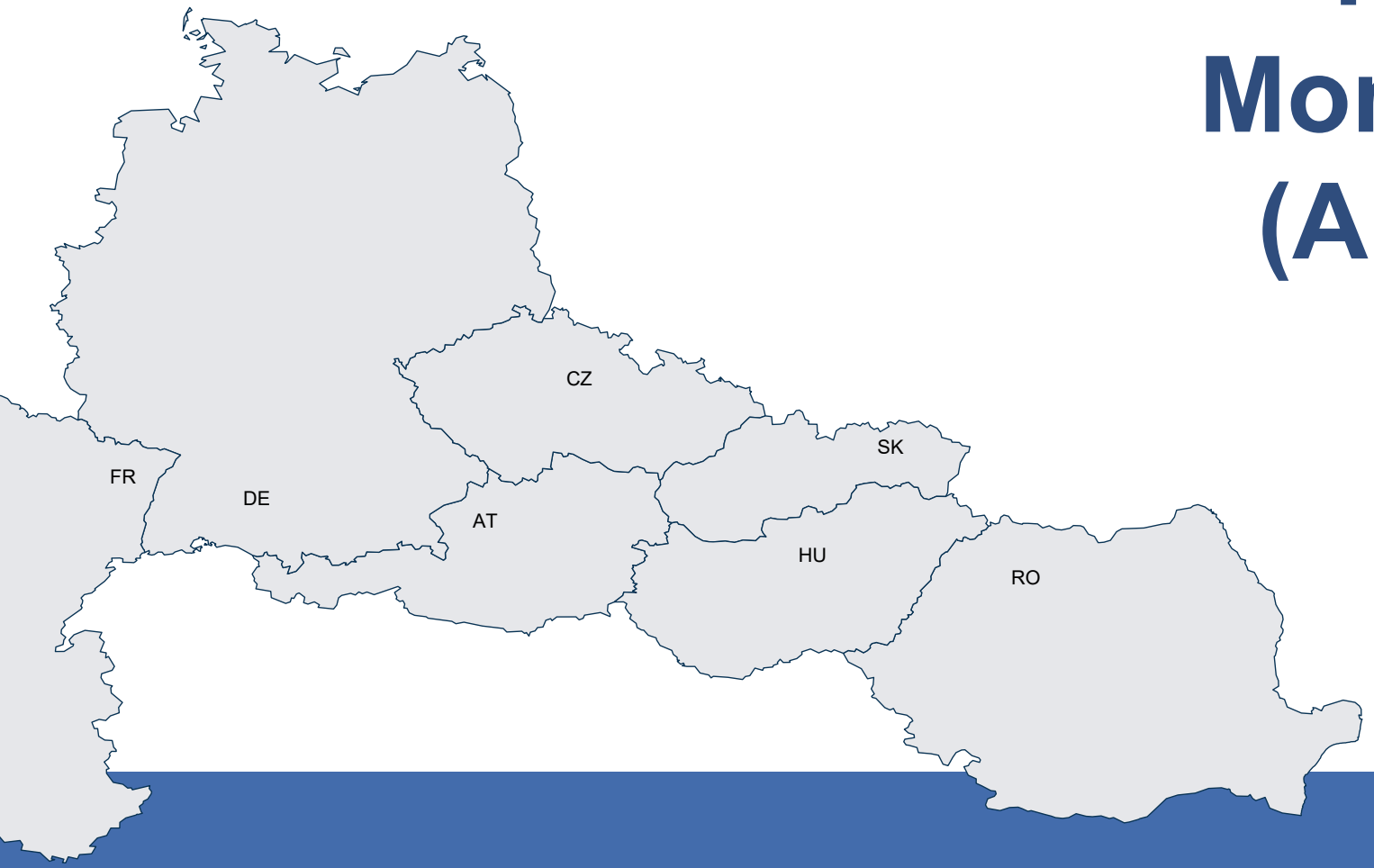
RAIL FREIGHT CORRIDOR Rhine-Danube

Performance Monitoring Report (Annual Report)

2024



Content

Foreword

- The amended RFC Regulation 2024/1679 of the European parliament and of the council stipulates the annual report and its mandatory content in which the management board shall prepare and publish an annual report presenting the results of the activities carried out pursuant to Article 19. It shall present the views and assessment of performance by the advisory groups referred to in Articles 8(7) and (8) in a dedicated section of the report.

General information about RFC Rhine-Danube

- RFC Rhine-Danube (RFC RD) provides important East-West routes for efficient freight traffic between industrial centers and terminals in Central and Central-Eastern Europe; it is connecting to the EU eastern land border at Čierna nad Tisou in Slovakia
- RFC RD is one of the 11 RFCs in operation in 2024, established under the scope of Regulation (EU) 913/2010 concerning a European rail network for competitive freight and creating a European rail network for competitive freight traffic.
- On 18 July 2024, the revised European Regulation about the development of the trans-European transport network comprising the trans-European transport corridors (TEN-T corridors) entered into force. This Regulation will integrate the 11 RFCs and the formerly known 9 TEN-T corridors into the 9 new so-called European Transport Corridors (ETCs) until the beginning of January 2026
- The activities of RFC Orient East-Med (RFC OEM) were discontinued in April 2025 and most of its network transferred to RFC RD, as well as some sections of RFC AMBER, with the advantage of better coordination of transport services for customers, timetable planners and stakeholders, avoiding major geographical overlappings in the central section
- Transition of services from RFC OEM to RFC RD began in 2024 with publishing Reserve Capacity by RFC RD, followed by publication of a PaP catalogue in the beginning of 2025 by RFC RD only.

Content

KPIs for Capacity Management

- To monitor the performance on the corridor regarding capacity management, a number of KPIs are applied, which are described on the following slides. They will provide insight into the capacity that has been offered, requested, allocated, and monitored by the C-OSS of RFC RD:
- KPI 01: Volume of offered capacity (Pre-arranged paths (PaPs))
- KPI 02: Volume of requested capacity (PaPs)
- KPI 03: Volume of pre-booked capacity (PaPs)
- KPI 04: Ratio of pre-booked capacity (PaPs)
- KPI 05: Number of requests (PaPs)
- KPI 06: Number of conflicts (PaPs)
- KPI 07: Volume of offered capacity (Reserve Capacity (RC)), Volume of requested capacity (RC)
- KPI 08: Average planned speed of PaPs

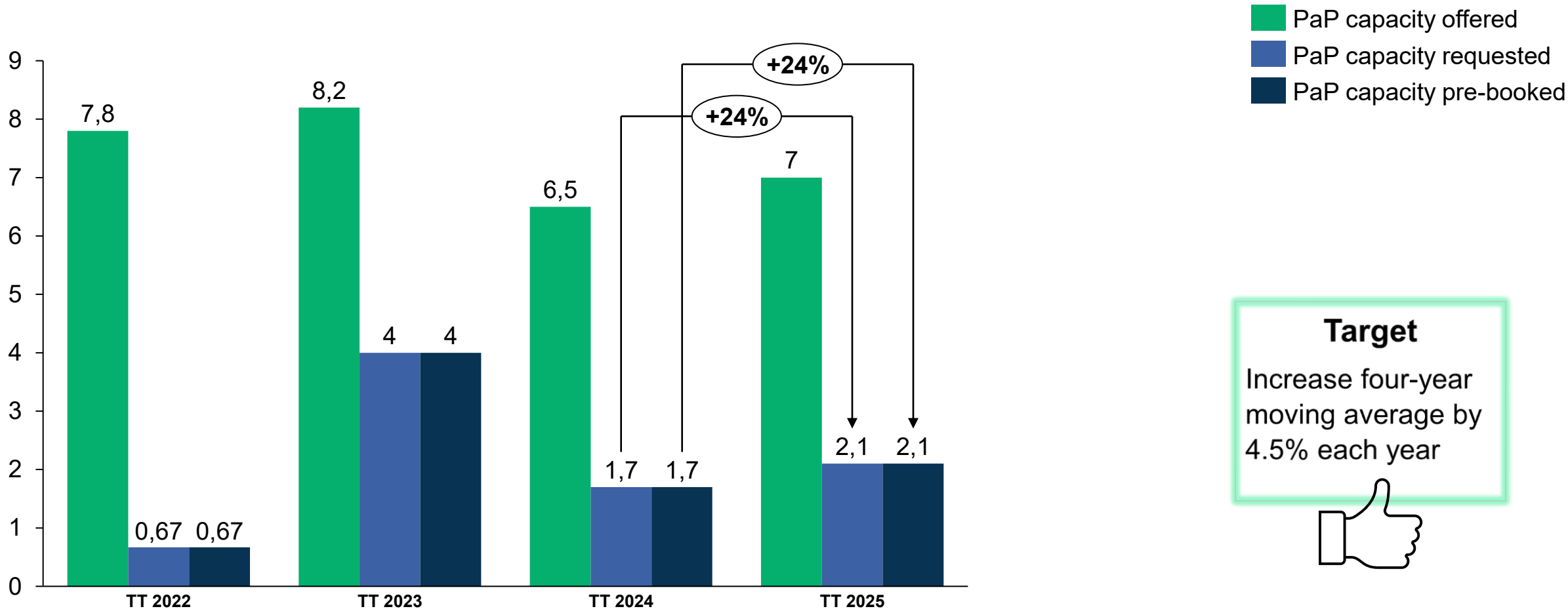
About the methodology used for the calculation

- The figures refer to the capacity that the C-OSS offered, pre-booked, and allocated in 2024 **for timetable 2025**.
- Since the C-OSS of RFC Orient/East-Med (RFC OEM) was the leading C-OSS on the overlapping sections, **the figures do not reflect the total amount of capacity** managed along RFC RD, but only the capacity that was managed by the C-OSS of RFC RD.
- The cornerstones of **collaboration with the C-OSSs of other RFCs** was as follows:
  - The C-OSS of RFC OEM acted as the leading C-OSS, thus offered, pre-booked and allocated capacity on the overlapping sections in Hungary and Romania.
  - Coordinated capacity offer was elaborated between the Western and the Eastern branches in joint meetings of the members of the Capacity Working Groups of RFC OEM and RFC RD.
  - The C-OSS of RFC RD collaborated on connecting sections with the following RFCs by providing harmonized multi-corridor PaPs: RFC Baltic-Adriatic, RFC OEM, RFC Alpine-Western Balkan, and RFC Amber.

KPI 01: Volume of offered Capacity (PaPs)
KPI 02: Volume of requested capacity (PaPs)
KPI 03: Volume of pre-booked capacity (PaPs)

Figures in Million Path-km (distance x running days) – Calculation until the border to Hunagry in order to avoid dublication with overlapping sections of RFC OEM

RAIL FREIGHT CORRIDOR Rhine-Danube

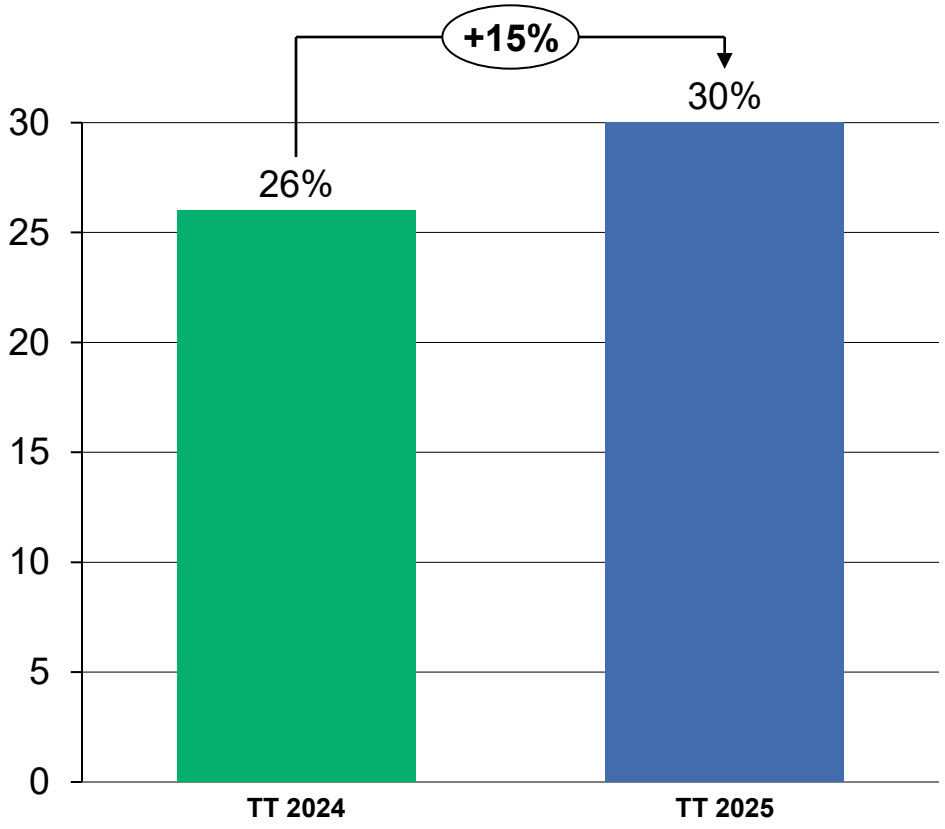


Target

Increase four-year moving average by 4.5% each year

KPI 04: Ratio of pre-booked capacity (PaPs)

