

RFC North Sea – Baltic Performance Monitoring Report 2023



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Introduction

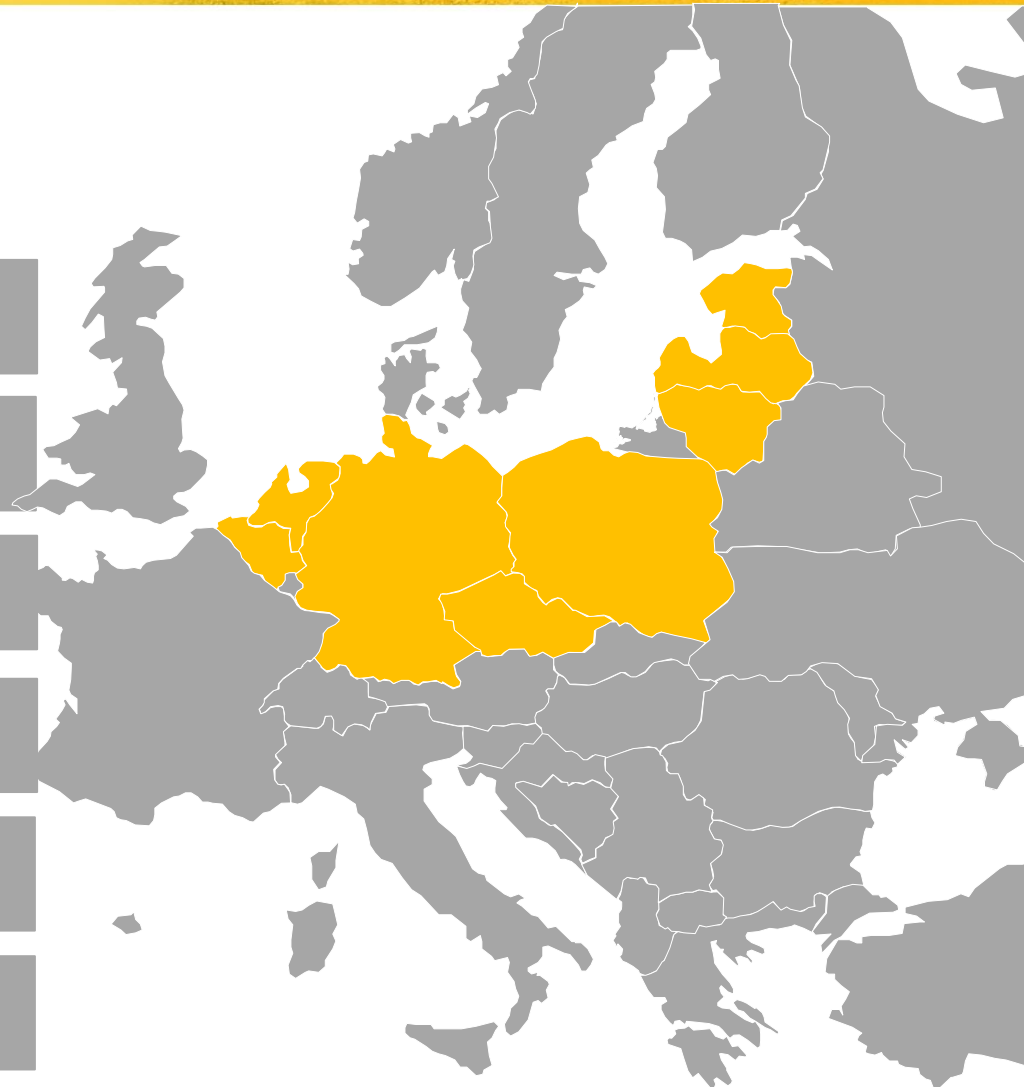
Performance Indicators

KPIs for Operations

KPIs for Capacity Management

KPIs for Market Development

Monitoring progress of the corridor objectives





Introduction

- A set of commonly applicable KPIs has been agreed by all Rail Freight Corridors. The KPIs, their definition and source of data are described in the RNE guidelines for KPIs of Rail Freight Corridors ([Guidelines KPIs of RFCs V4.0.pdf \(rne.eu\)](#)).
- The results can be found in this Performance Monitoring Report, by which all our stakeholders are informed about the progress of the corridor on a yearly basis and on the RNE website ([RFC KPIS - Railnet Europe, Rail Net Europe \(rne.eu\)](#)). Some of the KPIs are also published in the Annual Report.
- Capacity Management KPIs are also described in the Framework for Capacity Allocation on the Rail Freight Corridor North Sea–Baltic approved by the Executive Board.
- At the end, we report about the 2023 progress of the RFC NS-B objectives.



Introduction

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Performance Indicators

- The KPIs in this Performance Monitoring Report were chosen based on the following parameters:
 - Measurability: performance should be measurable with the tools and resources available on the corridor;
 - Clarity: KPIs should be understandable to the public it is designed for;
 - Comparability: KPIs should be comparable across time and region;
 - Relevance and empowerment: KPIs should provide information on which project decisions can be based.

- To be able to easily understand the figures in this report, a clear explanation is provided on how the calculation was made and what is measured for each indicator.

- The indicators can be divided into three business fields:
 - Operations
 - Capacity Management and
 - Market Development



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KPIs for Operations

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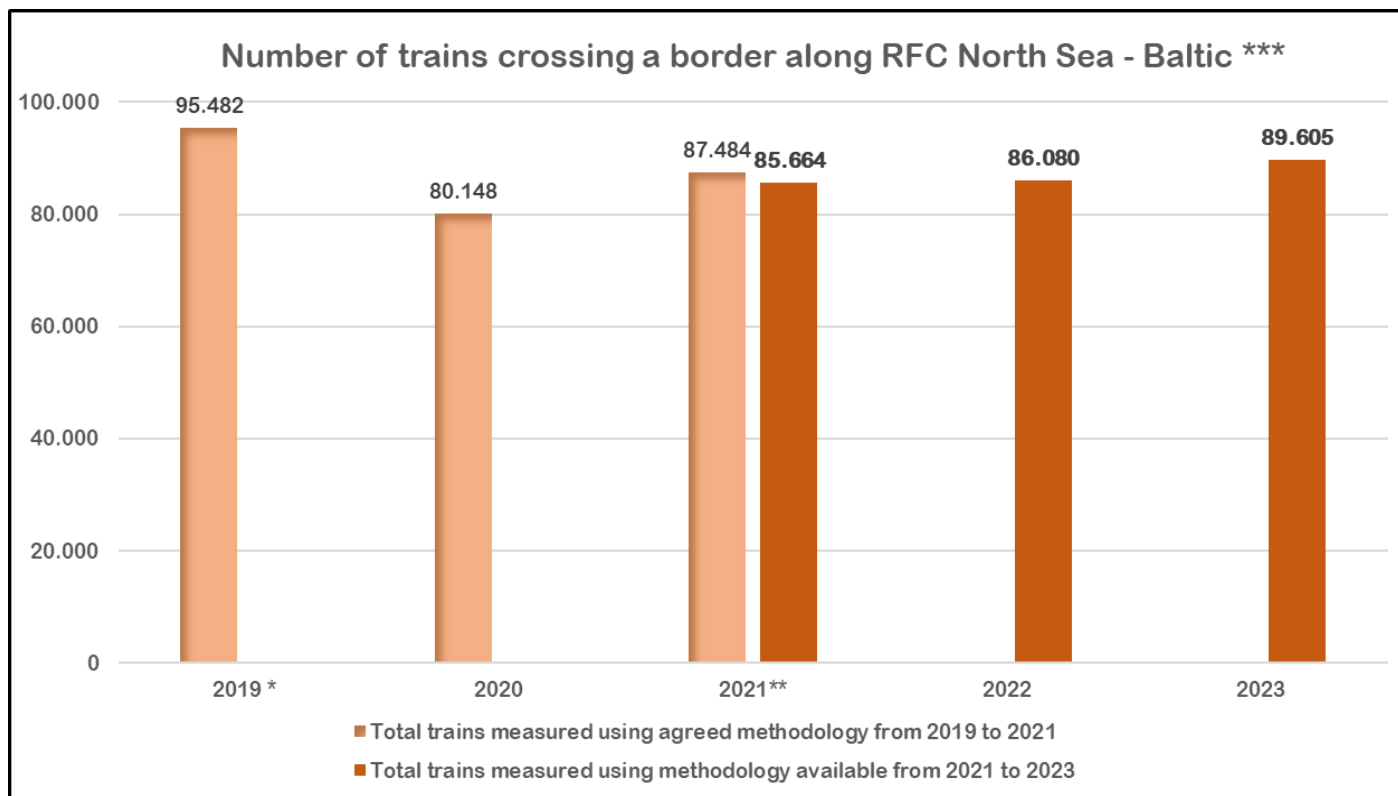
KPIs for Operations

- In the category Operations the following KPIs are published:
 - KPI 01 "Number of trains crossing a border along the RFC", this displays the number of international freight trains running on RFC NS-B infrastructure
 - KPI 02 "Punctuality", this is measured for reporting purposes at entry (origin) or exit (destination) of the corridor and is explained further on sheet 13
 - KPI 03 "Train kilometers of trains crossing a border along the RFC", is calculated on the corridor trains and is explained further on sheet 19
 - KPI 04 "Dwell times in border sections ", these are calculated based on information provided in the RNE Border Management Tool and is further explained on sheet 20. RFC Basic Point List is not considered.
- 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 corridor; passing at least one pair of points defined in the basic point-list of RFC NS-B
- The data used to calculate KPI Operations comes from the international Train Information System (TIS) database, managed by RailNetEurope (RNE). More details on the calculation are given per KPI.
- The WG PM&O is aware there are issues with the data in TIS due mainly to IM/RU operational behavior and data quality issues. However, the group feels the figures reflect the real situation on the corridor adequately to warrant their use in the yearly report.
- Please note, this information is relevant for all graphs and data published for KPI Operations for RFC North Sea-Baltic:
 - From 2021 the figures do not include trains from Venlo-Kaldenkirchen as these no longer belong to RFC North Sea-Baltic.
 - As Estonia and Latvia were not yet using TIS in 2023 their international trains are not included in the figures. Lithuania is also not yet using TIS and their border crossings with Latvia are also not included.

