



CAPACITY STRATEGY 2026



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INTRODUCTION

In the context of smart capacity management, Infrastructure Managers (hereinafter IM) publish a Capacity Strategy three years prior the timetable change (X-36).

The Capacity Strategy is a document that includes long-term capacity planning for a specific section of the line, part of the network or the entire network. The main objective of the Capacity Strategy is to provide a first overview of the available capacities on the infrastructure in the future on the one hand and future capacity needs on the other hand. It enables coordination of future needs with neighbouring IMs and applicants. It provides key information regarding capacity planning, changes in infrastructure availability, temporary capacity restrictions (hereinafter TCR) as well as commercial capacity for a specific timetable period.



Figure 1: TTR Process (Source: RNE)

This document meets the requirements of RailNetEurope's (RNE) Capacity Strategy Handbook and its standardised template. It focuses on routes of international importance and covers four main chapters:

- Description of the geographic scope;
- Expected capacity infrastructure;
- Temporary Capacity Restrictions;
- Traffic planning principles and traffic flows.

The Capacity Strategy targets applicants as well as their end customers, service facilities managers and terminals, policy makers and all other stakeholders of rail planning and capacity allocation.

Within the framework of cooperation with RUs and other stakeholders in railway transport, the IM calls plenary meeting of the standing committee for coordination of needs in the field of



railway infrastructure every year in October, at which, among other things, it also presents activities in the field of TTR. RUs and other stakeholders (terminal, regulatory body, Slovenian infrastructure agency) are invited to submit proposals for the capacity strategy based on the last published strategy. Before the final publication of the capacity strategy, the IM sends the draft once again to all RUs for review and invites them to make any comments.

This document is non-binding. It applies for timetable 2026.

0. GEOGRAPHICAL SCOPE

This Capacity Strategy concerns lines of international relevance. They were selected based on experience, taking into account the border crossings with the highest volume of international traffic, both passenger and freight. These border crossings are:

- Austria Jesenice / Rosenbach, Šentilj / Spielfeld-Straß
- Croatia Dobova / Savski Marof, Ilirska Bistrica / Šapjane;
- Hungary Hodoš / Őriszentpéter
- Italy Sežana / Villa Opicina.

Considering the specifics and high volume of transit freight traffic, the Capacity Strategy concerns all main lines in the Republic of Slovenia and the following sections of regional lines, which can be used as re-routing lines in case of major obstacles:



Figure 2: Geographical scope of Capacity Strategy



1. EXPECTED INFRASTRUCTURE CAPACITY

The present chapter provides an overview of significant positive or negative changes to the available capacity for timetable 2026.

1.1. ADDITIONAL AVAILABLE CAPACITY

TRACK DOUBLING ON DIVAČA – KOPER SECTION

Building a second track between Divača and Koper is the biggest rail infrastructure project in the Republic of Slovenia. Once complete, the project will notably improve route capacity to better serve the port of Koper while boosting the port's traffic. The new second track will enable:

- Provision of a modern and efficient railway connection of the cargo port of Koper to the railway network in Slovenia and, consequently, also to the wider European railway network;
- Final removal of all restrictions on throughput and transport capacity of the railway line Divača Koper;
- Increasing the operational reliability of the railway line from Divača to Koper;
- Increasing the level of traffic safety;
- Reduction of travel times;
- Reduction of environmental impacts and reduction of environmental risks;
- An additional increase in the share of freight transported by rail;
- Enabling and increasing the use of a more environmentally friendly type of transport.

The construction project of the second track Divača - Koper is presently ongoing, with works expected to complete in 2026.

ENHANCEMENT OF LINE AND STATIONS ON LJUBLJANA - DIVAČA SECTION

The work is being carried out in several phases. It includes the upgrading of the entire section and constructing grade separated passages to platforms at all train stations, building new electrical power supply stations in Borovnica and Postojna, and installing automatic block signalling and ETCS on the entire section.

