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ANNEXES 1 to 2

ANNEXES

to the

COMMISSION IMPLEMENTING DECISION

laying down the template including key performance indicators for reporting by the Member States under Directive 2010/40/EU of the European Parliament and of the Council

ANNEX I

Template for the initial report and progress reports

Directive 2010/40/EU Implementation Report 2025 *Estonia*

04.04.2025

Table of Contents

1. INTRODUCTION

1.1. General overview of the national activities and projects

Including national Intelligent Transport Services ('ITS') legislation or strategies, or both

1.2. General progress since 2024

Summary of progress since previous report:

We are currently in the process of reorganising the ITS NAP and improving the availability and quality of data. At present, the National Access Point uses the DCAT standard for data description. We aim to implement the MobilityDCAT version developed by NAPCORE. An analysis phase is currently underway, to be followed by development activities. The estimated completion date for this work is December 2025. The work is carried out in collaboration with Estonian Transport Administration and Estonian Information System Authority.

As a result of this transition, the ITS Directive and related acts data should become more easily discoverable by third parties, with metadata described in a more consistent and harmonised manner.

In addition, we are in the process of transposing the ITS Directive, and the draft legislation is currently under review within the Ministry. This amendment will also address the adjustment data publication practices and the related requirements at national level.

1.3. Contact information

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2. MAIN PROJECTS, ACTIVITIES AND INITIATIVES

2.1. Priority area I. Information and mobility ITS services

2.1.1. Description of the main national activities and projects

Description of the relevant initiatives, their objective, timescale, milestones, resources, lead stakeholder(s) and status:

In 2024, Tallinna ring road E265 ITS project (co-financed by CEF) was completed. The project enabled dynamic traffic management on the 2+2 highway section from km 0 to 30. Information boards, variable speed limit and warning were installed on Tallinn ring road. Dynamic speed limits are published in real-time on the current ITS NAP information portal TarkTee.

In 2024, the road weather station reconstruction project covering all Estonian TEN-T roads continued. A total of 56 road weather stations have been renovated, and 36 new stations have been installed. Estonia's national roads are being equipped with modern road weather stations that enhance traffic safety and provide hazard information. The data from these stations is published on the Tarktee information portal.

2.1.2. Progress since 2024

Description of progress in the area since 2024:

Estonian Transport Administration has succesfully participated in the NAPCORE project and will also take part in the upcoming NAPCORE X project, which is set to begin in summer 2025. In addition, Estonian Ministry of Climate will also take part from NAPCORE X project as an observer.

Estonian Ministry of Climate together with Estonian Transport Administration and Statistics Estonia are providing support to assist local authorities in harmonising the description of their data and enabling its availability in the future.

2.1.3. Delegated Regulation (EU) 2017/1926 on the provision of EU-wide multimodal travel information services (priority action a)

Progress made in terms of the accessibility, exchange and reuse of the travel and traffic data types set out in the Annex:

On August 30, 2024, Estonian Ministry of Regional Affairs and Agriculture signed a new contract to replace the national software system used for managing public transport timetables (static data). One of the key objectives of this new system is to ensure that static timetable data will also be made available in NeTEx format, in addition to the currently supported GTFS format. This enhancement aims to improve interoperability with other European systems and support cross-border mobility services.

At present, the implementation of the new software is underway. The process includes configuring the system to meet national requirements, integrating existing data sources, and ensuring the data output complies with the NeTEx standard. Once fully deployed, the new system is expected to streamline data management processes and enable more efficient and standardized data sharing both nationally and across the EU.

Geographical scope of the data set out in the Annex accessible via the national access point, and their quality, including the criteria used to define this quality and the means used to monitor it:

Static timetables and the locations of stops are available in https://peatus.ee/gtfs/

Linking of travel information services: -

Results of the assessment of compliance referred to in Article 9: The system owener and administration is Estonian Minsitry of Regional Affairs and Agriculture, which operates in accordance with the Statues of the National Public Transport Register. Based on the availability of data, the information has been made accessible through the Public Transport Register.

Where relevant, a description of changes to the national or common access point:

No updates.

Additional information (e.g. have mobilityDCAT-AP or other metadata catalogues been implemented?):

It is a work in progress to replace the GTFS data standard with the NeTEx format.