KPI 01: Number of trains crossing a border along the RFC

- KPI 01 displays the number of international freight trains crossing at least one border along RFC North Sea–Baltic.
- At present we are not able to differentiate between trains running on PaPs or trains running on a normal international timetable (TT). Therefore, we measure all international trains that are running on the corridor infrastructure. Trains that pass more than one border on the corridor are counted only once, to do this each train receives a unique identifier.
- The border crossings considered for this KPI are as follows:
 - Montzen – Aachen
 - Essen – Roosendaal
 - Zelzate - Sas van Gent (considered for the first time in 2023)
 - Zevenaar – Emmerich
 - Oldenzaal – Bad Bentheim
 - Frankfurt (Oder) Oderbrücke – Rzepin
 - Horka – Węglińiec
 - Bad Schandau – Děčín
 - Trakiszki – Mockava*

KPI 01: Number of trains crossing a border along the RFC

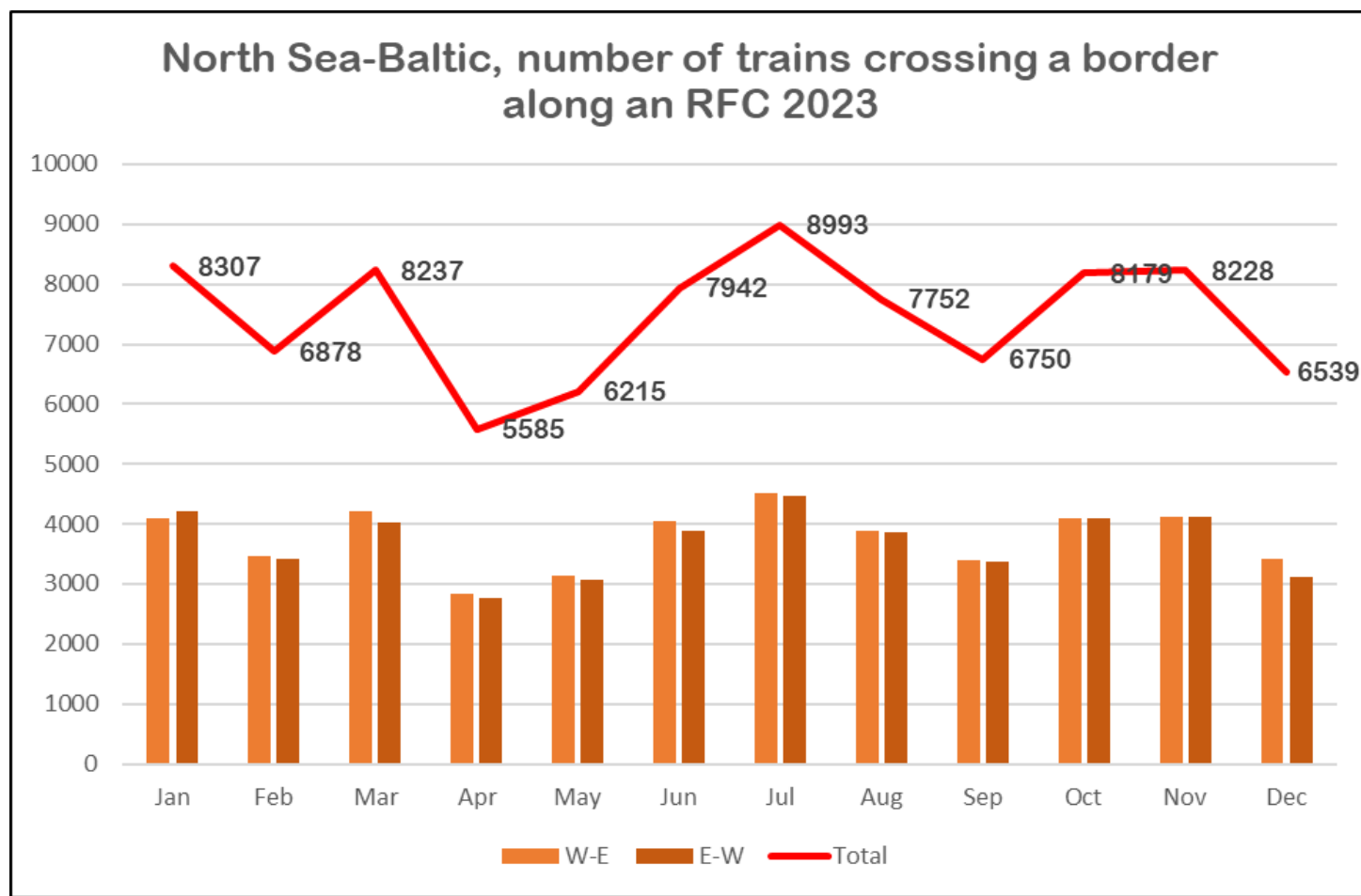


- The graph gives an overview of the total number of trains for the last 5 years.
- Total amount of trains for 2023 is 89.605 which shows a 4,1% increase compared to 2022.
- In 2022, RNE established a new methodology of measuring the trains in TIS. The difference in figures are shown in the diagram.
- Year 2021 has two sets of figures. They show the old and new methodology. This allows for 2021 to be comparable to the previous year's shown and also with 2022 onwards.
- General evolution of the corridor traffic in detail is shown on the following slide.

* 2019 calculated with TT year. From 2020 onwards calculated with calendar year. ** 2021 re-run of data using new RNE methodology.

*** Figures are not shown in the graph for Estonia, Latvia and the Lithuanian border with Latvia as these three IMs are not yet using TIS and there is no data available.

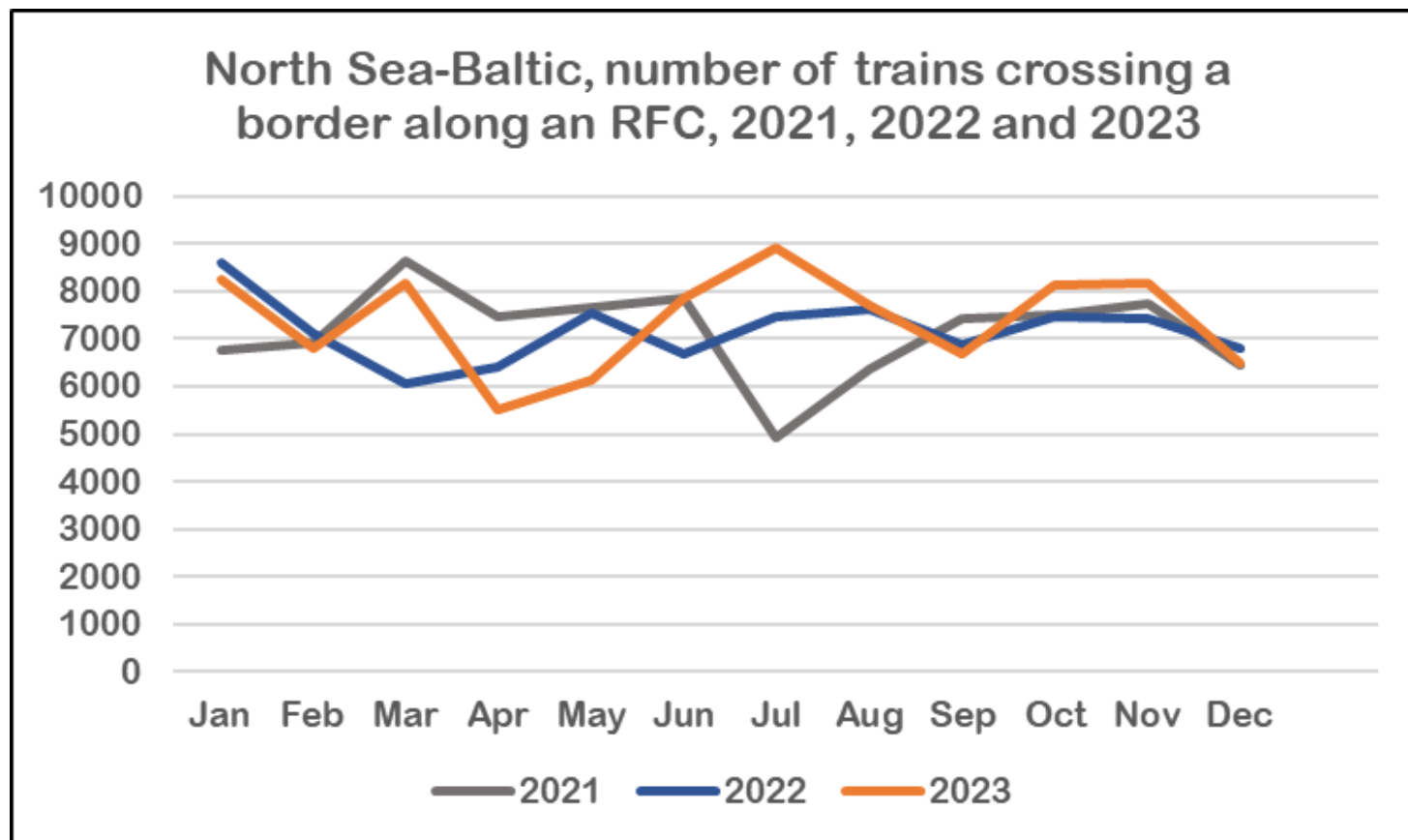
KPI 01: Number of trains crossing a border along the RFC



➤ The graph gives an overview of the number of trains in 2023, per direction, monthly:

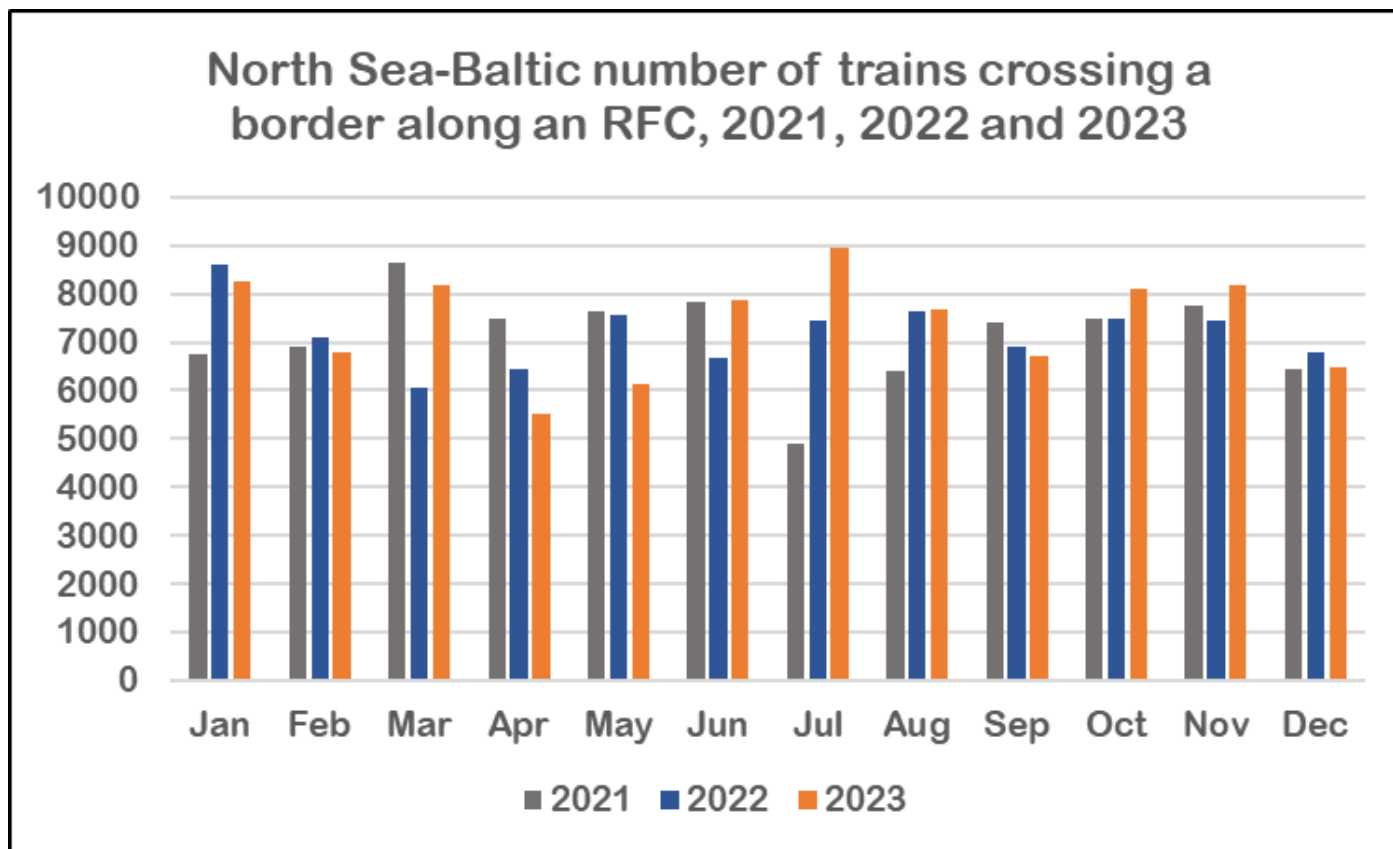
- February: commonly this month is affected by weather, comparable to figures from 2022
- April: strikes in Germany affecting both directions
- April/May: re-routing of traffic at Dutch/German and Belgian /German borders due to extensive works in Germany
- July: noticeable increases in totals both directions
- Sept. and December: decrease in totals, December decrease E-W. Works and strikes in Germany, comparable to figures from 2022

