Timetable Redesign:

Capacity model 2026 Netherlands

1   Introduction

After 2025, timetable year 2026 is the second year in which TTR (Timetable Redesign) will be partially implemented. ProRail has agreed to actively participate in TTR together with a number of other European infrastructure managers. The experiences gained during the development of the Capacity Model for the 2025 timetable, the feedback after publication and the evaluation are input for the Capacity Model for the 2026 timetable.

Because the Capacity Model is still relatively new, in this document we provide more information about the Capacity Model for 2026. The Capacity Model itself is in ECMT, the European Capacity Management Tool. This document refers to the Capacity Model in ECMT.

TTR stands for redesign of the capacity allocation process. The aim of this is to achieve a harmonized timetable at European level and a uniform working method for requesting and allocating capacity. So that international train paths connect, temporary capacity restrictions are coordinated, and information about infrastructure changes is shared with each other in a timely manner. The aim is also to allocate capacity to international passenger trains earlier, so that ticket sales can start earlier and railway undertakings for passenger transport can compete with aviation. For freight railway undertakings, the goal is to keep sufficient capacity and high-quality international train paths available until the moment of operation.

The Capacity Strategy 2026 forms the input for the Capacity Model 2026. In addition, railway undertakings could indicate which train paths are desired for 2026 by means of CNAs (Capacity Needs Announcements) and they could indicate desired product steps to ProRail. The CNA process for 2026 was still a pilot. ProRail has also made an estimate of the traffic requirement for freight trains based on historical data and forecasts. ProRail has processed this information into a Capacity Model in which it is indicated for each hour of the day how many train paths are available for which transport segment. The Capacity Model is then the input for the Capacity Supply.

Because the Capacity Model for 2026 is the second to be created, a limited scope was chosen in consultation with other Infrastructure Managers and RailNetEurope (RNE). This means that the geographical scope is the same as the scope used for the Capacity Strategy 2026. In addition, the Capacity Model has been created for only international train paths for one basic day, a working day, without temporary capacity restrictions.

The Capacity Model is not yet binding, but it does provide information about the intended capacity for timetable 2026, so that railway undertakings can use it to develop traffic products.

We welcome feedback from users on the Capacity Model 2026, the process surrounding the Capacity Model and the added value of the Capacity Model. Feedback can be submitted by email to TTR@prorail.nl.

2 Process and scope TTR Capacity Model

2.1 Capacity Model within the TTR-process

Timetable Redesign starts with the Capacity Strategy 5 years before the start of the timetable. This phase lasts 2 years, after which the Capacity Model phase starts. The Capacity Model phase runs from 3 years to 1.5 years before the start of the timetable. Both the Capacity Strategy and the Capacity Model fall within the current period of the Medium Term Process (MLT) with which ProRail works.

The TTR phase of Capacity Planning and Supply starts 1.5 years before the start of the timetable. At ProRail, this is the current phase of preparation of the annual timetable. The timetable preparation phase is followed by the annual timetable phase as we currently know it at ProRail 11 months before the start of the timetable.

Figure 1 indicates the different phases of TTR. The TTR process description[1] contains more information about the content of each planning phase.

Figure 1: Scheme of TTR phases

---

[1] *Description of the Timetabling and Capacity Redesign Process, version 3.0;*
https://rne.eu/wp-content/uploads/2022/10/long_desc_of_the_TTR-Process-v3.0.pdf

2.2 Planning for Capacity Model 2026

Table 1 shows the planning for the 2026 Capacity Model.

Table 1: Planning of Capacity Model 2026

Timeline (in months)	Timeline	Milestone / activity
X-36	December 2022	Start Capacity Model
X-26	October 2023	Infrastructure managers invite applicants to submit CNAs
X-24	December 2023	Deadline to submit the CNAs
X-22,5	February 2024	Applicants who submitted CNAs are notified about the result of the analysis of the infrastructure managers
X-21	April 2024	Deadline to publish draft Capacity Model, accessible for applicants
X-18	June 2024	Deadline to publish final Capacity Model

2.3 Scope Capacity Model

2.3.1 Adjusted scope for timetable 2026

Because the Capacity Model for 2026 is the second to be made, a limited scope has been chosen in consultation with other infrastructure managers and RailNetEurope (RNE). This means that the geographical scope is equal to the scope used for the 2026 Capacity Strategy, see section 2.3.4.