In addition, it includes upgrading of level crossings for the highest track speed and installing noise barriers.

The duration of the ongoing project is estimated at 2021 to 2027.

ENHANCEMENT OF MARIBOR – ŠENTILJ – AUSTRIAN BORDER SECTION

The project comprises:

- Building a new track on Počehova Pesnica section to prepare for track doubling:
 - Building a new tunnel (Pekel Tunnel);
 - Building a new bridge (Pesnica Viaduct).



Once complete, the project will improve route capacity from the current 63 to 84 trains per day while increasing annual throughout capacity from 7.1m to 8.89m tonnes.

ENHANCEMENT OF THE PRAGERSKO NODE

The project comprises:

- Upgrading and modernising the Pragersko station;
- Upgrading the track and track-side installations, signalling, telecommunications and the overhead line equipment;
- Building two platforms and the associated pedestrian access routes;
- Building a road underpass through Pragersko;
- Installing noise barriers. Once complete, the project will upgrade the line's loading class to D4 and - through technical and technological upgrades to the station and node provide an appropriate connection to the Pragersko – Ormož – Hodoš line.

ENHANCEMENT OF THE CROATIAN BORDER – DOBOVA – ZIDANI MOST SECTION

The project comprises:

- Upgrading the stations Dobova, Brežice, Krško, Brestanica, Blanca, Sevnica, Breg and halts Libna and Loka;
- Upgrading the sections Croatian border Dobova, Dobova Brežice, Brežice Krško and Krško – Zidani Most.

SIGNALLING UPGRADES

The project comprises:

• Installing the ETCS level 1:

The ETCS level 1 installation project has already been completed on the section Croatian border – Dobova – Zidani Most, with the completion of the project, the ETCS will be included on the entire core network in the Republic of Slovenia;

- Modernising the traffic control centres in Maribor, Postojna and Ljubljana, which includes renewal of the signalling and improvement of the level crossing protection;
- Introducing centralised traffic control on the sections between Ljubljana and Dobova and between Zidani Most and Šentilj;
- Building grade separated access routes to station platforms

The project will improve safety and ease crowding on routes while making stations and halts more passenger friendly through new IT equipment. The ETCS enables the unification of the European railway system and the interoperable development of railway transport on these sections of railway lines, thereby increasing the competitiveness of railway transport.

ENHANCEMENT OF THE LJUBLJANA RAIL HUB

In the area of the Ljubljana rail hub, in the first phase, the upgrade of the track and platform infrastructure of the Ljubljana railway station and the construction of a new passenger overhead walkway are planned.



In the second phase, it is planned to upgrade the railway stations Ljubljana Šiška, Ljubljana, Ljubljana Moste, Ljubljana Polje and Ljubljana Zalog, as well as upgrade the sections between the stations. This will remove a bottleneck at the junction of major traffic flows in transit across the Republic of Slovenia.

REGIONAL LINES

Engineering work is underway on Ljubljana – Metlika – Croatian border, line to upgrade the track and build new platforms with pedestrian underpasses at Grosuplje station is finished. Upgradind the signalling will reduce congestion by allowing trains to enter the station from both directions at the same time.

A project is in the pipeline on Jesenice – Sežana line to build new station track and platform infrastructure and install new signalling at Nova Gorica station. Also building a new line (triangle) at Šempeter node to connect with Gorizia (Italy) – Prvačina line. In the future, it is planned to upgrade all stations by including them in centralised remote traffic control, which will notably improve route capacity.

BORDER CROSSING SECTIONS

No infrastructure projects are planned on interchange stations until 2025 except for the works to upgrade Šempeter pri Gorici branch (a part of the Nova Gorica station enhancement project), which will build a new halt and direct connection to Italy via Sežana.

1.2. REDUCED AVAILABLE CAPACITY

A reduction in the available capacities or the extent of the public railway infrastructure in the Republic of Slovenia is not foreseen. Restrictions in the following years will only be related to obstacles due to the implementation of the investment works described above.

