# DEVELOPMENT OF THE INDICATIVE TEN-T EXTENSIONS OF THE COMPREHENSIVE AND CORE NETWORK IN THE OBSERVING PARTICIPANTS TO THE TRANSPORT COMMUNITY

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# I. FOREWORD

During the 6<sup>th</sup> meeting of the Ministerial Council convened on 15 November 2022 a Joint Statement was endorsed advocating for the enhanced and systematic participation of Georgia, the Republic of Moldova and Ukraine as observing participants in the work of various bodies of the Transport Community.

This invitation marked a significant stride toward the future European Union (EU) membership aspirations of the three observing participants, holding substantial importance in the context of their ongoing efforts to align with EU standards and regulations. Involvement of the observing participants in the routine activities of the Transport Community provide them invaluable insights into the particulars of EU transport policies and practices, setting the stage for harmonization with the broader European framework.

In the context of Russia's unprecedented aggression war and its devastating effects, the decision to include Georgia, the Republic of Moldova, and Ukraine as observing participants in the Transport Community not only fosters stronger ties between these nations and the EU but also underscores the EU's commitment to the principles of cooperation, regional integration and stability. It provides a structured platform for mutual learning and collaboration, allowing these countries to align their transport infrastructure and policies with EU standards, a pivotal step in their path towards full EU membership.

Moreover, the invitation holds significant implications for the future enlargement of the transport market in the region. The alignment of the observing participants' transport systems with EU standards enhances interoperability and efficiency, creating a more seamless and integrated regional transport market. This not only benefits the three observing participants but also contributes to the overall economic development and stability of the wider European region.

The overall scope of creating a unified transport market between the contracting parties requires twofold action: advancing infrastructure development alongside the TEN-T axes and policy reforms centred around the transposition and implementation of the relevant EU Acquis. The TEN-T policy has consistently served as an essential tool of EU's external action, strengthening ties between the Union and its immediate neighbours and fostering trade, prosperity and stability across the continent and beyond.

Under the institutional mechanisms set forth through 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. In the above-described context the same approach should now be extended to include the observing participants, as part of the overarching commitment to deepen cooperation within the Transport Community framework.

In this context, the issuing of the first TEN-T monitoring report for the observing participants represents another key milestone in their path towards full membership in the Transport Community, providing also a valuable basis for the monitoring exercise.



# II. Scope and methodology

Infrastructure development is addressed under articles 8, 9 and 10 of the Treaty establishing the Transport Community. Such development is deemed to take place alongside the indicative extension of the TEN-T Core and Comprehensive corridors, with the goal of bringing them in line with the standards outlined in Regulation 1315/2013 and in due observance of the time limits therein prescribed.

The progress achieved by the contracting parties in this regard is tracked through a monitoring system set up under art. 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 due observance of the overall context described under Point I above, the present report aims to benchmark the progress of Georgia, Republic of Moldova and Ukraine in achieving compliance with the TEN-T. It provides insights into the current status of the indicative extensions of the TEN-T Core and Comprehensive Networks, comparing them against the relevant standards set by Regulation no. 1315/2013.

The compliance standards followed under the present report are outlined in Regulation 1315/2013, as follows:

- General transport infrastructure requirements for the Comprehensive Network under art. 12, 15, 18, 22, 25, and 28.
- Additional requirements for the Core Network under art. 39.

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

The current layout of the indicative extension of the TEN-T Core and Comprehensive Networks in the three observing participants is provided under the *Commission Delegated Regulation (EU) 2019/254 of 9 November 2018. on the adaptation of Annex III to Regulation (EU) No 1315/2013 of the European Parliament and of the Council on Union guidelines for the development of the trans-European transport network.* The TEN-T policy is currently under revision aiming to increase focus on network quality and align it with the major strategic orientations laid out in the European Green Deal and further transposed in the Sustainable and Smart Mobility Strategy. Upon the formal approval of the revised TEN-T Regulation, new high-level agreements with third countries will be concluded and the indicative extensions of the TEN-T Core and Comprehensive Networks will be consequently revised, in line European Commission's proposals dated 14 December 2021 and 27 July 2022.

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

Information required for assessing TEN-T Network compliance was gathered through questionnaires addressing the aforementioned indicators. These questionnaires were distributed among the observing



participants. Throughout the survey process, the Transport Community Permanent Secretariat ensured continuous feedback and provided ad-hoc support for relevant stakeholders through meetings and individual consultations.

Information directly obtained from observing participants was complemented by a desk study that incorporated 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 features and specifics in the three countries concerned.

# **III. TEN-T compliance indicators**

#### III.1 Railway

The legal framework for the development of the Indicative Extension of TEN-T Core and Comprehensive Rail Network to the Eastern Partnership (including Republic of Moldova, Ukraine and Georgia) is Regulation 1315/2013 (last revised in 2019). This Regulation represents the long-term strategy for the development of a complete trans- European transport network (TEN-T) consisting of all modes of transport infrastructure, including rail. It covers technical standards, as well as the requirements for interoperability of infrastructures, and defines priorities for the development of the TEN-T.

The regulation introduces a dual-layer structure: Comprehensive Network and Core Network.

Regarding transport infrastructure requirements, the regulation defines freight terminals, ERTMS deployment, compatibility with TSI requirements, electrification of the network and access to freight terminals.