KPI 01: Number of trains crossing a border along the RFC



- The graph gives an overview of the total number of trains in 2023 monthly, compared to 2022 and 2021
- 2023:
 - large decrease in April and May
 - large increase in July
 - fall in the figures in September and December but still comparable to 2022 and 2021
 - figures slightly higher in October and November than in the previous two years

KPI 01: Number of trains crossing a border along the RFC

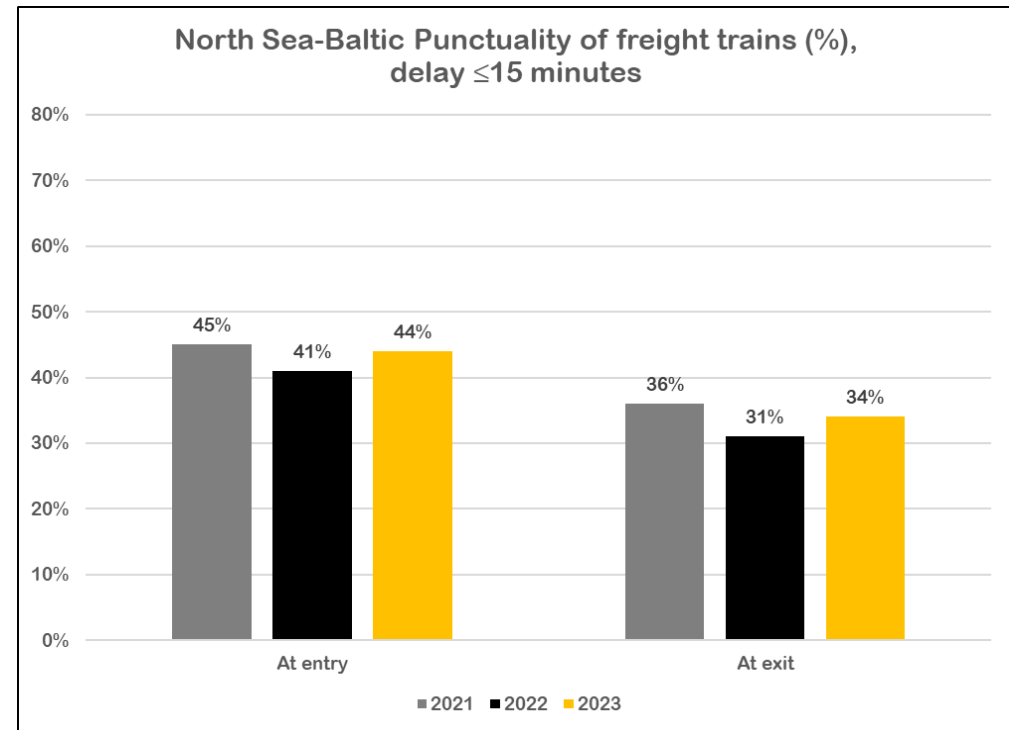
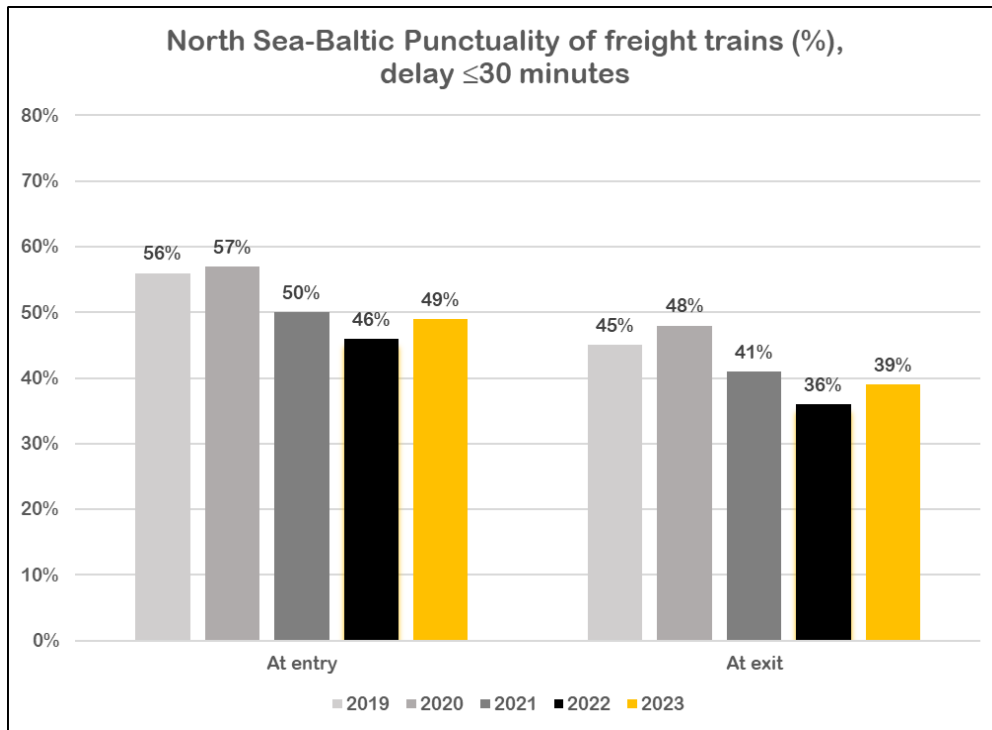


- The following graph illustrates the evolution of the corridor traffic 2023, monthly compared to 2022 and 2021
- 2023:
 - Q1, Q3 and Q4 figures are comparable or better than 2022 and 2021, with a noticeable
 - increase in July
 - fall in totals in Q2, (April + May), due to
 - extensive works and re-routing and strikes

KPI 02: Punctuality

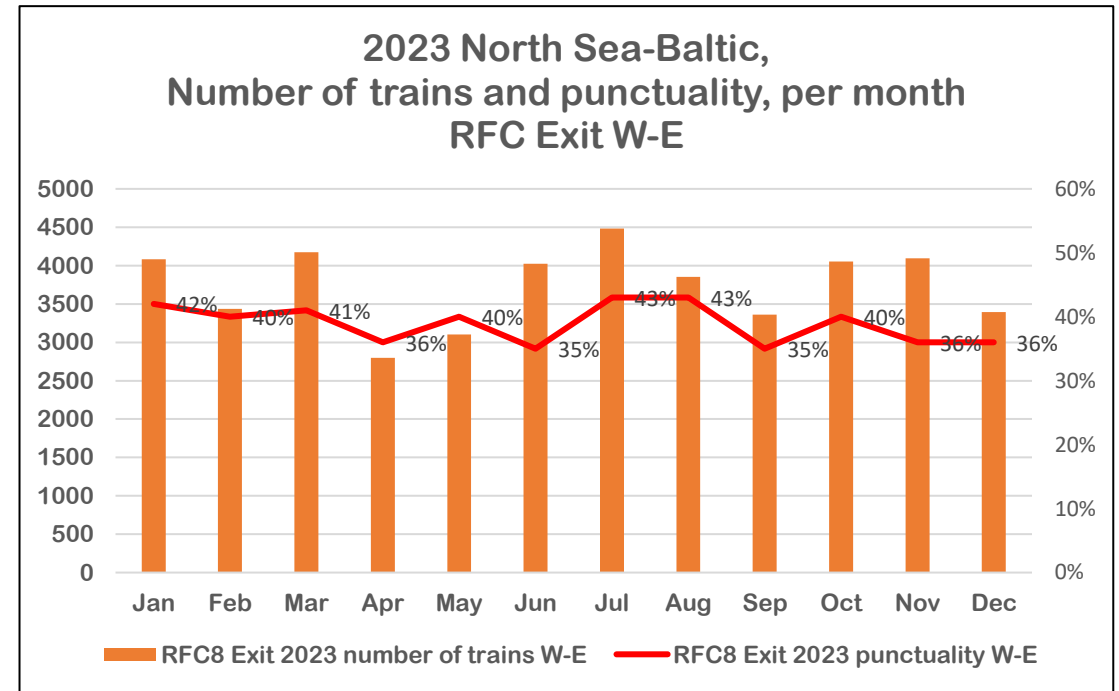
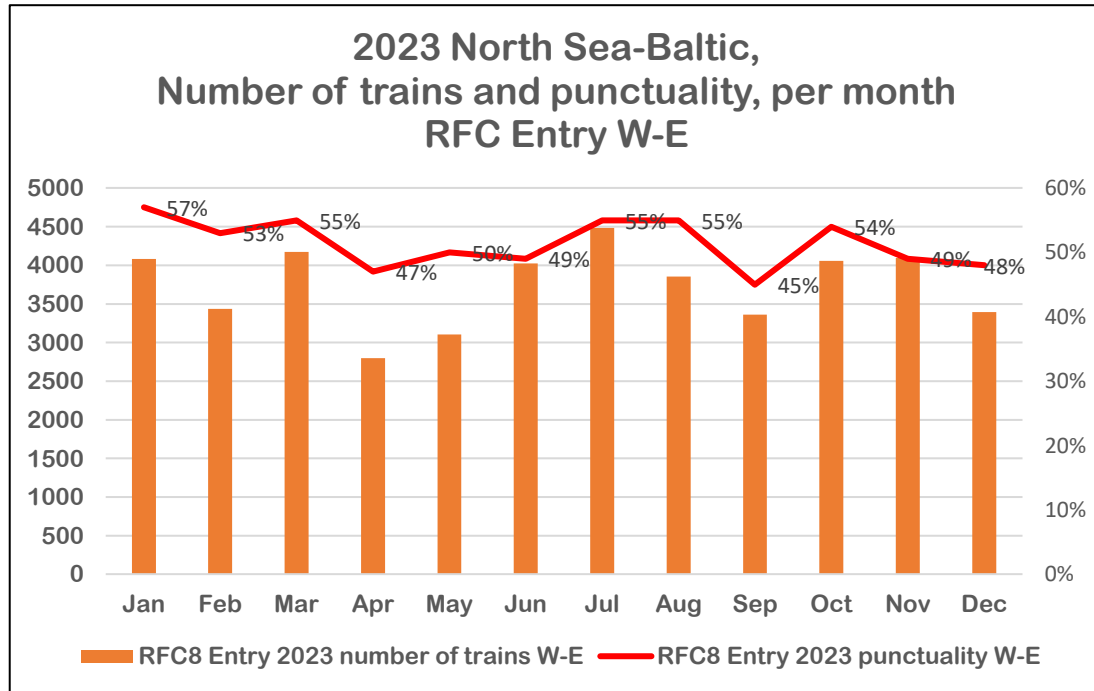
- KPI 02 shows the average punctuality of trains running on the corridor, measured at RFC Entry and RFC Exit
 - RFC Entry—first point in the train run, which belongs to chosen RFC
 - RFC Exit—last point in the train run, which belongs to chosen RFC
- The points shown on the detailed point-list define the chosen RFC. This point-list is a comprehensive overview of points found in TIS and registering where a train can enter/exit the corridor, on the network of one of the IMs of the RFC North Sea- Baltic. The graphs shown in the punctuality slides in the Performance Report indicate the punctuality measured at RFC entry/exit and are based on TIS data.
- A corridor train is considered punctual when it has a delay of 30 minutes or less ($\leq 30\text{min}$). For KPI reporting purposes punctuality is also measured at a delay of 15 minutes or less ($\leq 15\text{min}$). As all international RFC's Working groups are publishing a 15-minute threshold for punctuality RFC North Sea-Baltic also followed this procedure starting from 2021.
- Trains considered for the measurement of punctuality must meet the following basic criteria:
 - International freight train;
 - At least one running advice in the whole train run;
 - Train must be passing at least one pair of points from the basic point list.
- Monthly train punctuality reports are generated from TIS data at RNE and are published on the RFC North Sea-Baltic website. Monitoring and follow-up of the punctuality reports is done by the WG PM&O during their regular meetings. Punctuality issues are discussed bilaterally with the WG and corridor users on a case-by-case basis.