2. TEMPORARY CAPACITY RESTRICTIONS

IMs are required to plan TCRs following Annex VII¹⁾

Annex VII sets the frame for TCR-planning, the aim of which is to promote early planning, international coordination among IMs, transparency towards Applicants and planning stability. Ultimately, it pursues the goal of increased performance and competitiveness of rail services.

¹⁾ <u>COMMISSION DELEGATED DECISION (EU) 2017/2075 - of 4 September 2017 - replacing Annex VII to</u> <u>Directive 2012/34/EU of the European Parliament and of the Council establishing a single European railway</u> <u>area (europa.eu)</u>





Figure 3: Overview of Annex VII TCR categories (Source: RNE)

Information about TCRs is published by IM in the Network Statement.

Large-scale infrastructure projects are planned in a way which minimizes their impact on infrastructure availability.

When project works impact on available capacity to the extent which requires significant changes to train operating conditions, a temporary timetable is produced for the period such disruptions are in effect, but no longer than two months.

In cases where, due to the TCR, it is necessary to replace passenger trains by bus replacement service, as much as possible, the train connections of international and seasonal trains and trains at peak times are kept.

If there is a need to organize re-routing of trains, these alternative routes will be considered already at the stage of train paths allocation, if necessary with the involvement of neighbouring IMs.

TCR MAINTENANCE WINDOWS

Maintenance windows are planned according to the IMs' technical needs. In the event that certain maintenance windows are not requested by the maintenance workers, these are released for additional capacities to answer RUs' ad hoc requests. In general, the duration, number and location of maintenance windows do not change significantly during timetable periods.

Each line has periodical maintenance windows, either during the day or at night. By using maintenance windows, we can avoid adjusting timetable, as they are already integrated into the running timetable, which ensures ordinary / extraordinary maintenance and upgrading of the infrastructure. Maintenance windows are announced as part of scheduled TCRs in the Network Statement.



REGULAR TCRS

Whenever maintenance needs exceed what available by maintenance windows, specific additional TCR can be planned. The percentage of traffic diverted / cancelled is calculated considering the planned timetable, referring to the day with the greatest scheduled traffic volume within the duration of the TCR.

TCR FOR THE NEEDS OF INVESTMENT WORKS

Information on TCRs due to investment works is provided by the Slovenian Infrastructure Agency, and the IM publishes it in the Network Statement.

Below is a list of planned large-scale enhancement projects which will impact on infrastructure availability in 2026:

- Enhancement of Ljubljana rail hub;
- Line 10 Croatia border Dobova Ljubljana: station upgrades on section between state border and Zidani Most;
- Line 50: station and track upgrades on Postojna Divača section.

The exact dates of the TCRs will be published in the Network Statement, considering the deadlines in Annex VII.

CONSULTATION PROCESS

Within the framework of the standing committee for coordination of needs in the field of railway transport among other things, the planned TCRs for maintenance and upgrading of the infrastructure are discussed and, depending on the possibilities, adapted to the needs of RUs and other interested parties, especially the port terminal. Beside the major TCRs for needs of investment works are presented.

Coordination of capacity restrictions and associated TCRs, which have an impact on train traffic in neighbouring IMs, is carried out within the framework of bilateral or multilateral meetings of IMs and by using appropriate RNE information tools.

3. TRAFFIC PLANNING PRINCIPLES AND TRAFFIC FLOWS

3.1. TRAFFIC PLANNING PRINCIPLES

When planning train paths, the available infrastructure capacity will be allocated by market segments, taking account of the current traffic flows and planned capacity restrictions. After setting out the restrictions of use required to deliver large-scale engineering works, the available capacity will be classified in the capacity model by segments and level of priority:

a) Capacity for annual train path requests:

- capacity for long distance passenger trains operated as part of a public service obligation;
- capacity for regional passenger trains operated as part of a public service obligation;
- capacity for other passenger trains;



- capacity for freight trains running on freight corridors (Pre-arranged Paths PaPs);
- capacity for freight trains with known running days.

b) Capacity for rolling planning:

- capacity for freight trains with a flexible running days;
- capacity for ad hoc planning of passenger and freight trains.