Figures in Million Path-km (distance x running days) – Calculation until the border to Hunagry in order to avoid dublication with overlapping sections of RFC OEM



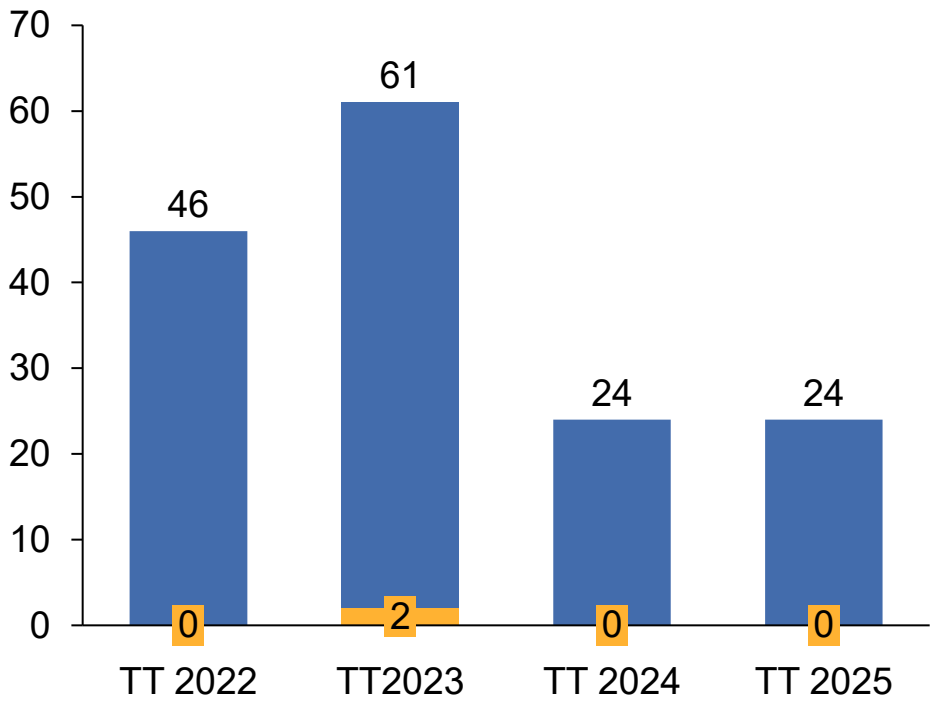
Target

Increase four-year moving average by 4.5% each year

Main reasons for higher volume of offer

- The PaP offer on all RFC corridors is subject to fluctuations in TCR planning. On the Slovak and Czech network, there are fewer TCRs, resulting in a higher PaP offer.
- The lower number of TCRs on the German network also leads to a higher PaP supply in combination with a slightly higher PaP request from RU side.
- There is a strong temporal influence between Wishlist and requesting PaPs. Wishlist was sent out in May but pre-booking of PaPs was finished by April next year. Some customers withdrew their wishes during this time.
- In some cases, depending of the available capacity, the status quo offer could still make up some ground. In this case PaP was offered although there was not request frome the Wishlist. But it was stable traffic during last year and was worth of offer

KPI 05: Number of requests (PaPs)
KPI 06: Number of conflicts (PaPs)



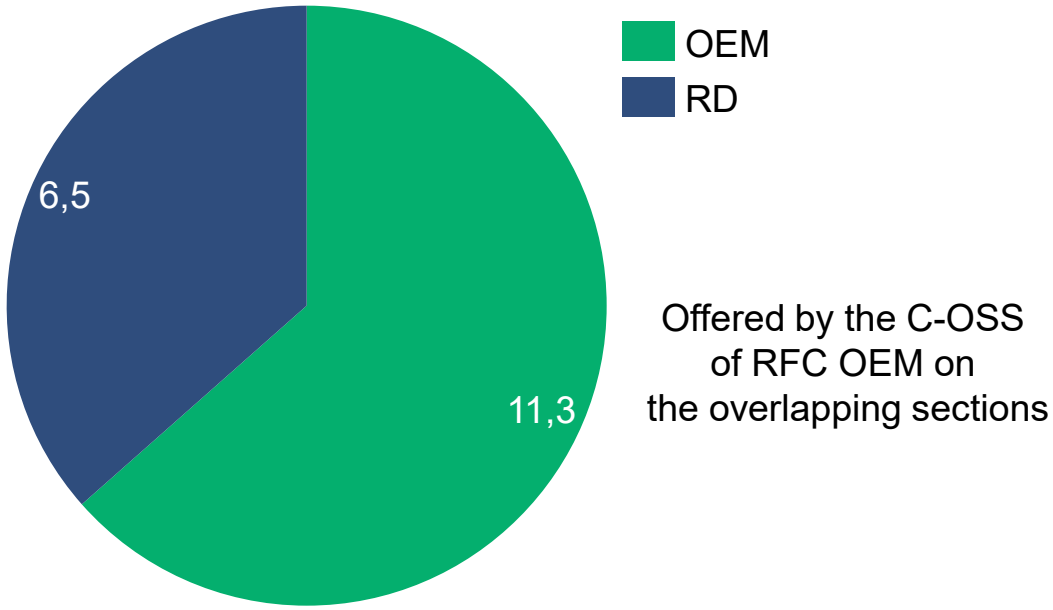
Acceptance of final offer

All dossiers were accepted by the applicants.

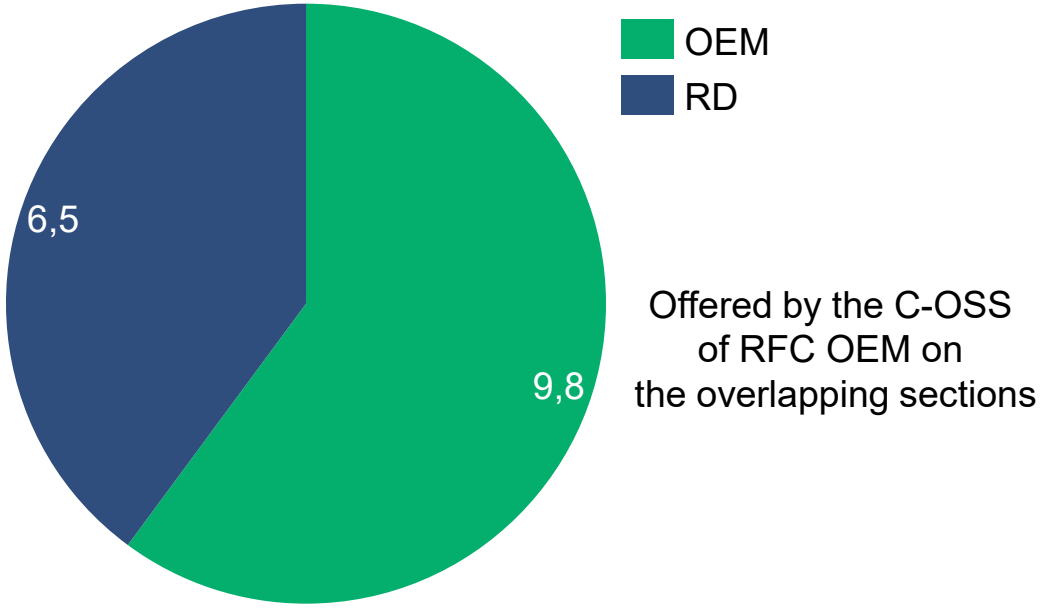
Total capacity (PaP) offer displayed on RFC RD including the overlapping sections with RFC OEM

The figures are in million path km calculated as follows: distances multiplied by running days.