KPI 02: Punctuality – RFC Entry and Exit (≤ 30 minutes and ≤ 15 minutes)



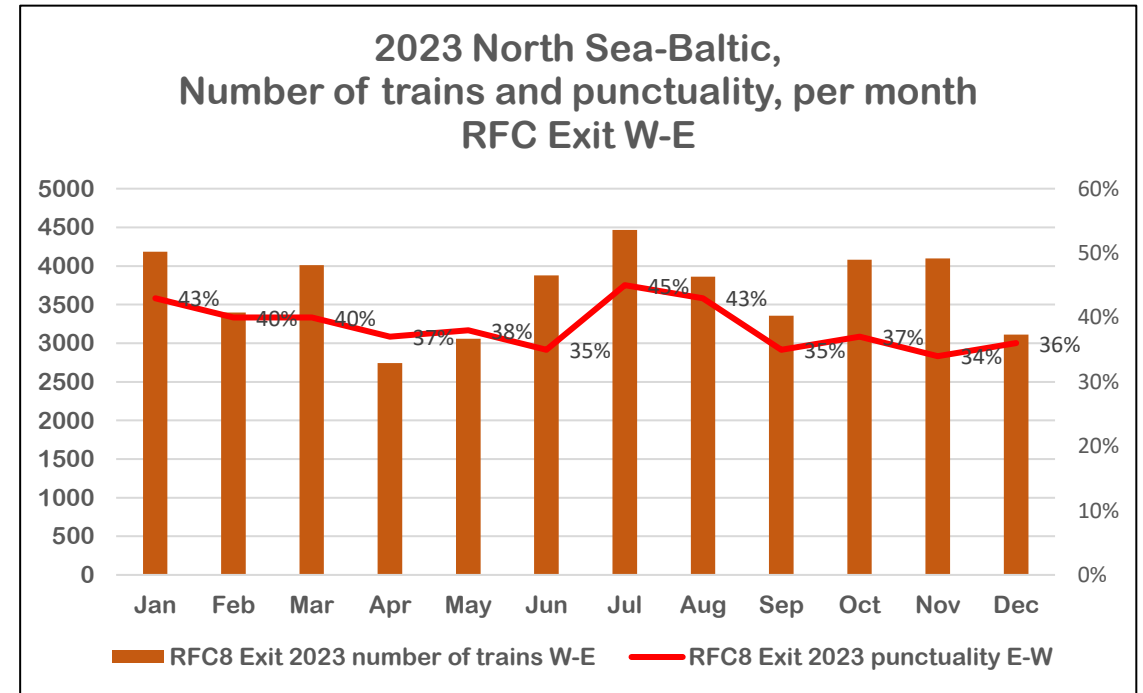
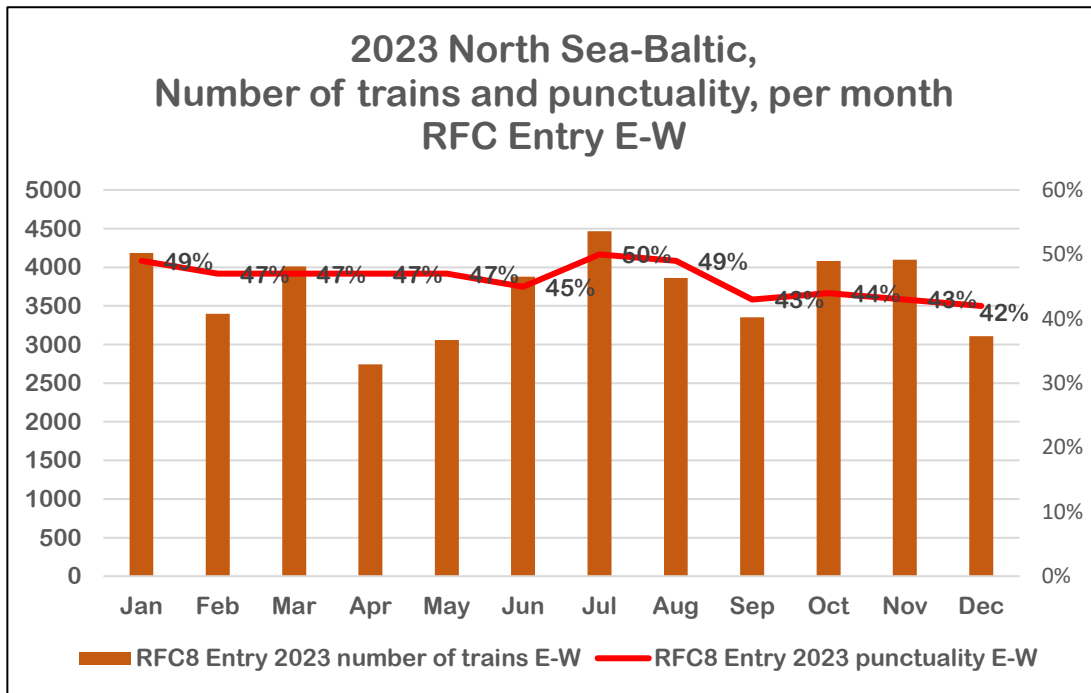
- Punctuality ≤ 15 min is not applicable to years before 2020 and is only published in yearly reports from 2021 onwards.
- Only the punctuality threshold ≤ 30 minutes is considered in detail in the Performance Report 2023.
- The 2023 figures for the punctuality ≤ 30 minutes show an increase of 3% in both departure and arrival punctuality, compared to 2022. The overall punctuality on the corridor is 44%.

KPI 02: Punctuality – RFC Entry and Exit, punctuality + total amount of trains (West – East), per month



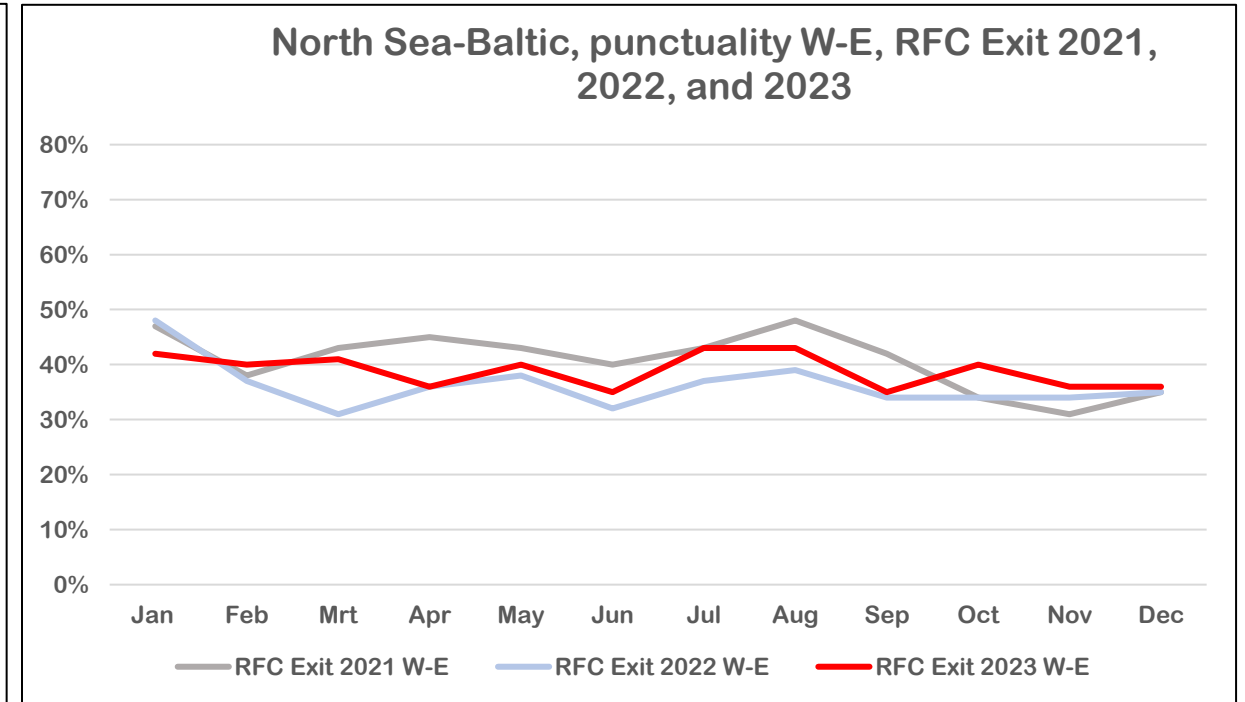
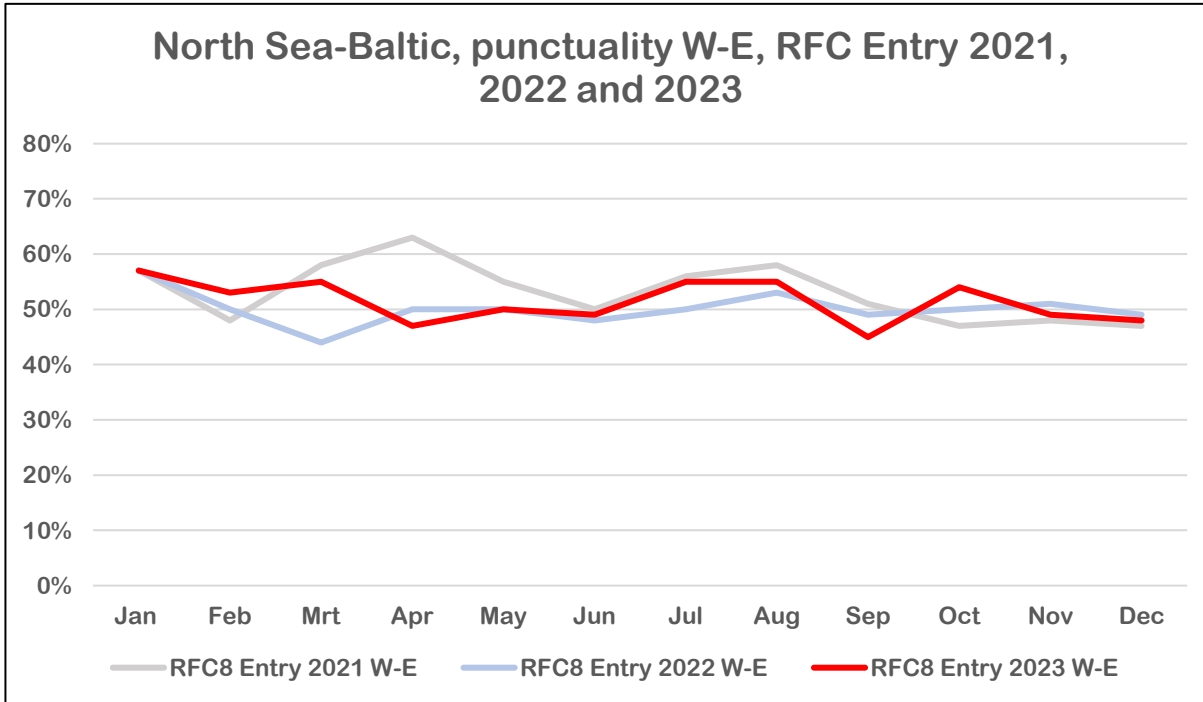
- West-East, the calculation for punctuality is made with same number of trains at both RFC Entry and Exit
 - RFC Entry (departure) punctuality average 52%, RFC Exit (arrival) punctuality average 39%
 - RFC Exit (arrival) punctuality direction West-East is low
- Delta W-E (difference from RFC Entry and RFC Exit) is 13%, the same as in 2022

