of Regulation 1315/2013 and Article 31.2(a) of Regulation 1679/2024, roads on the TEN-T Core Network must meet motorway or express road standards (despite these terms being no longer used under Regulation 1679/2024).

Both Regulations 1315/2013 and 1679/2024 permit the European Commission to grant exemptions from the motorway/express road requirements for conventional roads if they meet appropriate safety standards. However, no such exemptions have been requested or granted in Georgia. Therefore, the compliance assessment of the Core Network relies solely on the motorway/express road criterion, resulting in conventional road sections within the TEN-T Core being classified as non-compliant.

A comprehensive evaluation of safe and secure parking facilities across the TEN-T Network in Georgia has not yet been conducted. This issue is important not only as an infrastructure compliance criterion but also for its social impact. An inventory assessment and demand analysis for developing safe and secure parking facilities should be carried out as part of the process of aligning with Regulation No. 561/2006.

Regarding rest areas, this report assumes that all motorway/express meet this criterion. This assumption will be revised as additional data and a consistent ranking methodology become available.

In summary, within this analysis framework, roads on the Core Network are considered compliant with infrastructure profile and condition criteria if they cumulatively meet the following conditions:

- Achieve motorway or express road standards.
- Receive adequate maintenance to uphold a road surface condition rated as very good or good, ensuring smooth traffic flow and high safety standards.

Road conditions are using the International Roughness Index (IRI), across five categories:

- 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)

The outcomes of the compliance assessment exercise are given in the charts below.

Table 13 – Moldova: TEN-T core road network profile

Road profile	КМ	%
Motorway	0	0.00%
Express road	6.68	1.91%
Conventional road	343.583	98.09%

Figure 22. Moldova: road TEN-T core road network infrastructure profile



The quality of the road infrastructure is not satisfactory, with only 8.92% of the network currently in good condition, as shown below. Compared with last year, this is slight decrease of 2.67 % in the proportion of the core road network in good condition. On the other hand, the proportion of the core road network in medium condition has increased by almost 26% compared to last year's figures. Additionally, the core road network in poor condition has decreased by 23.31%, reflecting a positive trend. Despite these improvements, there remains significant room for further development. More detailed data and figures are provided below.

Table 14 – Moldova: TEN-T core road network condition

Road condition	КМ	%
Very Good	0	0.00%
Good	31.26	8.92%
Medium	132.67	37.88%
Poor	186.33	53.20%
Very Poor	0	0.00%





Table 15 – Moldova: TEN-T core road Network Compliance (infrastructure profile and condition)

Road profile	Road condition		%
	Very Good	0	0.00%
Motorway	Good	0	0.00%
	Medium/Poor/Very Poor	0	0.00%
	Very Good	6.68	1.91%
Express road	Good	0	0.00%
	Medium/Poor/Very Poor	0	0.00%
	Very Good	0	0.00%
Conventional road	Good	24.58	7.02%
	Medium/Poor/Very Poor	319.003	91.08%

5.2.2.3. Infrastructure Profile and Conditions of the Comprehensive Road Network

As provided under Article 18 of Regulation No 1315/2013, TEN-T roads should be motorways, express roads, or conventional strategic roads. Conventional strategic roads are further defined under Article 17(3)(c) as roads that are neither motorways nor express roads but still:

- a) play an important role in long-distance freight and passenger traffic
- b) integrate the main urban and economic centres
- c) interconnect with other transport modes
- d) link mountainous, remote, landlocked and peripheral NUTS 2 regions to central regions of the Union.

Such roads should be "adequately maintained to allow safe and secure traffic."

Regulation 1679/2024 no longer refer to conventional strategic roads, instead mandating that roads within the comprehensive network be "designed, built, or upgraded for motor traffic." Unlike the core network, however, these roads are not required to meet the specific standards typically associated with motorways or express roads. Until a more robust methodology is established to assess compliance with safety and environmental protection standards, this report evaluates the comprehensive network's compliance (outside the core network) based on the current physical condition of the infrastructure.

For reporting purposes, it is assumed that a conventional road in very good or good condition generally meets basic safety requirements, although this assumption may not always hold true in practice. It is expected that Moldova's progress in transposing EU road safety legislation, along with routine road safety inspections on the TEN-T Network, will provide critical data, supporting a more detailed and refined methodological approach in future assessments.

The results of this analysis are provided in the tables and charts below.

The Comprehensive Network comprises 547.98 km of roads. While slightly better than the Core Network, the infrastructure quality remains suboptimal, with only around 20% currently in very good or good condition.

Table 16 – Moldova: TEN-T comprehensive road network condition

Road condition	КМ	%
Very Good	24.6	4.49%
Good	83.306	15.20%
Medium	95.65	17.46%
Poor	343.243	62.64%
Very Poor	1.18	0.22%

Figure 24. Moldova: Comprehensive Road network condition



Table 17 – Moldova: TEN-T Comprehensive Road Network Compliance (infrastructure profile and condition)

Road profile	Road condition	КМ	%
	Very Good	0	0.00%
Motorway	Good	0	0.00%
	Medium/Poor/Very Poor	0	0.00%
	Very Good	0	0.00%
Expressway	Good	0	0.00%
	Medium/Poor/Very Poor	0	0.00%
	Very Good	24.6	4.49%
Conventional road	Good	83.306	15.20%
	Medium/Poor/Very Poor	440.073	80.31%

Altogether, the TEN-T road network in Moldova suffers greatly in terms of quality, with 59% of it reported to be in a poor state. This represents a slight increase of 1.11% compared to last year.



Overall, around 12.76% of the network is currently compliant with TEN-T standards. Compared to last year, there has been minimal improvement, with a slight decrease in overall TEN-T road network compliance. For the Core network, compliance stands at less than 2%, which represents a small improvement compared to last year, when it was zero.



Figure 26. Moldova: TEN-T network compliance

5.2.2.4. Progress from Last Year's Reporting

Overall, 12.76% of the network is currently compliant with TEN-T standards. Compared to the last year, there has been a slight decrease in the overall compliance rate of the TEN-T road network in Moldova, as illustrated in the graph below:



Figure 27. Moldova: TEN-T road 2023-2024 network compliance rate

5.2.3. Waterborne transport

The Republic of Moldova features only one port that is part of the indicative extension of the TEN-T Comprehensive Network, namely the Port Complex Giurgiulești.

The Port Complex Giurgiulești is consists of:

- **Giurgiulești International Free Port** Located at the confluence of the Danube and Prut Rivers, it is Moldova's only port accessible to seagoing vessels. This port can accommodate maritime and inland waterway vessels with a draft ranging from 4.5 to 7.5 metres, depending on the location of the berth.
- **Passenger and Goods Giurgiulești Port** Located on the Prut River, it Includes a Passenger Terminal and Container Facility, making it a versatile hub for various types of cargo and passenger transport. This port can process maritime and inland waterway vessels with a maximum of 4.5 metres.