Therefore, the priorities for railway infrastructure development are:

- deploying ERTMS;
- migrating to 1,435 mm nominal track gauge;
- mitigating the impact of noise and vibration caused by rail transport, in particular through measures for rolling stock and infrastructure, including noise protection barriers;
- meeting infrastructure requirements and enhancing interoperability;
- improving the safety of level crossings;
- where appropriate, connecting railway transport infrastructure with inland waterway port infrastructure.

#### III.1.1 Overall compliance assessment



Based on the previously mentioned priorities, this report covers assessment of the specific requirements as follows:

- **Electrification** rail network to be electrified by 2030 (including sidings where necessary). Currently, all railway lines in Moldova are non-electrified, while in Georgia and Ukraine level of electrification is on high level.
- **Axle load**: Freight lines 22.5 t axle load by 2030. For freight axle load, the compliance parameter of 22.5 t per axle is 100% on Core and Comprehensive Network as per 2023 data in all three Observing Participants.
- Line speed: Freight lines must allow 100 km/h by 2030 (no speed requirement for passenger lines). In all three Observing Participants, the designed and operational speed 100 km/h for the freight traffic is not fulfilled on the Core and the Comprehensive Network as per 2023 data. The deficiencies are mainly because of insufficient maintenance and terrain possibilities.
- **Train length**: Freight lines to allow for 740 m trains by 2030. For freight train length, railway networks of the Observing Participants are compliant with the parameter of **740 m** or longer sidings for trains in a bit high percentage in Ukraine and Moldova and lower in Georgia.
- **Track gauge**: Nominal track gauge for new railway lines 1.435 mm. Railway Network of all Observing participants has 1525 mm track gauge. There are few exceptions in Ukraine (border areas) which have standard gauge 1435 mm or combined with both gauges.
- **ERTMS / signalling system**: Core network to be equipped with ERTMS by 2030. Currently, there are no ERTMS in operation throughout the entire network in all Observing participants.

#### **III.1.2 Methodology for assessment**

The current condition of the network was assessed based on data received from Observing Partners on the current state of play on their railway networks. To this purpose, conditions have been divided into five parts based on the ratio between current maximum operational speed and maximum designed speed on the network. This was done in order better to describe the current condition of the railways.

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

#### Table 1 – Assessment Methodology Criteria



#### **III.2 Road transport**

Art. 17 of the TEN-T Regulation lays down road infrastructure components, while Art. 18 addressed compliance requirements.

In short, the TEN-T road network is deemed to incorporate high-quality roads (motorways, express roads or conventional strategic roads) specially designed and built for motor traffic and ensuring adequate safety levels. Furthermore, it is essential to guarantee adherence to the provisions of EU Directives concerning road tunnels, tolling interoperability, and ITS. Besides the general conditions applicable to the Comprehensive Network, the Core Network must comply with the following additional requirements:

- A more rigorous adherence to road profile requirements, mandating that roads on the Core network must either be motorways or express roads. Exceptions to this rule must be explicitly justified and individually granted by the European Commission.
- The establishment of rest areas on motorways at approximately 100-kilometer intervals, enhancing travellers' convenience and safety.
- Availability of alternative fuels.

The Road compliance indicators are provided and explained in the table below.

Indicator	TEN-T Network	Details		
Motorway/express road	Core & Comprehensive	<ul> <li>As per the provisions of points (a) and (b) of Art. 17(3) of Regulation No 1315/2013.</li> <li>For Core Network roads to be labelled compliant they should: <ul> <li>a) Be either motorway or express roads (unless and until the EC grants a specific exemption under Art. 39(3) of Regulation No 1315/2013).</li> <li>b) Be properly maintained (IRI &lt; 2.84).</li> <li>c) Ensure safe parking approx. every 100 km.</li> </ul> </li> </ul>		

#### Table 2 – Road compliance indicators



Conventional strategic high- quality roads	Comprehensive	<ul> <li>For a TEN-T road that is neither a motorway nor an express road to be considered compliant, it should: <ul> <li>a) Be on the Comprehensive Network.</li> <li>b) Play an important role in long-distance freight and passenger traffic, integrate main urban and economic centres, interconnect with other transport modes and link mountainous, remote, landlocked and peripheral NUTS 2 regions to central regions.</li> <li>c) Be adequately maintained to allow safe and secure traffic.</li> </ul> </li> <li>Ideally, compliance of a TEN-T road that is neither motorway nor express road should be confirmed through: <ul> <li>a feasibility assessment confirming that its current capacity is sufficient to accommodate demand.</li> <li>an upgrading process aimed at ensuring adequate safety-improvement measures and a proper pavement condition (IRI &lt; 2.84).</li> </ul> </li> </ul>		
Availability of alternative fuels	Core	Alternative fuel availability has been measured against the provisions of Directive 2014/94/EU and indicators currently used by the EC for assessing EU Member States' compliance in this regard.		
ITS compliance	Core & Comprehensive	Under the provisions of Art. 18(e) of Regulation No 1315/2016, any intelligent transport systemdeployed by a public authority on road transport infrastructure should comply with Directive 2010/40/EU and be deployed in a manner consistent with delegated acts adopted under that Directive.		
Tolling interoperability	Core & Comprehensive	Where applicable, the interoperability of toll collection systems should be ensured in accordance with Directive 2004/52/EC and Commission Decision No 2009/750/EC.		
Safety compliance	Core & Comprehensive	The safety of TEN-T roads should be assured, monitored and, when necessary, improved in accordance with the procedure provided by Directive 2008/96/EC.		
Road tunnels compliance	Core & Comprehensive	Road tunnels over 500 m in length should comply with the provisions of Directive 2004/54/EC.		

