NATIONAL IMPLEMENTATION PLAN

ESTONIAN

2024

This NIP has been developed and updated for the implementation and implementation of Commission Implementing Regulation (EU) 2023/1695 on the technical specification for interoperability relating to the control-command and signalling subsystems of the rail system in the European Union and repealing Regulation (EU) 2016/919, adopted on 10 August 2023.

The national development plan has been updated in cooperation with railway undertakings, taking into account the coherence of the rail system in the European Union and taking into account the economic viability, interoperability and safety of the rail system. This plan covers all lines within the scope of the TSI, including TEN-T lines and nodes and connections.
The national development plan has been submitted for opinion to the following railway undertakings operating in Estonia: As Eesti Railways, AS Eesti Liinitrains, Edelarail AS, AS GoRail, AS Operail, AS Sillamäe Sadam, Enefit AS, SIA ‘LDZ Cargo’ Estonian branch, Rail Baltic Estonia OÜ.

Table of contents

1. General migration strategy introduction

As of 2040, Estonia will start transferring 1520/1524 mm railway network and railway undertakings' rolling stock to Class A protection systems. The migration of the rail network involves the design, construction and phased deployment of the systems.

In addition to the above, the Rail Baltica 1 435 mm rail network will be built with Class A protection system ERTMS level 2.

It is planned to use ERTMS level 2 as a Class A system on the railway network in Estonia 1520/1524.

Pursuant to Commission Implementing Regulation (EU) 2023/1695 of 10 August 2023 on the technical specification for interoperability relating to the control-command and signalling subsystems of the rail system in the European Union and repealing Regulation (EU) 2016/919, the technical specification for interoperability relating to the control-command and signalling subsystems of the rail system in the European Union (CCS TSI) and the signalling subsystems contain the following parts:

1. train protection;
2. radio communication;
3. train detection.

The Class A train protection system is ERTMS/ETCS, while Class A radio is GSM-R (or a newer radio system replacing it, LTE-R).
Class B systems are a limited set of legacy control, control and signalling systems in operation before 20 April 2001. The list of Class B systems is set out in the European Railway Agency Technical Document "List of Class B systems", ERA. /TD/2011-11, version 3.0.

2. General description of the current situation

There are 2 railway infrastructure managers in Estonia whose railway infrastructure has been declared a public railway:

1. As Eesti Railways – State-owned railway infrastructure manager owning and managing 1 191 km of railways.
2. Edelarail AS – a privately owned railway infrastructure manager with 222 km of railways.

Since the 1960s, the Class B train protection system ALSN has been in operation in Estonia.
In the opinion of the representative of Edelarail AS, the railway infrastructure they own has axle counters in the stations of Lelle, Rapla, Kohila, corresponding to a Class A train detection system. Similarly, class A axle counters are also present on many crossings.

Main characteristics of the ALSN system:

Transmission of data to the train: 25/50 Hz carrier frequency; numerical code, the minimum encoding flow in the rails for ALSN operation is 1,2 A, four aspects of the on-board signal (three codes and no code).

Information available on board (outside ALSN): actual speed, length of route travelled.

Display the driver: on-board signal corresponding to the acceptance code, audible when

changing the code.
Monitoring: the driver shall confirm the restriction within 15 seconds. Continuous speed monitoring after the signal STOP has passed, code absence confirmation every 40-90 seconds.
The infrastructure equipped with the ALSN system shall also be equipped with an ALSN signal, depending on the technological area, to create interdependencies between mileage in a road-locking system. By means of an ALSN signal, the odometer encodes their reading on the neighbouring foor and the latter modifies its reading accordingly.

Emergency braking shall be applied in the following cases: At the end of the Stop signal, speeding, actual signal aspect is allowed, the driver does not react to the warning (sound message).
The requirements of the CCS TSI shall apply to all new, upgraded or renewed train detection systems.

Train radio systems used on Estonian railways: the network system ESTER and the network system Motorola MotoTRBO.

Both Estonian public railway infrastructure managers use radio communication systems, the replacement of which is currently not economically viable.

The costs of deploying ETCS trackside control-command and signalling systems are 2 times higher than the costs of renovating the existing old system for safety reasons. In addition, all on-board control and signalling equipment (approximately EUR 400000-720 000 per train) of the passenger fleet (54 formations) has to be replaced, for a total cost of between EUR 21.6 million and EUR 38.9 million. At the moment, the cost of 1 520 mm on-board equipment for freight locomotives is not known because, according to the available knowledge, custom-made solutions are needed.

In the case of carriage of goods with third countries, freight locomotives shall have a dual onboard system, Class A and Class B.

ALSN is also installed on larger lines of Latvian Railways and Lithuanian Railways, so that the existing 1 520 mm track gauge network in the Baltic States' territory provides interoperability between Estonia, Latvia and Lithuania in general.

2.1 . Description of Class A systems, ATO and train detection

The Class A train protection system, voice radio communication, data communication, train detection and automatic train control (ATO) have not yet been deployed on the 1520/1524 mm rail network in Estonia. The transition shall take place in sections. In the opinion of Edelarail AS, their railway infrastructure has Class A train detection in Lelle and in 2025, in Kohila, Raplas.