Timetable 2024

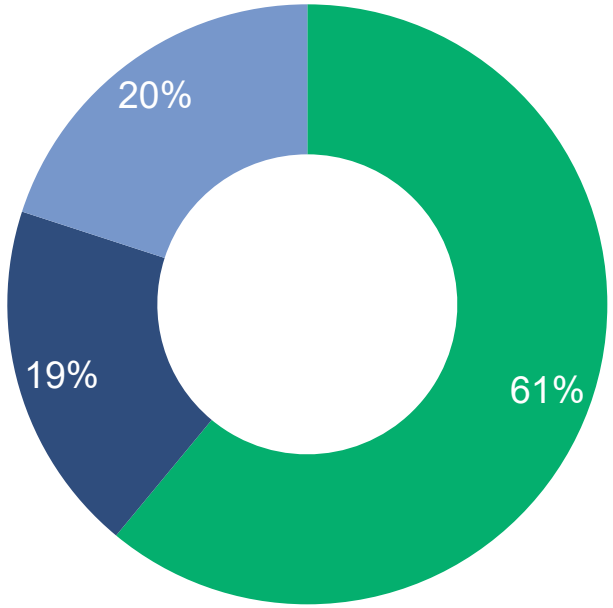


Timetable 2025

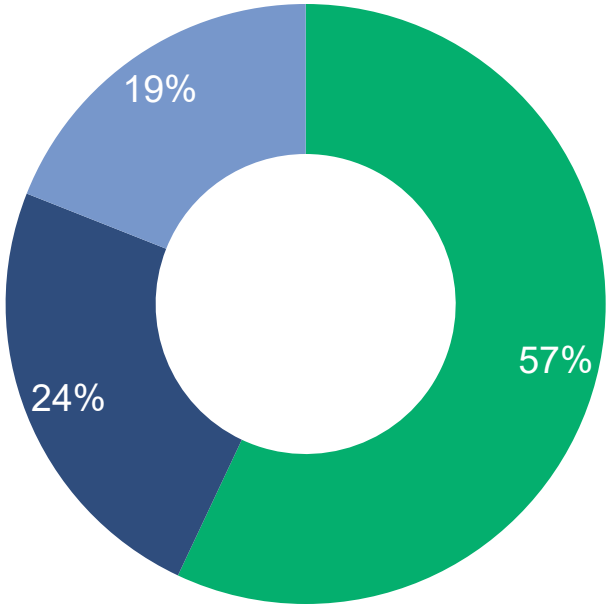


Total figures on RFC RD including the overlapping sections with RFC OEM

Share of requested capacity in 2023 for TT 2024



Share of requested Capacity in 2024 for TT 2025



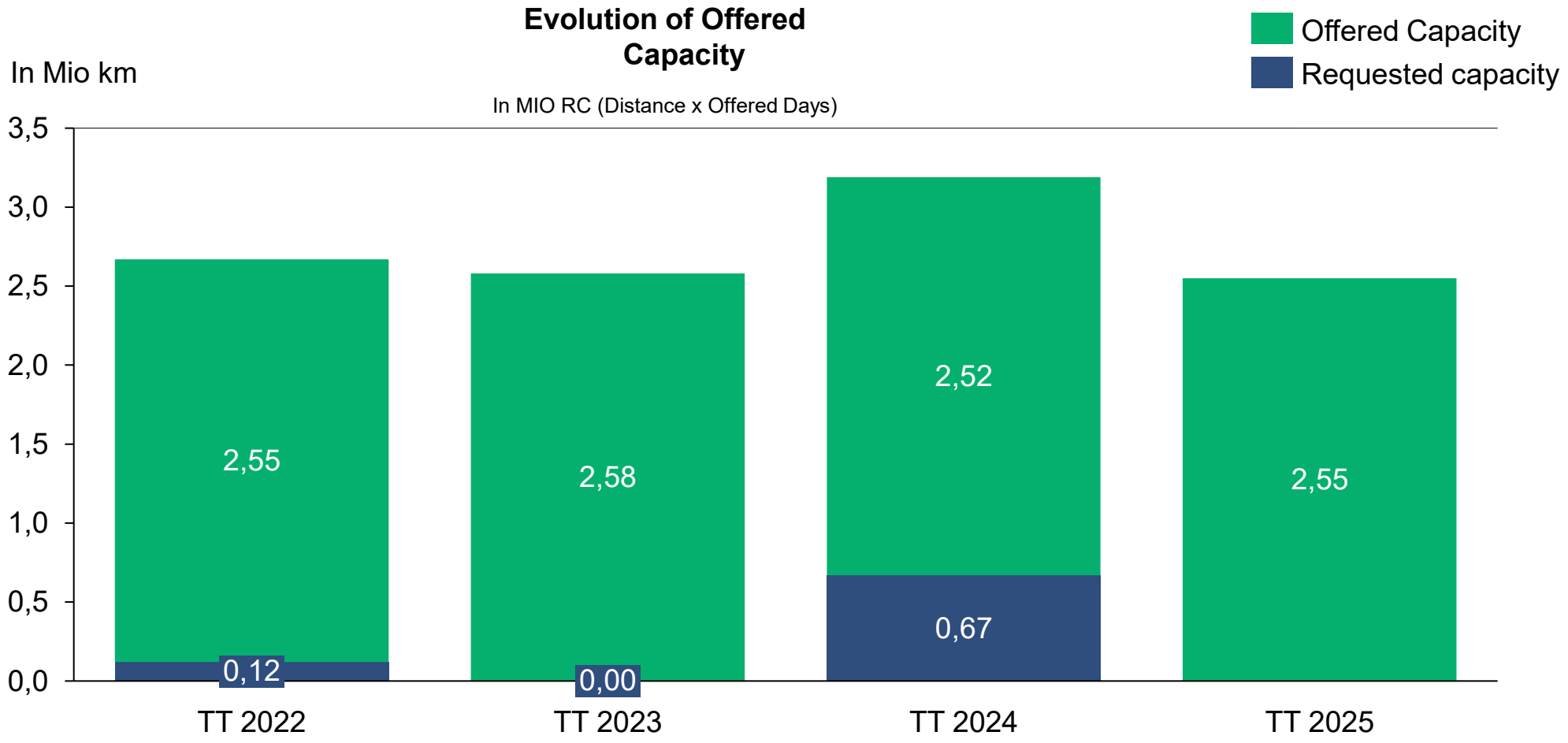
- **Eastern Traffic:** represents traffic from Hungary and Romania with connections to Bulgaria, Slovenia, Italy, Slovakia, Czech Republic and Poland
- **West-East Traffic:** represents traffic from Belgium and Germany via Austria and Hungary to Romania
- **CZ-SK** represents traffic between Czech Republic and Slovakia

RFC 9 CZ-SK
RFC9/RFC7 Eastern Traffic
RFC9/RFC7 West-East Traffic

Reserve Capacity (RC)

- Due to the new EU regulation, RFC OEM will be dissolved by 1 April 2025
- RC will be published by RFC RD only including the capacity of RFC OEM
- ÖBB offers assured transport times between RFC stations instead of time slots

KPI 07: Volume of offered capacity (RC), Volume of requested capacity (RC)

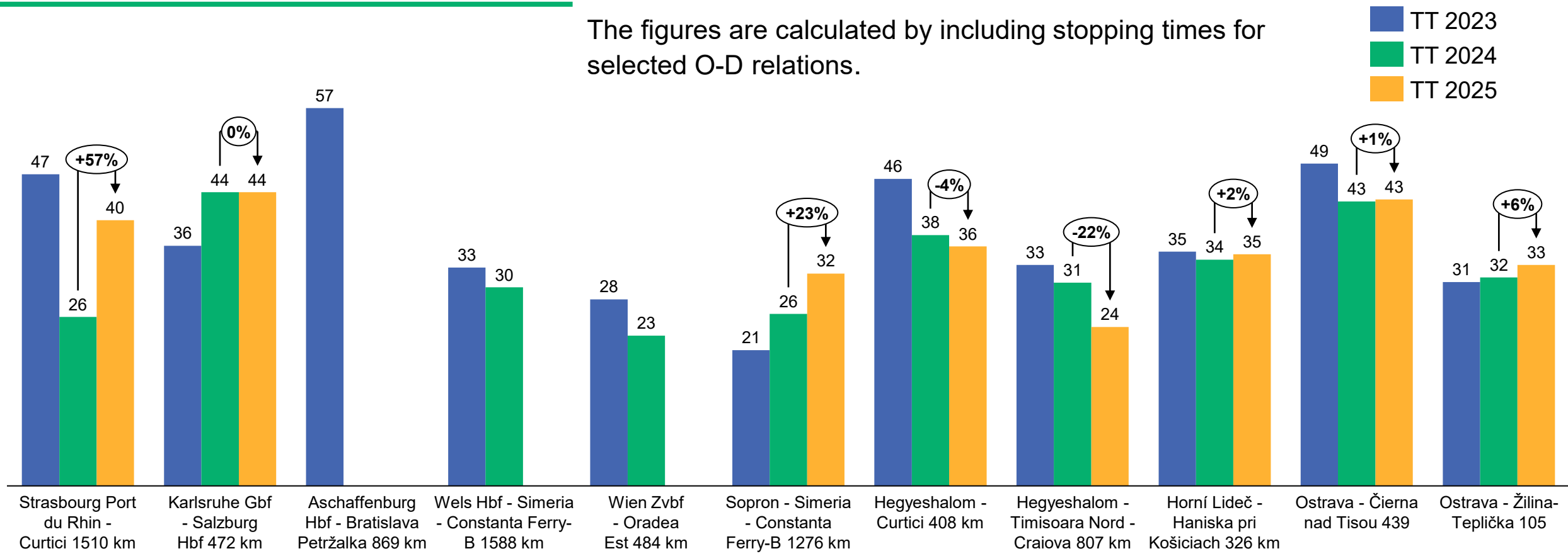


Explanations for low volume of RC request

- The four-week lead time of the reserve capacity product makes it unattractive of customers as an ad-hoc request. In the national systems, ad-hoc request is possible at any time.
- According to the respondents to the annual user satisfaction survey, if ad-hoc timetable is more advantageous, the RUs will choose that one for business perspective.

KPI 08: Average planned speed of PaPs

The figures are calculated by including stopping times for selected O-D relations.



Speed incl. Stopping Time [km/h]

Main reasons affecting the average planned speed of PaPs and actions to increase it

- Long dwell time is one of the major factors affecting the average planned speed negatively. For instance, the dwell time is rather long in Curtici station, which did not belong to the Schengen zone still in 2024.
- On the other hand TCRs are also a factor for longer average planned speed. For instance, due to the reconstruction of line Békéscsaba – Lőkösháza border, trains had to be diverted via Episcopia Bihor which results in a longer average planned speed.
- On the other hand, a better cooperation between France and Germany resulted in a better average planned speed on the main line to Romania
- Actions to increase the average planned speed: regular meetings (Quality Circle Operations) at border sections take place in order to determine bottlenecks and finding solutions

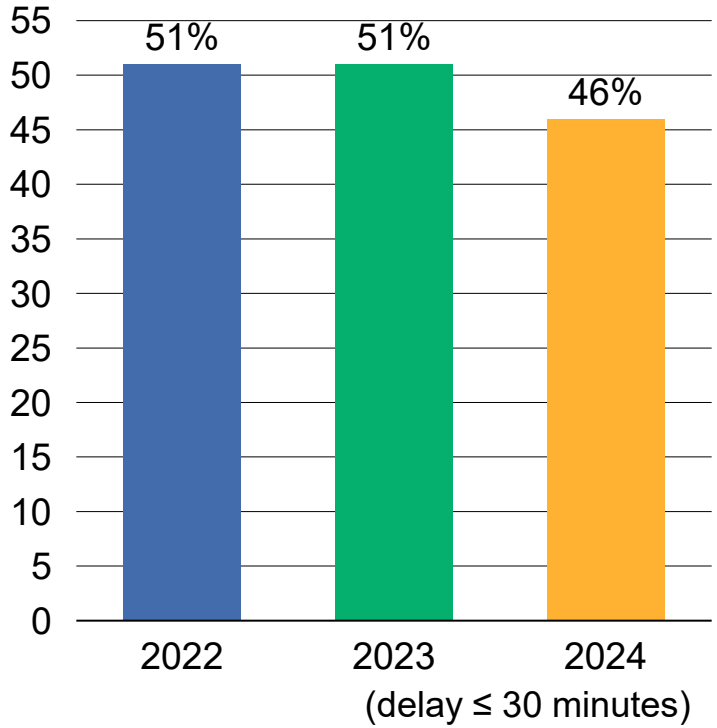
Content

About the methodology used for the calculation

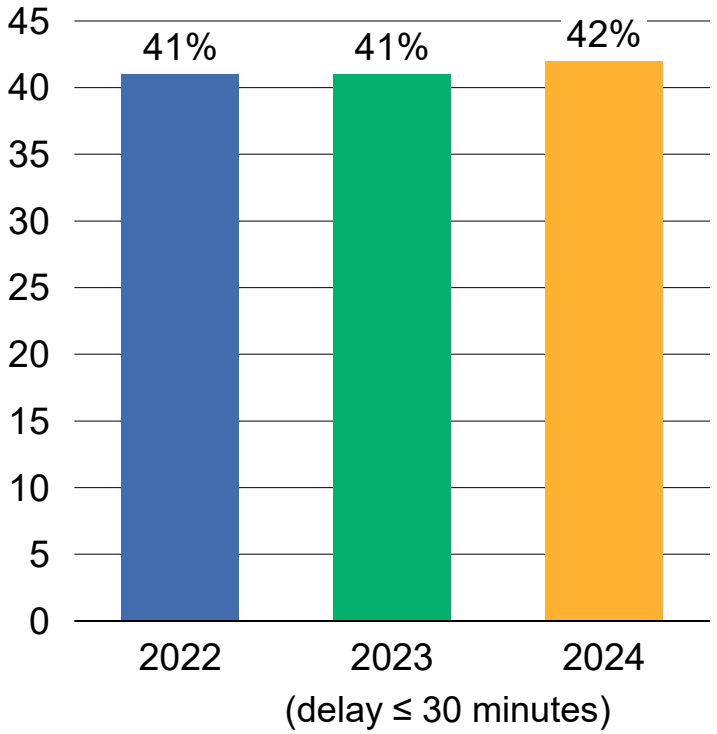
- The figures of the KPIs for operations come from the international Train Information System (TIS) database managed by RailNetEurope (RNE).
- The following criteria must be met for a train to be considered as a corridor train:
  - International freight train;
  - Crossing at least one border of the RFC.
- The KPIs for punctuality show the average punctuality of trains running on the RFC, measured at RFC Entry and RFC Exit:
  - RFC Entry – the first point in the train run which belongs to the RFC;
  - RFC Exit – the last point in the train run which belongs to the RFC.
- Monthly train punctuality reports are generated from the TIS and are published on the website of the RFC and in the CIP. Monitoring and follow-up on the monthly punctuality reports is done by the Operations and Performance Working Group (WG). Punctuality issues can also be discussed bilaterally between this WG and the users of the RFC on a case-by-case basis.