Figure 28 – Indicative extension of TEN-T ports in the Republic of Moldova

The compliance of Giurgiulești port with the relevant TEN-T criteria is outlined in the table below.

Table 18 – Compliance assessment for each indicator in Port of Giurgiulești

Port name	t name TYEN-T Rail Road IWW Port Clear Network connection connection Connection Reception availar Facilities	Road IWW	Port Clean fuel	Terminal	Telematic applications					
		availability	availability	VTMIS	RIS	MNSW and SafeSeaNet				
International Free Port of Giurgiulesti	Compr.	Yes	Yes	Yes	Partially	No	Yes	Partially	No	No
Passenger and Goods Port Giurgiulesti	Compr.	No	Yes	Yes	Partially	No	Yes	Partially	No	No

Road and Railway Connections. The Giurgiulești International Free Port is already connected to rail and road infrastructure, while the Passenger and Goods Port of Giurgiulești is connected only to road infrastructure. Plans are underway to initiate a feasibility study for connecting the state port facilities of the latter with rail infrastructure.

IWW Connections: Both port terminals have reported having Inland Waterway (IWW) connections. The International Free Port of Giurgiulești is situated on the left bank of the Danube River. The Passenger and Goods Port has access to both the Danube River and the Prut River.

Port Reception Facilities (PRF). PRF to manage waste from ships are partially available at both ports. A cost analysis has been conducted to assess the feasibility of expanding their capacity to full operational levels. An application for EU funding to increase the capacity of the PRF has been submitted, but no approval has been granted as of yet. Furthermore, assistance from the European Maritime Safety Agency (EMSA) is planned for 2025, aimed at preparing a comprehensive feasibility study with the goal of providing fully operational PRF within the Giurgiulești Port Complex.

Clean fuels are not yet available at either of the two port terminals within Port Complex Giurgiulești at this stage. No actions have been taken thus far to design or establish "cold ironing" infrastructure. However, efforts are being made, particularly through the Giurgiulești International Free Port, to enhance energy efficiency and reduce greenhouse gas emissions. These include the use of more fuel-efficient cargo handling equipment and the implementation of energy-saving lighting technologies. Additionally, the International Free Port Terminal has been investing in greener infrastructure, such as the purchase of an electrically powered mobile grain ship loader, to support sustainable operations³.

Terminal availability. The Port Complex Giurgiulești hosts several key terminals, including the Oil Product Terminal, Grain Terminal, Vegetable Oil Terminal, Bulk Cargo Terminal, Container and General Cargo Terminal, Ro-Ro Terminal, and Passenger Terminal. All terminals within the Port Complex are accessible to users on a non-discriminatory basis and operate with transparent charges.

Telematic applications for maritime transport at the Port Complex Giurgiulești include VTMIS and e-Maritime services, such as SafeSeaNet, single-window services like the National Maritime Single Window, Port Community Systems, and relevant customs information systems. Since the Giurgiulești Port Complex is situated on the Rhine-Danube Core Corridor, the provision of River Information Services (RIS) is also a mandatory requirement to ensure seamless and efficient maritime operations.

VTMIS: Currently, the Giurgiuleşti Port Complex, including both the International Free Port and the Passenger and Goods Port, is partially utilising VTMIS. However, further efforts are required to achieve full implementation of VTMIS. The complete deployment of VTMIS within the Port Complex Giurgiuleşti will bring several benefits, including enhanced navigation safety, more efficient traffic management, improved environmental protection, and heightened security. Directive 2002/59/EC, which establishes a Community vessel traffic monitoring and information system, has been partially transposed by the Republic of Moldova. Full transposition into the local normative framework is expected by the end of 2025. Additionally, a feasibility study prepared by EMSA is anticipated to be finalized by the end of this year, supporting the further development and deployment of VTMIS in the port.

National Maritime Single Window System (NMSW): Currently, neither of the two Port Terminals in Giurgiulești has implemented the National Maritime Single Window (NMSW). Several feasibility studies have been conducted regarding the deployment of NMSW, evaluating the existing infrastructure, regulatory framework, and the potential benefits of implementing the system. As of 1 January 2024, in accordance with IMO requirements, all IMO Member States are mandated to apply NMSW for collecting and exchanging information with ships when they call at ports. Although progress has been slower than expected, the Republic of Moldova has partially transposed Regulation (EU) 2019/1239, which establishes a European Maritime Single Window Environment, and plans to fully transpose it by 2026. In the meantime, a new feasibility study for introducing NMSW in the Port Complex of Giurgiulești is currently being prepared and is expected to be completed and approved by the end of 2025.

3 https://gifp.md/en/news

SafeSeaNet is a vessel traffic monitoring and information system developed by the European Maritime Safety Agency (EMSA) to enhance maritime safety, port and maritime security, environmental protection, and the efficiency of maritime traffic and transport. The Republic of Moldova has reported that SafeSeaNet functionalities are currently not in use within the Port Complex of Giurgiulești.

River Information System (RIS). As of now, Moldova does not have an operational River Information Services (RIS) system. As an initial priority, the Republic of Moldova plans to transpose and implement the relevant EU acquis within the RIS Regulatory Area, as outlined in Annex I.5 of the Treaty establishing the Transport Community, by 2026. Following this, Moldova will undertake the necessary steps to develop and implement the RIS software and hardware components, with the aim of making the system fully operational.

Port Community System (PCS) is a digital platform designed to facilitate the efficient exchange of data between various stakeholders in a port community, such as customs agencies, port authorities, shipping companies, logistics providers, and freight forwarders. At present, the Port Complex Giurgiulești does not have a functional PCS in place.

5.2.4. **Airports**

The Republic of Moldova has one TEN-T airport, namely Chişinău International Airport, which is part of the core network.



Figure 29 - Indicative extension of TEN-T Comprehensive and Core Airports to the Republic of Moldova

Below is an overview of the basic compliance data for Chișinău International Airport, assessed against the criteria outlined in Section 4.

a) Connection to other modes

A critical condition for ensuring interoperability of TEN-T Network airports is their connection to the railway network. Currently, Chişinău airport doesn't have a rail connection, being linked to the nearby urban node through the road network only.

Table 19 – Moldova: list of airports with road and rail connections

Country code	Airport name	TEN-T (Core/Comprehensive)	Connection to other modes		
		Network	Road connection	Rail connection	
MD	Chișinău International airport	Core	Yes	No	

b) Availability of alternative fuels

Currently, no fixed storage tank facilities for aviation biofuel are reported to be in use at Chişinău Airport. Under Regulation 1679/2024, compliance with this essential criterion is no longer linked to market demand.