2.2 Context description of the Class B system

2.2.1.8- current status of Class 3 systems:

The public 1520/1524 mm railway network of the Republic of Estonia uses the Class B train protection system ALSN, which is currently also used on other Baltic rail networks.

The Class B radio systems in use on the public 1520/1524 mm railway network in the Republic of Estonia are:

- MotoTRBO (digital radio system for the Motorola technology);

- The network of operational communications ESTER, based on the Tetra standard.

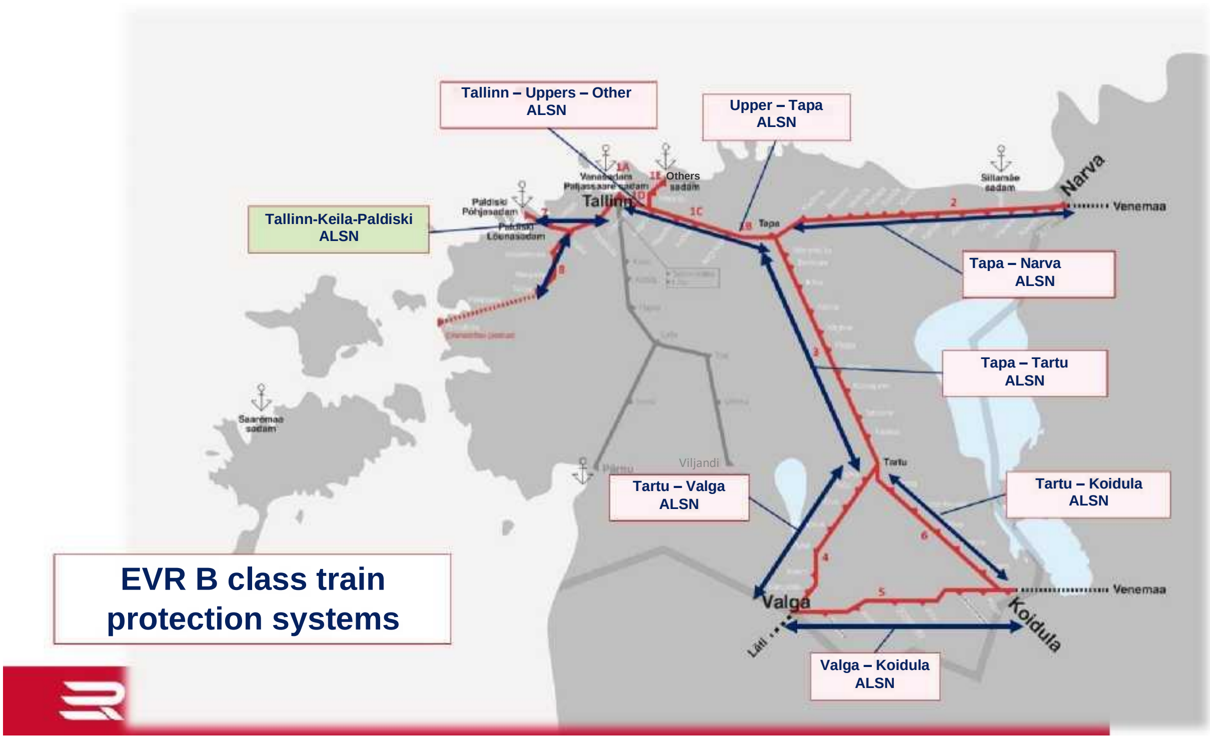
The public 1520/1524 mm railway network in the Republic of Estonia has Class B train detection systems – Track circuits:

- CTRL@TRACK 100 Track circuit
- MRC-U MICROPROCESSOR BASED TRACK CIRCUITS
- 50 Hz track chain P jam 50-17A

The remaining economic lifetime of Class B systems shall be 30 years.
ASI Estonian Line trains estimate the lifetime of a Class B train protection system based on the digital automation of passenger rolling stock to be at the stage of upgrading the equipment, as the expected life of the digital automation components and software platform is 10 years on average. Ten years have also passed since today's initial authorisation of rolling stock and train protection systems are undergoing cascading renewal.

Current status of Class B train protection system:

The public 1520/1524 mm railway network of the Republic of Estonia operates ALSN as Class B train protection system, which is also in use in neighbouring countries.