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



#### **III.3 Waterborne Transport**

The legal framework for developing the Indicative Extension of the TEN-T Core and Comprehensive Network regarding inland waterways and ports is contained in Regulation (EU) No 1315/2013 in conjunction with Commission Delegated Regulation (EU) No 2016/758 amending Regulation (EU) No 1315/2013<sup>1</sup>.

#### III.3.1 Inland waterway and Maritime Compliance indicators

The compliance indicators for inland waterways, inland and maritime ports are derived from TEN-T Regulation No 1315/2013 where they are listed as infrastructure requirements. The list of scrutinised indicators remains unchanged from the previous reports for the Comprehensive inland waterways network, namely:

- CEMT requirements for class IV including:
  - Minimum draft 2.5 m

•

- Minimum height under bridges 5.25 m.
- Connection with the road infrastructure;
- Connection with the rail infrastructure;
- Availability of at least one freight terminal open to all operators in a non-discriminatory way and shall apply transparent charges.
- RIS availability/implementation.

Compliance indicators for Core inland waterway ports for observer partners:

The infrastructure of the core Inland waterway network shall meet all the requirements set out for a comprehensive inland waterways network. In addition, the following requirements shall be met by the infrastructure of the core network:

• Availability of alternative clean fuels.

Compliance indicators for Core and Comprehensive maritime ports:

- Connection with railway lines or roads and, where possible with inland waterways,
- Availability of at least one freight terminal open to all operators in a non- discriminatory way and application of transparent charges.
- Provide Port Reception Facilities for ship-generated wastes and cargo residues
- Uses of telematic applications (VTMIS and e-Maritime services)

The core maritime transport infrastructure shall meet all the requirements set out for comprehensive maritime transport. In addition, the following requirements shall be met by the infrastructure of the core network:

<sup>&</sup>lt;sup>1</sup> COMMISSION DELEGATED REGULATION (EU) 2016/758 of 4 February 2016 amending Regulation (EU) No 1315/2013 of the European Parliament and of the Council as regards adapting Annex III thereto



• Availability of alternative clean fuels.

#### **III.4 Airports**

As with the other transport modes, the legal framework for the development of the Indicative Extension of TEN-T Core and Comprehensive Network regarding airports is provided by Regulation (EU) 1315/2013.

#### **III.4.1 Airport Compliance indicators**

The compliance indicators for airports are drawn from TEN-T Regulation 1315/2013 where they are specified as infrastructure requirements. In this report, the following compliance indicators for airports in the Observing Participants have been assessed:

- Rail connection;
- Clean fuels applicable only to Core Network Airports;
- Terminal availability at least one terminal is open to all operators in a non- discriminatory way and applies transparent, relevant and fair charges.

### **IV. TEN-T NETWORK COMPLIANCE ASSESSMENT**

#### IV.1 Georgia

#### IV.1.1 Railways<sup>2</sup>

The history of the Georgian Railway begins in 1867 when the first railway link was constructed to connect the Black Sea port with the manganese mines in Georgia. Later on, in 1872 the railway link was extended from the seaport to Baku for Azerbaijani oil. Today the Georgian Railway, initiated for cargo transportation, maintains its role of a railway.

Georgian Railway has 1.992 km total length of railway tracks, out of which 709 km on comprehensive network and 605 km on the Core network, broad-gauge railway well located on the western part of the land bridge connecting Azerbaijan and Armenian railways and the three existing ports on the Black Sea (Batumi, Poti and Kulevi), railway connection link to Turkey is under construction.

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

<sup>&</sup>lt;sup>2</sup> Information from the following documents was used: Joint Staff Working Document, Association Implementation Report on Georgia, High Representative of the Union for Foreign Affairs and Security Policy, Brussels, 2021", Georgian Railway, Annual Report 2020", Georgia Transport Sector Assessment, Strategy, and Road Map, Asian Development Bank, 2014"





Figure 1 – Indicative extension of the TEN-T rail network to Georgia

**Electrification** – In Georgia all the Comprehensive network is fully electrified. 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 have 23.5 t axle load which is higher than the TEN-T requirements of 22.5 t axle load.

**Line speed** – The design line speed on the whole Comprehensive network varies from 50 to 80 km/h which is far below the TEN-T requirement for the freight lines to allow 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, though the geography rarely permits such speeds.

**Train length** – Only 37 km or 6.12% of the Core network can accommodate freight trains of 740 m, all the other segments of the Core and Comprehensive network can accommodate trains with length from 420 to 658 m Freight.





Figure 2 – Georgia: train length

**Track gauge** – Georgian railway network is wide gauge network, and this doesn't correspond to the TEN-T criteria of 1.435 mm. The predominant track gauge is 1520 mm, and a small branch line is built with narrow gauge (912 mm).

**ERTMS** – Georgian core network has no implemented ERTMS so far. Safety of Georgian Railway train movement is supported by centralized signalling system and block segments.

The current condition of the network was assessed based on data received from Georgia on the current state of their tracks.

As for the condition, 49.09% of the Core Rail Network and 56.56% of the Comprehensive are reported to be in average condition, where approximately 70% of designed speed can be achieved. Approximately 50.91% of the Core and 43.44% of the Comprehensive network is reported to be in poor condition.

But this condition of the tracks is assessed as ratio between the design and operational speed which in Georgia because of the specific terrain are limited to max 80 km/h.