KPIs for Punctuality – Comparison between 2022, 2023, and 2024

Punctuality at origin (RFC entry)



Punctuality at destination (RFC exit)

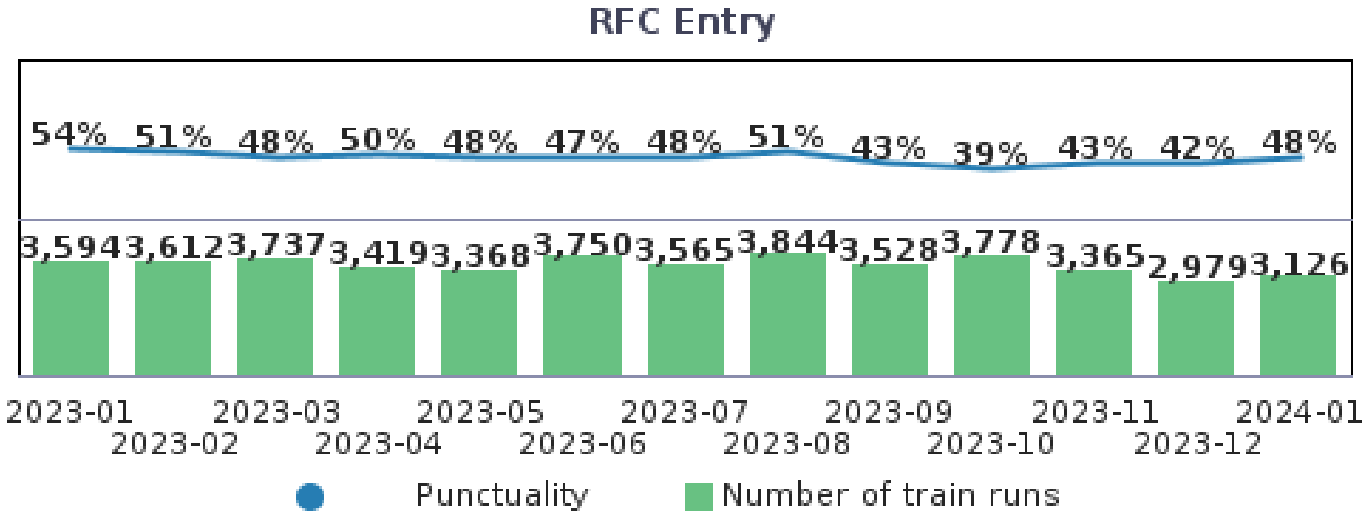


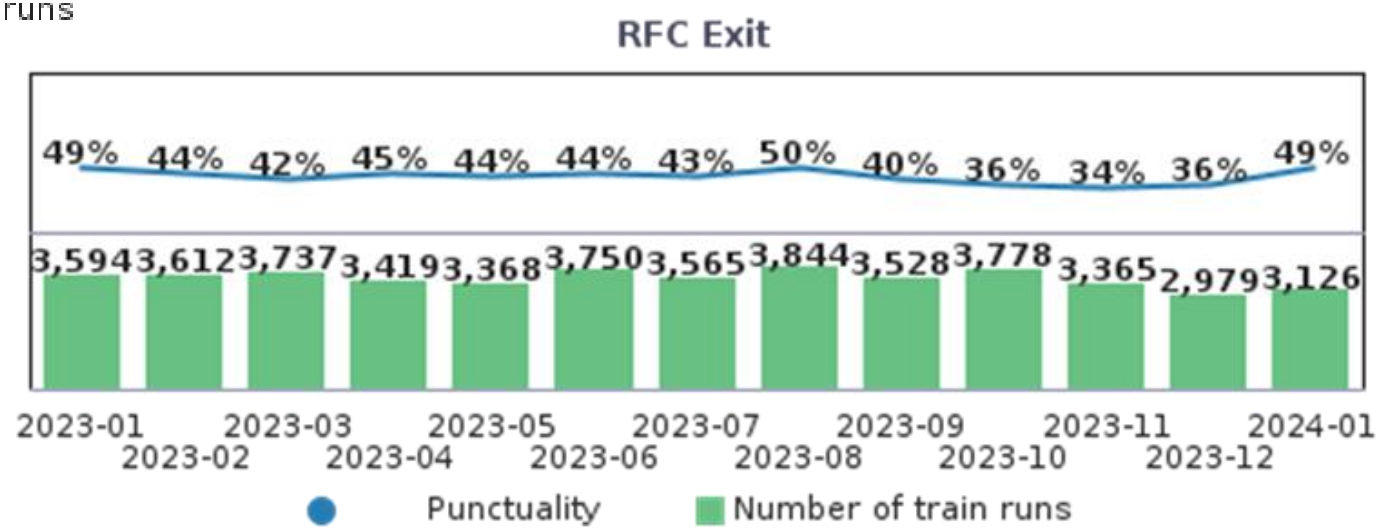
A corridor train is considered to be punctual if it has a delay of 30 minutes or less.

Conclusion

- There are lots of reconstruction, building and maintanance works on the network almost whole Europe
- The gradual increase in passenger trains traffic has a negative impact on freight trains traffic flows
- While the punctuality at origin value has decreased 5%, the punctuality at destination value increased 1%
- The punctuality value on the corridor improved 6% (from 10% to 4%)

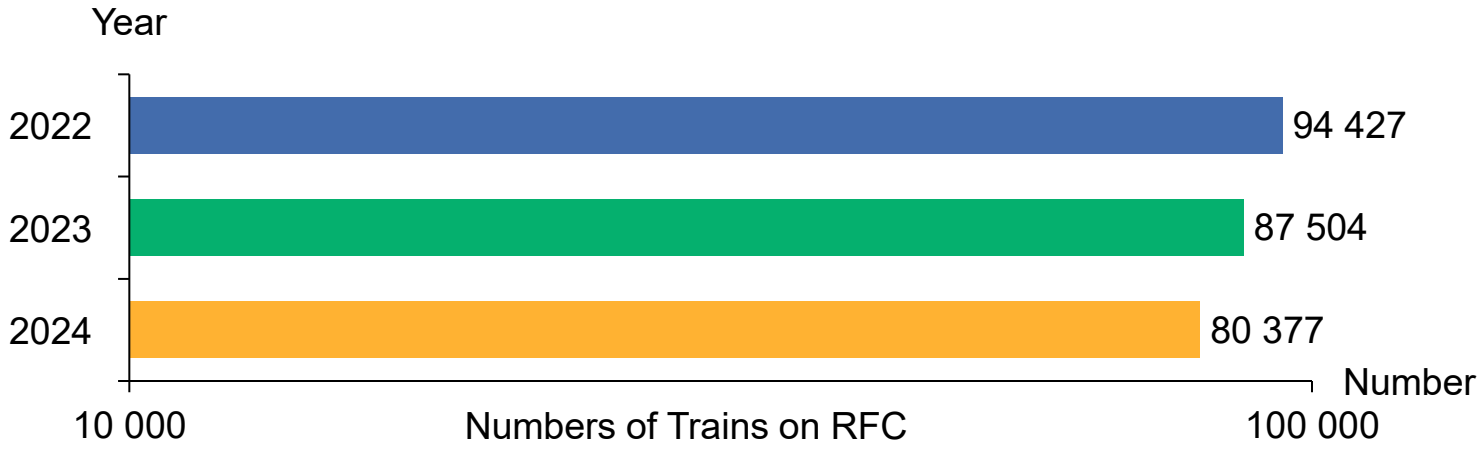
Monthly development in 2024





Number of trains crossing a border along the RFC – Comparison between 2022, 2023 and 2024

- This KPI demonstrates the total number of all international freight trains crossing at least one border along RFC RD.
- At present, we are not able to differentiate between trains running on PaPs or trains running on a regular international train path. Therefore, we count all international trains that are running on the lines of the RFC. Trains passing more than one border on the RFC are counted only once.

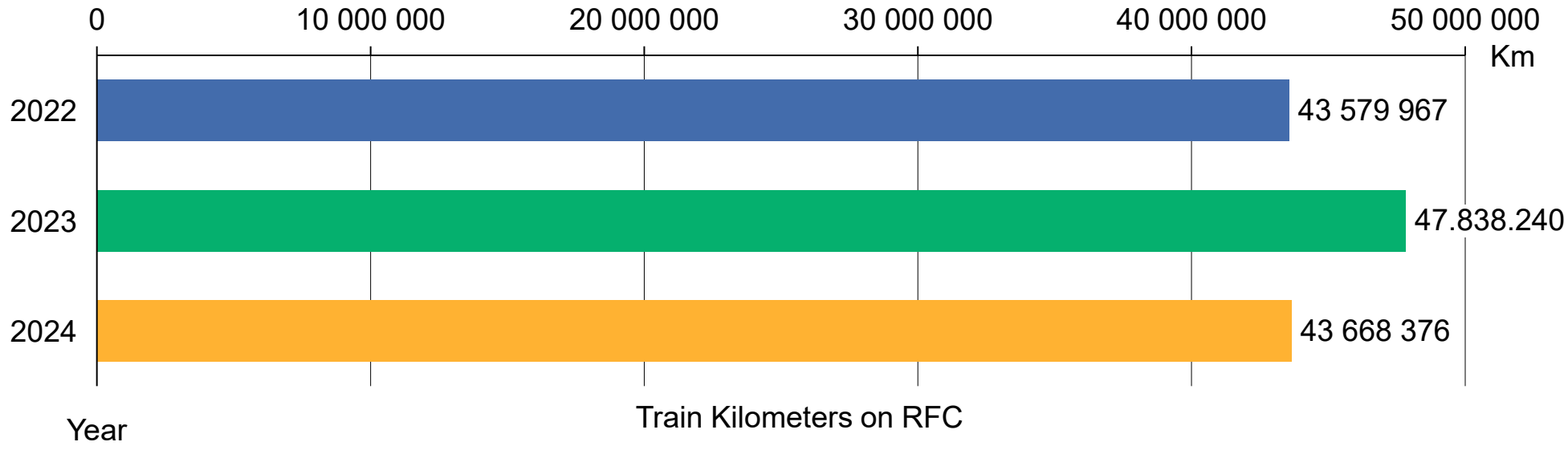


Conclusion

- There are lots of reconstruction, building and maintanance works on the network almost in whole Europe
- The gradual increase in passenger trains traffic has a negative impact on freight trains traffic flows
- External economic reasons (Change of transport volume and mode)
- Increased competition in the transport sector with rising fares

KPI: Train kilometers of trains crossing a border along the RFC in 2023 – Comparison between 2022, 2023 and 2024

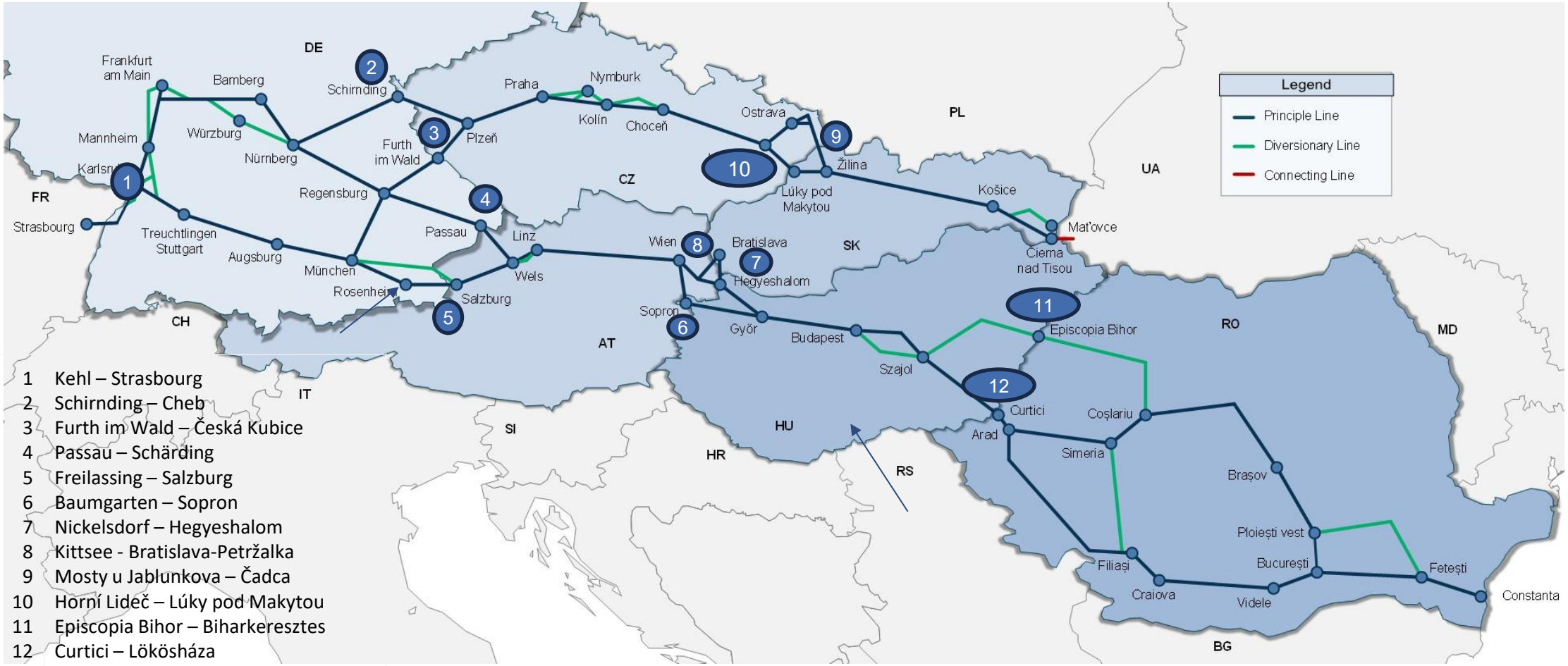
- This KPI demonstrates the total volume of train kilometers of all international freight trains crossing at least one border along RFC RD.