Class B train protection system installed

Identifier	Route	State of play	Length	Class B train protection system installed
As Eesti Railways	Tallinn-Keila	Operational	26.96 km	ALSN
As Eesti Railways	Keila-Paldiski	Operational	Km 20.67	ALSN
As Eesti Railways	Keila-Turba	Operational	31.05 km	ALSN

As Eesti Railways	Tallinn-Tapa	Operational	77.46 km	ALSN

As Eesti Railways	Tapa-Narva	Operational	132.33 km	ALSN
As Eesti Railways	Tapa-Tartu	Operational	112.52 km	ALSN
As Eesti Railways	Tartu-Valga	Operational	82.89 km	ALSN
As Eesti Railways	Tartu-Koidula	Operational	85.81 km	ALSN
As Eesti Railways	Valga-Koidula	Operational	90.74 km	ALSN
As South-West	Tallinn-Lelle	Operational	68.75 km	ALSN
As South-West	Lelle-Pärnu	Operational	64.25 km	ALSN
As South-West	Lelle-Viljandi	Operational	78.70 km	ALSN

Current status of Class B radio systems:

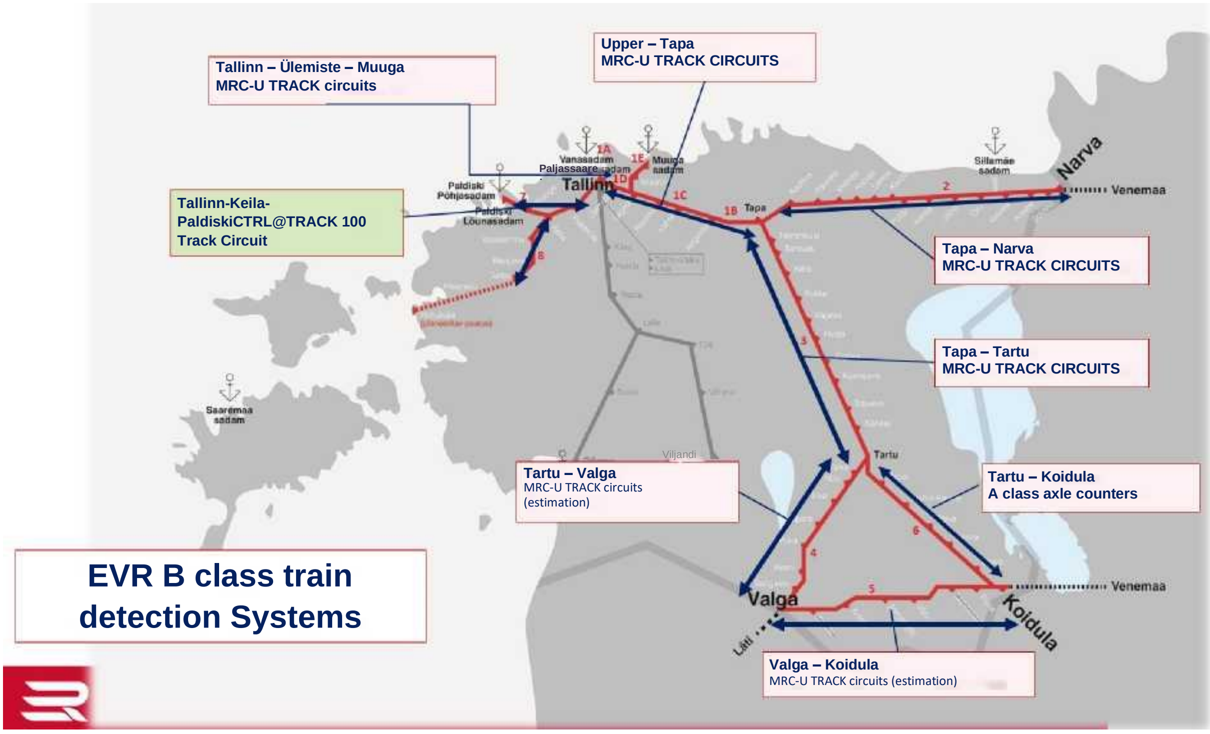
The Estonian public rail network uses the digital radio system MotoTRBO (Motorola technology) and ESTER (TETRA standard).

Class B radio systems installed

Identifier	Route	State of play	Length	Installed Class B radio system
As Eesti Railways	Tallinn-Keila	Operational	26.96 km	— MotoTRBO
As Eesti Railways	Keila—Paldiski	Operational	Km 20.67	— MotoTRBO
As Eesti Railways	Keila- Turba	Operational	31.05 km	— MotoTRBO
As Eesti Railways	Tallinn-Tapa	Operational	77.46 km	— MotoTRBO
As Eesti Railways	Tapa-Narva	Operational	132.33 km	— MotoTRBO
As Eesti Railways	Tapa-Tartu	Operational	112.52 km	— MotoTRBO
As Eesti Railways	Tartu-Valga	Operational	82.89 km	— MotoTRBO
As Eesti Railways	Tartu—Koidula	Operational	85.81 km	— MotoTRBO
As Eesti Railways	Valga-Koidula	Operational	90.74 km	— MotoTRBO
AS South-West	Tallinn-Lelle	Operational	68.75 km	ESTER operational network
AS South-West	Lelle-Pärnu	Operational	64.25 km	ESTER operational network
AS South-West	Lelle-Viljandi	Operational	78.70 km	ESTER operational network

Current status of Class B train detection systems:

The public 1520/1524 mm railway network in the Republic of Estonia has train circuits for Class B train detection.