Figure 3 – Georgia: TEN-T railway network infrastructure conditions



#### IV.1.2 Roads

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 TEN-T road network in Georgia is provided below.



Figure 4 – Indicative extension of the TEN-T road network to Georgia

The indicative extension of the TEN-T road network in Georgia spans over 855.8 km, of which 768.8 lie on the Core network. 240.9 km, all on the Core network have been upgraded at motorway standards and another 30 km fit an express road profile. Of a total of 584.9 km still at conventional road standards, 497.9 are on the Core Network.

Road profile	Kilometers (km)	%
Motorway	240.9	31.33%
Express road	30	3.90%
Conventional road	497.9	64.76%

#### Table 3 – Georgia: TEN-T Core road network profile





Figure 5 – Georgia: road TEN-T Core network infrastructure profile

The road infrastructure quality is satisfactory, with 51.6% of the Core TEN-T network currently rated as very good or good. However, there is also significant room for improvements, considering that around 100 km of motorways currently fall below the necessary maintenance standard to be labelled TEN-T compliant. More data and figures are provided below.

Road condition	Kilometers (Km)	%
Very Good	15	1.95%
Good	381.7	49.65%
Medium	369.6	48.07%
Poor	2.5	0.33%
Very Poor	0	0.00%

Table 4 – Georgia: TEN-T Core Road Network (infrastructure condition)





Figure 6 – Georgia: road TEN-T Core network condition

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

Road profile	Road condition	Km	%
Motorway	Very Good	15	1.95%
	Good	125.9	16.38%
	Medium/Poor/Very Poor	100	13.01%
Expressway	Very Good	0	0.00%
	Good	30	3.90%
	Medium/Poor/Very Poor	0	0.00%
Conventional road	Very Good	0	0.00%
	Good	225.8	29.37%
	Medium/Poor/Very Poor	272.1	35.39%

Beyond the Core Network, the extensive network comprises only 87 km of conventional road in a moderately maintained condition, rendering it non-compliant with TEN-T standards.

Altogether, 19.97% of the TEN-T road network in Georgia 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.









#### IV.1.3 Waterborne transport

On July 18, 2018, a memorandum of understanding on the extension of TEN-T to Georgia was signed. The extension of TEN-T to the Eastern Partnership area officially entered into force on January 9, 2019. An investment plan for the trans-European transport network was developed, which includes priority infrastructure projects to be implemented in the "Eastern Partnership" countries until 2030.

Georgia only features maritime ports, a consequence of the absence of navigable rivers within its geographical area.

Georgia's primary maritime ports include:



- The multipurpose port of Poti, recognized as the sole Core port of Georgia based on the indicative TEN-T map extension.
- The multipurpose port of Batumi, acknowledged as a comprehensive port according to the indicative TEN-T map extension.
- The Black Sea Terminal in Kulevi, designated as a comprehensive port, encompassing both oil terminals and a seaport, as per the indicative TEN-T map extension.



Figure 8 – Indicative extension of TEN-T ports in Georgia

Compliance assessment for each indicator:

Port name	Network layer	Rail connection	Road connection	Facilities for shipgenerated waste	Clean fuel availability	Terminal availability	VTMIS
Poti	Core	YES	YES	YES	NO	YES	YES
Batum	Comprehensive	YES	YES	YES	NO	YES	YES
Kulevi	Comprehensive	YES	YES	YES	NO	YES	YES

#### Table 6 – Maritime ports compliance assessment for Georgia

**Connection Road and Railway** is available in all Georgian ports. The road network is connected to the ongoing East-West Highway which is part of the E60 project.

**Port Reception Facilities**. In ports of Georgia (Batumi, Poti, Kulevi) waste is received from all types of ships and is handed over to private companies. Waste is separated in special containers or cisterns (for liquid waste), which are then taken to contractor companies for recycling or utilization.

**Clean fuel availability** is not available in Georgian ports at this stage and yet, there are no specific projects planned to address this issue.



**Terminal availability**. All terminals in the Georgian port are open to users in a non-discriminatory way and applies transparent charges.

**Telematic applications:** For maritime transport VTMIS and e-Maritime services, including single-window services such as the maritime single window, port community systems and relevant customs information systems.

**VTMIS** service is accessible at all ports and terminals across Georgia. Operating 24 hours, VTMIS delivers crucial navigational information to vessels, offering guidance for optimal decision-making in challenging navigational, meteorological, or unexpected conditions. Additionally, it coordinates vessel movements to prevent hazardous situations and strategically plans their subsequent routes.

**National Maritime Single Window System (NMSW)**. The development of the National Maritime Single Window System (NMSW) is ongoing. The aim of the system is to harmonize and simplify the administrative procedures related to the clearance of ships in the ports of Georgia. The pilot version of the system will be ready for testing from January 2024, the NMSW system will be fully advanced to go live in September 2024.

**Port Community System (PCS)**. The introduction of the Maritime National Single Window (MSW) will be followed by the implementation of a Port Community System in Georgia ports. The ships' clearance process for arrival/departure from Georgian ports will be digitized and processed through one single window principle.

#### **IV.1.4 Airports**

Currently, 2 airports in Georgia are part of the TEN-T Comprehensive Airport Network, one of which is located on the Core Network.





Figure 9 – Indicative extension of TEN-T Comprehensive and Core Airports to Georgia

#### a) Connection to other modes

A key condition to ensure interoperability of the airports of the TEN-T Network is their connection to the railway network. Currently, both airports have a direct rail and road connection.