Only the international train paths are included in the Capacity Model 2026. The IT required to transfer train paths from the national planning system to ECMT is not yet ready, which means that train paths must be entered manually into ECMT. Given the high number, this is not possible for all train paths.

In addition, the Capacity Model is made for one standard day, a working day, without temporary capacity restrictions (TCRs). For the 2026 Capacity Model, therefore, no variants have yet been made for TCRs.

In the coming years, ProRail foresees the following steps for expanding the scope:
- Capacity model 2027:
  - From a basic day to a basic week,
  - In addition to international train paths, also domestic train paths on a large part of the network,
  - Add maintenance windows,
  - Addition of some (very) large TCR's including alternative traffic planning and conflict signaling with weekly maintenance windows.
- Capacity model 2028:
  - Addition of all (very) large TCR's including alternative traffic planning and conflict signaling with weekly maintenance windows,

- o Entire network in scope,
- o Non-weekly maintenance windows.
- Capacity model 2029:
  - o Full scope; 365 day planning including all (very) large TCR's for the entire network.
- Capacity model 2030:
  - o Full scope; First binding capacity model.

2.3.2 CNA pilot 2026

To test the process of submitting Capacity Needs Announcements (CNAs), the CNA process was carried out in the form of a pilot for the Capacity Model 2026. Applicants were asked to submit CNAs via ECMT. CNAs are requests for new or changed train paths. The aim is for infrastructure managers to know what the market needs and so that infrastructure managers can include these new or changed train paths in the Capacity Model if possible.

A number of applicants have submitted CNAs through ECMT. Infrastructure managers have not been able to process these CNAs because the support in ECMT is still insufficient. The relevant carriers have now received notice of this via ECMT.
The fact that the entire CNA process has not yet been successful shows that it is useful to conduct a pilot so that it becomes clear where improvements are needed.

2.3.3 Time scope

Timetable 2026 starts Sunday December 14, 2025 and ends Saturday December 12, 2026.

2.3.4 Geographic scope

For the 2026 Capacity Model, the scope corresponds to the scope of the 2026 Capacity Strategy, to which we have added the Bad Nieuweschans – Weener border crossing in consultation with DB InfraGo. Figure 2 shows the geographical scope for the 2026 Capacity Model within the Netherlands.