2.1.4. Reporting obligation under Delegated Regulation (EU) 2022/670 on the provision of EU-wide real-time traffic information services (priority action b)

Progress made in terms of the accessibility, exchange and reuse of the data types set out in the Annex:

In 2024, Tallinna ring road E265 ITS project (co-financed by CEF) was completed. The project enabled dynamic traffic management on the 2+2 highway section from km 0 to 30. Information boards, variable speed limit and warning were installed on Tallinn ring road. Dynamic speed limits are published in real-time on the current ITS NAP information portal TarkTee.

In 2024, the road weather station reconstruction project covering all Estonian TEN-T roads continued. A total of 56 road weather stations have been renovated, and 36 new stations have been installed. Estonia's national roads are being equipped with modern road weather stations that enhance traffic safety and provide hazard information. The data from these stations is published on the Tarktee information portal.

Geographical scope of the data accessible via the National Access Point, changes to the primary road network and to the data content of real-time traffic information services and their quality, including the criteria used to define this quality and the means used to monitor it:

We are in the process of transposing the ITS Directive, and the draft legislation is currently under review within the Ministry. This amendment will also address the adjustment data publication practices and the related requirements at national level.

Results of the assessment of compliance referred to in Article 12 with the requirements set out in Articles 3 to 11:

Compliance with the requirements is ensured.

Where relevant, a description of changes to the national or common access point:

We are currently in the process of reorganising the ITS NAP and improving the availability and quality of data. At present, the National Access Point uses the DCAT standard for data description. We aim to implement the MobilityDCAT version developed by NAPCORE. An analysis phase is currently underway, to be followed by development activities. The estimated completion date for this work is December 2025. The work is carried out in collaboration with Estonian Transport Administration and Estonian Information System Authority.

As a result of this transition, the ITS Directive and related acts data should become more easily discoverable by third parties, with metadata described in a more consistent and harmonised manner.

Additional information (e.g. what data types are being provided? Have mobilityDCAT-AP or other metadata catalogues been implemented? Are quality requirements being checked?):

We aim to implement the MobilityDCAT version developed by NAPCORE by the end of 2025.

2.2. Priority area II. Travel, transport and traffic management ITS services

2.2.1. Description of the main national activities and projects

Description of the relevant initiatives, their objective, timescale, milestones, resources, lead stakeholder(s) and status:

Currently, an innovation project called MaaS X-road is underway in Estonia, which is scheduled to conclude in mid-2026. There is no integrated public transport planning platform that would help passengers conveniently plan their journey from one destination to the other and purchase all the necessary tickets in a single environment. The government is in the process of developing a prototype that would enable passengers to do this on a single service platform.

There is a significant need for this system, as currently all the different means of transport (public transport, ferries, trains, short-term car rental, etc.) each have their own booking and ticketing channels and their application programming interfaces (APIs) are not compatible with each other. There is also no centralised way to integrate the different APIs.

2.2.2. Progress since 2024

Description of progress in the area since 2024:

As part of the MaaS X-tee project, an initial analysis is currently underway, focusing on both business and technical requirements for the prototype. Discussions and workshops have been conducted with stakeholders. The requirements are expected to be finalized by the beginning of summer, after which the procurement process for the prototype will be launched.

2.3. Priority area III. Road safety and security ITS services

2.3.1. Description of the main national activities and projects

Description of the relevant initiatives, their objective, timescale, milestones, resources, lead stakeholder(s) and status:

Same as 2.1.1.

2.3.2. Progress since 2024

Description of progress in the area since 2024:

Same as 2.1.2.

2.3.3. 112 eCall (priority action d - Delegated Regulation (EU) No 305/2013)

Information on any changes regarding the national eCall PSAPs infrastructure and the authorities that are competent for assessing the conformity of the operations of the eCall PSAPs:

No major changes.

Additional information: -

2.3.4. Reporting obligation under Delegated Regulation (EU) No 886/2013 on data and procedures for the provision, where possible, of road safety-related minimum universal traffic information free of charge to users (priority action c)

Progress made in implementing the information service, including the criteria used to define its level of quality and the means used to monitor its quality:

At present, we are working on the development of the new ITS NAP and on amendments to national legislation, which will establish a unified approach across Estonia regarding how data is shared and which principles are followed.

Results of the assessment of compliance with the requirements set out in Articles 3 to 8 of Delegated Regulation (EU) No 886/2013:

Compliance with the requirements is ensured.

Where relevant, a description of changes to the national access point:

Same as 2.1.4.

Additional information (e.g. sources of data used for the provision of safety-related traffic information): Same as 2.1.4.