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

#### Table 7 – Georgia: list of airports with road and rail connections

Source: Observing Participants data

#### b) Availability of alternative fuels

Currently, no fixed storage tank facilities for aviation biofuel are reported to be in use at any of the



airports. It should be pointed out that this criterion is to be applied according to market requirements and that airports need to be prepared to make alternative clean fuels available when the need arises, as cited in the regulation, 'for air transport infrastructure: capacity to make available alternative clean fuels'.

			Clean fuels availability		
Country code	Airport name	TEN-T (Core/Comprehensive) Network	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	

#### Table 8 – Georgia: List of availability of alternative fuels in airports

Source: Observing Participants data

#### 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 9 – Georgia: List of terminal availability

			Terminal availability		
Country code	Airport name	TEN-T (Core/ Comprehensive) Network	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	

Source: Observing Participants data

#### IV.2 Republic of Moldova

IV.2.1 Railways<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Data from the following document was used: "Strategy for the EU integration of the Ukrainian and Moldovan rail systems, July 2023, DG MOVE, EIB, JASPERS"



The Moldovan rail network currently in operation comprises 1,126.2 km of main lines, where 1,035 km suited on Comprehensive and 166 km on Core Network. Lines are mostly single-track with a 1520 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 tons. The non-electrified system comprises 226 level crossings, 181 with automatic signalling, 39 with rail barriers, and 37 with guarded rail signalling.

Three crucial corridors form the backbone of the network:

- North Corridor: Links Moldova with Ukraine through various Border Crossing Points (BCPs), serving Balti and Ungheni cities, a key entry point to Romania's Port of Constanta.
- **Central Corridor**: Connects Ungheni to Chisinau and extends to Ukraine (Odesa region) through Transnistria. Political and technical issues have led to a bypass solution, emphasizing the Chisinau–Cainari section.
- **Southern Corridor**: Connects the central network to Odesa region in Ukraine via Basarabeasca station, bypassing Transnistria. Infrastructure refurbishment is ongoing, and the only operational connection to Romania in the South is through Giurgiulesti, reaching Danube port facilities in Galati.

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



Figure 10 – Indicative extension of the TEN-T rail network to Moldova

The current compliance status with the relevant indicators is provided below:

**Electrification** – In Moldova all the Comprehensive network is non electrified.



**Axle load** – Moldovan railway lines on the Comprehensive network have 25 t/axle load which is higher than the TEN-T requirements of 22.5 t axle load. However, due to the lack on maintenance, they decreased on 22.5 t/axle.

**Line speed** – The design line speed on the whole Comprehensive network varies from 50 to 80 km/h which is far below the TEN-T requirement for the freight lines to allow 100 km/h by 2030.

**Train length** – 100% of the Core network and 70% of Comprehensive Network can accommodate freight trains of 740 m.



Figure 11 – Moldova: train length

**Track gauge** – Moldovan railway network is wide gauge network, and this doesn't correspond to the TEN-T criteria of 1.435 mm. Track gauge is 1.520 mm.

**ERTMS** – Moldovan Core network has no implemented ERTMS so far.

The current condition of the network was assessed based on data received from Moldova on the current state of their tracks.

#### Infrastructure conditions

As for the condition, 100% of the Core Rail Network and 55% of the Comprehensive is reported to be in poor condition, where approximately 50%-60% of designed speed can be achieved. The rest of 45% of Comprehensive Network is in very poor condition.





Figure 12 – Moldova: infrastructure condition

#### IV.2.2 Roads

The road infrastructure in the Republic of Moldova is characterized by a mix of conditions 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 702.75 km of roads, of which 212 are on the Core network.





Figure 13 – Indicative extension of the TEN-T road network to Moldova

The entire network consists of conventional roads, albeit with certain smaller segments enjoying a widened profile, accommodating up to 2 lanes per direction.

The lack of high-speed roads at motorway or express road standard results in the entire Core network being currently uncompliant with the relevant standards. Moreover, the infrastructure maintenance is also at issue, with only 11.59% of the network currently in a good condition, as shown below.





Figure 14 – Moldova: Core road network condition

Though slightly better, the quality of the Comprehensive/non-Core network is also sub-optimal, around 20% currently exhibiting very good and good conditions.



Figure 15 - Moldova: Comprehensive road network condition

Altogether, the TEN-T road network in Moldova suffers greatly in terms of quality, more than half of it being reportedly in a poor condition.





Figure 16 – Moldova: TEN-T network conditions

Overall, around 14% of the network is currently compliant with TEN-T standards. For the Core network, compliance is still zero.







#### Figure 17 – Moldova: TEN-T network compliance rate

#### IV.2.3 Waterborne transport

Republic of Moldova only features only one port part of the Comprehensive TEN-T Network extention: The Port Complex Giurgiulesti.