Reference VP20160105-304864793-30
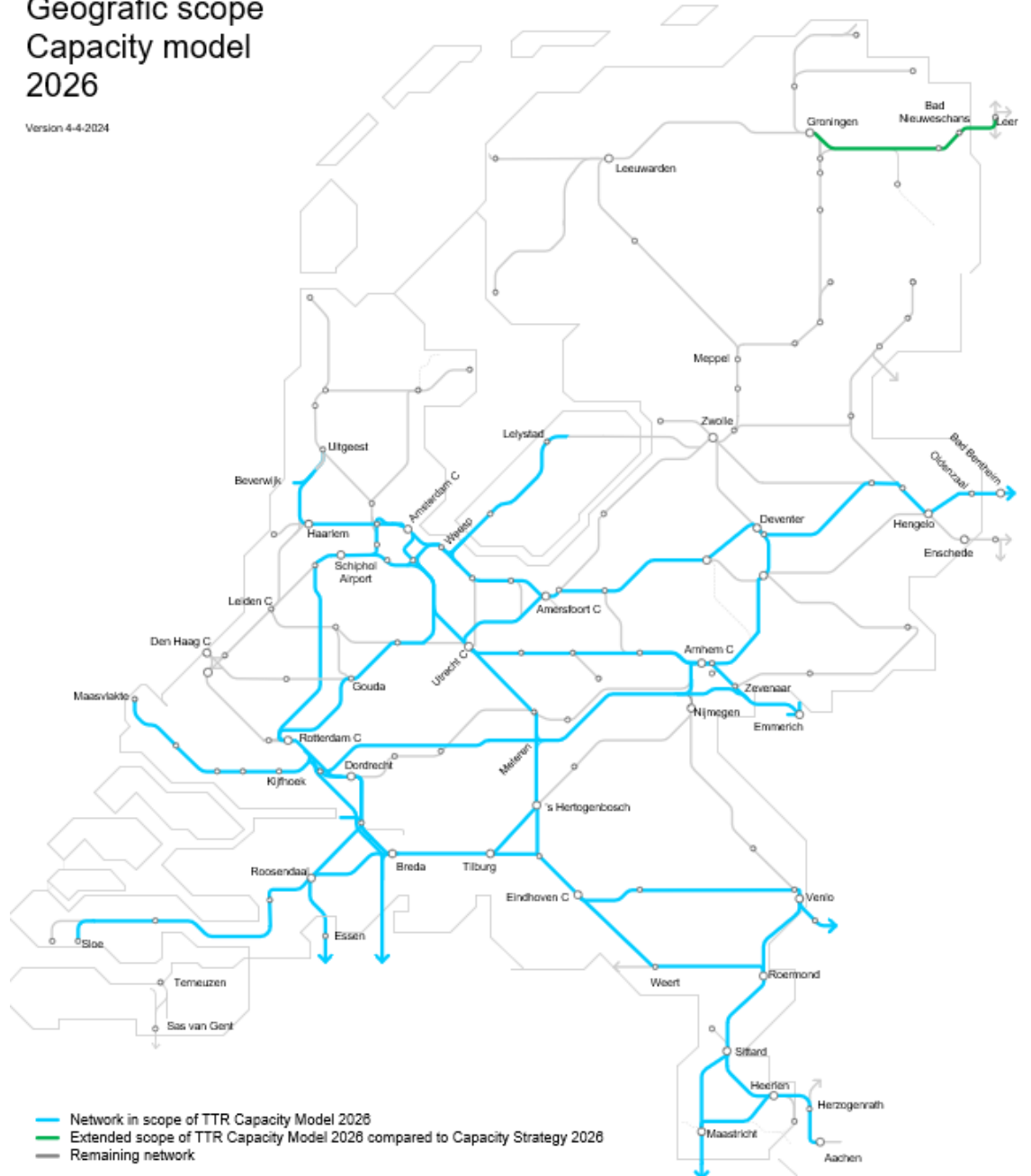
Figure 2: Geographical scope Capacity Model 2026 Netherlands

Reference VP20160105-304864793-30

3 ECMT: European Capacity Management Tool

3.1 What is ECMT?
The European Capacity Management Tool is an application in which all Infrastructure Managers within Europe publish the Capacity Model. And later the Capacity Supply will also be published in ECMT. This application is under development at RNE. Infrastructure managers and railway undertakings draw up the specifications so that the software increasingly better meets the needs.

3.2 Accessing ECMT
ECMT can be reached via https://ecmt-online.rne.eu/. You need an account to view the Capacity Model. This can be requested on the home page via the link above.

3.3 Explanation of the use of ECMT for Capacity Model 2026
After you have logged in, you can view the Capacity model by clicking on 'ECMT Tabfolder' at the top of the screen. There are three different views:
- Segment overview: Displays the available capacity between two adjacent timetable points;
- Line overview: Displays the available capacity per segment over a specified route;
- Network overview: Shows for an entire network where capacity is still available and where the network is full.

Further explanation about the use of ECMT and how to obtain the above overviews can be found in the appendix, section 5.2. More information is also available in the 'Help' function in ECMT.

3.4 ECMT status and developments
ECMT is still under development. This means that not all required functionality has yet been developed and is in production. In addition, the functionality that is ready may not work properly. If there are imperfections in ECMT, or if there are specific wishes for improvement, these can be reported in the consultation of the ECMT advisory group (ECMT AG + CCB) or by e-mail to support.ecmt@rne.eu.