KPI 02: Punctuality – RFC Entry and Exit, punctuality + total amount of trains (East – West), per month



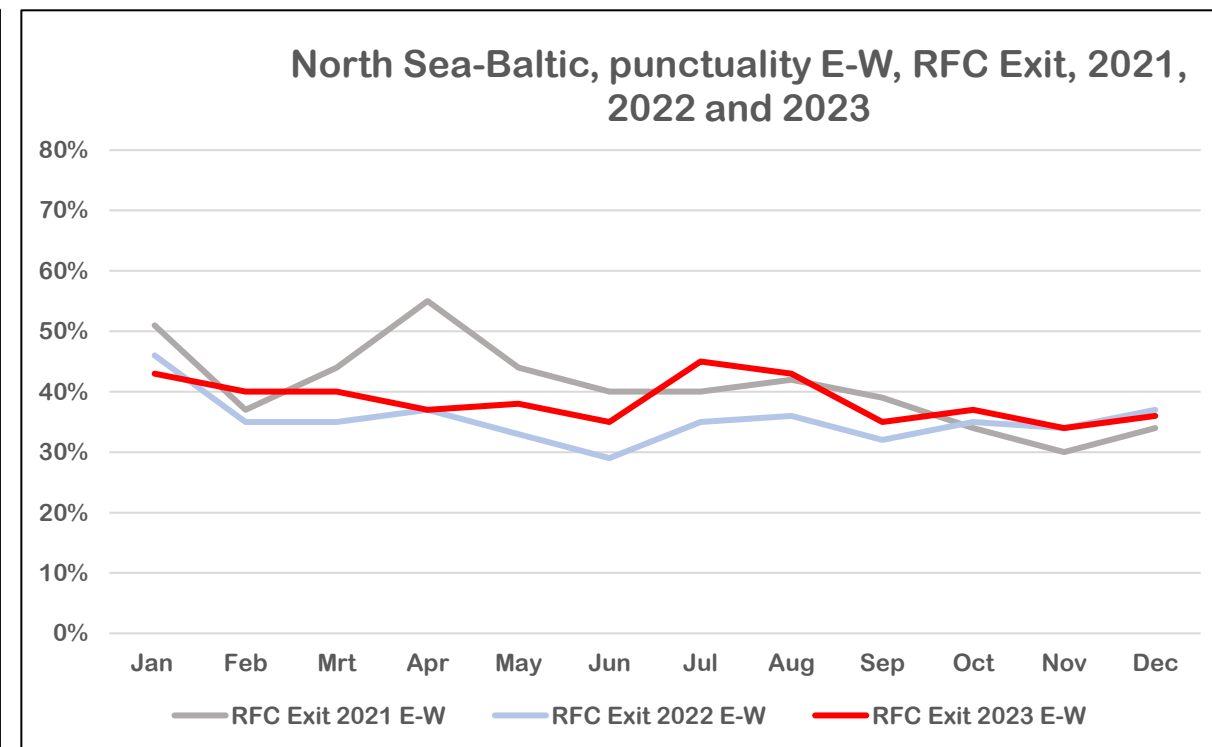
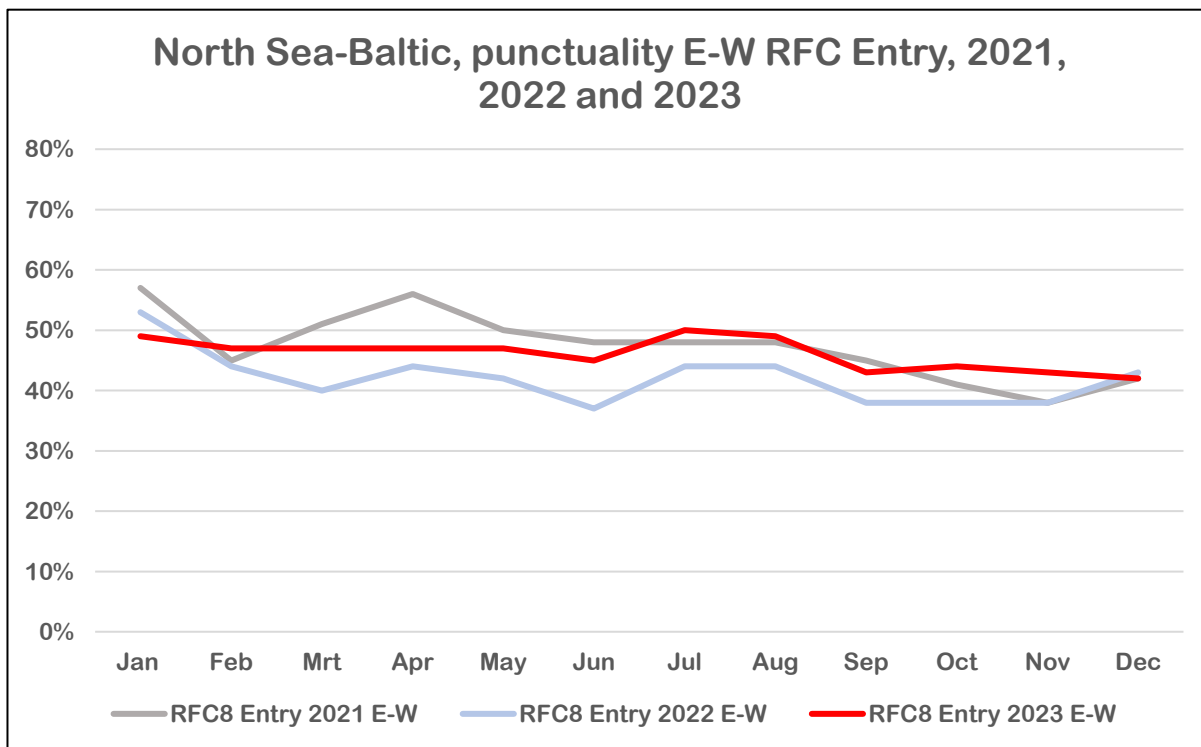
- East-West, calculation for punctuality is made with same number of trains at both RFC Entry and Exit
 - RFC Entry (departure) punctuality average 46%, RFC Exit (arrival) punctuality average 39%
 - RFC Exit (arrival) punctuality is low in the direction East-West
- Delta E-W (difference from RFC Entry and RFC Exit) is 7%, the entry and exit punctuality has improved in 2022 but the delta has increased by 1%

KPI 02: Punctuality – Entry and exit, per direction (West – East)



Avg. Punctuality	2021	2022	2023
At entry W-E	59%	50%	52%
At exit W-E	48%	37%	39%

KPI 02: Punctuality – Entry and exit, per direction (East – West)



Avg. Punctuality	2021	2022	2023
At entry E-W	47%	42%	46%
At exit E-W	41%	36%	39%

KPI 03: Train kilometers of trains crossing a border along the RFC

- Train kilometers of trains crossing a border along the RFC are calculated as the sum of real distances between origin and destination of all trains crossing a border along the RFC.
- This KPI is published for the first time in 2023.

Direction	Trains	Kilometers
East-West	44.399	22.864.996
West-East	45.206	23.115.207
Total	89.605	45.980.203

KPI 04: Dwell Times at Border Sections

- KPI 04 shows the average planned and actual (real) dwell of all trains crossing predefined pair(s) of locations in the border area (approx. 20km range both sides of the border). The border areas shown in the KPI are of countries that are connected to the RFC.
 - These points are measured using the Report Management Tool and do not correspond to the operational points measured using the point list
 - Border-crossings involving third countries that are not members of the RFC are not published in the KPI
- Avg. planned dwell (min.) is the average planned dwell time of all planned arrival/departure trains running within the measuring points. Only trains with a planned dwell equal or bigger than 1 minute are considered.
- Run through trains, trains starting or ending their run (origin/destination) or trains with one missing timetable are excluded.
- Avg. actual (real) dwell is measured using the same criteria.
- Dwell time at the predefined pair(s) of locations at the border are also shown for informative purposes in the Performance Report in more detail, looking at both directions East-West and West-East.
- This KPI is published for the first time in 2023

KPI 04: Dwell Times at Border Sections

Border		Average planned dwell (minutes)	Average real dwell (minutes)
Aachen West - Montzen		70	91
Bad Bentheim - Oldenzaal		12	19
Bad Schandau - Děčín		87	91
Emmerich - Zevenaar Oost		9	10
Essen - Roosendaal		12	11
Zelzate - Sas van Gent		2	In progress *

Border	Border direction	Average planned dwell (minutes)	Average real dwell (minutes)
Aachen-West - Montzen	DB InfraGo - Infrabel	66	86
Aachen-West - Montzen	Infrabel - DB InfraGo	72	96
Bad Bentheim - Oldenzaal	DB InfraGo - ProRail	12	20
Bad Bentheim - Oldenzaal	ProRail - DB InfraGo	13	18
Bad Schandau - Děčín	SZCZ - DB InfraGo	91	107
Bad Schandau - Děčín	DB InfraGo - SZCZ	84	74
Emmerich - Zevenaar Oost	DB InfraGo - ProRail	7	5
Emmerich - Zevenaar Oost	ProRail - DB InfraGo	11	16
Roosendaal - Essen	ProRail - Infrabel	14	9
Roosendaal - Essen	Infrabel-ProRail	11	12
Sas van Gent - Zelzate	ProRail-Infrabel	In progress*	In progress*
Sas van Gent - Zelzate	Infrabel-ProRail	3	1

- Lithuania, Estonia and Latvia are not shown in 2023 as there is a lack of data available. This is due to TIS not (yet) being used. However, for 2024 it is planned to include the Baltic States.
- Border-pairs Frankfurt (Oder) Oderbrücke-Rzepin and Horka-Wegliniec are not mentioned in the list above. The borders on the German side have the status unreliable meaning the data available does not reflect correctly the situation regarding dwell times and it has been decided to not publish the figures for these border-pairs in 2023.