2.3.5. Reporting obligation under Delegated Regulation (EU) No 885/2013 on the provision of information services for safe and secure parking places for trucks and commercial vehicles (priority action e)

Number of different parking places and parking spaces on their territory:

5

Percentage of parking places registered in the information service:

Static data is available 100%.

Percentage of parking places providing dynamic information on the availability of parking spaces and the priority zones:

0%

Additional information: During the Tallinn ring road E265 ITS project a smart truck parking area was built Tallinn ring road by the border of the City of Tallinn. A parking area with 100 spaces were built there to make traffic on Tallinn ring road safer. Information about free spaces in the truck park is collected with sensors. At present, we are working towards enabling data sharing through the new ITS NAP. Currently, there are challenges with data sharing, which we hope to resolve during 2025.

2.4. Priority area IV. ITS services for cooperative, connected and automated mobility

2.4.1. Description of the main national activities and projects

Description of the relevant initiatives, their objective, timescale, milestones, resources, lead stakeholder(s) and status:

In 2024, Tallinna ring road E265 ITS project (co-financed by CEF) was completed. 12 C-ITS devices were installed to support V2I/I2V services (vehicle to infrastructure/infrastructure to vehicle). The Estonian Transport Administration has applied for certification as a C-ITS certified service provider.

2.4.2. Progress since 2024

Description of progress in the area since 2024:

At present, there are certain challenges in getting the data exchange operational. The information service between the vehicle and infrastructure is expected to be launched in a production environment during 2025.

2.5. Availability and accessibility via NAPs of data types listed in Annex III to Directive 2010/40/EU

Calculation principles:

** For static information: based on length divided by total length in kilometres. The total length is the length of the network on which underlying information exists, e.g. speed limits apply (almost) everywhere, but access conditions for tunnels apply only to (the length of) tunnel sections.*

*** For dynamic/temporary information: availability of data refers to the ability to make the data available and accessible in a machine-readable format on a certain percentage of the network, whenever the underlying information exists / appears, based on the length of the network with this capability divided by total length in kilometres.*

2.5.1. Data relating to the provision of EU-wide road traffic information and navigation services

Data type	Geographical coverage	% of geographical scope where data type is available		Comments
1. Data relating to the provision of EU-wide road traffic information and navigation services:				
1.1 Category: Static and dynamic traffic regulations, where applicable, concerning:				
1.1.1 Subcategory: - access conditions for tunnels - access conditions for bridges - speed limits - overtaking bans on heavy goods vehicles - weight/length/width/height restrictions	The trans-European *core* network for roads	access conditions for tunnels*	-	There are no tunnels in Estonia.
		access conditions for bridges*	*100%*	
		speed limits*	*100%*	
		overtaking bans on heavy goods vehicles*	-	There are no bans in Estonia.

		weight/length/width/height restrictions*	*100%*	
	The comprehensive trans-European network for roads, other motorways and sections of primary roads, where the total annual average daily traffic is more than 8 500 vehicles, and all roads in the cities at the centre of each Urban Node (if applicable limited to > 7 000 vehicles/day)	access conditions for tunnels*	-	There are no tunnels in Estonia.
		access conditions for bridges*	*100%*	
		speed limits*	*100%*	
		overtaking bans on heavy goods vehicles*	-	There are no bans in Estonia.
		weight/length/width/height restrictions*	*100%*	
Subcategory: - one-way streets	*Road infrastructure in the cities at the centre of each Urban Node*	one-way streets*	*0 %*	Work in progress.
Subcategory: - freight delivery regulations	*Road infrastructure in the cities at the centre of each Urban Node*	freight delivery regulations*	-	Currently there are no freight delivery regulations in Estonia.
Subcategory:	*The core and comprehensive trans-European network for roads, other motorways and sections of primary roads, where the total annual average daily traffic is more than 8 500 vehicles, and all roads in*	direction of travel on reversable lanes*	-	There are no reversable lanes in Estonia.