Installed Class B train detection systems

Identifier	Route	State of play	Length	Installed Class B radio system
As Eesti Railways	Tallinn-Keila	Operational	26.96 km	— CTRL@TRACK 100 Track circuit
As Eesti Railways	Keila—Paldiski	Operational	Km 20.67	— CTRL@TRACK 100 Track circuit
As Eesti Railways	Keila- Turba	Operational	31.05 km	— CTRL@TRACK 100 Track circuit
As Eesti Railways	Tallinn-Tapa	Put in place	77.46 km	— MRC-U
As Eesti Railways	Tapa-Narva	Put in place	132.33 km	— MRC-U
As Eesti Railways	Tapa-Tartu	Put in place	112.52 km	— MRC-U
As Eesti Railways	Tartu-Valga	Put in place	82.89 km	— MRC-U
As Eesti Railways	Tartu—Koidula	Put in place	85.81 km	— MRC-U
As Eesti Railways	Valga-Koidula	Put in place	90.74 km	— MRC-U
AS South-West	Tallinn-Lelle	Operational	68.75 km	— Ions 50-17A and Class A system
AS South-West Rail	Lelle-Pärnu	Operational	64.25 km	Train detection systems on this section only for crossings and are Class A.
AS South-West	Lelle-Viljandi	Operational	78.70 km	— P JA 50-17A

2.2.2. Measures taken to ensure open market conditions

The Class B train protection system ALSN in use on the Estonian public 1520/1524 railway network ensures interoperability with neighbouring countries (Latvia, Lithuania), as the Class B train protection system ALSN is a protection system that is historically in use. However, there are some differences in the requirements for the implementation of Class B train protection systems in the Baltic States: On the basis of the information transmitted to the rolling stock via the same ALSN signal, the vehicle shall behave differently (e.g. applicable speed limits). It is necessary to configure a Class B on-board unit in accordance with the operating principles applicable to neighbouring country infrastructure. The historically compatible Class B radio communications on the railway networks of Estonia, Latvia and Lithuania have changed and each Baltic State has its own Class A or B radio system that is not directly compatible with a neighbouring country:

- Class B DMR radio in Estonia;
- Class B DMR radio in Latvia + GPS additional functionalities (not compatible with Estonia);
- Class A GSM-R radio in Lithuania, which is not compatible with the previous ones.

The Class B train protection equipment in use on the rolling stock of railway undertakings has received historic authorisations for placing in service which have been renewed for safety reasons in accordance with national law.

The requirements for Class B systems are described in the following documents:

- railway Act – RailwaysAct-State Gazette;
- Regulation No 71 of the Minister for Economic Affairs and Infrastructure of 9 November 2020 'Rules for the technical use ofrailways' – Technical regulations for railways – State Gazette;
- Regulation No 80 of the Minister for Economic Affairs and Infrastructure of 3 December 2020 'Procedure for the application of the technical specifications of the subsystem and interoperability constituent, the conditions for their placing in service, the procedure for assessing and verifying their conformity with the requirements and list of essential requirements[1]' Procedure for the application of the technical specifications of thesubsystem and the interoperability constituent, the conditions for their placing in service, the procedure for assessing and demonstrating their conformity with those requirements and the list of essential requirements-State Gazette;
- product Conformity Act. Product Conformity Act-State Gazette;
- Conformity assessment of railway subsystems and components on TTJA website Types of traction rolling stock and protection equipment | Consumer Protection and Technical Regulatory Authority (tja.ee).

3. Technical migration strategy

ETCS deployment on the Estonian railway system:

Estonia's 1 520 mm railway network, together with the 1 520 mm railway networks of Lithuania and Latvia, differs from the nominal track gauge of the European standard (1 435 mm).

In order to avoid creating additional obstacles to interoperability, Member States shall ensure that the functionality of class B legacy systems and their interfaces remains currently defined, unless changes are required to mitigate safety-related deficiencies of those systems. Member States shall ensure that systems not included in the list of Class B systems do not present additional obstacles to interoperability. The functionality, performance and interfaces of Class B systems remain within the current definitions, unless changes are required to mitigate safety-related deficiencies of these systems.

On the 1 520 mm network of the Baltic States, interoperability with the existing Class B system is generally ensured.

Locomotives and trains operated in the Baltic States are in operation on all national rail networks and the deployment of the Class A system requires the renewal of the entire fleet (train protection systems and radio systems) to avoid barriers to interoperability in the Baltic States.

According to Article 18(7) 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) 1315/2013, the requirements for ERTMS do not apply to isolated networks. Under Article 3(7) of the Regulation, an isolated network means the rail network of a Member State, or part thereof, the track gauge of which differs from the European standard nominal track gauge (1 435 mm).