Table 20 – Moldova: list of availability of alternative fuels in airports

Country	Airport name	TEN-T (Core/ Comprehensive) Network	Clean fuels availability			
code			Tank facilities for aviation biofuel	availability of alternative fuels for airport ground services		
MD	Chișinău International airport	Core	No	No		

c) Terminal availability

Chișinău Airport is open to international traffic, with foreign air carriers operating in and out, with sufficient terminal capacity to serve the current traffic needs.

Table 21 – Moldova:	list of	terminal	availability
---------------------	---------	----------	--------------

Country code	Airport name	TEN-T (Core/ Comprehensive) Network	Terminal availability Terminal availability (open to all market players on non-discriminatory basis)	Terminal availability (sufficient capacity to operate)
MD	Chișinău International airport	Core	Yes	Yes

5.3. Ukraine

5.3.1. Railways

5.3.1.1. Current Compliance Status

Ukrainian Railways operates a total of 19,790 km of main tracks, including 8,244.20 km on the Comprehensive network and 4,465.50 km on the Core network. The network is based on a 1,520 mm track gauge, which is standard across most of the country. However, there are specific sections near the borders of Poland, Hungary, Slovakia, and Romania, where a 1,435 mm track gauge is used, totalling 241.3 km. In these areas, combined track gauges of 1,435 mm and 1,520 mm exist, facilitating cross-border railway transport and connections with neighbouring member states. Under Regulation (EU) 2024/1679, at least than four key TEN-T corridors extend on the territory of Ukraine (Baltic Sea – Black Sea – Aegean Sea Corridor, North Sea-Baltic Corridor, Mediterranean Corridor, Rhine-Danube Corridor).

The railways play a critical role in Ukraine's international trade, especially in light of the challenges following Russia's invasion, which has severely limited the capacity of Ukraine's seaports to handle exports. The railway system, which is crucial for connecting Ukraine with neighbouring countries such as Poland, Slovakia, Hungary, Romania, and Moldova, faces substantial logistical difficulties. One of the primary challenges is the difference in track gauges between Ukraine (which predominantly uses the 1,520 mm gauge) and its neighbouring EU member states, which largely use the standard 1,435 mm gauge. Cross-border controls and deficient infrastructure are also problematic. However, initiatives under the Solidarity Lanes programme, along with joint control measures coordinated with Moldovan customs authorities at one key railway crossing point, are gradually enhancing the situation, supporting improved connectivity and trade flows.





Currently, traffic is suspended on 319 km of the Core Network and 578.4 km of the Comprehensive Network. Of these, 88.1 km of the Comprehensive Network is impacted by poor infrastructure conditions, the proximity to Russia and Belarus, and ongoing hostilities. Additionally, 319 km of the Core Network and 596.3 km of the Comprehensive Network are not under Ukrainian control.

Electrification: 80.83% of the core network and 71.4% of the comprehensive network railways in Ukraine are electrified. There are two primary electrical power systems in use:

- **25 kV AC:** Primarily connecting Kyiv to L'viv (western part of JSC UZ rail network), Odesa (southern part), and Kharkiv (eastern part of the network).
- 3 kV DC: Mainly concentrated around the Donetsk region, Kharkiv, and the Crimea area.



Figure 31. Ukraine: Electrification

Axle load – The entire comprehensive network meets or exceeds an axle load of 22.5 tonnes, aligning with TEN-T requirements.

Line speed – The Freight train design speed across the comprehensive network remains below the 100 km/h TEN-T target, typically reaching up to 80 km/h. However, for passenger trains, design speeds exceed 100 km/h on 99.28% of the core network and 97.21% of the comprehensive network. Despite these design capacities, the operational speed on the comprehensive network ranges between 6 and 55 km/h.



Figure 32. Ukraine: line speed for passenger trains

Train length – 98.95% of the core network and 91.92% of the comprehensive network can accommodate freight trains of 740 m, while the rest of the network is capable of operating with trains up to 602 m on the Core Network.

Figure 33. Ukraine: Train length



Track gauge – 98.05% of the core rail network in Ukraine is wide gauge (1,520 mm), which does not align with the TEN-T standard gauge of 1,435 mm. The comprehensive network has a slightly higher proportion of standard gauge tracks, though it remains limited to only 3.02%.



Figure 34. Ukraine: track gauge

ERTMS is not currently available on Ukrainian railways. Instead, railway safety is supported by the Soviet-era signalling system "ALSN." This system relies on relay-based interlocking technology to manage railway signalling and safety functions.

Infrastructure conditions

The current condition of the network was assessed using the ratio between the designed and operational speed.

Approximately 10.55% of the Core Rail Network and 6.18% of the Comprehensive Network in Ukraine are reported to be in average condition, allowing for around 65% of the designed speed to be achieved. Conversely, 89.45% of the Core Network and 93.82% of the Comprehensive Network are classified as being in poor or very poor condition, significantly impacting overall performance and reliability.



Figure 35. Ukraine: Condition of the Rail Network

5.3.1.2. Progress from Last Year's Reporting

Compared to the previous TEN-T map, Regulation 2024/1679 includes a few additional sections in the comprehensive network, with the core network remaining basically unchanged.

Under the new Regulation, several railway sections have been upgraded within the network. The routes Shepetivka - Ternopil, Lviv - Rava Ruska (PL border), Lviv - Chop, Uzhhorod - Veľké Kapušany (SK border), Poltava - Krasnohrad, Kharkiv - Krasnohrad, and Krasnohrad - Dnipro are now classified as part of the core or extended core network. Additionally, a new core railway section connecting Odesa to the Moldovan border has been added to the network. Meanwhile, the Kupiansk - Russian border section has been reclassified as part of the comprehensive network.

Compared to 2023, there has been no measurable progress in meeting specific infrastructure requirements. The data presented indicate no substantial changes in electrification, train length, or the overall condition of the railway network. Rather, the updates primarily reflect adjustments to the Core and Comprehensive Networks, along with slight deterioration in network quality. The comparative analysis of electrification, train length, and network condition is illustrated in the charts below.



Figure 36. Ukraine: Electrification 2023/2024

Figure 37. Ukraine: train length comparison (2023/2024)



To enhance integration with European standards, Ukraine has expedited its transition to the EU's 1,435 mm track gauge. This shift will enable more efficient rail connections with Europe, as the current 1,520 mm gauge necessitates transloading at the border, a process that adds significant costs and delays.

Figure 38. Ukraine: Track gauge comparison (2023/2024)



In comparison to 2023, the condition of the railway network has deteriorated, with the share of tracks in good condition declining by 6.29% on the core network and 3.48% on the comprehensive network. Additionally, there has been a decrease of 30.93% in average-condition tracks on the core network and 24.91% on the comprehensive network, reflecting the harsh conditions Ukraine is currently facing.