Conclusion

- Restructuring of transport logistics (increase in the number of longer distance running trains)
- External economic reasons that make the volume of transport unpredictable
- Increased competition in the transport sector with rising fares

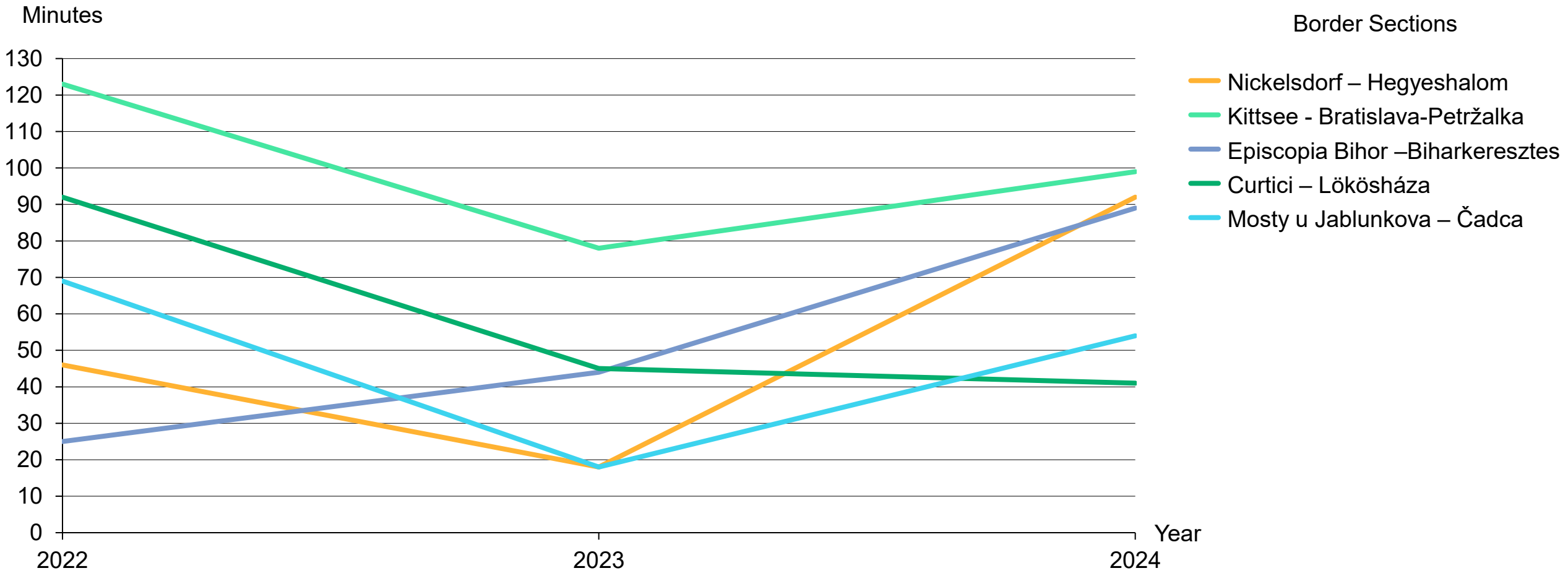
Border sections of RFC RD



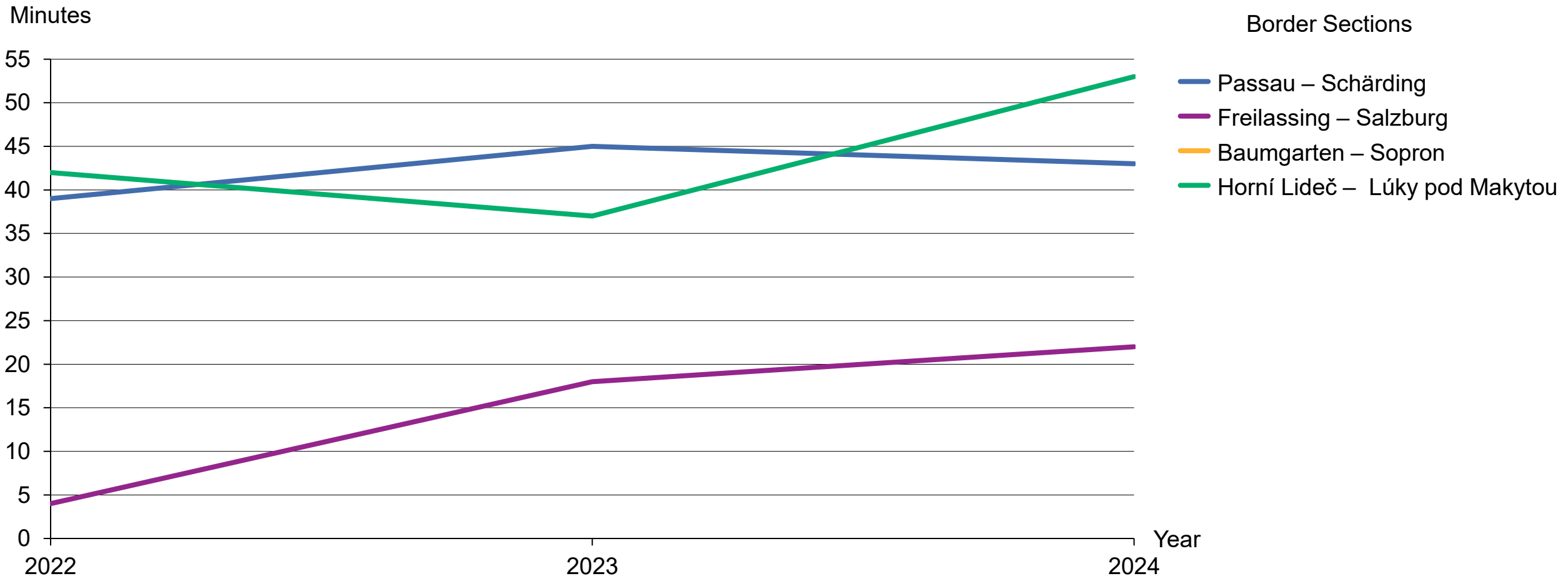
KPI: Average planned dwell time per border – Comparison between 2022, 2023 and 2024

Border	Direction	2022 (in minutes)	2023 (in minutes)	2024 (in minutes)
Passau – Schärding	DB InfraGO – ÖBB Infra	39	45	43
Freilassing – Salzburg	DB InfraGO – ÖBB Infra	4	18	22
Nickelsdorf –Hegyeshalom	MÁV – ÖBB Infra	46	18	92
Kittsee - Bratislava-Petržalka	ÖBB Infra – ŽSR	123	78	99
Baumgarten – Sopron	ÖBB Infra – GYSEV	2	N/A	N/A
Episcopia Bihor –Biharkeresztes	MÁV – CFR	25	44	89
Curtici – Lökösháza	MÁV – CFR	92	45	41
Mosty u Jablunkova – Čadca	ŽSR - SŽCZ	69	18	54
Horní Lideč – Lúky pod Makytou	ŽSR - SŽCZ	42	37	53

KPI: Average planned dwell time per border – Comparison between 2022, 2023 and 2024



KPI: Average planned dwell time per border – Comparison between 2022, 2023 and 2024



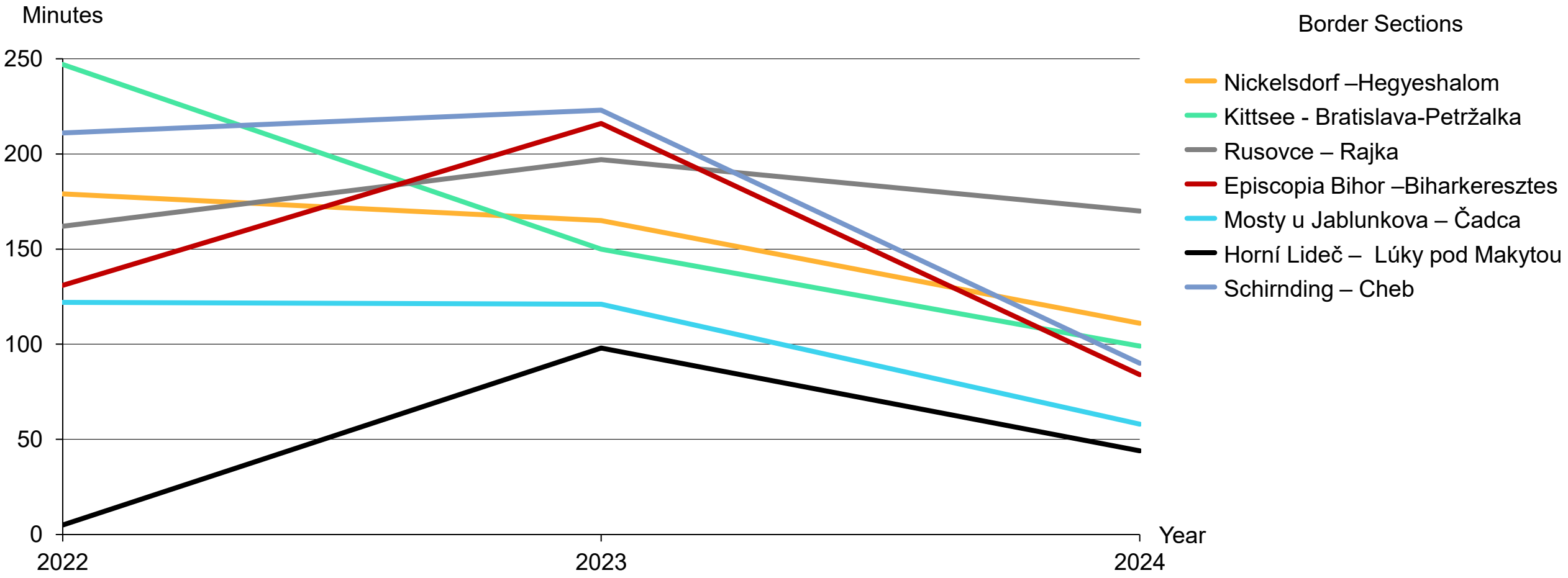
KPI: Average real dwell time per border – background information

- This KPI shows the average real time related to the border-crossing procedures and/or operational concepts of all international freight trains crossing a specific border.
- The calculation of this KPI is based on the data available in RNE's Train Information System. The presented data might differ from the data gathered in the national systems of the IMs due to data quality differences.
- For those borders for which data are not presented, the KPIs will be published as soon as the ongoing improvement actions to improve data quality are completed.
- is KPI shows the average time planned in the timetable related to the border-crossing procedures and/or operational concepts of all international freight trains crossing a specific border.
- A lower planned dwell time can mean that a big share of trains is just planned to run through via the border section with no foreseen procedures.
- From 2024 on real dwell time of both directions will be displayed

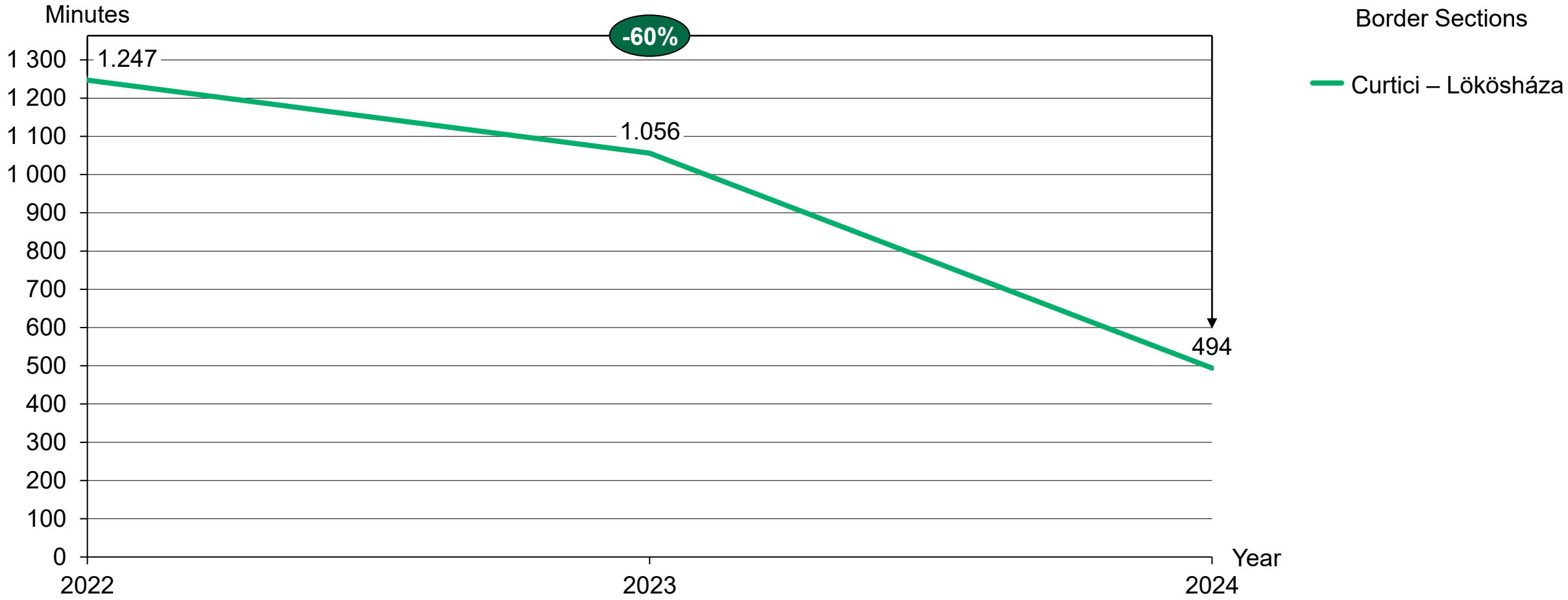
KPI: Average real dwell time per border – Comparison between 2022, 2023 and 2024