4   Capacity Model 2026

4.1   Input from traffic flows for the Capacity Model
Input for the Capacity Model 2026 comes from:
- Annual timetable 2024
- Timetable developments for 2025 as known in Preparation Annual Timetable
- Intended product steps as known in Medium-term process (MLT process):
  - Intended developments (product steps) for both passenger and freight traffic
  - Realization data and forecasts for numbers of freight trains
- TTR Capacity Strategy 2026
  - Available infrastructure
  - Intended traffic flows
  - Major TCRs
- Major and High TCRs from the X-24 publication
- Capacity Needs Announcements (CNAs)
  - Via ECMT, railway undertakings can submit desired train paths via CNAs
  - The CNA process is still a pilot for 2026

4.2   Traffic flows Capacity Model 2026
Due to the agreed limited scope, the Capacity Model 2026 only contains the international train paths via the border crossings within the scope of section 2.3.4. The input as described in section 4.1 was taken as a starting point.

Figure 3 shows all train paths that are included in the Capacity Model 2026. In addition to the frequency indicated in the legend, the operating hours of the current timetable are also included for the Capacity Model in ECMT.

In the first half of 2026, an impactful TCR is planned in Germany between Emmerich and Oberhausen. Consequence is a limited capacity until May 2026 via the Zevenaar – Emmerich border crossing. Starting point for the Capacity Model 2026 is the normal situation without TCRs between Emmerich and Oberhausen.
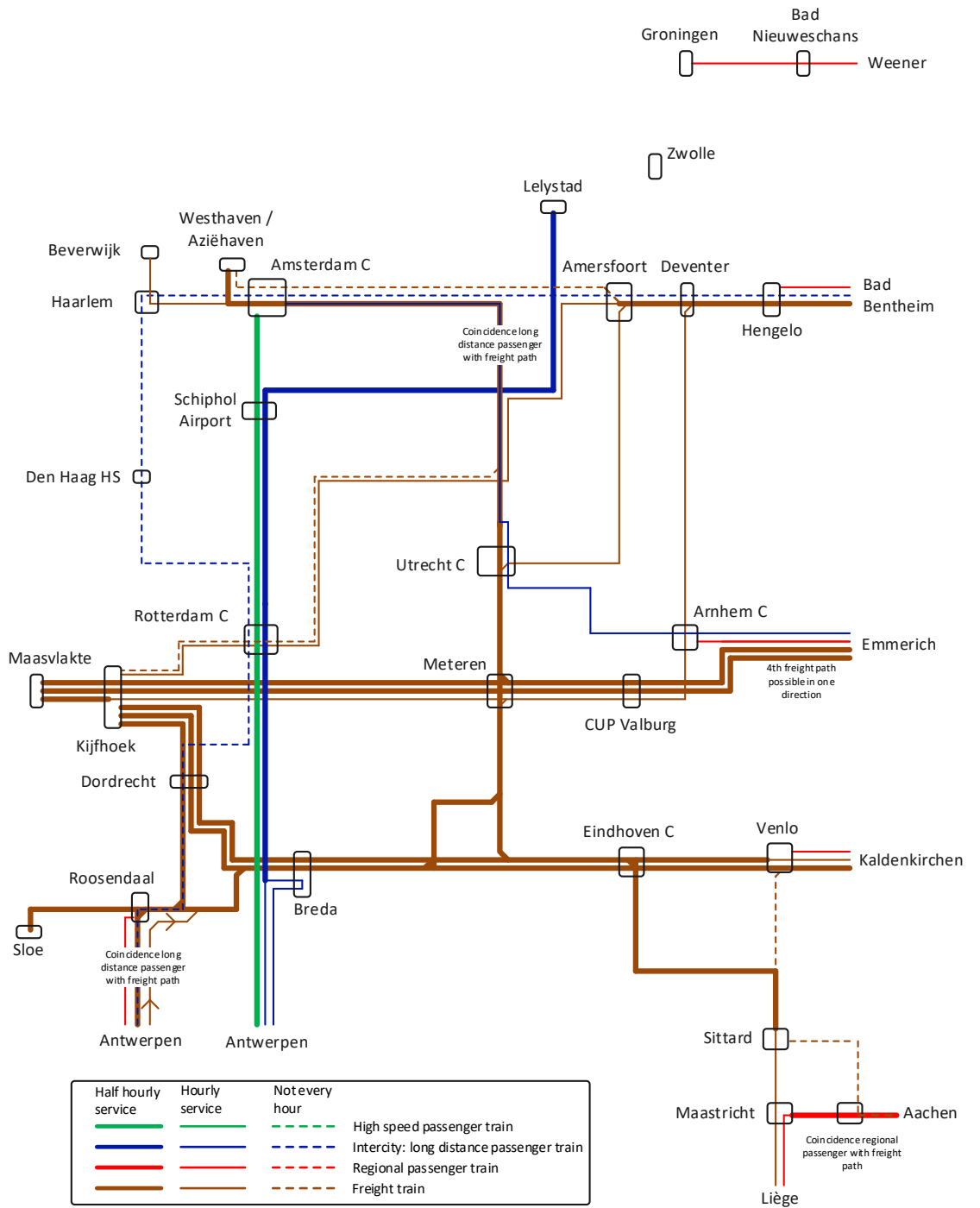
Figure 3: Intended lines for international train paths Capacity model 2026