5.3.2. **Roads**

The Ukrainian Road network is a crucial component of the country's transportation infrastructure, ensuring vital connections between its regions and beyond, and supporting the movement of people and goods. While the condition of the Ukrainian road network has been a subject of ongoing improvement efforts, the Russian invasion has had a profound and devastating impact on the country's infrastructure. The regions affected by the conflict have witnessed severe damage to infrastructure, including key roads and transportation arteries. Disruptions caused by military operations, displacement of populations, and the destruction of critical infrastructure have led to significant challenges in maintaining and repairing the road network, disrupting the normal flow of transportation and trade and severely impacting the overall connectivity of the road network.

The indicative extension of the TEN-T Core and Comprehensive network in Ukraine stretch over no less than 7,372.22 km, which is more than the entire Western Balkans plus the other observing participants combined. Of this, 4,753.03 km are part of the Core Network, with the remaining 2,619.19 km part of the Comprehensive network only.



Figure 40 – Indicative extension of the TEN-T road network to Ukraine

Compared to the previous TEN-T layout, the revised map in Regulation 1679/2024 introduces significant changes, including downgrading core network connections with Belarus and Russia, adding new sections, and upgrading one connection with Poland to the extended core network.

Due to challenges in collecting updated information, the current report refers to the previous TEN-T network alignment, supported by 2023 data.

The road TEN-T network in Ukraine consists of both conventional and express roads (mostly on the Core network). However, the design and construction standards of the latter will have to be reviewed against relevant TEN-T requirements. Of a total of 4,753.03 km of Core network roads, just under half are reportedly built to express road standards.

Table 22 – Ukraine: core road network profile

Road profile	Kilometers (km)	%
Motorway	0	0%
Express road	2,380.78	50.09%
Conventional road	2,372.24	49.91%

Figure 41. Ukraine: core road network infrastructure profile



The quality of the road infrastructure is suboptimal, with less than a quarter of the Core network currently in good condition.



Road condition	Kilometers (Km)	%
Very Good	0	0.00%
Good	1,133.43	23.85%
Medium	1,924.13	40.48%
Poor	1,695.47	35.67%
Very Poor	0	0.00%





Table 24 – Ukraine: TEN-T core road network compliance (infrastructure profile and condition)

Road profile	Road condition	Km	%
Motorway	Very Good	0	0.00%
	Good	0	0.00%
	Medium/Poor/Very Poor	0	0.00%
Expressway	Very Good	0	0.00%
	Good	645.61	13.58%
	Medium/Poor/Very Poor	1,735.17	36.51%
Conventional road	Very Good	0	0.00%
	Good	487.81	10.26%
	Medium/Poor/Very Poor	1,884.43	39.65%

Outside the Core corridors, Ukraine's Comprehensive network comprises 2,619.19 km of roads, of which 332.91 km are at express road standard.

Figure 43. Ukraine: comprehensive road network infrastructure profile



The quality of the roads on the Comprehensive network is worse than that on the Core network, with only 5% of the Comprehensive network currently in good condition.

Table 25 – Ukraine: TEN	-T comprehensive road	network (infrastructure	condition)
-------------------------	-----------------------	-------------------------	------------

Road condition	Kilometres (Km)	%
Very Good	0	0.00%
Good	1,133.43	23.85%
Medium	1,924.13	40.48%
Poor	1,695.47	35.67%
Very Poor	0	0.00%

Figure 44. Ukraine: comprehensive road network condition



Altogether, 10.7% of the TEN-T road network in Ukraine currently meets the relevant standards. The chart below illustrates the overall compliance of Ukraine's TEN-T road network with the infrastructure profile and condition criteria.



Figure 45. Ukraine: TEN-T road network compliance rates

5.3.3. Waterborne Transport

Ukraine has a robust port complex, comprising numerous maritime and inland waterways ports. As per the provisions of the indicative TEN-T network extension in Ukraine, 5 ports are designated as TEN-T Core Ports, while 3 ports are identified as TEN-T Comprehensive Ports.

Below is a short description of Ukraine's TEN-T ports.

TEN-T Core Ports:

- 1. Mykolaiv Sea Port is one of the leading state enterprises in Ukraine's transport sector, specialising in the processing of exports, imports, and cabotage cargo. It plays a crucial role in the transit transportation of various types of cargo, including both general and bulk goods.
- 2. Odesa Sea Port is the largest seaport in Ukraine and one of the largest in the Black Sea basin. It is the only port in Ukraine capable of accommodating Panamax-class vessels. The port benefits from direct access to railway networks, facilitating the efficient transfer of cargo from sea routes to ground transportation.
- **3. Pivdennyi Seaport** is a major commercial seaport located in the Ukrainian city of Yuzhne, near Odesa, on the Black Sea coast. It is the largest and one of the most profitable ports in Ukraine, handling a significant volume of cargo.
- **4. Sea Port of Chornomorsk (Illichivsk)** is located in the city of Chornomorsk, situated on the north-western shore of the Black Sea at the Sukhyi Estuary, southwest of Odesa. The Port of Chornomorsk is a versatile, universal seaport, handling a wide range of cargo types including bulk, general, and containerised goods, and plays a key role in Ukraine's maritime trade.

5. Mariupol Sea Port is governed by the port authority managed by the Ukrainian Sea Ports Authority and as of June 2022, it is temporarily occupied.

TEN-T Comprehensive Ports:

- Port of Kherson is situated in the delta of the Dnieper River. The port features a 1.5 km long berthing line with 10 berths, offering depths of up to 9.6 metres. It is served by the Kherson-Port railway station with a single railway entry and includes 7 railway tracks within the port area, totalling 3.2 km in length. The port is also well-connected by highways.
- 2. Izmail Sea Commercial Port is a multidisciplinary port located at the mouth of the Kiliia River, part of the Danube River estuary. This port serves as a crucial transportation hub for Ukraine, handling a wide variety of cargo and supporting both river and sea navigation.
- **3. Reni Seaport** is located on the left bank of the Danube River and functions as an essential transport hub in Ukraine. The port integrates river, sea, road, and rail transport, allowing year-round navigation and the handling of various types of cargo.

Ukraine's Danube ports are playing a crucial role in securing the country's cereal export routes, especially amid the disruptions caused by the ongoing conflict.

Below is a map highlighting the TEN-T inland waterways and ports of Ukraine.



Figure 46 – Indicative extension of TEN-T ports and inland connections in Ukraine

The compliance of Ukraine's ports with the relevant TEN-T criteria is outlined in the table below.