Border	Direction	2022 (in minutes)	2023 (in minutes)	2024 (in minutes)
Passau – Schärding	DB InfraGO – ÖBB Infra	N/A	N/A	42
	ÖBB Infra – DB InfraGO	N/A	N/A	
Freilassing – Salzburg	DB InfraGO – ÖBB Infra	N/A	N/A	22
	ÖBB Infra – DB InfraGO	N/A	N/A	
Strasbourg – Kehl	DB InfraGO – SNCF-R	N/A	N/A	1
	SNCF R- DB InfraGO	N/A	N/A	
Furth im Wald – Česká Kubice	SŽCZ – DB InfraGO	N/A	N/A	50
	DB InfraGO - SŽCZ	N/A	N/A	
Baumgarten – Sopron	ÖBB Infra – GYSEV	2	N/A	N/A
	GYSEV – ÖBB Infra	4	N/A	

KPI: Average real dwell time per border – Comparison between 2022, 2023 and 2024 (in minutes)



KPI: Average real dwell time per border – Comparison between 2022, 2023 and 2024 (in minutes)



Note: Romania was not in the Schengen Area until 1 January 2025

Conclusion

- For the border section Lőkösháza - Curtici, the difference between the data in the TIS and the data in the national system is significant, so that this KPI for this border is published based on data from the national system.
- This border section as a non-Schengen border has been particularly in the focus since the dwell time significantly decreased due to the migration crisis that started in 2017.
- A decicated cross-border cooperation group comprising RUs, the two IMs, and the terminal was set up to tackle the problem. The group has done a deep investigation on the procedures of the border section and the circumstances of the traffic and it proposed improvement measures to make traffic flow more smoothly.
- As a result of the joint work, train crossing times at the border have improved, meaning a reduction of around 3 hours in the waiting time, which is still far from the desired 120-minute target.

Content

About the methodology used for the calculation

In the category “Market Development” the following KPIs are applied:

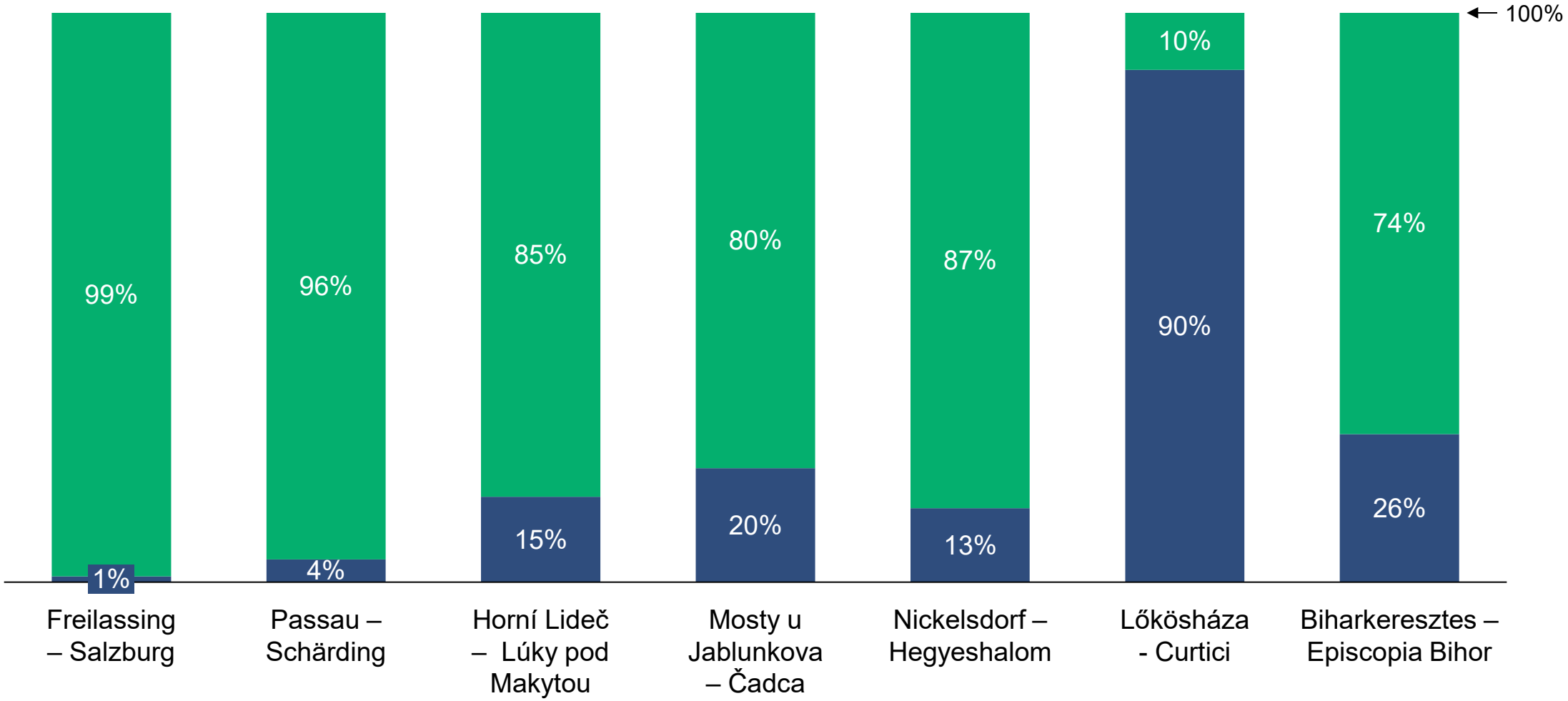
KPI 01: Ratio of the capacity allocated by the C-OSS to total allocated capacity:

- This KPI displays the ratio of the number of train runs allocated in the yearly timetable by the C-OSS per RFC border to the total number of allocated international freight train runs in the yearly timetable per RFC border.
- The source of data is PCS for RFC capacity and national IMs’ tools for total allocated capacity.
- In case of border points with more than one C-OSS responsible (in case of common offer or in case of overlapping sections), the KPI figure presents the combined number of all C-OSSs concerned.

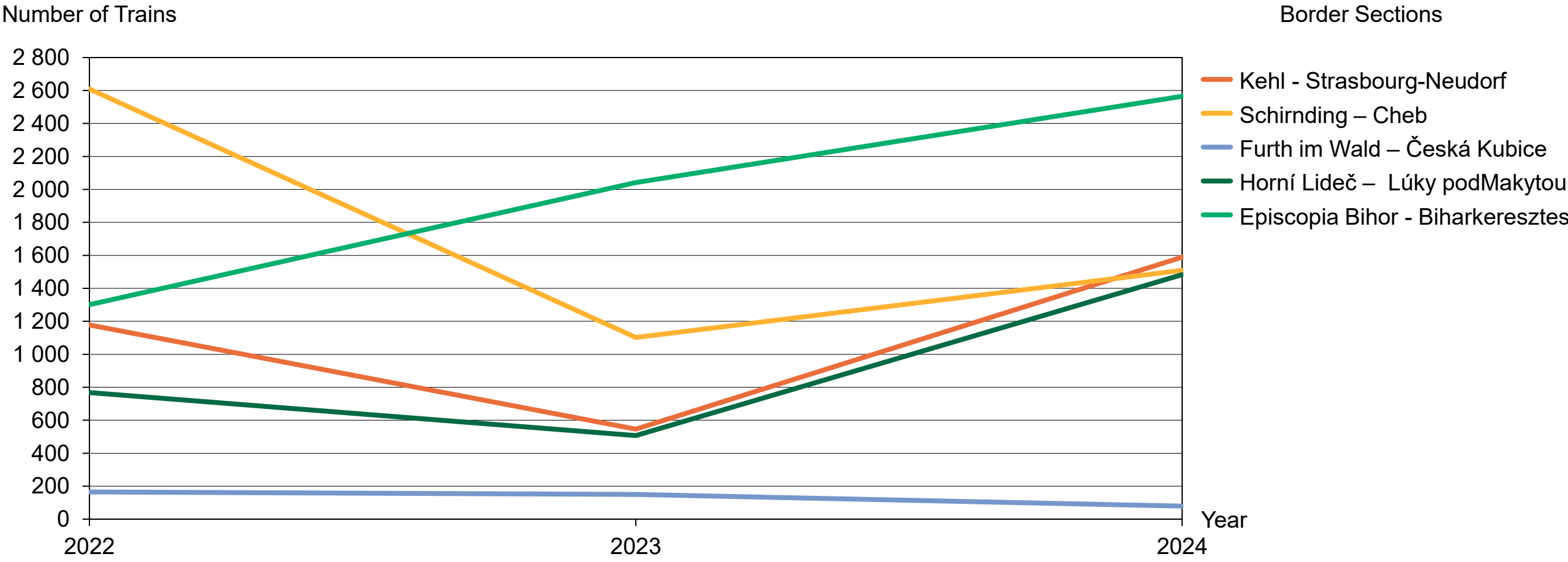
KPI 02: Number of trains per border:

- Trains that pass more than one border would be counted at each border, therefore the total sum is not applied, only the border sections are measured separately.
- The source of the data is the national tools of the IMs.

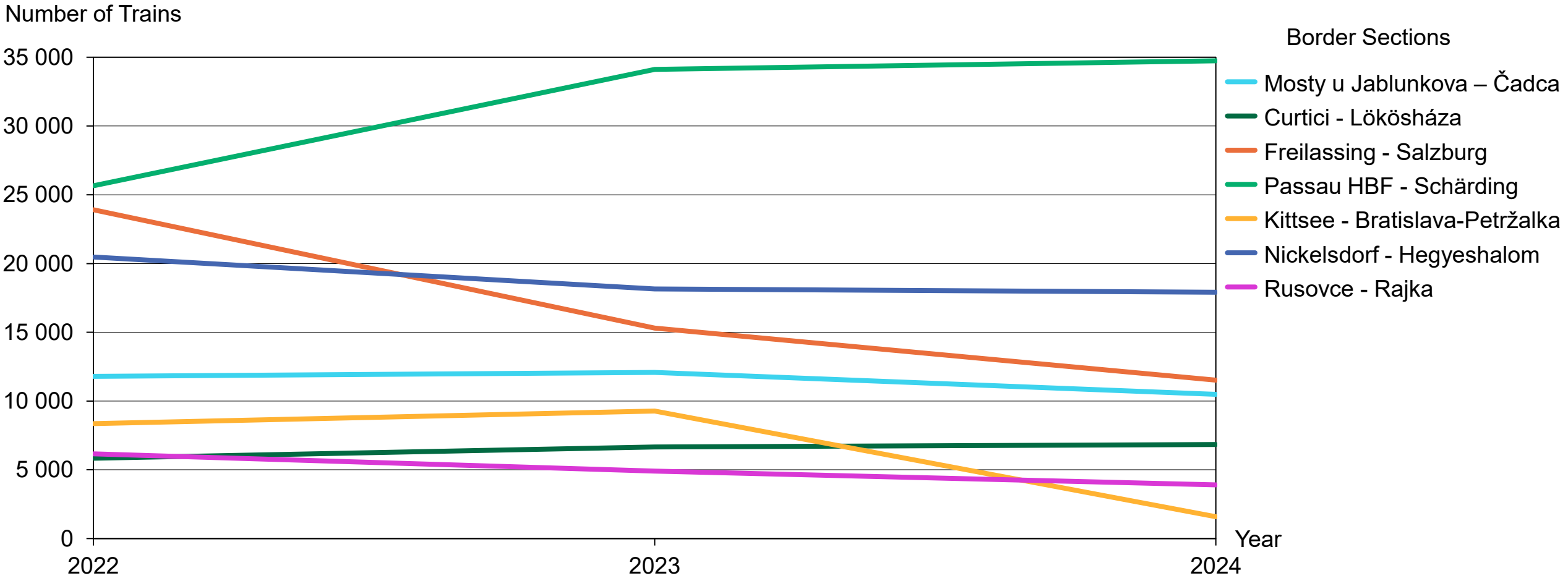
KPI 01: Ratio of the capacity allocated by the C-OSS to total allocated capacity