4.3 Harmonization with infrastructure managers from neighbouring countries

At the border crossings, ProRail coordinates the Capacity Model with the infrastructure manager of the neighboring countries. For this draft version of the Capacity Model 2026, consultations have taken place with DB InfraGo for the border crossings between the Netherlands and Germany and with Infrabel for the border crossings between the Netherlands and Belgium.

The Capacity Model on the border route segments has been harmonized as far as possible. There may be differences on the border between the Netherlands and Germany, because DB InfraGo has based the Capacity Model on the train numbers between 6:00 AM and 10:00 PM, and does not take the night into account.

4.4 TCRs for the Capacity Model

In accordance with the internationally harmonized, limited scope for the 2026 Capacity Model, TCRs are not yet included in the Capacity Model. That is why we present the available information in this section.

During 2024, information about planned outages and maintenance schedules will become visible in the ECMT. Until this is arranged, they will also be published separately.

Major and large TCRs due to works in 2026, as far as they are known, have been published for the first time in December 2023 on the ProRail Logistics Portal: X-24 Publicatie Capaciteitsverdeling

In the coming years, variants of the Capacity Model will be made for TCRs. These variants show how traffic is adjusted during major and large TCRs.

4.5 Status and limitations of the 2026 Capacity Model

The Capacity Model 2026 is non-binding because the legal basis has yet to be established. Therefore, the Capacity Model for 2026 is informative.

Due to limitations in the technical infrastructure[2], there may be a restriction on the use of train paths on certain routes. This means that on some routes not all train paths can actually be used by trains. The reason that the train paths are included is that ProRail cannot foresee at which times of the day train paths are required.

---

[2] *This refers to infrastructure in the technical fields of rail embankments, civil structures, traction and energy supply, level crossings, train detection, environment (noise)*

5 Appendices

5.1 Appendix A: List of abbreviations

AG: Advisory Group
CCB: Change Control Board
CMO: Capacity Model Object
CNA: Capacity Needs Announcements
ECMT: European Capacity Management Tool
ICL: Intended Capacity Line
MLT: Medium term (MLT: Middellange termijn)
PLC: Primary Location Codes
RNE: Railnet Europe
TCR: Temporary Capacity Restriction
TTR: Timetable Redesign

5.2 Appendix B: Further explanation of the use of ECMT

5.2.1 Segment overview

The available capacity between two adjacent primary location codes (PLCs) is available in the segment overview. To view the intended capacity for a standard day for timetable 2026 at a certain location, the procedure is as follows:

- Enter the desired PLCs in the 'From location' and 'To location' fields. One or more waypoints can be entered via the input field 'Waypoints'.
- Select 2026 at 'Timetable period'
- If desired, other fields can be filled.
- Click on 'Search'

Figure 4 shows the result for the Eijsden – Eijsden border segment for a standard day in the 2026 timetable.