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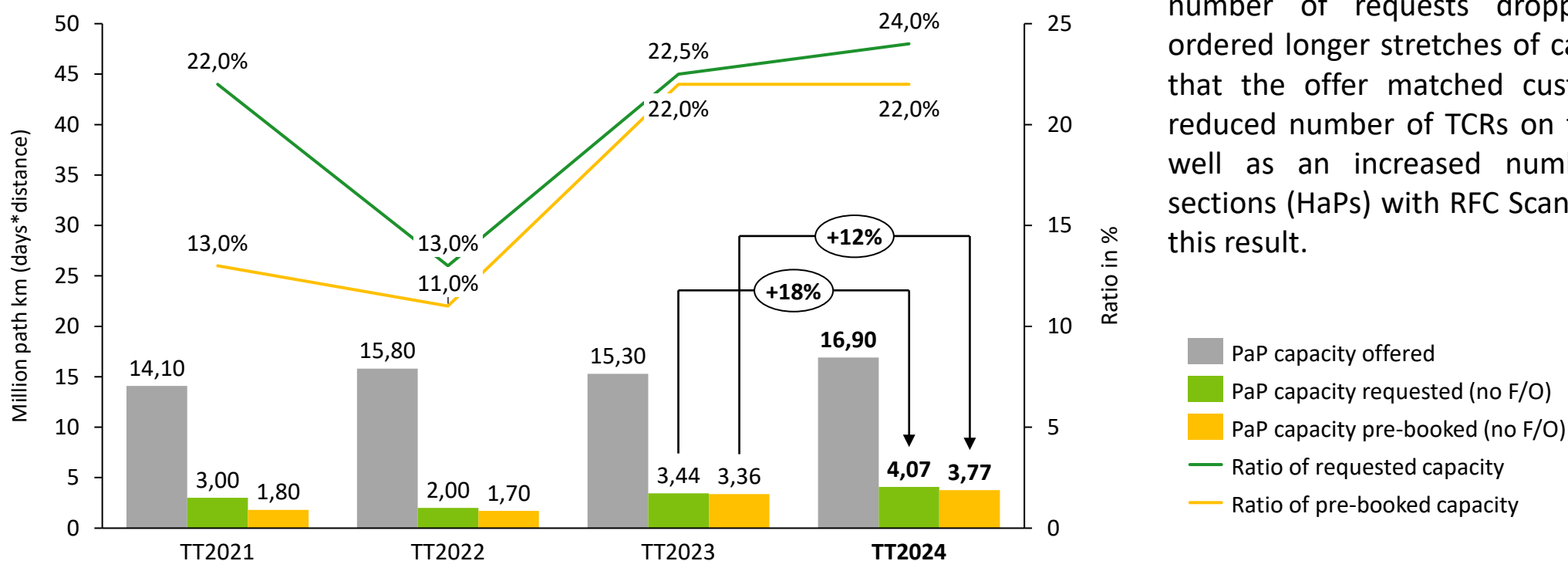
Monitoring progress of the corridor objectives



KPIs for Capacity Management

- To monitor the performance on the corridor regarding capacity, a number of KPIs are described on the following slides which will provide insight into the capacity that has been offered, requested, allocated and monitored by the C-OSS:
- KPIs for Capacity Management (TT2024 offered in 2023):
 - KPI 01: Volume of offered capacity (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)
- KPIs for Capacity Management (TT2023 offered in 2022):
 - KPI 07: Volume of offered capacity (RC), Volume of requested capacity (RC), Number of requests (RC)
- KPIs for Capacity Management (including figures for TT2025):
 - KPI 08: Average planned speed of PaPs
- Most of these KPIs stem from the Framework for Capacity Allocation (FCA). Others were commonly agreed and are described in the RNE KPI guidelines.

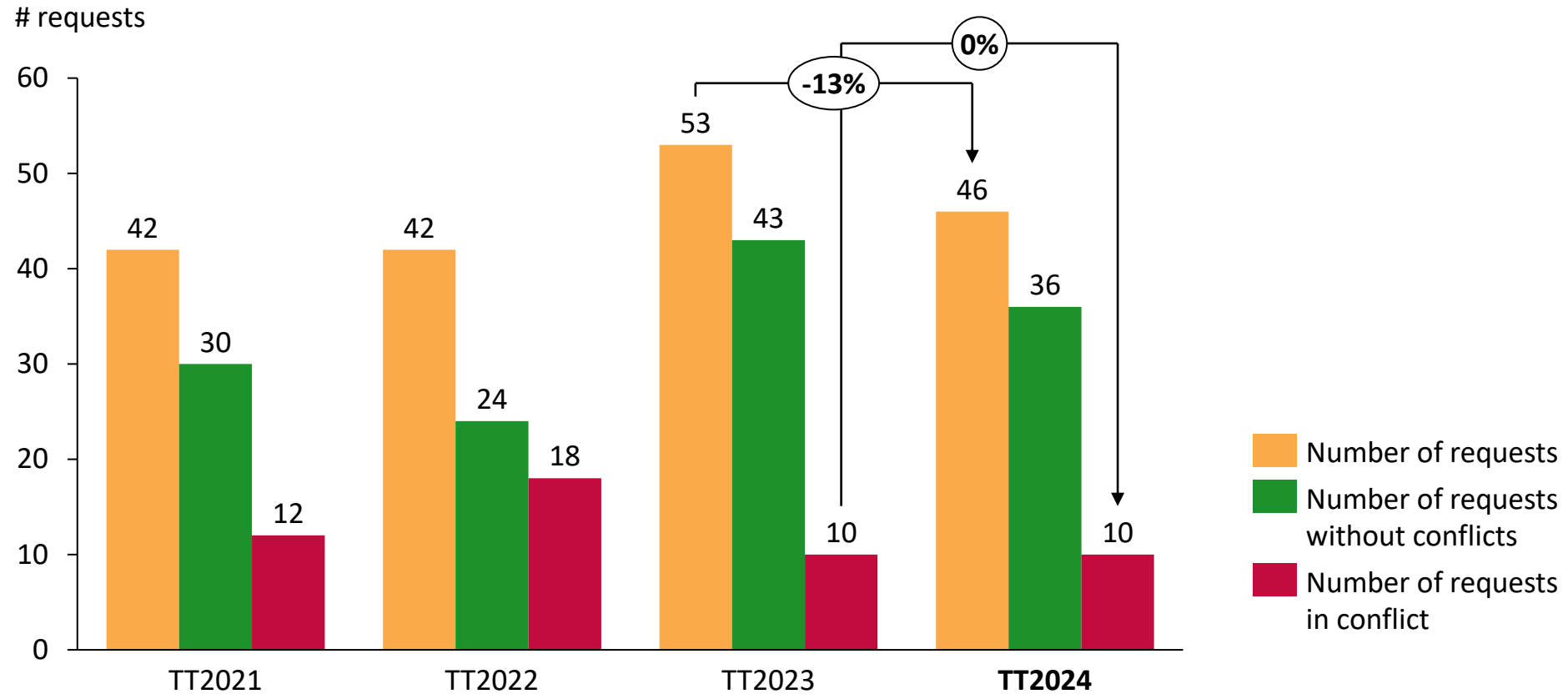
KPI 01: Volume of offered capacity (PaPs)
KPI 02: Volume of requested capacity (PaPs)
KPI 03: Volume of pre-booked capacity (PaPs)
KPI 04: Ratio of pre-booked capacity (PaPs)



- The PaP capacity requested increased slightly by 18% in comparison to TT2023 but shows a weaker growth than in 2022 with 70%.
- The pre-booking volume of the PaP capacity TT2024 also shows a slight increase by 12%.
- Driven by the general economic downturn, the number of requests dropped but applicants ordered longer stretches of capacity which shows that the offer matched customers' needs. The reduced number of TCRs on the corridor lines as well as an increased number of harmonized sections (HaPs) with RFC ScanMed helped achieve this result.

KPI 05: Number of requests (PaPs)

KPI 06: Number of conflicts (PaPs)



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

➤ Reserve Capacity for ad-hoc requests has been published by the C-OSS in October 2022, for the TT2023 starting in December 2022.

➤ Reserve Capacity is offered as a flexible approach, in the form of capacity slots per day and direction, requested until 30 days before the running day.

➤ The volume of offered Reserve Capacity for TT2023 decreased slightly compared to the previous year due to several construction sites on DB InfraGO territory i.e., Frankfurt (Oder) Oderbrücke and Bad Schandau border crossing.

➤ No Reserve Capacity was requested for TT2023.