The Port Complex Giurgiulesti is formed from:

- 1. Giurgiulești International Free Port located on the maritime sector of the Danube River and partly in Prut River. This port can accommodate maritime and inland waterway vessels with the draft of the ship from 4.5 to 7.5 metres depending on location of berth.
- 2. Passenger and Goods Giurgiulești Port located on the Prut River. This port can process maritime and inland waterway vessels with the draft of the ship of maximum 4.5 metres

#### Table 10 – Compliance assessment for each indicator in Port of Giurgiulești

			Facilities fo	Facilities for	Clean fuel Terminal		Telematic applications		
Port name	TYEN-T Rail Network connecti		Road n connection	chin conorat	clean fuel availability		VTMIS	RIS	MNSW
Port Complex Giurgiulesti	Comprehen sive	Partly	YES	Partly	NO	YES	NO	NO	NO



**Connection Road and Railway**. The Giurgiulești International Free Port is already connected to rail and road infrastructure while the passenger and Cargo Port of Giurgiulesti only to road infrastructure. Plans are underway to initiate a feasibility study for connecting the latter to state port facilities with rail infrastructure.

**Port Reception Facilities.** Port Reception Facilities are accessible for the partial collection of waste from vessels at both ports. A cost analysis has been conducted to determine the feasibility of increasing their capacity to full, and a request for financing from the state budget to meet these needs has been submitted.

**Clean fuel availability** is not available in Port Complex Giurgiulesti at this stage and yet, there are no specific projects planned to address this issue.

**Terminal availability**. All terminals in the Port Complex Giurgiulesti are open to users in a nondiscriminatory way and applies transparent charges.

**Telematic applications:** For maritime transport VTMIS and e-Maritime services, including single-window services such as the maritime single window, port community systems and relevant customs information systems.

**VTMIS**. Currently, Naval Agency with the technical assistance of EMSA is conducting a feasibility study for the implementation of a VTMIS system. Upon completion of the feasibility study the authorities will review the potential for finance assistance for the establishment of this system.

**National Maritime Single Window System (NMSW)**. Naval Agency with the Technical Assistance of EMSA is conducting a feasibility study for the implementation of a National Maritime Single Window System (NMSW). Upon completion of the feasibility study the authorities will review the potential for finance assistance for the establishment of this system.

**River Information System (RIS)**. As of now, Moldova does not have an operational RIS system. However, there is a proactive plan in place, as authorities have endorsed an action plan for 2024. This plan outlines the transposition of the directive related to the RIS information system and EU regulations. The stated objective is to initiate the development of the RIS system software in 2025. This implies that Moldova aims to start the actual implementation and construction of the RIS system, which involves developing the necessary software infrastructure to support river information services.

Port Community System (PCS). There is no Port Community System in Port Complex Giurgiulesti.

#### **IV.2.4 Airports**

Currently, one airport in Republic of Moldova is part of the TEN-T Core and Comprehensive Airport Network, Aeroport International Chisinau.





Figure 18 - Indicative extension of TEN-T Comprehensive and Core Airports to the Republic of Moldova

#### a) Connection to other modes

A key condition to ensure interoperability of the airports of the TEN-T Network is their connection to the railway network. Currently, there is no direct rail connection, but airport has connection to the road network.

6t			Connection to other modes		
Country code	Airport name	TEN-T (Core/Comprehensive) Network	Road connection	Rail connection	
MD	Aeroport International Chisinau	Core	Yes	No	

#### Table 11 – Moldova: list of airports with road and rail connections



Source: Observing Participants data

#### b) Availability of alternative fuels

Currently, no fixed storage tank facilities for aviation biofuel are reported to be in use at any of the airports. It should be pointed out that this criterion is to be applied according to market requirements and that airports need to be prepared to make alternative clean fuels available when the need arises, as cited in the regulation, 'for air transport infrastructure: capacity to make available alternative clean fuels'.

#### Table 12 – Moldova: list of availability of alternative fuels in airports

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

Source: Observing Participants data

#### c) Terminal availability

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

#### Table 13 – Moldova: list of terminal availability

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

Source: Observing Participants data

#### IV.3 Ukraine

**IV.3.1** Railways



Ukrainian Railway has 19.790 km of operational length of the main tracks, out of which 8.026 km on Comprehensive network and 4.318 km on the Core network. Most of the network is covered by 1520mm track gauge. However, there are currently several sections of 1435mm track gauge, mainly in the vicinity of the PL/HU/SK/RO borders.

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



Figure 19 – Indicative extension of the TEN-T rail network to Ukraine

Currently, traffic is suspended at 784 km on Comprehensive Network. On 293 km, traffic is suspended due to the bad infrastructure conditions while 491 km of Comprehensive Network is not under control of Ukraine.

**Electrification** – In Ukraine 80.18% of Core and 71.2% of Comprehensive Rail TEN-T Network is fully electrified. There are two electrical power systems:

- 25 kV AC, mainly connecting Kyiv to L'viv (West part of JSC UZ rail network), Odesa (South part of the rail network) and Kharkiv (East part of the rail network).
- 3 kV DC, mainly concentrated around Donetsk region, Kharkiv and Crimea area.





Figure 20 – Ukraine: electrification

Axle load – 100% of Ukrainian railway lines on the Comprehensive network have 22.5 t axle load.

**Line speed** – The design speed for freight trains on the whole Comprehensive network is under 100km/h, mostly 80 km/h, while design speed for passenger trains is more than 100 km/h on **94.47**% of Core and **93.88**% of Comprehensive Network. Average operational speed is between 30 and 60 km/h on Comprehensive Network.



**Train length** – 98.91% Core Network and 91.23% of the Comprehensive can accommodate freight trains of 740 m, while the rest of the network is capable to operate with trains up to 650 m.





Figure 22 – Ukraine: train length

**Track gauge** – 97% of the Comprehensive Rail Network in Ukraine is wide gauge network (1.520mm) and this doesn't correspond to the TEN-T criteria of 1.435 mm, what is visible in 3% of the Comprehensive rail network.



