Rail Freight Corridor
North Sea – Baltic

RFC North Sea – Baltic
Performance Monitoring Report 2020

Co-financed by the Connecting Europe Facility of the European Union

Introduction

Performance indicators

Operations:

- KPI 01: Overall number of trains on the RFC
- KPI 02: Punctuality at origin and destination

Capacity Management (TT 2021 offered in 2020):

- KPI 01: Volume of offered capacity
- KPI 02: Volume of requested capacity
- KPI 03: Volume of pre-booked capacity
- KPI 04: Volume of requests
- KPI 05: Number of conflicts
- KPI 06: Volume of offered, requested Reserve Capacity (RC), Volume RC requests
- KPI 07: Average planned speed of PaPs

Market Development:

- KPI 01: Ratio of the capacity allocated by the C-OSS and the total allocated capacity TT2021
- KPI: 02 Overall number of trains per border

Introduction

- A set of commonly applicable KPIs has been agreed by all Rail Freight Corridors and published on RailNetEurope's (RNE) website. The KPIs, their definition and source of data can be found in the RNE guidelines for KPIs of Rail Freight Corridors, (link: http://rne.eu/wp-content/uploads/RNE_Guidelines_KPIs_of_RFCs.pdf).

- 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 (http://www.rne.eu/rneinhalt/uploads/RFC_KPI_figures_per_RFC.pdf).

  Some of the KPIs are also published in the Annual Report.

- Capacity KPIs are also described in the Framework for Capacity Allocation on the Rail Freight Corridor North Sea–Baltic approved by the Executive Board.

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Performance Indicators

The KPIs in this Performance Monitoring Report were chosen on the basis of 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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Operations

The following slides provide insight into the trains running on the Corridor. Punctuality is measured at entry or exit of the corridor. We measure all international freight trains at certain border pairs.

The following criteria have to be met for a train to be considered as a corridor train:

- International freight train;
- Crossing at least one border of the Corridor.

The data used to calculate the given KPIs comes from the international Train Information System (TIS) database, managed by RailNetEurope (RNE). More details are given per KPI.

The WG is aware there are issues with the data in TIS, (due to IM/RU operational behavior and data quality issues) but feels the figures reflect the real situation on the RFC in a sufficient manner to warrant their use in the yearly report.

Operations

KPI 01: Overall number of trains on the RFC

KPI 01 displays all trains running on Rail Freight Corridor 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 running on the corridor infrastructure. Trains that pass more than one border are counted only once (each train gets a unique identifier).

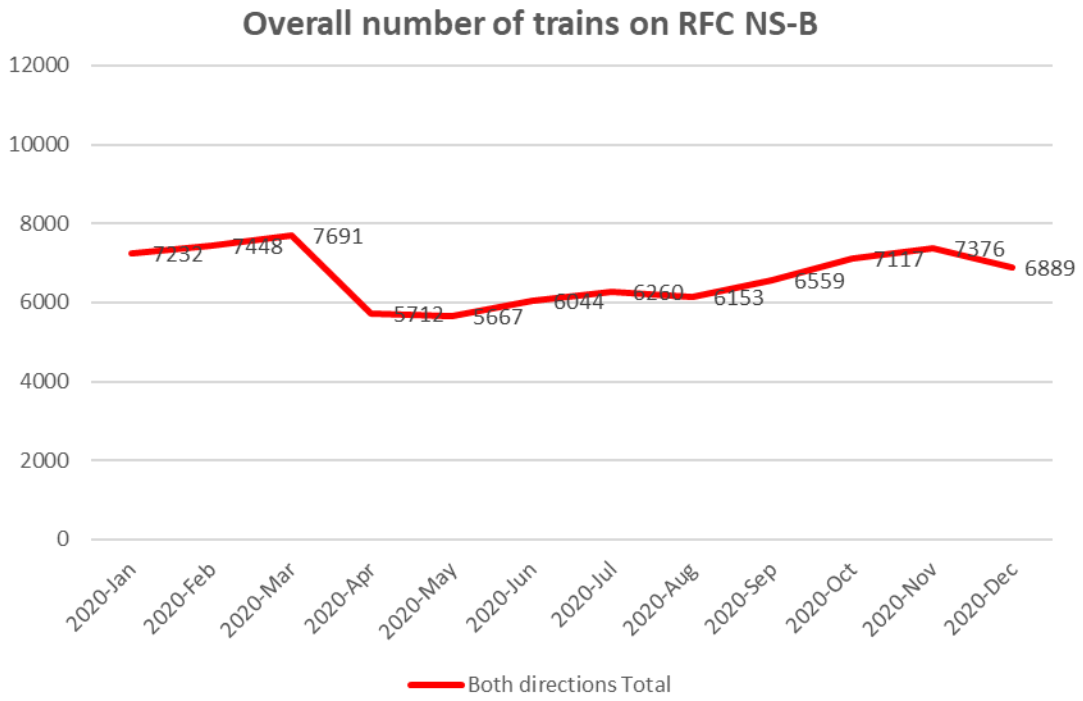
The border crossings considered are as follows:

- Montzen – Aachen
- Essen – Roosendaal
- Zevenaar – Emmerich
- Oldenzaal - Bad Bentheim
- Venlo – Kaldenkirchen*
- Frankfurt Oderbrücke - Kunowice/Rzepin
- Węgliniec/Bielawa Dolna - Horka
- Bad Schandau - Děčín
- Mockava - Trakiszki

*Venlo – Kaldenkirchen is not an RFC North Sea – Baltic border crossing, but due to works at the border Zevenaar – Emmerich trains are diverted via this border crossing. Hence this border point is also taken into consideration.

KPI 01: Overall number of trains on the RFC

This graph gives an overview of the total number of trains in 2020, on a monthly basis.
Total amount of trains for 2020 is 80148.
The decrease of trains from March/ April up to June is (most likely) due to the impact of Covid-19.

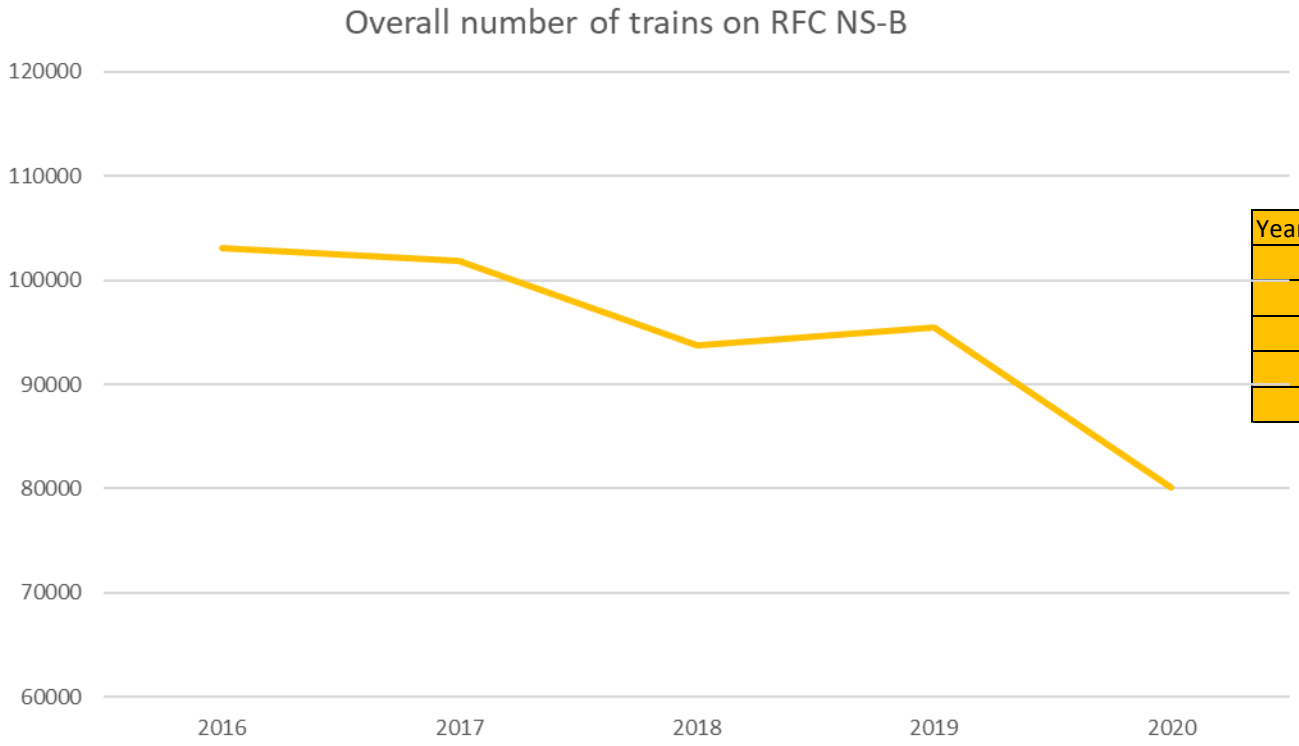


From 2020 the KPI figures are based on Calendar year, from 1st January to 31st December.
Previously they were based on Timetable year.