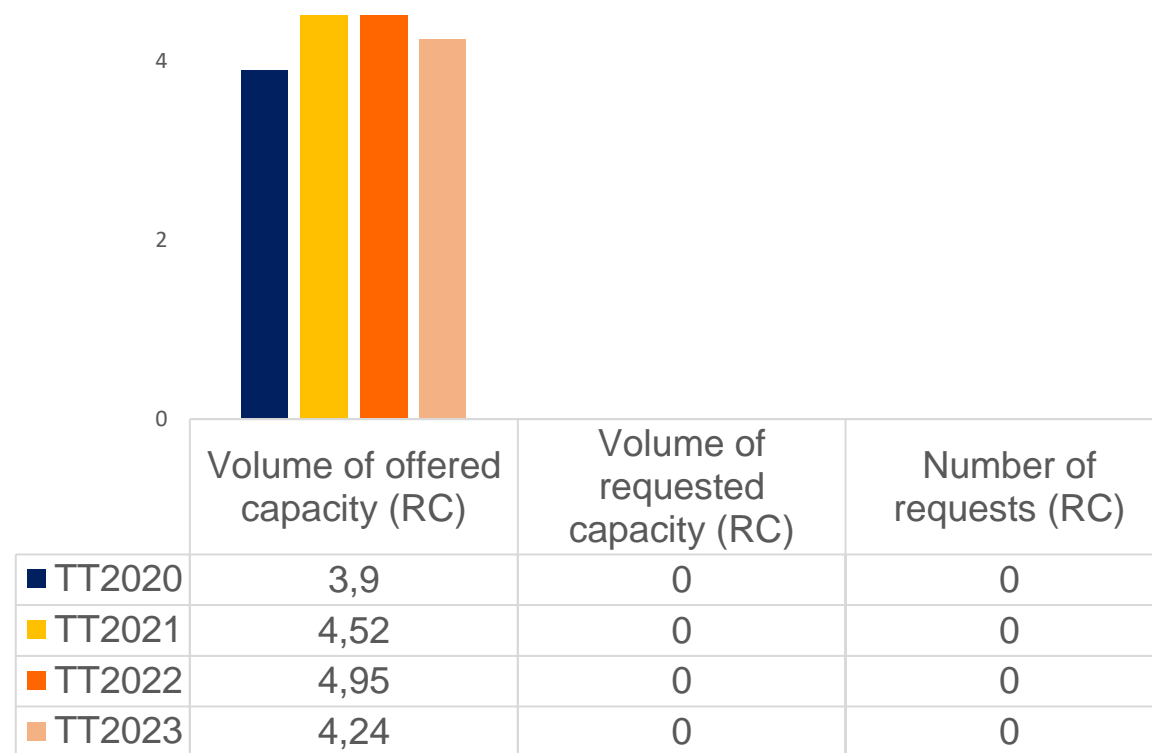
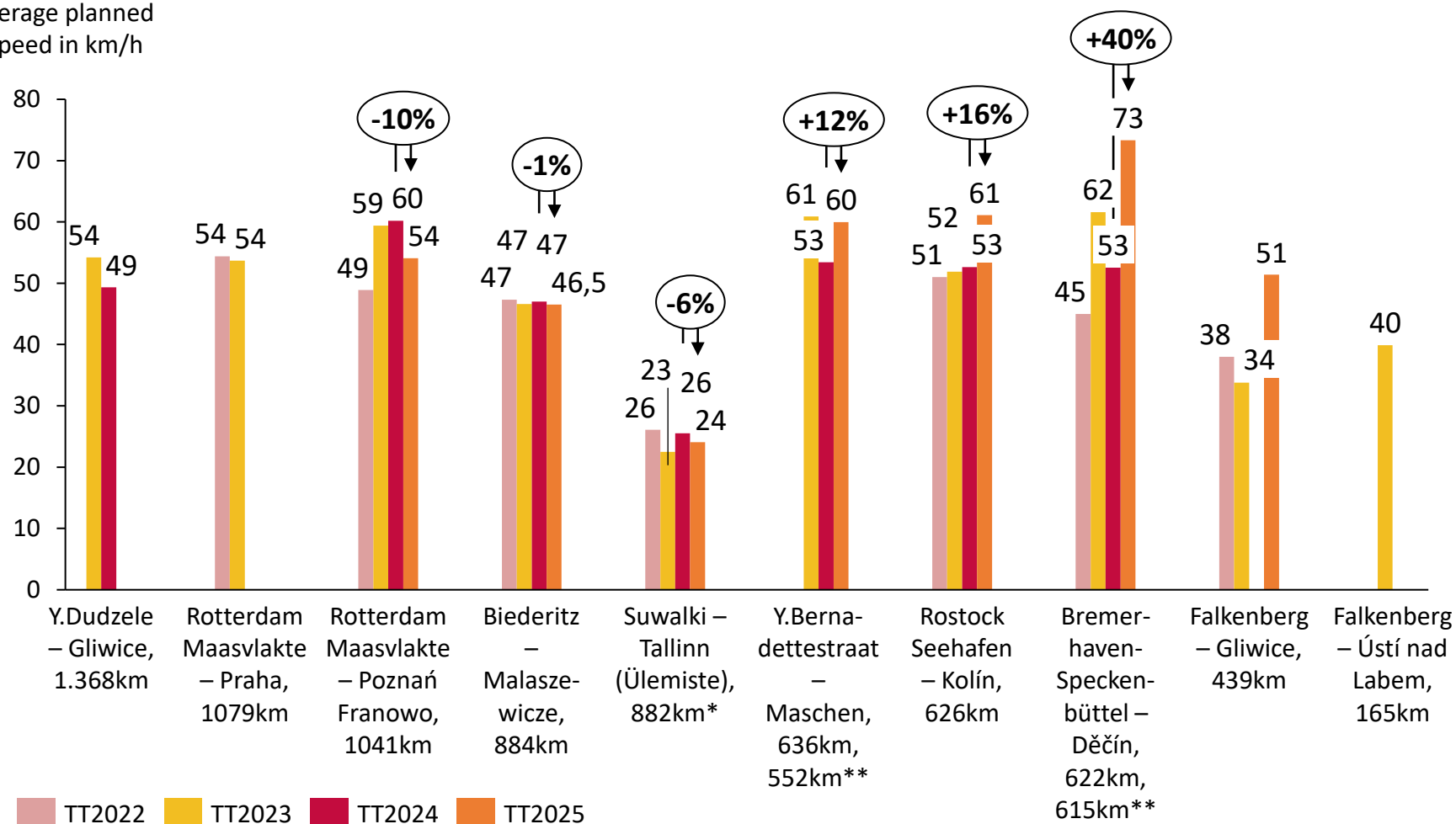


Figure Volume: Million path km (days*distance)

KPI 08: Average planned speed of PaPs

Average planned speed in km/h



- This performance indicator shows the average of the planned speed of the PaPs on the Origin/Destination pair concerned per direction.
- O/D pairs were defined by the corridor as the most important sections on the corridor.

The KPI values include stopping times for selected O-D.

* Suwalki – Tallinn (Ülemiste) include the reloading time (~ 6 hours) in Palemonas. ** Two distances for W-E, E-W direction, varying per TT



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KPIs for Market Development

- In the category “Market Development” the following KPIs are published:
 - KPI 01: Ratio of the capacity allocated by the C-OSS to total allocated capacity
 - KPI 02: Number of trains per border

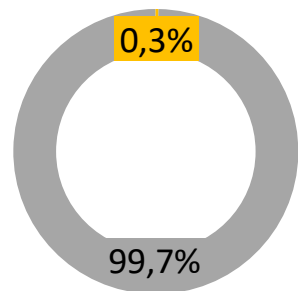
KPI 01: Ratio of the capacity allocated by the C-OSS to total allocated capacity

- On the next slides KPI Ratio of the capacity allocated by the C-OSS to total allocated capacity for TT2024 is presented.
- This KPI displays the number of train runs allocated in the yearly timetable by the C-OSS per RFC border/the total number of allocated international freight train runs in the yearly timetable per RFC border. Source of data is PCS for RFC capacity and national IMs’ tools for total allocated capacity.



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

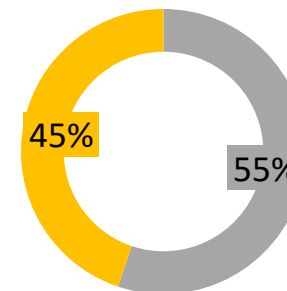
**Montzen Frontière /
Aachen Grenze**



% Total allocated capacity IM (incl. RFC RALP)
 % Total allocated capacity RFC NSB

Number of allocated international freight trains	
Total (incl. RFC RALP)	C-OSS RFC NSB
34.372	106

**Oldenzaal Grens / Bad
Bentheim Grenze**



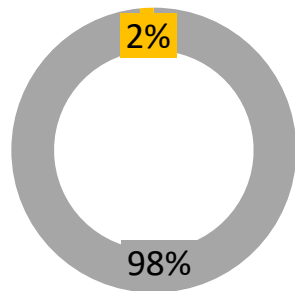
% Total allocated capacity IM
 % Total allocated capacity RFC NSB

Number of allocated international freight trains	
Total	C-OSS RFC NSB
4.017	1.801



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

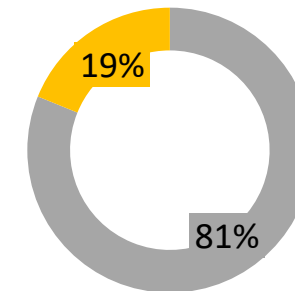
**Zevenaar Grens /
Emmerich**



■ % Total allocated capacity IM (incl. RFC RALP)
■ % Total allocated capacity RFC NSB

Number of allocated international freight trains	
Total (incl. RFC RALP)	C-OSS RFC NSB
36.872	582

**Roosendaal Grens /
Essen-Grens**

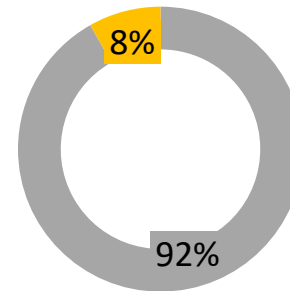


■ % Total allocated capacity IM (incl. RFC NSM)
■ % Total allocated capacity RFC NSB

Number of allocated international freight trains	
Total (incl. RFC NSM)	C-OSS RFC NSB
7.023	1.324

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

Bad Schandau Gr / Děčín st.hr.

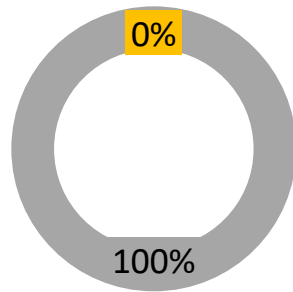


- % Total allocated capacity IM (incl. RFC OEM)
- % Total allocated capacity RFC NSB

Number of allocated international freight trains	
Total (incl. RFC OEM)	C-OSS RFC NSB
51.945	4.259

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

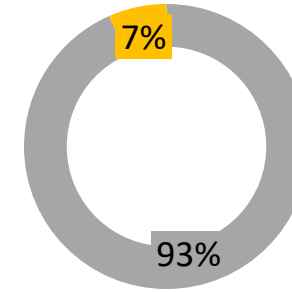
**Horka / Bielawa Dolna
(Gr)**



■ % Total allocated capacity IM
■ % Total allocated capacity RFC NSB

Number of allocated international freight trains	
Total	C-OSS RFC NSB
7.921	0

**Frankfurt Oderbrücke /
Kunowice (Gr)**



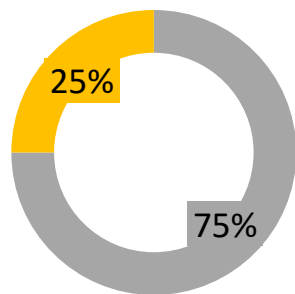
■ % Total allocated capacity IM
■ % Total allocated capacity RFC NSB

Number of allocated international freight trains	
Total	C-OSS RFC NSB
11.043	727



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

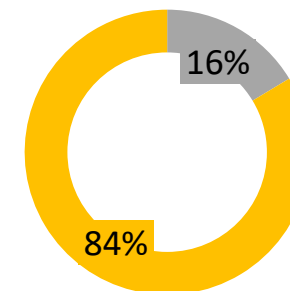
**Trakiszki (Gr) /
Mockava Pasienis**



% Total allocated capacity IM
 % Total allocated capacity RFC NSB

Number of allocated international freight trains	
Total	C-OSS RFC NSB
2.968	742

**Joniškis Pasienis /
Meitene-eksp.**

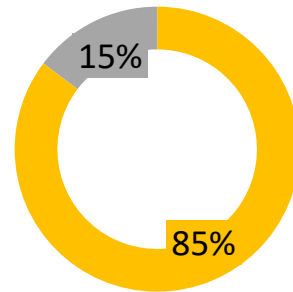


% Total allocated capacity IM
 % Total allocated capacity RFC NSB

Number of allocated international freight trains	
Total	C-OSS RFC NSB
886	741

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

Lugaži-eksp. (State border) /
Valga state border



■ % Total allocated capacity IM
■ % Total allocated capacity RFC NSB

Number of allocated international freight trains	
Total	C-OSS RFC NSB
868	740



KPI 02: Number of trains per border

- KPI 02: Number of trains per border presents the number of commercial freight trains crossing selected border points.
- The source of the data is the IM's national tools. KPI 02 displays corridor trains on RFC North Sea-Baltic, per border.
- Trains that pass more than one border are counted at each border.