- direction of travel on reversable lanes	*the cities at the centre of each Urban Node (if applicable limited to > 7 000 vehicles/day)*			
Subcategory: - traffic circulations plans	*The core and comprehensive trans-European network for roads, other motorways and sections of primary roads, where the total annual average daily traffic is more than 8 500 vehicles, and all roads in the cities at the centre of each Urban Node (if applicable limited to > 7 000 vehicles/day)*	traffic circulations plans*	*90%*	Currently Urban Nodes data is missing.
Subcategory: - permanent access restrictions	*The core and comprehensive trans-European network for roads, other motorways and sections of primary roads, where the total annual average daily traffic is more than 8 500 vehicles, and all roads in the cities at the centre of each Urban Node (if applicable limited to > 7 000 vehicles/day)*	permanent access restrictions*	*90%*	Urban Nodes data is missing. Work in progress.
Subcategory: - boundaries of restrictions, prohibitions or obligations with zonal validity, current access status and conditions for circulation in regulated traffic zones	*The core and comprehensive trans-European network for roads, other motorways and sections of primary roads, where the total annual average daily traffic is more than 8 500 vehicles, and all roads in the cities at the centre of each Urban Node (if applicable limited to > 7 000 vehicles/day)*	boundaries of restrictions, prohibitions or obligations with zonal validity, current access status and conditions for circulation in regulated traffic zones*	*90%*	Urban Nodes data is missing. Work in progress.
1.2 Types of data on the state of the network:				

Subcategory: - road closures - lane closures - roadworks	*The trans-European core network for roads*	road closures**	*100%*	
		lane closures**	*100%*	
		roadworks**	*100%*	
	The comprehensive trans-European network for roads	road closures**	*100%*	
		lane closures**	*100%*	
		roadworks**	*100%*	
Subcategory: - temporary traffic management measures	*The trans-European core and comprehensive network for roads*	temporary traffic management measures**	*100%*	

2.5.2. Data relating to information and reservation services for safe and secure parking places for trucks and commercial vehicles

Data type	Geographical coverage	% of parking places for which data are available		Comments
2. Data relating to information and reservation services for safe and secure parking places for trucks and commercial vehicles:				
Category: static data	*The trans-European core network for roads*	static data related to the parking areas	*100%*	

Subcategory: - static data related to the parking areas - information on safety and equipment of the parking area		information on safety and equipment of the parking area	*0%*	*Work in progress.*
	The comprehensive trans-European network for roads	static data related to the parking areas	*100%*	
		information on safety and equipment of the parking area	*0%*	Work in progress.
Category: dynamic data *Subcategory:* - dynamic data on availability of parking places including whether a parking is: full, closed or number of free places which are available.	*The trans-European core and comprehensive network for roads*	dynamic data on availability of parking places including whether a parking is: full, closed or number of free places which are available.	*0%*	Work in progress.

2.5.3. Data on detected road safety-related events or conditions relating to road safety-related minimum universal traffic information

Data type	Geographical coverage	% of geographical scope where data type is available		Comments
3. Data on detected road safety-related events or conditions relating to road-safety-related minimum universal traffic information:				
Category: dynamic data		temporary slippery road**	100%	

Subcategory: - temporary slippery road - animal, people, obstacles, debris on the road - unprotected accident area - short-term roadworks - wrong-way driver - unmanaged blockage of a road	*The core and comprehensive trans-European network for roads and other motorways not included in that network*	animal, people, obstacles, debris on the road**	100%	If there are a devices available that enables monitoring, the information is published.
		unprotected accident area**	100%	
		short-term road works**	100%	
		wrong-way driver**	-	There are no devices available.
		unmanaged blockage of a road**	100%	If there are a devices available that enables monitoring, the information is published.
Subcategory: -reduced visibility - exceptional weather conditions	*The core and comprehensive trans-European network for roads and other motorways not included in that network*	reduced visibility**	0%	Work in progress, will be published during 2025/2026

		exceptional weather conditions**	*0%*	*Work in progress, will be published during 2025/2026*

2.5.4. Static multimodal traffic data for EU-wide multimodal travel information services

**** Where possible, provide figures per scheduled transport mode, referred to in the Annex to Delegated Regulation (EU) 2017/1926 (such as air, rail including high-speed rail, conventional rail, light rail, cableways, long-distance coach, maritime including ferry, inland waterways, metro, tram, bus, trolley-bus)*

Data type	Geographical coverage	% of nodes where data are available for the scheduled transport mode		Comments
4. Static multimodal traffic data for EU-wide multimodal travel information services:				
Category Location of identified access nodes for all scheduled modes, including information on accessibility of access nodes and paths within an interchange (such as existence of lifts, escalators)	*Urban nodes as defined in Article 3, point (p), of Regulation (EU) No 1315/2013 and listed in that Regulation, including those administered by the cities*	Location of identified access nodes for all scheduled modes, including information on accessibility of access nodes and paths within an interchange (such as existence of lifts, escalators)***	0%	Static timetables and the locations of stops are 100% available in GTFS format.