Port name	TYEN-T Rail	Rail	Road IWW	Port Clean fue	Clean fuel	n fuel Terminal	Telematic applications			
	Network	connection	connection	connection	Facilities	availability	avanability	VTMIS	RIS	MNSW and SafeSeaNet
Mykolaiv Sea Port	Core	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Odesa Sea Port	Core	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes
Sea Port Pivdennyi	Core	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Chornomorsk Sea Port	Core	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mariupol Sea Port	Core	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Izmail Sea Port	Compr.	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Reni Sea Port	Compr.	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Kherson Sea Port	Compr.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes

Table 26 - Compliance assessment for each indicator in Ukrainian ports

Connection Road and Railway. All major ports in Ukraine are connected to the national rail and road networks, ensuring seamless integration with the broader transportation infrastructure. This connectivity facilitates efficient cargo handling and movement between the ports and inland destinations, supporting Ukraine's trade and logistics.

IWW Connections. All the aforementioned ports have established inland waterway connections, enabling the transportation of goods along the Danube and other navigable rivers.

Port Reception Facilities are available at all Ukrainian ports to handle various types of waste generated by ships, including ballast water, sewage, and oily residues. These facilities are essential to ensure compliance with international maritime environmental regulations and promote sustainability. However, the ongoing conflict with Russia has posed significant challenges to the maintenance and operation of these facilities, as their functionality has been affected by damaged infrastructure and limited resources. Efforts continue to ensure their operation, despite the difficult circumstances.

Clean fuel availability. Ukrainian ports currently have facilities for clean fuels, but the development of infrastructure for alternative energy sources such as LNG and green hydrogen is still in progress. Due to the ongoing conflict, the expansion of clean fuel facilities has been hindered, although plans and initiatives are in place to advance this transition. Clean fuel infrastructure will be crucial for reducing the environmental impact of port activities in the future.

Terminal availability. All terminals in Ukrainian ports are open to users in a non-discriminatory manner, with transparent pricing policies. This ensures fair access for all operators and promotes competition within the port sector, contributing to the efficiency and competitiveness of Ukraine's maritime trade.

The current deployment status of telematic applications for maritime transport, including VTMIS (Vessel Traffic Management and Information Systems), e-Maritime services, and single-window services such as the National Maritime Single Window, SafeSeaNet, Port Community Systems, and relevant customs information systems, is as follows:

- Vessel Traffic Monitoring and Information System (VTMIS) The Vessel Traffic Monitoring and Information System (VTMIS) is reported to be operational across Ukrainian territorial waters. Port VTS centres are located in Mariupol, Feodosia, Illichevsk, Odesa, Yuzhnyi, and Ochakov, with coastal VTS centres in Bug-Dnieper-Kherson, Danube (Vilkovo, Izmail, Orlovka), and Crimea (Sevastopol, Kerch). However, the ongoing Russian war of aggression has severely disrupted the functionality of VTMIS in many areas, particularly affecting key ports such as Odesa, Chornomorsk, and Pivdennyi, which are operating at partial capacity. Despite these challenges, efforts to maintain maritime operations continue, including the establishment of temporary maritime corridors for exports and cargo transit. The full operational status of VTMIS across all Ukrainian ports remains uncertain due to the ongoing conflict.
- National Maritime Single Window System (NMSW). Ukraine has been working to implement the National Maritime Single Window (NMSW) system, which facilitates electronic document management for ship-to-shore interactions. The NMSW is operational in Ukrainian ports, helping streamline and digitalise maritime operations by allowing the electronic submission and exchange of information related to the arrival, stay, and departure of vessels. This system is in line with the obligations set out in the Action Plan for the implementation of the Association Agreement between Ukraine and the European Union (approved by Resolution 1106 on 25October, 2017). Despite the challenges posed by the ongoing war, Ukraine has made efforts to maintain and improve the NMSW to enhance operational efficiency and compliance with international standards.
- SafeSeaNet, is an EU maritime information and exchange system designed to enhance maritime safety, security, and environmental protection by providing a platform for sharing maritime data among EU Member States and associated countries. While Ukraine is not currently a member of the EU, the country has been working towards aligning its maritime systems with EU standards, including efforts to integrate with SafeSeaNet. This system is primarily used by EU Member States, but Ukraine is making progress toward its integration, which will help improve the safety and efficiency of maritime operations and trade.
- **River Information System (RIS)** is operational on two major navigable rivers in Ukraine: the Danube and the Dnipro. The RIS provides critical data and real-time information to enhance navigation safety, efficiency, and environmental protection.
- Port Community System (PCS). Ukraine has implemented a procedure for the electronic exchange of information through a Single Submission Portal, using a Port Community System (PCS). This system facilitates streamlined communication among various stakeholders in the port community, including port authorities, customs agencies, shipping companies, and freight forwarders. The PCS enhances operational efficiency and transparency by centralising data exchange in a digital format, helping to improve the overall performance of port operations in Ukraine.

5.3.4. Airports

Ukraine has eight TEN-T airports, four of which are located on the core network.



Figure 47 – Indicative extension of TEN-T Comprehensive and Core Airports to the Ukraine

Below is an overview of the basic compliance data for Ukrainian TEN-T airports, assessed against the criteria outlined in Section IV. The available information pertains solely to the airports currently under the control of the Ukrainian government, and the provided data is from 2023.

a) Connection to other modes

A critical condition for ensuring interoperability of TEN-T Network airports is their connection to the railway network. Currently, only KYIV/Boryspil airport has a direct rail connection, while the other airports are connected solely by road.

Country code	Airport name	TEN-T (Core/Comprehensive) Network	Connection to other modes	
			Road connection	Rail connection
UKR	KYIV/Boryspil	Core	Yes	Yes
UKR	Lviv	Comprehensive	Yes	No
UKR	Kharkiv/Osnova	Core	Yes	No
UKR	Kyiv/Zhuliany	Comprehensive	Yes	No
UKR	Odesa	Core	Yes	No
UKR	Dnipropetrovsk	Core	Yes	No

Table 27 – Ukraine: list of airports with road and rail connections

b) Availability of alternative fuels

Currently, no fixed storage tank facilities for aviation biofuel are reported at any of the airports. Under Regulation 1315/2013, this criterion applies only to core network airports, which are expected to be prepared to make alternative clean fuels available based on market demand. However, Regulation 1679/2024 has expanded these requirements to the entire comprehensive network, decoupling them from market demand and emphasising that all airports must proactively accommodate alternative clean fuels.

Country code	Airport name	TEN-T (Core/	Clean fuels availability				
		Comprehensive) Network	Tank facilities for aviation biofuel	availability of alternative fuels for airport ground services			
UKR	KYIV/Boryspil	Core	No	No			
UKR	Lviv	Comprehensive	No	No			
UKR	Kharkiv/Osnova	Core	No	No			
UKR	Kyiv/Zhuliany	Comprehensive	No	No			
UKR	Odesa	Core	No	No			
UKR	DNIPRO	Core	No	No			

Table 28 – Ukraine: list of availability of alternative fuels in airports

c) Terminal availability

All airports are open to international traffic, with foreign air carriers operating in and out, with sufficient terminal capacity to serve the current traffic needs.