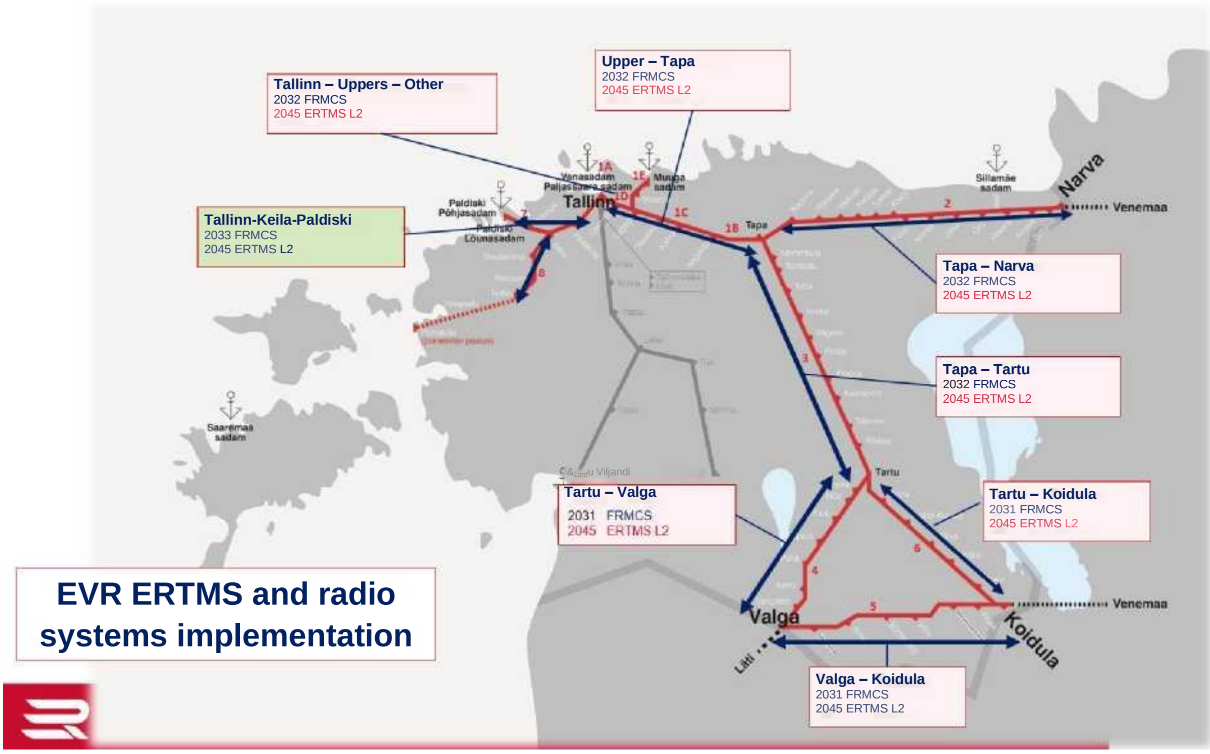
The Control-Command and Signalling TSI applies to all projects with a European standard nominal track (1 435 mm) in Estonia.

3.1 . ETCS component technical transition strategy

ETCS technical migration strategy with levels and lines. Deployment strategy (on-board or trackside overlaps)

Planning for ETCS deployment and decommission of Class B protection system

Identifier	Route	Development of ETCS Deployment Plan			from the use of the SSI restraint system to the ear			Additional deployment information			
		Hetkeol once	Date when ETCS also le	ETCS Implementation Commitment	The date when mi l is the only rays that have been rolled with ETCS	Date when class B is not allowed	The date on which 'B' class ear l data kse is used.	Length	Ta se(s)	Developmental u s and mi versioo of injection	Measure type
As Eesti Railways	Tallinn-Keila	not yet under construction						26.96 km			
As Eesti Railways	Keila-Paldiski	not yet under construction						Km 20.67			
As Eesti Railways	Keila-Turba	not yet under construction						31.05 km			
As Eesti Railways	Tallinn-Tapa	not yet under construction						77.46 km			
As Eesti Railways	Tapa-Narva	not yet under construction						132.33 km			
As Eesti Railways	Tapa-Tartu	not yet under construction						112.52 km			
As Eesti Railways	Tartu-Valga	not yet under construction						82.89 km			
As Eesti Railways	Tartu-Koidula	not yet under construction						85.81 km			
As Eesti Railways	Valga-Koidula	not yet under construction						90.74 km			
As South-West Rail	Tallinn-Lelle	not yet under construction						68.75 km			
As South-West Rail	Lelle-Pärnu	not yet under construction						64.25 km			
As South-West Rail	Lelle-Viljandi	not yet under construction						78.70 km			
Rail Baltica	Tallinn-Votors	not yet under construction	2030					213 km	ERTMS L2	Basel 3	New building