	The entire transport network of the Union	Location of identified access nodes for all scheduled modes, including information on accessibility of access nodes and paths within an interchange (such as existence of lifts, escalators)***	0%	Static timetables and the locations of stops are 100% available in GTFS format.

2.6. Availability of services listed in Annex IV to Directive 2010/40/EU

2.6.1. Road safety-related minimum universal traffic information services

Service	Geographical coverage	% geographical scope covered
Road safety-related minimum universal traffic information (SRTI) service	The ***core and comprehensive*** trans-European network for roads	100%

2.7. Other initiatives / highlights

2.7.1. Description of other national initiatives / highlights and projects not covered in priority areas 1 to 4:

Description of the relevant initiatives, their objective, timescale, milestones, resources, lead stakeholder(s) and status:

In 2024, the Estonian Transport Administration conducted an analysis on the consolidation of the Estonian ITS-NAP service. During this process, all key ITS data owners were interviewed, and their datasets were mapped. As part of the mapping process, all data owners were informed of their obligation to share ITS datasets under their management and the need to develop appropriate data distribution services (API) and to describe the metadata of the published datasets according to the MobilityDCAT-AP standard.

In 2024, an information seminar was held in cooperation with local municipalities, focusing on the possibilities and best practices for publishing ITS datasets.

Also in 2024, the Estonian Open Data Seminar took place, where the Transport Administration presented its experience with publishing ITS datasets and the consolidation of ITS-NAP datasets into the Estonian Open Data Portal.

2.7.2. Progress since 2024

Description of progress in the area since 2024:

Same as 2.7.1.

3. KEY PERFORMANCE INDICATORS (KPIS)

KPIs will be reported separately by type of road network / transport network and nodes (where appropriate).

3.1. Deployment KPIs

3.1.1. Information-gathering infrastructures / equipment (road KPI)

Figures to be provided by type of network.

Figures to be provided by type of services, and where relevant by distinguishing between fixed and mobile equipment.

KPIs to be calculated by type of network.

- Length of road network type / road sections (in km) equipped with information-gathering infrastructures and the total length of this same road network type (in km): 4010km - 4010km (national main and basic road network)
- KPI = 100

3.1.2. Incident detection (road KPI)

Figures to be provided by type of network.

KPI to be calculated by type of network.

- Length of road network type / road sections (in km) equipped with ITS to detect incident and the total length of this same road network type (in km): 0
- KPI = 0

3.1.3. Traffic management and traffic control measures (road KPI)

Figures to be provided by type of network.

KPI to be calculated by type of network.

- Length of road network type / road sections (in km) covered by traffic management and traffic control measures and the total length of this same road network type (in km): 16 679km – 16 679 km (total length of national roads without local roads)
- KPI = 100

3.1.4. Cooperative-ITS services and applications (road KPI)

Figures to be provided by type of network.

KPI to be calculated by type of network.

- Length of road network type / road sections (in km) covered by C-ITS services or applications and the total length of this same road network type (in km): 30km – 1344 km (TEN-T core + comprehensive network)
- KPI = 2,2

3.1.5. Real-time traffic information (road KPI)

Figures to be provided by type of network.

KPI to be calculated by type of network.

- Length of road network type / road sections (in km) with provision of real-time traffic information services and total length of this same road network type (in km): 4010km - 4010km (national main and basic road network)

- KPI = 100

3.1.6. Dynamic travel information (multimodal KPI)

Figures to be provided by type of network / node.

KPI to be calculated by type of network / node (where relevant); if relevant, indicate the proportion of services accessible to passengers with reduced mobility, orientation and/or communication.

- Length of transport network type (in km) with provision of dynamic travel information services and total length of this same transport network type (in km): No information

- Number of transport nodes (e.g. rail or bus stations) covered by dynamic travel information services and total number of the same transport nodes: 0

- KPI = 0

- KPI = 0

3.1.7. Freight information (multimodal if possible or road KPI)

Figures to be provided by type of network / node.

KPI to be calculated by type of network / node (where relevant); if relevant, indicate the proportion of services accessible to passengers with reduced mobility, orientation and/or communication.

- Length of road network type / road sections (in km) with provision of freight information services and total length of this same road network type (in km): 0

- Number of freight nodes (e.g. ports, logistics platforms) covered by freight information services and total number of the same freight nodes: 0

- KPI = 0

- KPI = 0

3.2. Benefit KPIs

3.2.1. Change in travel time (road KPI)

Figures to be provided also include vehicle.km for the route / area considered.