Figure 23 – Ukraine: track gauge

**ERTMS** – Ukrainian core network has no implemented ERTMS so far. Safety of the Ukrainian Railway network is supported by Soviet legacy signaling system, called "ALSN". The technology (interlocking) is based on relays.

The current condition of the network was assessed based on data received from Ukraine on the current state of their tracks.

As for the condition, 6.29% of the Core Rail Network and 3.48% of the Comprehensive is reported to be in good condition, where approximately 80% of designed speed can be achieved. Approximately 41.48%



of the Core and 31.09% of the Comprehensive network is reported to be in average condition. Around 52% of Core and 65% of Comprehensive Network are in poor and very poor condition.

This condition of the tracks is assessed as ratio between the design speed for freight trains and average operational speed.



Figure 24 – Ukraine: railway infrastructure conditions

#### IV.3.2 Roads

Besides its size and overall development status, the brutal consequences of the ongoing aggression war started by Russia raise unprecedented challenges to Ukraine's path towards a unified transport market and ultimately EU membership.

The Ukrainian Road network is a crucial component of the country's transportation infrastructure, ensuring the 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 on no less than 7,372.22 km, which is more than the entire Western Balkans plus the other observing participants combined. 4,753.03 km are part of the Core Network with the remaining 2,619.19 part of the Comprehensive network only.




Figure 25 – Indicative extension of the TEN-T road network to Ukraine

The road TEN-T network in Ukraine consists both of 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, a bit less than half are reportedly built at express road standards.

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

## Table 14 – Ukraine: Core road network profile





Figure 26 – Ukraine: Core road network infrastructure profile

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

## Table 15 – Ukraine: TEN-T Core Road Network (infrastructure 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%





Figure 27 – Ukraine: Core road network condition

Table 16 – Ukraine:	<b>TEN-T Core road netw</b>	ork compliance (infrastru	cture 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 at express road standard.





Figure 28 – Ukraine: Comprehensive road network infrastructure profile

The road quality is worse than on the Core network, just 5% of the Comprehensive network being currently in a good shape.

## Table 17 – Ukraine: TEN-T Comprehensive Road Network (infrastructure 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%





Figure 29 – Ukraine: Comprehensive road network condition

Altogether, 10.7% of the TEN-T road network in Ukraine currently observes 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 30 – Ukraine: TEN-T road network compliance rates

## IV.3.3 Waterborne transport

Presently Ukraine has quite a strong port complex consisting of many ports. According to the TEN-T network 5 ports are Core TEN-T Network extension and 4 ports are in the Comprehensive Network.

These ports are as follows:

Core TEN-T Network ports:

- 1. Mykolaiv Sea Port is one of the leading state enterprises in the transport sector of Ukraine for processing, exports, imports, and cabotage cargo, that provides transit transportation of various cargoes, both general and bulk.
- 2. Odesa Sea Port is the largest Ukrainian seaport and one of the largest ports in the Black Sea basin, the only port of Ukraine capable of accepting Panamax class vessels. The port has an immediate access to railways allowing quick transfer of cargo from sea routes to ground transportation.
- 3. Pivdennyi Seaport is a commercial seaport in the Ukrainian city of Yuzhne near Odesa, on the Black Sea coast. This port is the largest and one of the most profitable port of Ukraine.
- 4. Sea Port of Chornomorsk is the port in the city of Chornomorsk, located on the north-western shore of Black Sea at Sukhyi Estuary, to the south-west from Odesa. The Port of Chornomorsk is a universal seaport.
- 5. The Mariupol Sea Port is governed by the port authority managed by Ukrainian Sea Ports Authority and as of June 2022, it is temporarily occupied.

Comprehensive TEN-T Network ports:

- 1. Bilhorod-Dnistrovskyi Sea Port is the port in the city of Bilhorod-Dnistrovsky, located on the northwestern shore of Black Sea at Dniester Estuary, to the south-west from Odesa. Bilhorod-Dnistrovsky Seaport is mainly a freight seaport.
- 2. Izmail Sea Commercial Port is a multidisciplinary port located in the waters of the Kiliia River estuary of the Danube River. This port is an important transport hub of Ukraine.



- 3. The Reni Seaport is located on the left bank of the Danube River. It is an important transport hub of Ukraine, where the work of river, sea, road, and rail transport is closely intertwined. Navigation takes place throughout the year and handle any type of cargo.
- 4. Port of Kherson is located in the delta of Dnieper River. The berthing line of the seaport is 1.5 km (10 berths), with depths up to 9.6 m. The port is served by the railway station Kherson-Port, has one railway entry. There are 7 railway tracks in the port area with a total length of 3.2 km. The highways are adjacent to the port.



Figure 31 – Indicative extension of the TEN-T for Inland Waterway and Ports in Ukraine

		I		Facilities for				Telematic applications		
Port name	TYEN-T Network	Rail connection	Road connection	shipgenerat waste		Clean fuel Terminal availability availability	VTMIS	RIS	MNSW	
Mykolaiv Sea Port	Core	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Odesa Sea Port	Core	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	
Sea Port Pivdennyi	Core	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Chornomorsk	Core	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

## Table 18 - Compliance assessment for each indicator in Ukrainian ports



Sea Port									
Mariupol Sea Port	Core	Yes							
Bilhorod- Dnistrovskyi Sea Port	Comprehen sive	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Izmail Sea Port	Comprehen sive	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Reni Sea Port	Comprehen sive	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Kherson Sea Port	Comprehen sive	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes

**Connection Road and Railway**. All the ports in Ukraine are already connected to rail and road infrastructure.

**Port Reception Facilities**. Port Reception Facilities are present in all ports for all the types of residues generated by ships.