Each block is a CMO (Capacity Model Object), an available train path for a certain category. The colour of the CMO indicates the train type and the letters in the CMO indicate the product type, see also the legend below the graph. The horizontal axis shows hours 0 to hour 23, the vertical axis shows the number of CMOs per hour.

Clicking on a CMO will reveal further information about that CMO, including:

- The validity; daily, standard day or TCR variant
- The route
- The intended planning times
- Tonnage (by clicking on 'More values' at the route)
- Length (by clicking on 'More values' at the route)
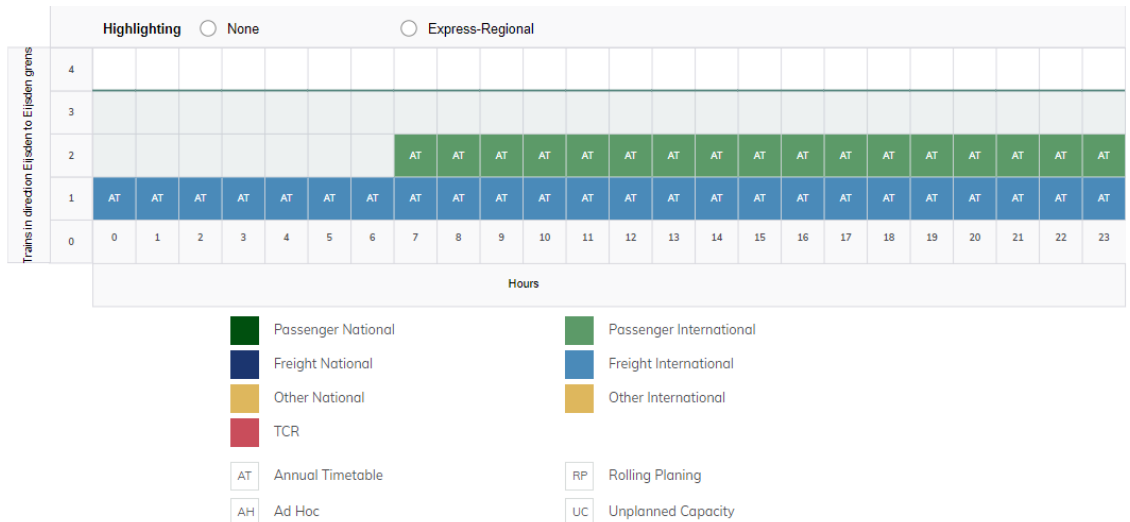- Timetable speed (by clicking on 'More values' at the route)

Figure 4: ECMT segment overview Eijsden – Eijsden grens for a standard day

5.2.2   Intended Capacity Line

The Intended Capacity Line (ICL) is also shown in the segment overview. This line indicates the maximum number of CMOs per hour. If there is a gap between the sum of the CMOs and the ICL in a given hour, this means that there is 'free capacity space' in that hour.

For the 2026 capacity model, we only have the international train paths in the scope. That is why we have only taken into account the international train paths for the ICL. Actually the ICL is much higher on many routes if domestic trains also run on the concerning route. In addition, the ICL is often equal to the sum of the CMOs because extra trains cannot simply be added because the maximum capacity has been reached on the infrastructure that is planned for 2026.

In Figure 4 there is a capacity surplus all day, because the ICL is equal to 3 and there are 1 or 2 CMOs per hour. Whether this capacity surplus can actually be filled depends on what the infrastructure can handle in combination with the actual number of trains including the associated rolling stock characteristics.

5.2.4 Line overview

The available capacity for a route is visible in the line overview. The procedure to view a line overview for a specific route is similar to the segment overview. For the line overview you can specify locations that are further apart. It is important to specify the correct via PLCs, because ECMT searches for the short route in terms of distance between the specified PLCs.