Table 29 – Ukraine: list of terminal availability

Country code	Airport name	TEN-T (Core/	Terminal availability			
		Comprehensive) Network	Terminal availability (open to all market players on non-discriminatory basis)	Terminal availability (sufficient capacity to operate)		
UKR	KYIV/Boryspil	Core	Yes	Yes		
UKR	Lviv	Comprehensive	Yes	Yes		
UKR	Kharkiv/Osnova	Core	Yes	Yes		
UKR	Kyiv/Zhuliany	Comprehensive	Yes	Yes		
UKR	Odesa	Core	Yes	Yes		
UKR	DNIPRO	Core	Yes	Yes		

6. TEN-T Projects

6.1. Methodological Aspects

The reason for collecting project-related data under the current exercise was twofold. First, it aims to provide an overview of the ongoing efforts of the observing participants to upgrade the indicative extensions of the TEN-T core and comprehensive corridors within their territory. Second, it seeks to provide the basic information necessary for assessing the likely evolution of the TEN-T compliance indicators by 2030 (the first major milestone for network completion).

In line with the above, TEN-T projects were defined as any greenfield/brownfield investment, or soft/policy measure, that cumulatively meets the following criteria:

- Refers to certain section(s) of the TEN-T Network
- Tackles at least one of the relevant TEN-T compliance indicators

Also, to ensure the accuracy of the compliance forecasting, only projects with full financing already secured were considered.

The data collection process was organised accordingly, with the following information being requested for each individual project:

- General project data (physical object, cost, length if linear)
- **Project implementation status** (for the scope of presenting TEN-T forecasted compliance rates, only projects with financing secured have been considered)
- **Targeted TEN-T section** (information meant to allow updating the TEN-T compliance status after the project implementation)
- **Targeted TEN-T compliance indicators before and after project implementation** (thus allowing the update of TEN-T compliance status on the corresponding TEN-T section after the commissioning of the project)
- Estimated completion date (information meant to allow the forecasting of the TEN-T compliance status for the years to come).

6.2. **Georgia**

6.2.1. Rail Projects

Georgia is currently implementing a TEN-T project in the railway sector, with a total value of \leq 460,694,735. The project will upgrade a 40 km section of the Core Network. Upon completion, it will address two key TEN-T requirements, namely electrification and axle load (23.5 t). However, the design speed will remain limited to 80 km/h, and train length to 660 meters. Also, the project does not include ERTMS, and the track gauge will remain at 1,520 mm.

An overview of the TEN-T rail project currently under implementation in Georgia is presented in table format below:

Table 30 - List of TEN-T rail projects in Georgia

Name of the project	Core/ Comprehensive Network	Foreseen intervention	Total length (km)	Total Cost (M€)	Estimated completion deadline
Georgian Railway Modernisation Project (Modernisation Zestafoni-Kharagauli section and construction Khashuri-Moliti section)	Core	Modernisation/ Construction	40	460.7	November 2024

6.2.2. Road Projects

Georgia is currently implementing 10 road projects, of which nine are on the Core Network and one on the Comprehensive Network.

The combined length of road sections currently undergoing various upgrades is 147.6 km (130.6 km on the Core and 17 km on the Comprehensive Network). The priority given to the Core Network is also reflected in the overall value of projects (EUR 1,119.9 million for the entire network, of which EUR 1,019.9 million is on the Core and EUR 100 million on the Comprehensive Network).

The list of individual TEN-T road interventions is provided in Table below:

Table 31 – List of TEN-T road projects in Georgia

Name of the project	Core/ Comprehensive Network	Foreseen intervention	Total length (km)	Total Cost (M€)	Estimated completion deadline
Algeti-Sadakhlo (Project Name: Lot 3 and Lot 4)	Core	Motorway/express road (new construction)	29.3	100	2027
Red Bridge-Rustavi (Project Name: Lot 1 and Lot 2)	Core	Motorway/express road (new construction)	31.9	175	2028
Surami-Chumateleti (Project Name: Zemo Osiauri-Chumateleti Lot 2)	Core	Motorway/express road (new construction)	6.4	66	2025
Chumateleti-Khevi (F1)	Core	Motorway/express road (new construction)	11.7	116	2025
Poti Bridge-Poti (Project name: Lot 1 - Poti Bridge and Access Roads)	Core	Motorway/express road (new construction)	2.5	17.5	2025
Grigoleti-Tskaltsminda (Project Name: Grigoleti-Kobuleti -Lot 1)	Core	Motorway/express road (new construction)	14	83	2024
Khelvachauri-Sarpi (Border of Turkey) -Project name: Batumi - Sarpi	Core	Motorway/express road (new construction)	11.3	330	2029

Zugdidi-Anaklia (Project Name: Access	Comprehensive	Motorway/express road	17	100	2029
Road to the Anaklia Deep Sea Port)		(new construction)			
Samtredia-Japana (Project Name:	Core	Motorway/express road	11.5	18.4	2025
Samtredia-Grigoleti - Lot 1)		(new construction)			
Lanchkhuti-Khazhalia (Project Name:	Core	Motorway/express road	12	114	2025
Samtredia-Grigoleti - Lot 3)		(new construction)			

6.2.3. Waterborne Transport Projects

The only significant investment currently underway in Georgia's designated TEN-T core and comprehensive maritime ports is the Anaklia Deep Sea Port Project.

Following an unsuccessful initial attempt to carry out the works in partnership with a private investor, the feasibility study for the project was updated in 2021. In 2023, a new procedure was initiated to select a private partner under a restructured Public-Private Partnership (PPP) agreement. The selection process of a private partner to co-invest in the Anaklia Deep Sea Port development is still ongoing. In the meantime, the Government of Georgia has begun the construction of marine infrastructure component (breakwater and dredging works) of the Anaklia Deep Sea Port project in September 2024 performed by a Belgian company – "Jan De Nul Group", which has been selected as a result of an international tender announced in March 2024.

Upon completion, the project is expected to bring Anaklia Port into full compliance with the following TEN-T requirements:

- Availability of rail and road connections to the port
- Availability of terminal facilities
- Operational Vessel Traffic Monitoring and Information System (VTMIS), SafeSeaNet, and National Maritime Single Window (NMSW)

The expected improvements in the port's capacity and infrastructure include:

- Achieving an annual handling capacity of at least 600 thousand TEUs or 7.8 million tons after completion of the Project's Phase I while the ultimate target is for 100 million tonnes of cargo per year once the project is fully completed.
- A quay wall front with a total length of 2,250 metres
- Two breakwaters and multiple berths for container, dry bulk, and liquid bulk cargo

The anticipated completion date for the Anaklia Deep Sea Port is 2029. Once fully operational, the port is expected to become a major regional hub, significantly enhancing Georgia's economic and strategic position.