**Clean fuel availability** currently is reported from Ukrainian authorities that availability of clean fuel facilities is present in all ports.

**Terminal availability**. All terminals in all Ukrainian ports are open to users in a non-discriminatory way and applies transparent charges.

**Telematic applications:** For maritime transport VTMIS and e-Maritime services, including single-window services such as the maritime single window, port community systems and relevant customs information systems.

**Vessel Traffic Monitoring and Information System (VTMIS)**. VTMIS is operable in all Ukrainian territorial sea. Available Port VTS centres are in Mariupol, Feodosia, Illichevsk, Odessa, Yuzhnyi and Ochakov. Coastal VTS centres are in Bug-Dnieper-Kherson, Danube: Vilkovo, Izmail, Orlovka, Sevastopol and Kerch.

**National Maritime Single Window System (NMSW)**. there are similar obligations for the implementation of electronic document management in ship-to-shore interaction, which are specified in the Action Plan for the implementation of the Association Agreement between Ukraine, and the European Union, on the other hand, approved by Resolution No. 1106 of the Cabinet of Ministers of Ukraine dated 25 Oct. 2017.

**River Information System (RIS)**. The RIS is operable in two main navigable rivers: Danube and Dnipro.

**Port Community System (PCS)**. Currently, Ukraine has implemented a procedure to provide information in electronic form using a Single Submission Portal, using a port community system (PCS).



## **IV.3.4 Airports**

Currently, eight airports in Ukraine are part of the TEN-T Comprehensive Airport Network, four of which are located on the Core Network.



Figure 32 – Indicative extension of TEN-T Comprehensive and Core Airports to the Ukraine

## d) Connection to other modes

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

			Connection to other modes		
Country code	Airport name	TEN-T (Core/Comprehensive) Network	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	

Table 19 -	Ukraine:	list of ai	rports with	road and	rail connections
	Unitanic.	inst or an		i oau anu	



UKR	Odesa	Core	Yes	No
UKR	DNIPRO	Core	Yes	No

Source: Observing Participants data

#### e) Availability of alternative fuels

Currently, no fixed storage tank facilities for aviation biofuel are reported to be in use at any of the airports. It should be pointed out that this criterion is to be applied according to market requirements and that airports need to be prepared to make alternative clean fuels available when the need arises, as cited in the regulation, *'for air transport infrastructure: capacity to make available alternative clean fuels'*.

Table 20 - Ukraine: list of availability of alternative fuels in airports

			Clean fuels availability		
Country code	Airport name	TEN-T (Core/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	

Source: Observing Participants data

#### f) 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.

			Terminal availability	
Country code	Airport name	TEN-T (Core/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

Source: Observing Participants data



# **V. CONCLUSIONS**

The baseline assessment of the observing participants compliance with the relevant TEN-T standards reveals a complex and challenging landscape.

Compliance rates vary significantly across sectors and specific indicator, ranging from 0 to 100%. Generally, the linear road and rail infrastructure is in a suboptimal physical condition caused by prolonged underinvestment and maintenance backlog. However, the railway systems have proved surprisingly resilient to external shocks and are still exhibiting high compliance rates with certain TEN-T indicators. legacy railway systems with wide gauges, while not compatible with the European standard imposed through the TENB-T Regulation, prove suitable for heavy freight transportation. Consequently, compliance rates with the axle load indictor are high in all three observing participants, despite the lack of maintenance and declining quality of assets. High disparities emerge in performance regarding electrification and train length indicators. While the entire TEN-T Network in Georgia is electrified, Moldova records a 0% compliance rate achieved on the Core network), while Georgia struggles, with only 6% of the Core Network currently accommodating freight trains of such lenght.

The road network faces maintenance challenges across all three observing participants. However, Georgia is showing significant levels of ambition and progress which will likely result in significant improvements in the years to come. Overall, compliance rates with the infrastructure profile and condition criterion ranges from 10% (in Ukraine) to no more than 20% (in Georgia) of the total network, underscoring the infrastructure gap and high investment needs.

Ports and airports demonstrate commendable performance, with most of the compliant indicators being reached. Alternative fuels network is still underdeveloped, though it is expected to further align with the market demand. Notably, Ukraine's performance in the field of maritime ports is remarkable, considering the on-going war the country has been dragged in, and the Russian naval blockade and continuous attacks. In these bitter times for the Ukrainian people, ports have remained one of the key gates of Ukraine to the world, facilitating uninterrupted flow of goods in both directions, propelling the war effort and fuelling the hopes of an entire nation.

Reflecting on the current status of TEN-T key networks and infrastructure in the observing participants prompts a call for action. Enhancing compliance with the TEN-T standards and progressing on the path towards a unified transport market won't simply happen into the do-nothing or do-minimum scenarios. It will take not just significant funding but also well-defined strategic frameworks allowing prioritisation and selection of the most efficient and effective projects as well as smart and well-targeted interventions



that would maximise the benefits in the shortest time and the most effective manner. Wisely shaped investment plans targeting clear and well-defined strategic objectives are the key for achieving the observing participants basic connectivity goals and advancing on the path towards European integration.

This first 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.