KPI: Number of trains per border comparison between 2022, 2023 and 2024



KPI: Number of trains per border comparison between 2022, 2023 and 2024

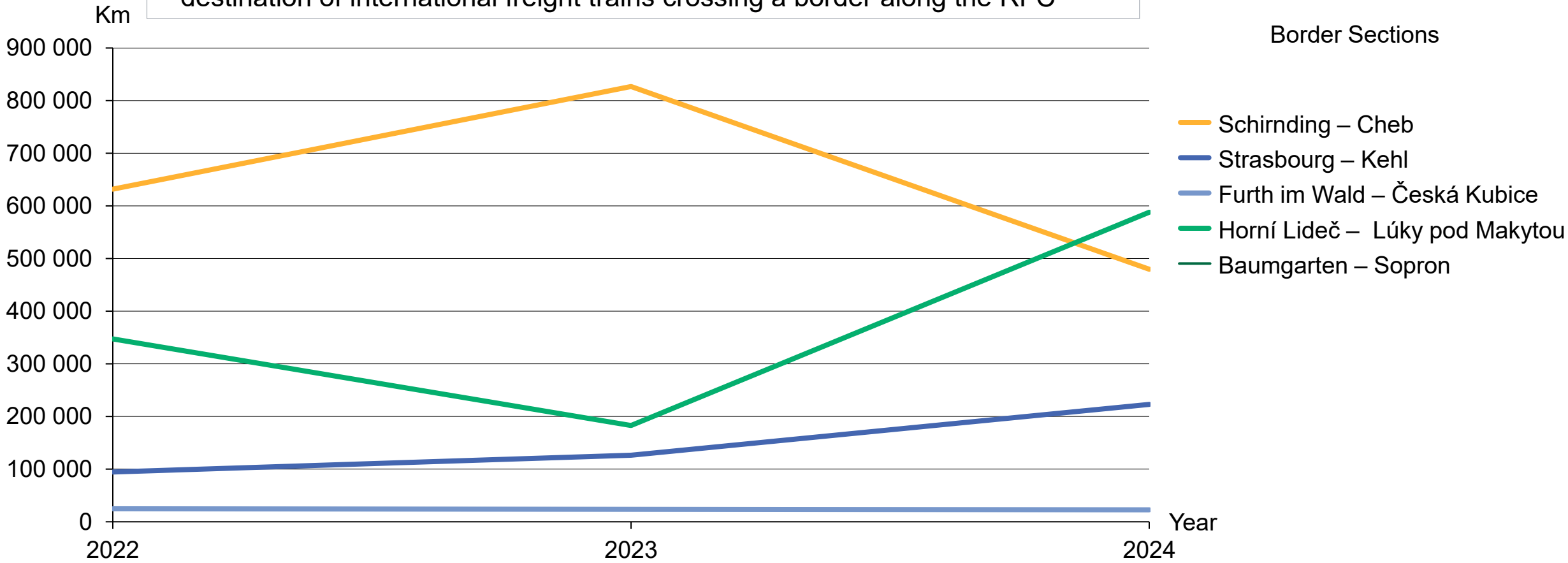


Conclusion

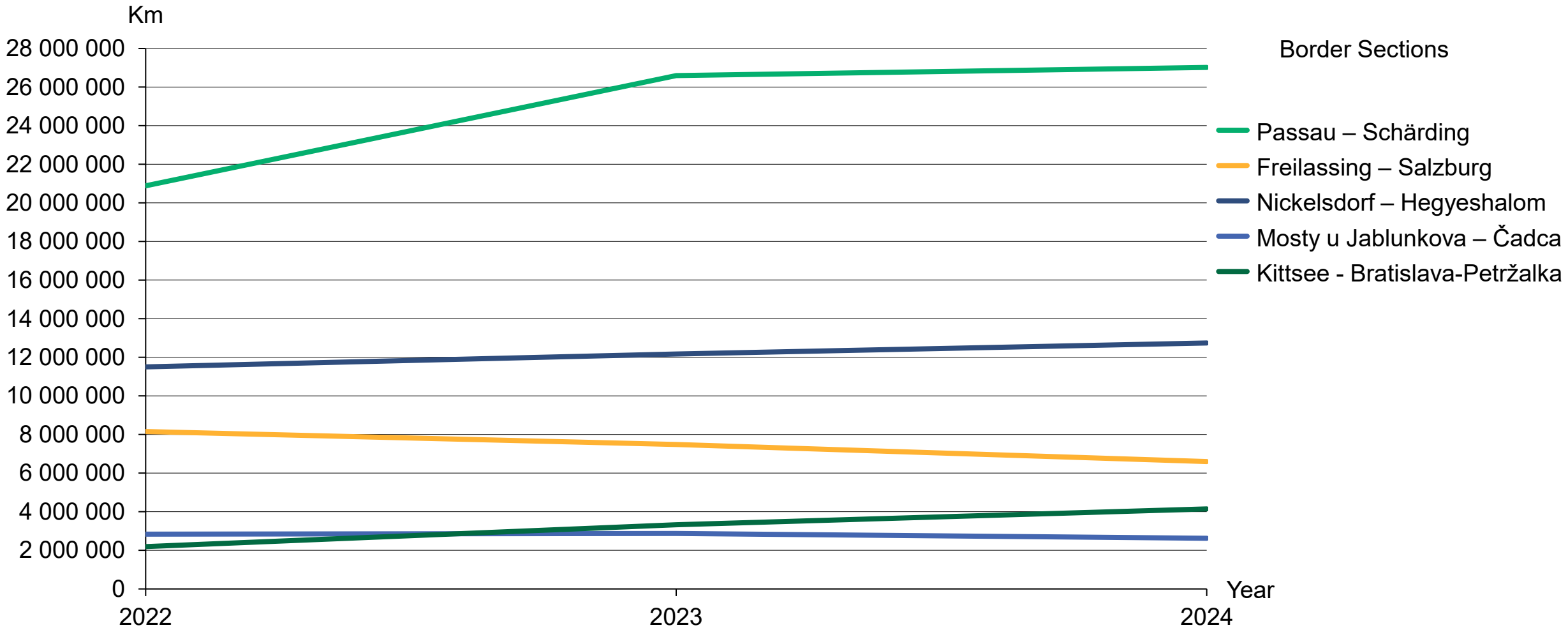
- At Biharkeresztes - Episcopia Bihor border traffic is increasing continuously thanks for the renewal of the line on the Hungarian side, but from this year the renewal works started on the Romanian side, which will cause long closure at the border crossing, and it will affect the traffic indicators in the next year.
- At Lőkösháza – Curtici border crossing the renewal works finished this year and we expect that the traffic will be smooth in the future.

KPI: Train kilometers of trains per border – Comparison between 2022,2023 and 2024

- The following KPIs presents the volume of train kilometers between origin and destination of international freight trains crossing a border along the RFC

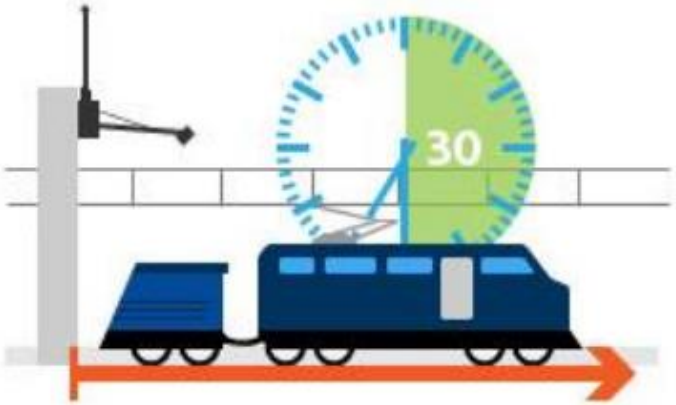


KPI: Train kilometers of trains per border – Comparison between 2022,2023 and 2024



Punctuality at origin and destination – 30 minutes

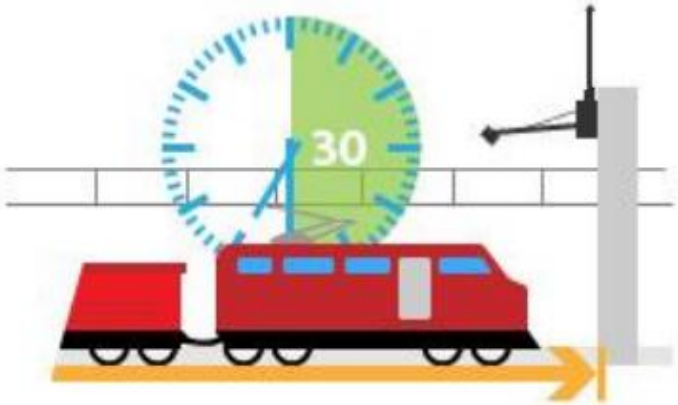
Punctuality at origin (RFC entry)



(delay ≤ 30 minutes)

2024:	**46.0%**
2023:	51.0%
2022:	51.0%

Punctuality at destination (RFC exit)

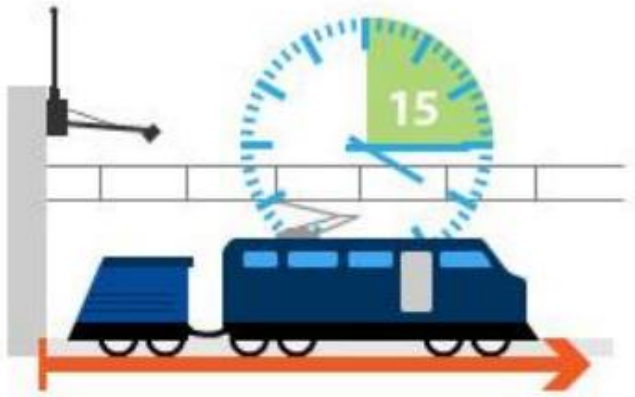


(delay ≤ 30 minutes)

2024:	**42.0%**
2023:	41.0%
2022:	41.0%

Punctuality at origin and destination – 15 minutes

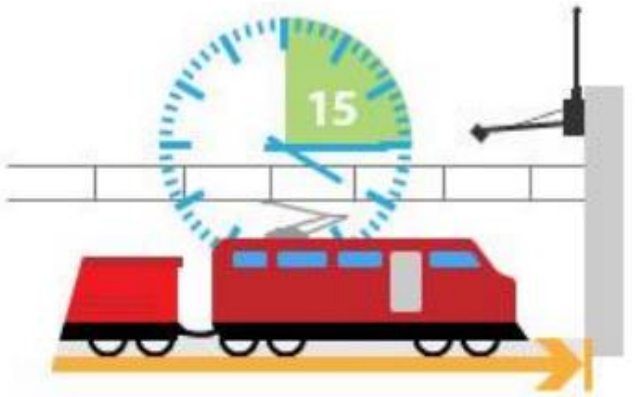
Punctuality at origin (RFC entry)



(delay ≤ 15 minutes)