For border crossing sections, the capacity model will include paths for international and crossborder passenger services and for freight services contained in the annual timetable. The capacity for rolling planning (if available) and capacity for ad hoc path requests will be available as time slots.

The available capacity will be planned so as to allow for freight services to run at peak times, also.

For regional lines, the capacity model will be produced only for sections declared as congested infrastructure. The model will contain train paths prepared specifically for passenger trains, with all freight services included in the capacity for rolling planning and capacity for ad hoc purposes. Planning is not required on regional sections which are not declared as congested infrastructure. Because capacity models will not be produced for such sections, capacity will be freely available.

3.2. TRAFFIC FLOWS

Traffic flows are quantified in the present document at border points and on the main lines' sections. Figures correspond to average values per traffic type per hour, without a differentiation between peak and off-peak hours.

The figures at border points derive from national IMs' estimates and respond to no methodology that would be common to the involved IMs. Unless stated otherwise, the figures are harmonized with neighbouring IM.

Though non-binding, they provide an average bookable capacity per hour for respectively longdistance passenger, regional passenger and international and, in the main lines' figures, also for national freight trains for Timetable 2026. Further assessment and more detailed differentiation will occur with the Capacity Model and the Capacity Supply.

The harmonization with neighbouring IMs, for each border section here dealt with, has been reached on daytime system paths per hour per direction. Further paths, not systematic, could be considered in timetabling construction phase.

According to the approach used in this document, the numbers provided relate to crossnetwork trains, i.e., to train paths that run on line sections managed by each of the bordering IMs. Therefore, the numbers shown can be slightly different from those listed in national path catalogue issued by SŽ-Infrastruktura.



The volume on border sections of lines, on which the offer is coordinated with neighbouring IMs ¹, is shown in the table below:

	BORDER SECTION	train path per hour			
STATE		passenger		freight	
		long-distance	regional	international	
ITALY	Sežana / Villa Opicina	non-systematic	non-systematic	3	
AUSTRIA	Jesenice / Rosenbach	0,5	0	1	
	Šentilj / Spielfeld-Straß	non-systematic	0,5	1,5	
	Prevalje / Bleiburg	0	non-systematic	0	
CROATIA	Dobova / Savski Marof	0,5	0	1	
	Ilirska Bistrica / Šapjane	non-systematic	0	0	
HUNGARY	Hodoš / Őriszentpéter 1)	non-systematic	0,5	1	

Table 1: Available capacities at the border sections

¹⁾ The offer at the border section Hodoš / Őriszentpéter is not harmonized

The following table shows the offer on the main lines within the public railway infrastructure network of the Republic of Slovenia:

	train path per hour					
SECTION	passenger		freight			
	long-distance	regional	international	national		
Ljubljana - Zidani Most	1	3,5	3,5	0,5		
Zidani Most - Dobova	0,5	1,5	1	non-systematic		
Zidani Most - Pragersko	1	2,5	2,5	0,5		
Pragersko - Maribor	1	2,5	1,5	0,5		
Pragersko - Hodoš	non-systematic	1	1	non-systematic		
Ljubljana - Jesenice	0,5	1,5	1	0		
Ljubljana - Sežana	1	1	4	1		
Pivka - Ilirska Bistrica	non-systematic	0,5	0	0		
Divača - Koper	non-systematic	0,5	2,5	1		

Table 2: Available capacities at the main lines



4. VALIDATION

This Capacity Strategy was approved by the decision of the management of SŽ-Infrastruktura, d.o.o. no. 3189 on 14th of December 2022. It is published on the IM's website, and the English version is also available on the RNE website.