6.2.4. Airport Projects

There is no project currently under implementation on the Georgian TEN-T airports. Kutaisi airport is currently planning to build a cargo terminal, with the project currently under preparation.

6.3. Republic of Moldova

6.3.1. Rail Projects

Moldova is currently implementing 2 rail projects on the core and comprehensive networks, with financially secured funds and a total value of \in 227 million.

One project focuses on the rehabilitation of railway infrastructure along the Northern and Central Corridor, which includes the sections Valcinet – Ocnita – Balti – Ungheni – Chisinau – Cainari. The total length of the sections to be rehabilitated is 128 km, all of which are in poor and very poor condition. The total cost of the project is €114 million.

This project will ensure the design speed meets the TEN-T requirement of 100 km/h for freight, with an axle load of 23.5 t and a train length of 740 m. It will not include, however, electrification or the implementation of ERTMS, and the track gauge will remain at 1,520 mm.

The second project involves the rehabilitation of the railway infrastructure along the Bender – Cainari – Basarabeasca – Etulia – Giurgiuleşti section, which spans a total length of 233 km, with 185.8 km falling within the Core and Comprehensive Network. The total cost of the project is €113 million. The project will increase the design speed for passenger trains to 100 km/h and for freight trains to 90 km/h. It will include an axle load of 23.5 t and a train length of 740 m. However, the project will not include electrification or ERTMS, and the track gauge will remain at 1,520 mm.

Table 32 - List of TEN-T rail projects in Moldova

Name of the project	Core/ Comprehensive Network	Foreseen intervention	Total length (km)	Total Cost (M€)	Estimated completion deadline
RLF - Moldovan Railways Crisis Response - Rehabilitation of railway infrastructure of the Northern and Central Corridor Valcinet – Ocnita – Balti – Ungheni - Chisinau-Cainari	Core/ Comprehensive	Rehabilitation	128	114	2027
Rehabilitation of railway infrastructure on the Bender - Cainari -Basarabeasca – Etulia - Giurgiuleşti section	Core/ Comprehensive	Rehabilitation	185,84	113	2027

6.3.2. Road Projects

Moldova is currently implementing a total of five projects on the TEN-T road network, four of which are on the Comprehensive Network.

The combined length of road sections currently undergoing various upgrades is 79.92 km (8.2 km on the Core and 71.72 km on the Comprehensive Network).

⁴ The project for the rehabilitation of the railway line Bender-Cainari-Basarabeasca-Etulia-Giurgiuleşti has a total length of 233 km, with a total cost of €113 million allocated for the entire project.

The list of individual TEN-T road interventions is provided in table form below:

Table 33 – List of TEN-T road projects in Moldova

Name of the project	Core/ Comprehensive Network	Foreseen intervention	Total length (km)	Total Cost (M€)	Estimated completion deadline
Vulcănești bypass	Comprehensive	New infrastructure	8.58	21.3	2025
Cimișlia bypass	Comprehensive	New infrastructure	7.39	38	2027
Chișinău bypass (lot II)	Core	Rehabilitation	8.2		2028
Rehabilitation of M5 trunk road (lot IV)	Comprehensive	Rehabilitation	33	100	2028
Rehabilitation of M1 trunk road (lot III)	Comprehensive	Rehabilitation	22.75	-	2028

6.3.3. Waterborne Transport Projects

The Republic of Moldova currently has no ongoing investment projects within the TEN-T Comprehensive Port of Giurgiulești. However, future plans include significant upgrades to both the basic infrastructure and superstructure of the Port Complex.

For Giurgiulești International Free Port, planned improvements include the construction of a 100-metre shore consolidation wall (quay), a technological platform, office spaces, warehouse, anchoring platforms, weighbridge, railway line, and silos for storing cereals (2x6000 tonnes). Danube Logistics (the port terminal operator) has obtained a construction permit for a new universal berth, expected to add 600,000 tonnes of transshipment capacity. EBRD, as a shareholder of Danube Logistics, must still approve the \$8.5 million investment, with construction taking about one year.

For the Passenger and Goods Port Giurgiulesti (State Port), a new project aims to boost transshipment capacity by 800,000 tonnes and attract investments to support Moldova's exporters, who have lost access to Ukrainian ports due to the ongoing conflict. The proposed works include constructing grain silos with a capacity of 80,000 tonnes, purchasing grain loaders with a capacity of 1500 t/h, building railway lines and a new unloading station, and developing a truck parking area and unloading station. The estimated project cost is \$34 million, with a feasibility study and procurement process planned to conclude by mid-2025. Construction is expected to take two years, from 2026 to 2027, with full operational capacity anticipated by 2028.

6.3.4. Airport Projects

Chişinău Airport is currently planning the rehabilitation of its old passenger terminal building to increase passenger capacity. Additional investments are focused on upgrading the Instrument Landing System (ILS) and expanding parking facilities. Further capacity extension investments are also planned for the medium and long term.

6.4. Ukraine

6.4.1. Rail Projects

Ukraine is currently preparing a railway project on the Core Network, with financially secured funds amounting to €389 million. The project involves the reconstruction of 81 km of railway track between the Ukraine-EU border (Mostyska II) and Sknyliv. The project will meet TEN-T requirements for electrification, axle load (22.5t), train length (740 m), and track gauge (1,435 mm), though it will not include ERTMS.

An overview of the TEN-T rail project currently under implementation in Ukraine is provided in the table below:

Table 34 – List of TEN-T rail projects in Ukraine

Name of the project	Core/ Comprehensive Network	Foreseen intervention	Total length (km)	Total Cost (M€)	Estimated completion deadline
Reconstruction of the railway track Ukraine - European Union border – Mostyska II – Sknyliv	Core	Reconstruction	81	389	2030

Three additional rail projects are currently under preparation in Ukraine, as follows:

- Reconstruction of Railway Structures with Electrification on the Kovel Yagodin State Border with the Republic of Poland (part of the Regional Branch "Lviv Railway" of JSC "Ukrainian Railways" in the Volyn region). This project covers 65 km on the Core Network, with an estimated cost of €250 million. It is expected to meet TEN-T requirements for electrification, axle load, and a track gauge of 1,435 mm. The project is currently in the preparation phase for the development of the General Design.
- Reconstruction of Railway Structures with Construction and Electrification of the 1,435 mm Track Gauge on the Lviv - Chernivtsi - Vadul-Siret - State Border. This project spans 314 km on the Core Network, with an estimated cost of €1.234 billion. It is expected to meet TEN-T requirements for electrification, axle load, train length, and a track gauge of 1,435 mm. The project is currently in the preparation phase for the development of the Feasibility Study and design documentation.
- Reconstruction of Railway Structures on the Chop L'viv Section with Replacement of Broad Gauge 1,520 mm to Standard 1,435 mm Gauge on the 275 km Uzhhorod Lviv Section. This project covers 292 km on the Comprehensive Network, with an estimated cost of €1.059 billion. It is expected to meet TEN-T requirements for electrification, axle load, and a track gauge of 1,435 mm. The project is currently in the preparation phase for the development of the Feasibility Study and design documentation.