KPI = 0 – no information

3.2.2. Change in the number of road crashes resulting in deaths or injuries (road KPI)

If possible, a distinction can be made between crashes resulting in deaths, serious injuries or slight injuries.

Figures to be provided also include vehicle.km for the route / area considered.

- Number of road crashes resulting in deaths or injuries before ITS implementation or improvement: No specific information available

- Number of road crashes resulting in deaths or injuries after ITS implementation or improvement: No specific information available

3.2.3. Change in traffic-CO2 emissions (road KPI)

KPI = No specific information available

3.3. Financial KPIs

ITS includes any types of systems and services together.

Annual public* investment in road ITS (as % of total transport infrastructure investments): ITS 1.9 MEUR, total 152,9 MEUR (1,2%)

Annual public* operating and maintenance costs of road ITS (in euro per kilometre of network covered): 250€/km

** public administrations or publicly-owned entities*

Where possible, please provide the same figures for private investments and costs.

ANNEX II

Key performance indicators (KPIs)

	KPI name	Geographical scope	Timeline
Deployment KPIs	Information-gathering infrastructures / equipment (road KPI)	Core, extended and comprehensive TEN-T (without urban nodes) + motorways	Mandatory in 2025
		Urban nodes from TEN-T + primary roads	Mandatory in 2028 (voluntary before)
		Entire road network	Additional KPI to be provided on voluntary basis
	Incident detection (road KPI)	Core, extended and comprehensive TEN-T (without urban nodes) + motorways	Mandatory in 2025
		Urban nodes from TEN-T + primary roads	Mandatory in 2028 (voluntary before)
		Entire road network	Additional KPI to be provided on voluntary basis
	Traffic management and traffic control measures (road KPI)	Core, extended and comprehensive TEN-T (without urban nodes) + motorways	Mandatory in 2025
		Urban nodes from TEN-T + primary roads	Mandatory in 2028 (voluntary before)
		Entire road network	Additional KPI to be provided on voluntary basis
	Cooperative-ITS services and applications (road KPI)	Core, extended and comprehensive TEN-T (without urban nodes) + motorways	Mandatory in 2025
		Urban nodes from TEN-T + primary roads	Mandatory in 2028 (voluntary before)
		Entire road network	Additional KPI to be provided on voluntary basis
	Real-time traffic information (road KPI)	Core, extended and comprehensive TEN-T (without urban nodes) + motorways	Mandatory in 2025
		Urban nodes from TEN-T + primary roads	Mandatory in 2028 (voluntary before)
		Entire road network	Additional KPI to be provided on voluntary basis

	Dynamic travel information (multimodal KPI)	Core, extended and comprehensive TEN-T (without urban nodes) + motorways	Mandatory in 2025
		Urban nodes from TEN-T + transport nodes + primary roads	Mandatory in 2028 (voluntary before)
		Entire transport network	Additional KPI to be provided on voluntary basis
	Freight information (multimodal if possible or road KPI)	Core, extended and comprehensive TEN-T (without urban nodes) + motorways	Mandatory in 2025
		Urban nodes from TEN-T + transport nodes + primary roads	Mandatory in 2028 (voluntary before)
		Entire transport network	Additional KPI to be provided on voluntary basis
Benefit KPIs	Change in travel time (road KPI)	Core, extended and comprehensive TEN-T + motorways	Mandatory in 2028 (voluntary before)
	Change in the number of road crashes resulting in deaths or injuries (road KPI)	Core, extended and comprehensive TEN-T + motorways	Mandatory in 2028 (voluntary before)
	Changes in traffic-CO2 emissions (road KPI)	Core, extended and comprehensive TEN-T + motorways	Mandatory in 2028 (voluntary before)
Financial KPIs	Annual public investment in road ITS *(+ figures for private investments where possible)*	Core, extended and comprehensive TEN-T (without urban nodes) + motorways	Mandatory in 2025
		Urban nodes from TEN-T + primary roads	Mandatory in 2028 (voluntary before)
		Entire road network	Additional KPI to be provided on voluntary basis
	Annual public operating and maintenance costs of road ITS *(+ figures for private costs where possible)*	Core, extended and comprehensive TEN-T (without urban nodes) + motorways	Mandatory in 2025
		Urban nodes from TEN-T + primary roads	Mandatory in 2028 (voluntary before)
		Entire road network	Additional KPI to be provided on voluntary basis