3.2 Technical migration strategy for Radio part

Planning for GSM-R deployment and decommissioning of Class B radio

Identifier	Li in	GSM-R also throwing a throwaway			Design of the ear l da from Class B radio use nda mi ne		Li Sainfo			
		State of play	Elluviimne	Kuupä ev when GSM—RI will be deployed	Date when class B is not allowed	Kuupä ev, class B-class ear from his use.	Length	GSM-R data e/GSM-R voice communications	Development u s	Measure type
As Eesti Railways	Tallinn-Keila	not yet under construction					26.96 km			
As Eesti Railways	Keila-Paldiski	not yet under construction					Km 20.67			
As Eesti Railways	Keila-Turba	not yet under construction					31.05 km			
As Eesti Railways	Tallinn-Tapa	not yet under construction					77.46 km			
As Eesti Railways	Tapa-Narva	not yet under construction					132.33 km			
As Eesti Railways	Tapa-Tartu	not yet under construction					112.52 km			
As Eesti Railways	Tartu-Valga	not yet under construction					82.89 km			
As Eesti Railways	Tartu-Koidula	not yet under construction					85.81 km			
As Eesti Railways	Valga-Koidula	not yet under construction					90.74 km			
As South-West Rail	Tallinn-Lelle	not yet under construction					68.75 km			
As South-West Rail	Lelle-Pärnu	not yet under construction					64.25 km			
As South-West Rail	Lelle-Viljandi	not yet under construction					78.70 km			
Rail Baltica	Tallinn-Votors	not yet under construction	—	—	—	—	213 km	—	—	—

Planning for FRMCS deployment and GSM-R decommissioning

Identifier	Route	The FRMCS also evacuates the sliding l and the mi			GSM-R also starts the plan to the ear l da mi s		Li Sainfo			
		Hetkeol once	Elluviim	Kuupä ev, when FRMCS to be deployed	Kuupä ev, use of GSM- Ri is not allowed	The date on which the GSM-R ear l data kse is also ignited.	Length	Developme nt worms	Existing GSM-R status	Measure sketch
As Eesti Railways	Tallinn-Keila	not yet under construction					26.96 km		none	
As Eesti Railways	Keila-Paldiski	not yet under construction					Km 20.67		none	
As Eesti Railways	Keila-Turba	not yet under construction					31.05 km		none	
As Eesti Railways	Tallinn-Tapa	not yet under construction					77.46 km		none	
As Eesti Railways	Tapa-Narva	not yet under construction					132.33 km		none	
As Eesti Railways	Tapa-Tartu	not yet under construction					112.52 km		none	
As Eesti Railways	Tartu-Valga	not yet under construction					82.89 km		none	
As Eesti Railways	Tartu-Koidula	not yet under construction					85.81 km		none	
As Eesti Railways	Valga-Koidula	not yet under construction					90.74 km		none	
As South-West Rail	Tallinn-Lelle	not yet under construction					68.75 km		none	
As South-West Rail	Lelle-Pärnu	not yet under construction					64.25 km		none	
As South-West Rail	Lelle-Viljandi	not yet under construction					78.70 km		none	
Rail Baltica	Tallinn-Votors	not yet under construction	2028	2030	—	—	213 km		none	New building

3.3 Technical migration strategy for ATO part

Planning for ATO deployment

Identifier	Route	ATO Surface Exploitation Plan		More information		
		State of play	Kuupä ev, when Use of ATO	Length	Baseline	Other aspects related to ATO deployment
As Eesti Ra udtee	He llinn-Keila	not yet under construction		26.96 km		
As Eesti Ra udtee	Keila-Paldiski	not yet under construction		Km 20.67		
As Eesti Ra udtee	Keila-Turba	not yet under construction		31.05 km		
As Eesti Ra udtee	He llinn-Ta pa	not yet under construction		77.46 km		
As Eesti Ra udtee	He pa-Na rva	not yet under construction		132.33 km		
As Eesti Ra udtee	TA-Ta RTU	not yet under construction		112.52 km		
As Eesti Ra udtee	TA RTU-Valga	not yet under construction		82.89 km		
As Eesti Ra udtee	TA RTU-Koidula	not yet under construction		85.81 km		
As Eesti Ra udtee	VA lga-Koidula	not yet under construction		90.74 km		
As Edelara udtee	Ta llinn-Lelle	not yet under construction		68.75 km		
As Edelara udtee	Lelle-Pärnu	not yet under construction		64.25 km		
As Edelara udtee	Lelle-Viljandi	not yet under construction		78.70 km		
Rail Baltica	Tallinn-Votors	not yet under construction	2030	213 km		

3.4 Technical strategy for train detection component

Planning for TSI compliant train detection deployment

Identifier	Route	Planning for TSI compliant train detection deployment	More information			
		State of play	Introduction of KRK-compliant train detection	Length (km)	Measure type	Other relevant aspects
As Eesti Railways	Tallinn-Keila	not yet under construction		26,96		
As Eesti Railways	Keila-Paldiski	not yet under construction		20,67		
As Eesti Railways	Keila-Turba	not yet under construction		31,05		
As Eesti Railways	Tallinn-Tapa	not yet under construction		77,46		
As Eesti Railways	Tapa-Narva	not yet under construction		132,33		
As Eesti Railways	Tapa-Tartu	not yet under construction		112,52		
As Eesti Railways	Tartu-Valga	not yet under construction		82,89		
As Eesti Railways	Tartu-Koidula	not yet under construction		85,81		
As Eesti Railways	Valga-Koidula	not yet under construction		90,74		
As South-West Rail	Tallinn-Lelle	not yet under construction		68,75		
As South-West Rail	Lelle-Pärnu	not yet under construction		64,25		
As South-West Rail	Lelle-Viljandi	not yet under construction		78,7		
Rail Baltica	Upper Estonia/Latvia border	not yet under construction	2030	201		
Rail Baltica	Other-Food gap	not yet under construction	2030	12		

3.5 Transition strategy for specific cases

*C*The elimination of specific provisions in clause 7.7 of the CS TSI by 2040. (flange thickness, electromagnetic compatibility limits).