2024:	**40.0%**
2023:	44.0%
2022:	45.0%

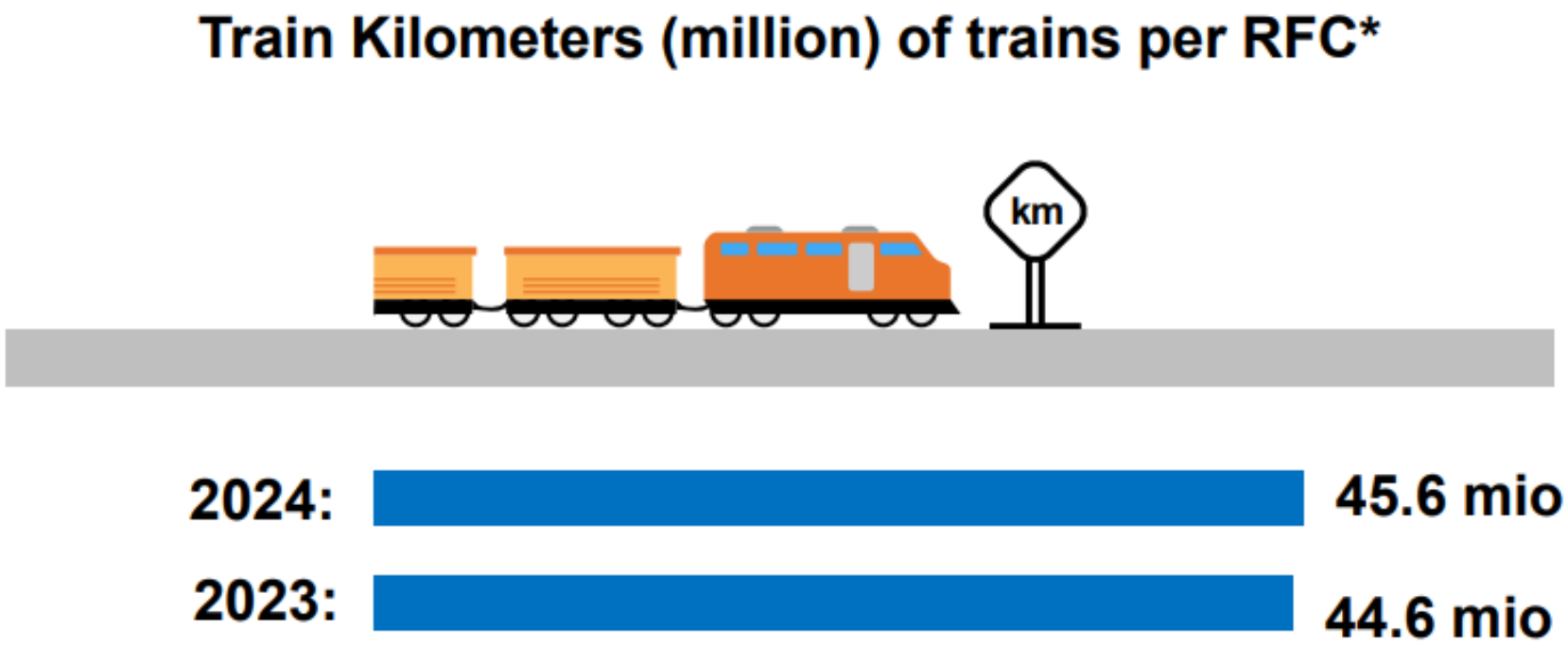
Punctuality at destination (RFC exit)



(delay ≤ 15 minutes)

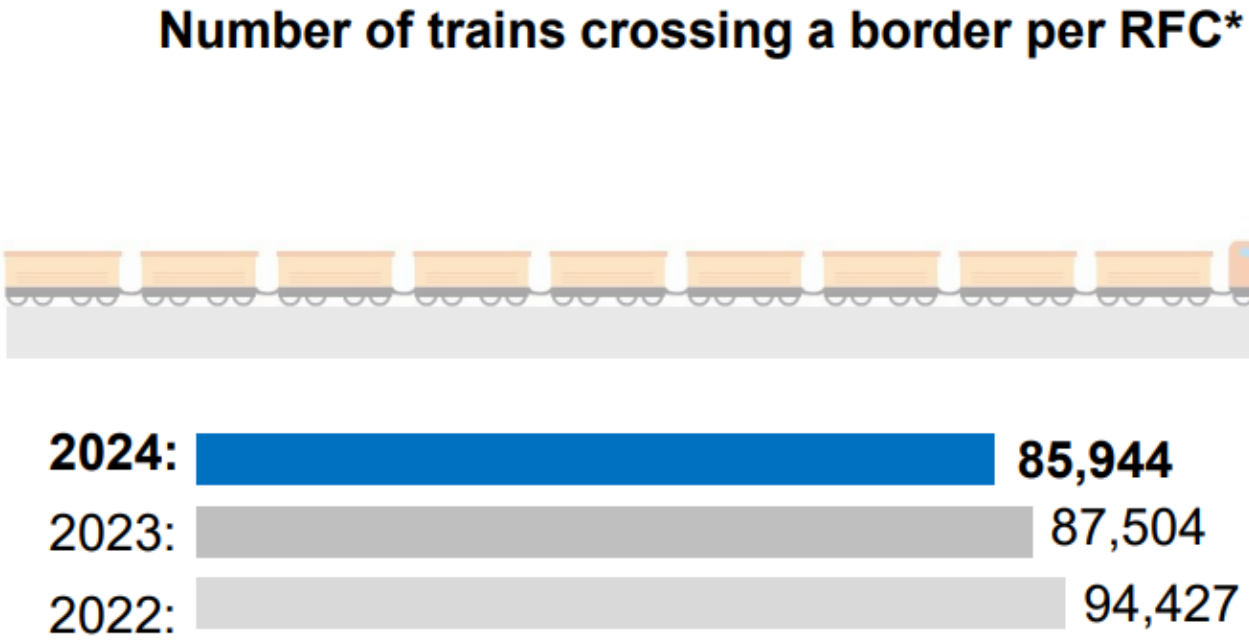
2024:	**38.0%**
2023:	37.0%
2022:	37.0%

Train Kilometers (million) of trains per RFC



- *The calculation of this KPI is based on data in RNE's TIS. International freight trains crossing a border of an RFC are considered in the calculation.
- The presented data might differ from the data gathered in the national systems due to data quality differences between individual IMs.

Number of trains crossing a border

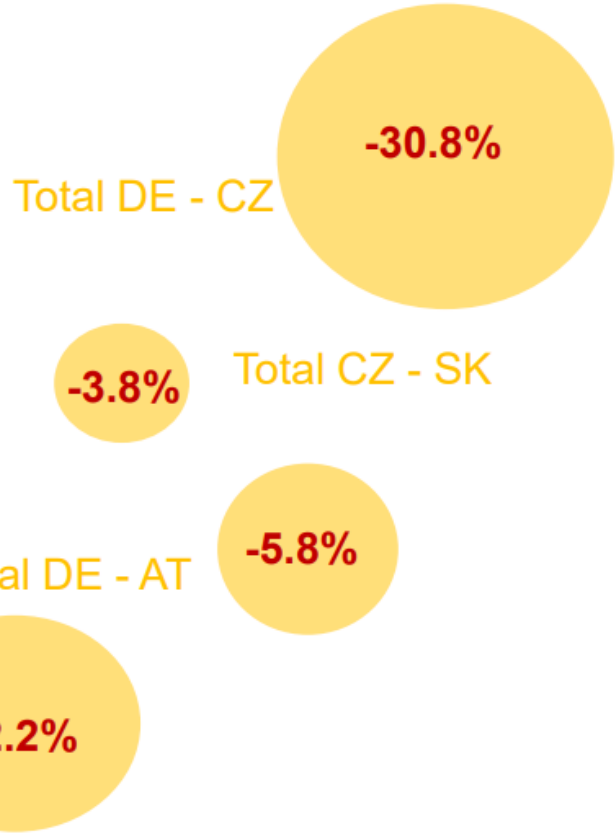


- The calculation of this KPI is based on data in RNE's TIS. International freight trains crossing a border of an RFC are considered in the calculation.

Number of trains per border Part 1

Number of trains per border - Part 1*

	2022	2023	**2024**
Total FR - DE:	1,951	n/a	**n/a**
Total DE - CZ:	3,053	2,811	**1,945**
Total CZ - SK:	14,465	14,270	**13,730**
Total DE - AT:	52,276	41,528	**39,096**
Trains per border: Mosty u J./Čadca H.Lideč/Lúky p.M.	14,270	13,730	**12,049**

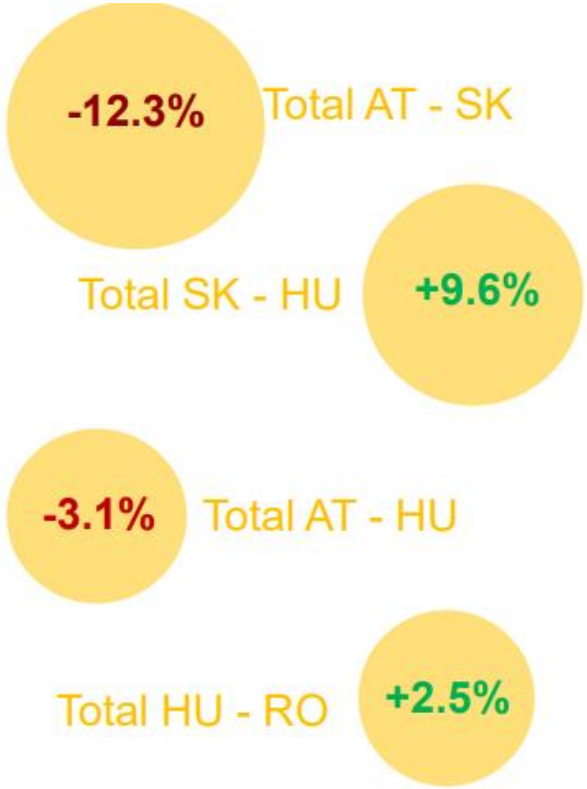


*The calculation of this KPI is based on data in IMs' systems. The total sum of the figures per border does not correspond to the figure of the KPI 'Overall number of trains on the RFC' due to, among other reasons, the potential double-counting of trains crossing more than one border.

Number of trains per border Part 2

Number of trains per border - Part 2*

	2022	2023	**2024**
Total AT - SK:	8,604	9,571	**8,395**
Total SK - HU:	5,426	4,610	**5,054**
Total AT - HU:	20,634	18,917	**18,338**
Total HU - RO:	10,904	10,116	**10,366**



*The calculation of this KPI is based on data in IMs' systems. The total sum of the figures per border does not correspond to the figure of the KPI 'Overall number of trains on the RFC' due to, among other reasons, the potential double-counting of trains crossing more than one border.

Content

Views and assessment of the Advisory Groups about corridor performance

- The rail freight sector needs to speed up in achieving operational targets.
- Active and close cooperation of stakeholders is needed, in particular of IMs, RUs and terminals.
- Punctuality acknowledged as key performance indicator to improve rail freight competitiveness.
- Removal of Schengen borders helps to reduce dwell times in border sections.
- Data quality should be improved; sharing of Train Composition Messages in TIS can contribute to this.

Topics

Outlook

- Further improvement of capacity offer in line with market needs
- Continuation and strengthening of work in performance-related cross-border groups:
  - QCO Salzburg (AT) – Freilassing (DE)
  - QCO Passau (DE) – Schärding (AT)
  - Cross-border group Rajka (HU) – Rusovce (SK)
- Development of joint methodology across all RFCs for measuring of KPIs.
- Good cooperation mechanism with ETC RD Coordinator and governance

Outlook – Adaptation of RFC Rhine-Danube route and governance to ETC Rhine-Danube

- Full integration of major parts of RFC Orient/East-Med into RFC Rhine-Danube
  - **Accomplished with effect from 1 April 2025 (ahead of legal deadline)**
  - All (current) RFC RD Members have also been Members of RFC OEM (except France)
  - Integration facilitated by close and fruitful cooperation since several years between RFC RD and RFC OEM, exploiting synergies – for Members and customers – through joint activities, working groups and meetings
  - **Successful finalization of this step implements the by far biggest part (> 90%) of the geographical adaptations foreseen by the TEN-T Regulation**
- Upcoming: Integration of Serbia
  - Executive Board and Management Board of RFC RD closely working together to pave the way for extension of the corridor to Serbia
- Long term: Extension of the corridor to Ukraine (Lviv) – currently no legal basis

Further information

- You can find more information in general about the commonly applicable RFC KPIs on the RNE website:

  https://rne.eu/wp-content/uploads/2022/10/Guidelines_KPIs_of_RFCs_V4.0.pdf

- A simplified management-level summary of the results of the KPIs can also be found on the RNE website: Commonly applicable KPIs RFC Rhine-Danube (rne.eu)
- The KPIs for capacity management are also included in the Framework for Capacity Allocation approved by the Executive Board of RFC RD, harmonised across all RFCs, which can be downloaded here: Documents - Rail Freight Corridor 9 (rfc-rhine-danube.eu)