Figure 5 shows the result for the Lage Zwaluwe – Roosendaal route for a standard day in the 2026 timetable. The route is shown on the horizontal axis, with all PLCs on that route at the top. The hours of the day are shown on the vertical axis, in this example hour 0 is visible at the top and hour 9 at the bottom. The CMOs are represented by blocks/bars, where each block/bar indicates in which hour the CMO is on which part of the trajectory.
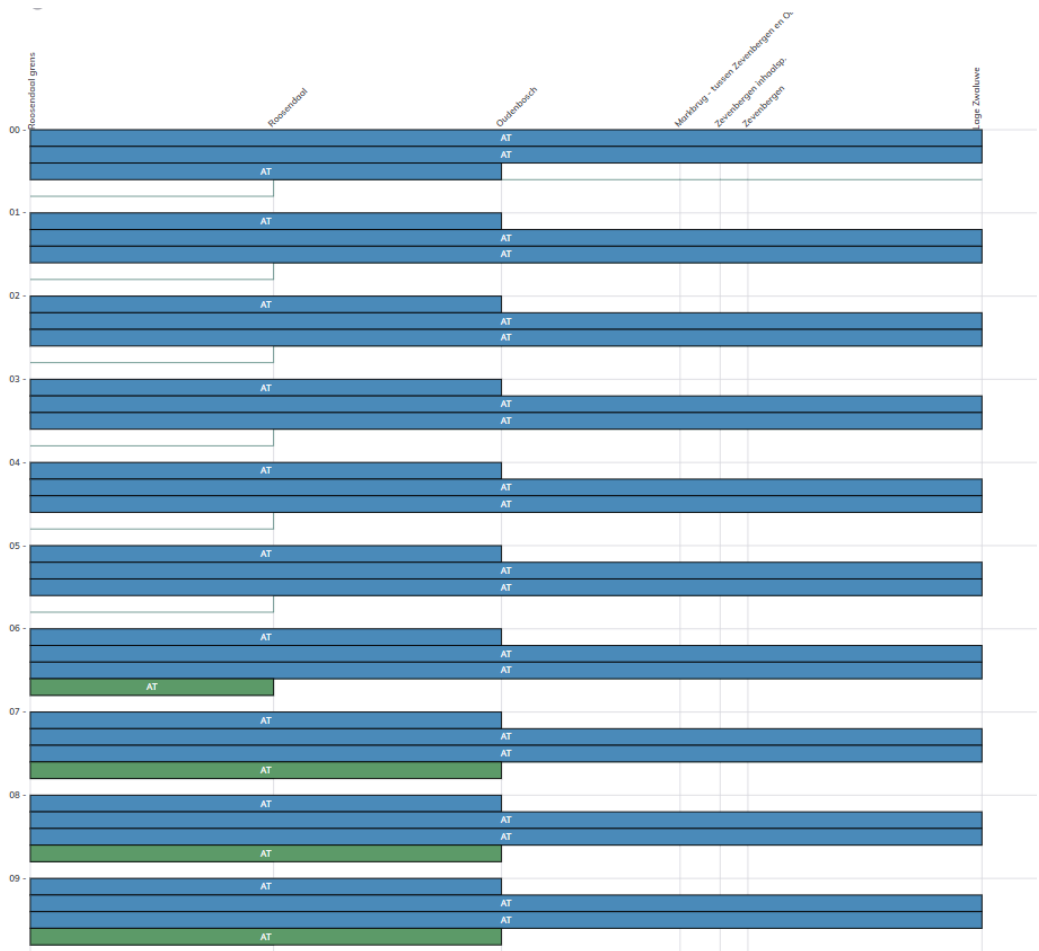

Figure 5: ECMT Line overview Lage Zwaluwe - Roosendaal grens from hours 0 to 9

5.2.5 Network overview

The available capacity for a network can be viewed via the network overview. The method to view a network overview is to enter the desired day and hour and click on 'Search'.

Figure 6 shows the network overview of a standard day in timetable year 2026.
In the map, the colour indicates whether there is still capacity available or whether the network is full. See the legend at the bottom of the map. The ICL is used as maximum capacity and ECMT compares the number of CMOs per segment with the ICL.

Figure 6: ECMT Network overview