6.4.2. Other Projects

No information has been provided by the Ukrainian relevant stakeholders on potential road, ports, inland waterways, or airport projects on the TEN-T core and comprehensive network.

7. TEN-T Compliance Indicators Forecast

The forecasted compliance with TEN-T indicators for the 2030 horizon is based on the collected project-related information, as well as several key assumptions:

- Timely completion of ongoing projects (it is assumed that all projects currently reported as ongoing will be finalised as scheduled).
- That no other interventions will significantly impact the compliance indicators within the estimated time horizon.
- Stable infrastructure condition: it is assumed that there will be no significant deterioration in the existing infrastructure that would negatively affect its condition and the compliance rates for the TEN-T network.

Given the uncertainties surrounding future developments, the outcomes of this exercise should be viewed as illustrative rather than definitive. The evolving nature of infrastructure projects and external factors means that actual compliance rates may vary significantly, as illustrated by similar exercises conducted for the Western Balkans region over the past several years. Unforeseen challenges – such as delays in project implementation, shifts in political or economic conditions, or external disruptions – or changes in priorities can result in significant deviations from the original projections. Therefore, while the 2030 forecast serves as a useful baseline, its primary purpose is to highlight the outcomes of the "business as usual" scenario rather than offer definitive answers

7.1. Georgia

7.1.1. Rail Compliance Indicators Forecast

Georgia's forecasted compliance with TEN-T rail standards is based on the expected completion of the ongoing TEN-T project outlined in Section VI. It is important to highlight that sections of the rail network not earmarked for upgrades are expected to, at a minimum, uphold their current standards.

The project does not introduce changes to the requirements for electrification, train length, track gauge, or axle load as presented for 2024. The minimum design speed requirement of 100 km/h remains unchanged.

The project will positively impact the condition of the rail network, with an expected 6.84% of the Core Network and 5.60% of the Comprehensive Network in very good condition by 2030. These improvements will help reduce the proportion of the network in poor condition on both the Core and Comprehensive Networks, as illustrated in the following chart.





7.1.2. Road Compliance Indicator Forecast

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

The results of this exercise are given below:





7.2. Republic of Moldova

7.2.1. Rail Compliance Indicator Forecast

The forecast for Moldova's compliance with TEN-T standards is based on the expected completion of the ongoing TEN-T projects outlined in Section VI. It is important to highlight that sections of the rail network not earmarked for upgrades are expected to, at a minimum, uphold their current standards.

The project does not introduce any changes to the infrastructure requirements regarding electrification, train length, track gauge, and axle load. However, modifications are anticipated for the minimum design speed requirement, with compliance on the Core Network reaching 73.63% and on the Comprehensive Network, 37.79%. Additionally, an improvement of 11.30% in train length is expected on the Comprehensive Network.



Figure 50. Moldova: Minimum design speed 100 km/h 2023/2024/2030

Figure 51. Moldova: Train length 100 km/h 2023/2024/2030



min 740 m less than 740 m

The project will improve the condition of the rail network, with an anticipated 100% of the Core Network and 70.31% of the Comprehensive Network in very good condition by 2030. Additionally, on the Comprehensive Network, sections in poor condition will decrease by 35.03%, while those in very poor condition will reduce by 35.28%.





7.2.2. Road Compliance Indicator Forecast

The TEN-T compliance forecast for Moldova is based on the estimated completion dates for the ongoing TEN-T projects listed in Section 6 above.

The results of this exercise are provided below:

Figure 53. Moldova TEN-T Compliance progress forecast (infrastructure profile and condition)



7.3. Ukraine

7.3.1. Rail Compliance Indicator Forecast

The forecast for Ukraine's compliance with TEN-T standards is based on the expected completion of the ongoing TEN-T projects outlined in Section VI. It is crucial to highlight that sections of the rail network not earmarked for upgrades are expected to, at a minimum, uphold their current standards.

The project does not introduce any changes to the requirements, including the data provided for 2024, such as electrification, train length, and axle load. The requirement for a minimum design speed of 100 km/h remains unchanged. The project will have a minor impact on the track gauge, with an expected improvement of 1.59% on the Core Network and 0.86% on the Comprehensive Network. It will also positively influence the condition of the rail network, with an anticipated 2.03% of the Core Network and 1.10% of the Comprehensive Network in very good condition by 2030. Additionally, the percentage of the network in very poor condition will decrease by these amounts on both the Core and Comprehensive Networks.
Presented below is the forecast for track gauge and the condition of the railway network infrastructure.

Figure 54. Ukraine: Track gauge 2023/2024/2030







8. Conclusions

The baseline assessment of the observing participants' compliance with the relevant TEN-T standards reveals a complex and challenging landscape. While the rail systems in all three observing participants exhibit high compliance with indicators such as axle load, the overall state of the infrastructure remains suboptimal. Both road and rail networks suffer from long-standing underinvestment and maintenance backlogs, with compliance rates varying widely - from as low as 0% to 100% - across different sectors and indicators. Notably, there are striking differences in performance, such as the full electrification of Georgia's TEN-T network compared to Moldova's complete lack of compliance in this area. Similarly, while Moldova excels in train length compliance, Georgia faces considerable challenges in accommodating longer freight trains.

Despite ongoing projects aimed at improving infrastructure, the overall impact on TEN-T compliance indicators since the 2023 report has been marginal, with progress mainly attributed to changes in the TEN-T maps rather than tangible on-the-ground improvements. However, there are positive signs of progress in specific areas, such as Georgia's road sector, which has seen a notable increase in compliance due to significant investment.

Enhancing compliance with TEN-T standards and advancing towards a unified transport market will require not only substantial funding but also the development of clear, well-defined strategic frameworks. Prioritizing the most effective projects, making smart investments, and ensuring targeted interventions will be crucial in addressing the vast infrastructure gaps. A pragmatic and coherent investment policy is essential for ensuring that the infrastructure improvements are not only ambitious but also impactful, enabling the participants to meet their connectivity goals and move closer to European transport market integration.

This current TEN-T compliance assessment exercise might further serve as a first step and a sound basis in this regard, laying the ground for future result-oriented development plans.