3.6 Technical migration strategy for the CCS On-board Subsystems

The technical transition strategy and planning of CCS subsystems shall be reviewed in a synchronous manner as new investment opportunities emerge and are implemented.

4. Trackside and on-board financial information

ERTMS/ETCS Level 2 cost estimate – ca. 1 million Eur/Mainway km. The costs of rolling stock type authorisation for the deployment of ETCS technology may be added in the size of the SB+SF module. Costs are estimated on the basis of the financial data generated by the construction of the Rail Baltic rail project.

Rail Baltic project:
The Rail Baltica railway project is a modern, high-speed, electricity-powered rail connection connecting Estonia, Latvia and Lithuania, using the 1 435 mm gauge of the European standard, planned for both passenger and freight transport. This will ensure maximum compatibility with the rest of the European rail network. Therefore, in addition to the standard European 1 435 mm track gauge Rail Baltica, the contact network and traffic management systems are also designed to be similar to those used on the Polish rail network directly adjacent to Rail Baltica and on most of the rail networks bordering Poland. ERTMS will be the single European traffic management system as the traffic management system.

Total length of the route – 870 kilometres, including 213 kilometres in Estonia.

The project will be carried out in cooperation with Latvia and Lithuania. All intersections are at different levels. 2 international passenger terminals in Tallinn and Pärnu and 12 local stops will be built in Estonia. The design speed is 249 km/h for passenger trains, 120 km/h for freight trains. Rail Baltica can operate passenger trains up to 400 m and freight trains up to 1 050 m.

Level crossings are not built on the Rail Baltica route at the same level and the railway is limited to gardens to prevent unauthorised persons and animals from entering the railway. In the case of Rail Baltica, a new and modern train traffic control system will be put in place, with a continuous automatic exchange of information between the control centre and the rolling stock. In addition, Rail Baltica generates less noise and vibration than existing railways.

When Rail Baltic will be ready and the time schedule for construction (source: https://www.rbestonia.ee/):

The Baltic States have agreed that the main route is a priority for the establishment of RB and that the cross-border connection must be ready and made operational by the end of 2030 at the latest (step I). States may at the same time establish so-called 'national associations', but they do not have to be ready by this deadline and their creation must not reduce the chances of establishing international connections. In the first phase, the railway will be built mainly as a 1-a-throid on a two-way earth body, and stops on a smaller scale will be developed, and some viaducts will be built at a later stage.

The construction of Phase II of Rail Baltica takes place in line with the increase in demand and is linked to the commercial decisions of the respective infrastructure managers – i.e. the investments are staged in the way demand is achieved.

- Spring 2012 – Government of the Republic ordered the launch of regional plans preparation for the location of the Rail Baltic rail route corridor;

- 2017 – Negotiations for the acquisition of the land necessary for the construction of the railway;
- 2018 – Provincial plans for the construction of Rail Baltic in Estonia are established and starts technical design of railways in all Baltic States;
- 2019 – starts in Tallinn – Design of highway and Pärnu passenger terminals;
- 2019 – construction of the main railway track objects starts;
- 2023 – The construction of the main railway stack starts from Tallinn to Pärnu;
- 2023 – The construction of the Rail Baltica Ülemiste Joint Terminal starts;
- 2024 – construction of Rail Baltica Pärnu International Passenger Terminal starts;
- 2027 – The construction of the Rail Baltica main route starts from Pärnu to Iklan;
- 2030 – railway works have been completed and the test period starts;
- 2030 – traffic starts on a new railway.

Cost:

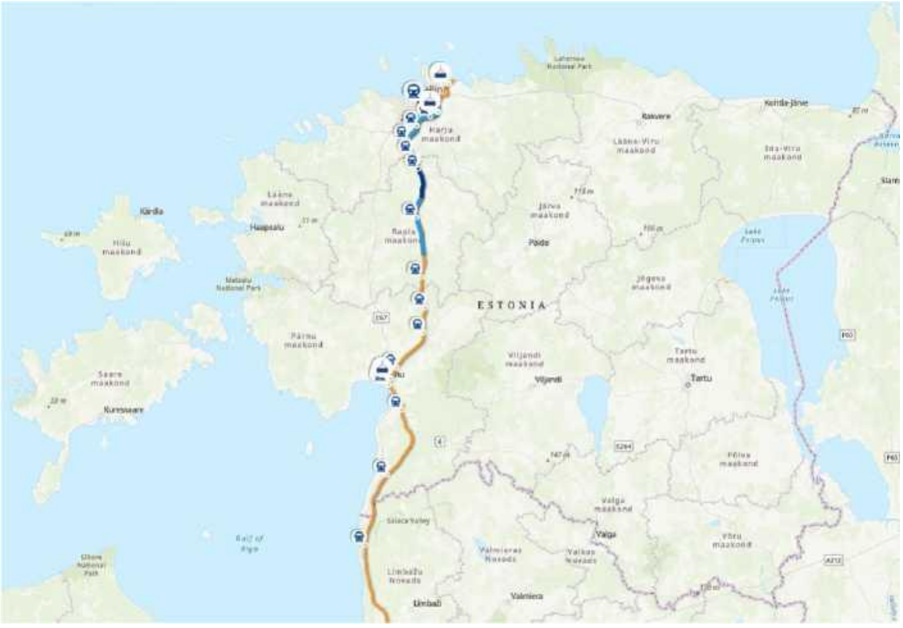
Rail Baltica is a project to be developed jointly by the three countries on the basis of which both the cost and the cost-benefits are estimated for the whole of the Baltic railway. The cost of Phase I of the construction of a new railway crossing the three Baltic States is estimated at around EUR 15 billion of which, depending on the nature of the works, until 85 % is ready to contribute by the European Union. The construction of phase I volumes on Estonian territory will cost around EUR 3 billion on the basis of a basic project with a high level of precision.