- Border pairs taken into consideration for this KPI:
 - Montzen - Aachen
 - Essen -Roosendaal
 - Zelzate - Sas van Gent (to be published for the first time in 2023)
 - Zevenaar - Emmerich
 - Oldenzaal - Bad Bentheim
 - Venlo - Kaldenkirchen (measured for this KPI as North Sea-Baltic trains can be re-routed using these border- pairs)
 - Frankfurt(Oder)Oderbrücke – Rzepin
 - Horka- Węliniec
 - Bad Schandau - Děčín
 - Trakiszki - Mockava
 - Meitene - Joniskis
 - Kurcums - Turmantas
 - Lugazi - Valga



KPI 02: Number of trains per border

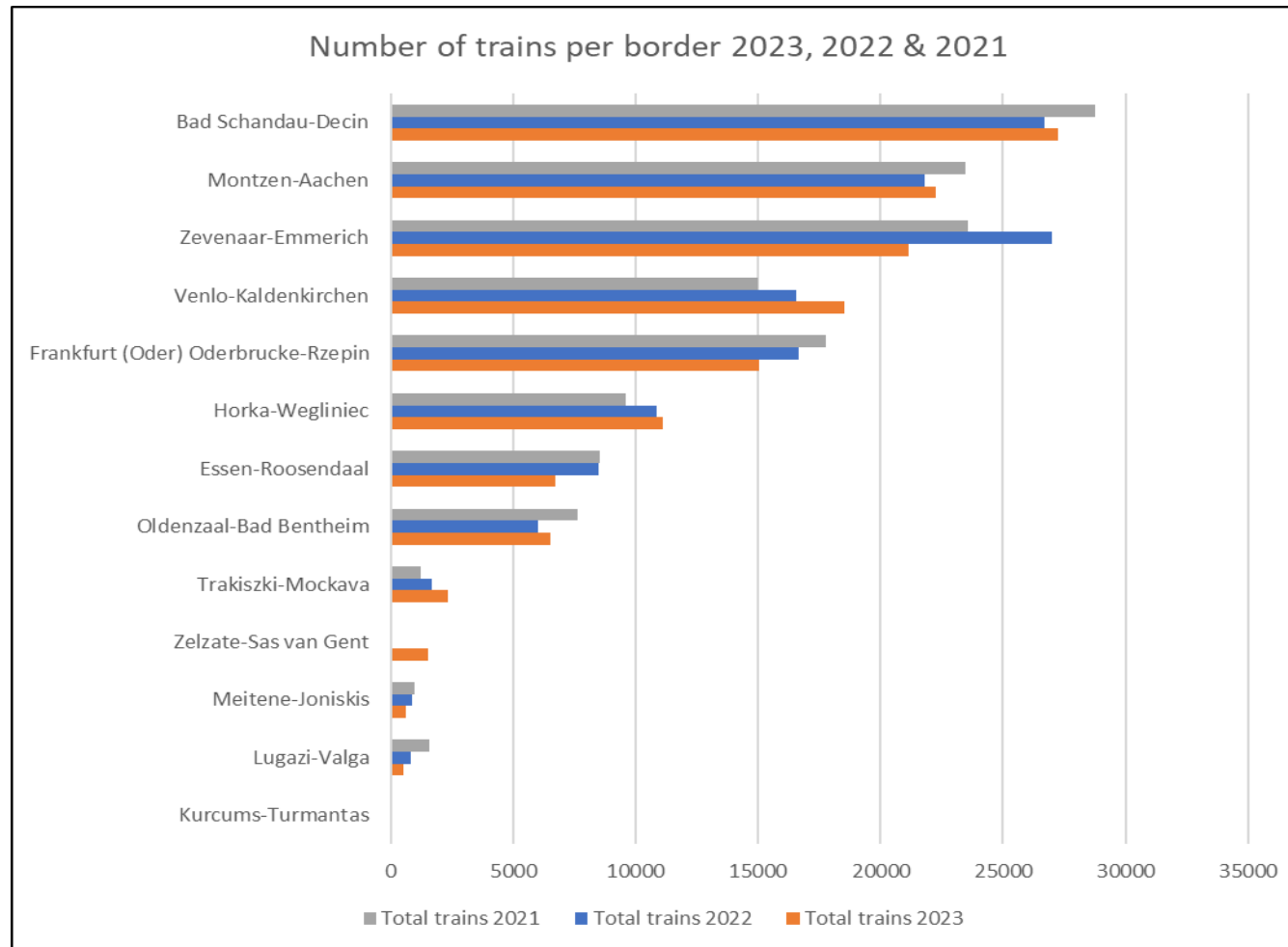
North Sea-Baltic	Number of trains			2023 compared to	
Border pairs	Total trains 2023	Total trains 2022	Total trains 2021	2022	2021
Montzen-Aachen	22232	21777	23446	2,1%	-5,2%
Essen-Roosendaal	6720	8465	8523	-20,6%	-21,2%
Zelzate-Sas van Gent	1510	n/a	n/a	n/a	n/a
Zevenaar-Emmerich	21139	26978	23582	-21,6%	-10,4%
Oldenzaal-Bad Bentheim	6535	6037	7616	8,2%	-14,2%
Venlo-Kaldenkirchen	18513	16557	14977	11,8%	23,6%
Frankfurt(Oder) Oderbrücke-Rzepin	15037	16666	17757	-9,7%	-15,3%
Horka -Wegliniec	11092	10862	9598	2,1%	15,6%
Bad Schandau-Decin	27256	26675	28737	2,2%	-5,2%
Trakiszki-Mockava	2350	1666	1239	29,1%	89,7%
Meitene-Joniskis	626	883	974	41,1%	-35,7%
Kurcums-Turmantas	2	8	61	-75,0%	-96,7%
Lugazi-Valga	506	830	1597	-64,0%	-216,0%

KPI 02: Number of trains per border

➤ 2023 information, traffic compared to 2022:

- For Netherlands/Germany we see at Bad Bentheim-Oldenzaal, Zevenaar-Emmerich and Venlo-Kaldenkirchen decreases and increases as to be expected with many re-routings due to extensive works in Germany between Emmerich and Oberhausen. Also, there is an overall decrease in traffic at these borders due to the economic situation and the drop in freight volumes handled by the major North Sea ports.
- A large decrease can be seen at Roosendaal-Essen, with train totals fallen by almost 21%. This again is due to the general economic situation and the drop in freight volumes handled by the major North Sea ports. However, we do see a slight increase at the Belgian/German border Montzen-Aachen, but this is most likely due to a normalization after the full closure of the line due to works in Aachen last year.
- At the Czech/German border we see a small increase, and traffic at this border is stable in 2023.
- Train traffic at the borders between Poland and Germany is reduced at Frankfurt (Oder) Oderbrücke-Rzepin and slightly increased at Horka-Wegliniec. This is caused generally by works and re-routing, requiring the trains to use an alternative border of the same IM, and this creates a fluctuation in the train totals at these borders.
- Between Lithuania and Poland there is a big increase in train totals at Trakiszki-Mockava (29%), mainly due to an increase in trains coming from Ukraine transporting goods out of the country via Medyka and heading to the Polish/Lithuanian ports.
- Between both Estonia/Latvia and Latvia/Lithuania traffic was further reduced in 2023 compared to 2022. This is due to the continued EU sanctions that have been implemented with Belarus and Russia during the Ukrainian conflict.

KPI 02: Number of trains per border (compared to 2022 & 2021)





Introduction

Performance Indicators

KPIs for Operations

KPIs for Capacity Management

KPIs for Market Development

Monitoring progress of the corridor objectives



Monitoring progress of the corridor objectives

- The Management Board and Executive Board of RFC NS-B have defined targets for some of the existing KPIs or for some new KPIs based on existing ones. The targets are based on the commitment of the stakeholders to sustainably strengthen quality and resilience on the Corridor as well as also considering the current situation on the corridor.
- The KPI objectives have been set in 2023 based on the numbers available from previous years.
- Objectives have been set for the following KPIs:
 - Delta between RFC Entry and RFC Exit punctuality
 - Number of trains crossing a border along the RFC
 - Ratio of capacity requested
 - Average planned speed of PaPs
- The progress of the four corridor objectives is published on the following slides.



Delta between RFC Entry and RFC Exit punctuality

Evolution of punctuality on RFC NS-B (30-minute threshold) in %	2019	2020	2021	2022	2023	Goal 2024
Entry punctuality	56	57	50	46	49	
Exit punctuality	45	48	41	36	39	
Delta Entry Punctuality vs Exit Punctuality	-11	-9	-9	-10	-10	-11

- RFC NS-B yearly publishes the KPI for Punctuality measured at RFC Entry and Exit using a threshold of ≤ 30 minutes and based on information coming from TIS (at present the Baltic States are not included)
- Target set for 2024 = Delta punctuality -11
- Punctuality for 2023 is RFC Entry, 49% and RFC Exit, 39%
- When viewing the delta for punctuality, the difference between RFC Entry and RFC Exit, this is a total of 10% which is the same as 2022
- In 2023, the delta does not exceed the goal for 2024
- The developments in 2023 are positive for this deliverable

Number of trains crossing a border along the RFC North Sea-Baltic

Number of trains crossing a border along the RFC NS-B	2021	2022	2023	Goal 2024
Total	85.664	86.080	89.605	85.872
Yearly change		0,48%	4,10%	

- This KPI calculates the yearly number of international trains crossing a border along the RFC. The data for calculation is taken from TIS, however not all member states of RFC NS-B are using TIS. For this reason, data from the Baltic states IM's (Lithuania, Latvia and Estonia) is not included in this KPI, except for the Polish-Lithuanian border.
- Target set for 2024 = 85.872 trains and the train totals have been determined based on data available in 2022
- Target is set at 0,5% growth, per year from 2021 to 2024
- 2023, the total numbers of trains is 89.605 approx. 4,1% growth in 2022
- The developments in 2023 are positive for this deliverable



Ratio of capacity requested

Ratio of capacity requested	TT2019	TT2020	TT2021	TT2022	TT2023	TT2024	Goal TT2025
Volume of PaP capacity offered at X-11 (in million path km)	15,8	16,2	14,1	15,8	15,3	16,9	
Volume of PaP capacity requested at X-8 (in million path km)	2,3	1	3	2	3,4	4,1	
Ratio of capacity requested (in %)	15%	6%	22%	13%	22%	24%	25%

- The Ratio of capacity requested TT2024 developed positively towards the objective of 25% in TT2025.
- It must be mentioned that there is no official KPI defining the Ratio of PaP capacity requested to the PaP capacity offered. Both KPIs are collected and set into perspective to achieve the “Ratio of capacity requested”.
- The ratio has been chosen to highlight the relationship in data as the PaP capacity offered varies each year i.e., depending on TCRs.
- The expected result is that 25% of the requested products offered by the corridor would be requested by the applicants for TT2025.

Average planned speed of PaPs

Average planned speed of PaPs	TT2021	TT2022	TT2023	TT2024	TT2025	Goal TT2026
Maasvlakte – Poznań Franowo (in km/h)	-	49	59	60	54	56
Suwalki – Tallinn (Ülemiste) (in km/h)	-	26	23	26	24	25
Y.Dudzele – Gliwice (in km/h)	-	-	54	49	-	51,5
Rostock Seehafen – Kolín (in km/h)	52	51	52	53	61	52
Bremerhaven Speckenbüttel – Děčín (in km/h)	54	45	62	53	73	53,5

- The Average planned speed of PaPs developed towards the objective in TT2026 on some sections
- The KPI results are not only linked to the improvement of the product's parameters offered by the C-OSS, but also influenced by commercial and operational stops selected by customers as well as TCRs.
- Due to fluctuations per each section and per timetable period - both in speed and distance - sections have been selected based on available historical data and optimal coverage of corridor lines.
- Objectives have been set based on average speed of available past years per section i.e., $54\text{km/h} + 49\text{ km/h} = \varnothing 51,5\text{ km/h}$
- The planned speed for the path Y. Dudzele - Gliwice could not be calculated for TT2025 as the path was not offered.

*Suwalki – Tallinn (Ülemiste) includes the reloading time (~ hours) in Palemonas from/to 1345mm and 1520mm gauges.

** Two distances for W-E, E-W direction, varying per timetable period