How the project will be financed:

- Most of the funding for the implementation of Rail Baltica is a contribution from the Connecting Europe Facility (CEF) and Estonia's own contribution. As of October 2024, the total CEF funding allocated to the part of the RB project EE under the MFF 2014-2020 and MFF 2021-2027 amounts to around EUR 862 million, plus an own contribution from the national budget of around EUR 205 million;
- Under the Recovery Instrument RRF (2021-2026), Estonia has earmarked external funds for the construction of Rail Baltica viaducts and Ülemiste joint terminal totalling EUR 33 million;
- Ele structural funds (2021-2027) for the construction of Rail Baltica viaducts and local stops of EUR 43 million, plus an own contribution of around EUR 7 million;
- In line with Estonia's national budgetary strategies (2021-2028), the Government of the Republic has channelled a total of EUR 467 million of revenue from the European Union's Carbon Auction System (ETS) for the implementation of the Rail Baltica project (including CEF self-financing), of which around 198 million from the national budget for the construction of railway sections, as RB's results contribute significantly to reducing emissions.

There is continuous cooperation with Latvia, Lithuania, Poland and the European Commission to ensure funding sources.

Rail Baltica Track in Estonia: https://info.railbaltica.org/en/interactive-map



5. Design

The changes that will take place over the next 20 years will depend first and foremost on the financial resources to be made available, which are not definitively known at this point in time. For 2024-2028, the proposed financial plan is set out in the following table for the largest rail infrastructure manager:

EUR million

Project	2024E	2025P	202 6P	2027P	2028P	Total 2024...2028
Increasing the speed of the Tallinn-Tartu railway (State budget, TALTARTU project)	0.6	0,0	0,0	0.0	0.0	0,6
Refurbishment and speed increase of the Tapa-Narva railway (CF and State budget, TAPANARVA and YFTAPANARVA projects)	0.4	2,6	11,5	0,0	0.0	14.5
Taristuülese turvangusüsteemide uuendamise 1 etapp CCS (oma-ja laenuvahendid, projekt TATUM)	19,2	26,2	23,1	41,3	12,3	122.0
Automation of traffic management processes TTMCS (own and loan facilities, CIAPROJEKT project)	3,2	3,7	5,5	1,2	0,0	13,6
Railway electrification (CF, state budget and own resources, ELEKTRIF project)	60,3	73,5	88,5	45.4	3,5	271,2
TAF-TAP joint project with Latvian rail (ELIT project)	2,0	0,0	0,0	0,0	0,0	2,0
Upgrading crossings (ICF project YLESMODERN)	5,0	0,0	0,0	0,0	0,0	5,0
Major repairs (MIMO and State budget, CEFKAPREM project)	1,5	0,6	5,7	0,0	0,0	7,8
Investments necessary for the implementation of the operational schedule (project CO2)	5,0	9.1	0,0	0,0	0,0	14,1
Straightening of curves and major repairs of railways on Tallinn-Tartu-Koidula and acquisition ofland on the Tartu-Valga railway lines (CF; State budget and own resources, project YFKAPREM)						
Other (own resources)	7,5	14,6	17,5	24.4	19,6	83,6
Total, including	133,3	140,9	157,2	114,9	35,4	581,7
EU funds	*79,4*	*77,6*	*101,5*	*20,9*	*0,0*	*279,4*
State budget	*14,3*	*19,8*	*11,3*	27,1	*3,5*	*76,0*
own resources	*39,6*	*43,5*	*44,4*	66,9	*31,8*	*226,3*

6. New mandatory on-board requirements

The new mandatory on-board requirements on the 1520 track are currently unknown. All technical requirements and necessary parameters shall be communicated to the parties concerned in good time by means of a network statement and their implementation shall be monitored.

Monitoring of the technical requirements and parameters and the implementation of the CCS TSI for the rail network is carried out by the Consumer Protection and Technical Regulatory Authority as a safety authority.

The Consumer Protection and Technical Regulatory Authority shall provide explanations on the implementation plan:

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