A graph of the general evolution of the corridor traffic on a yearly basis is shown on the following slide.

KPI 01: Overall number of trains on the RFC

This graph illustrates the evolution of corridor traffic for 2016-2020



Year	Total amount of trains
2016	103047
2017	101858
2018	93804
2019	95482
2020	80148

Decrease in figures for 2020 is (most likely) due to the impact of Covid-19, less train runs from March to June.

Operations KPI 02: Punctuality

KPI 02 measures the average punctuality of trains running on the Corridor 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 on the detailed point-list defines the chosen RFC. This is a comprehensive list of all points in TIS where a train can enter the corridor on the network of one of the IMs of the RFC North Sea- Baltic.

- The graphs shown in the punctuality slides in this report indicate the punctuality measured at entry/exit on the Corridor, based on TIS data.

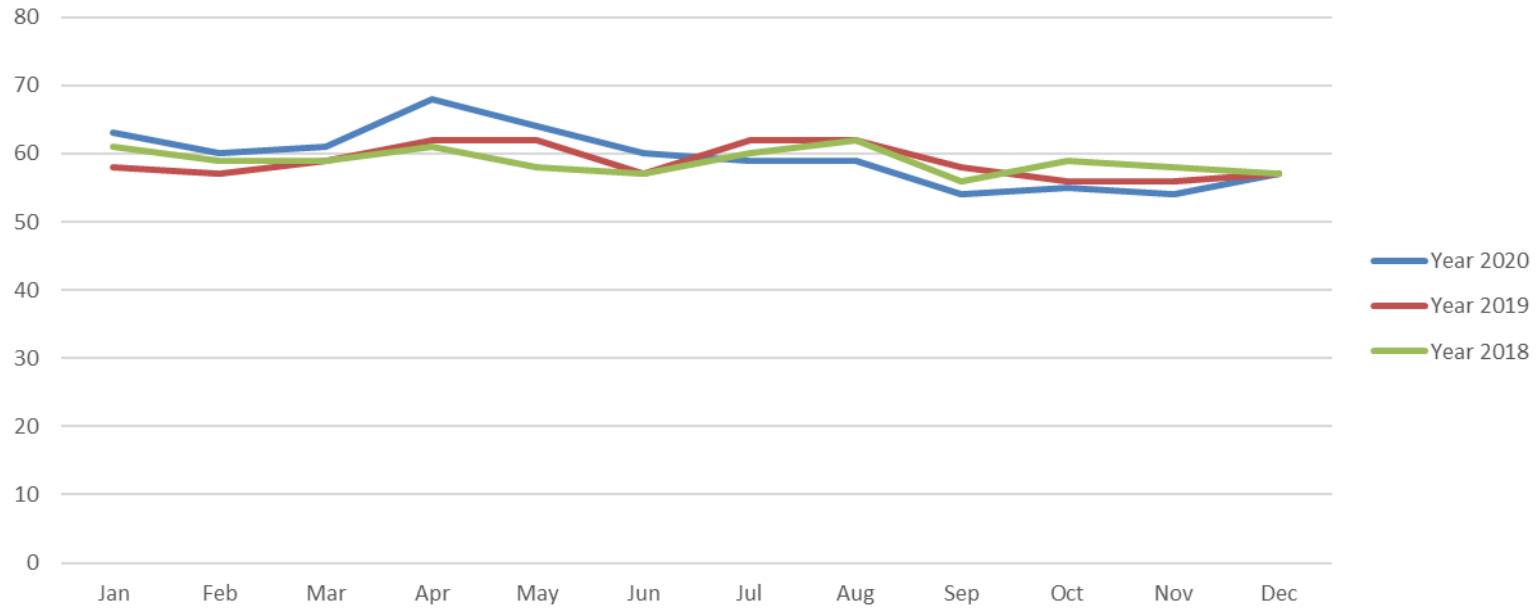
Trains considered in the report must fulfill the following basic criteria:

- 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

A corridor train is punctual when its delay is 30 minutes or less (≤30min).

The follow-up of the punctuality report is done during the meetings of the Working Group Performance Management and Operations. Corridor users are invited to a bilateral WG to discuss improving the punctuality on a case by case basis.

Punctuality at origin (RFC Entry) of the corridor West-East



Punctuality at origin (RFC Entry) 12 months (% within 30')

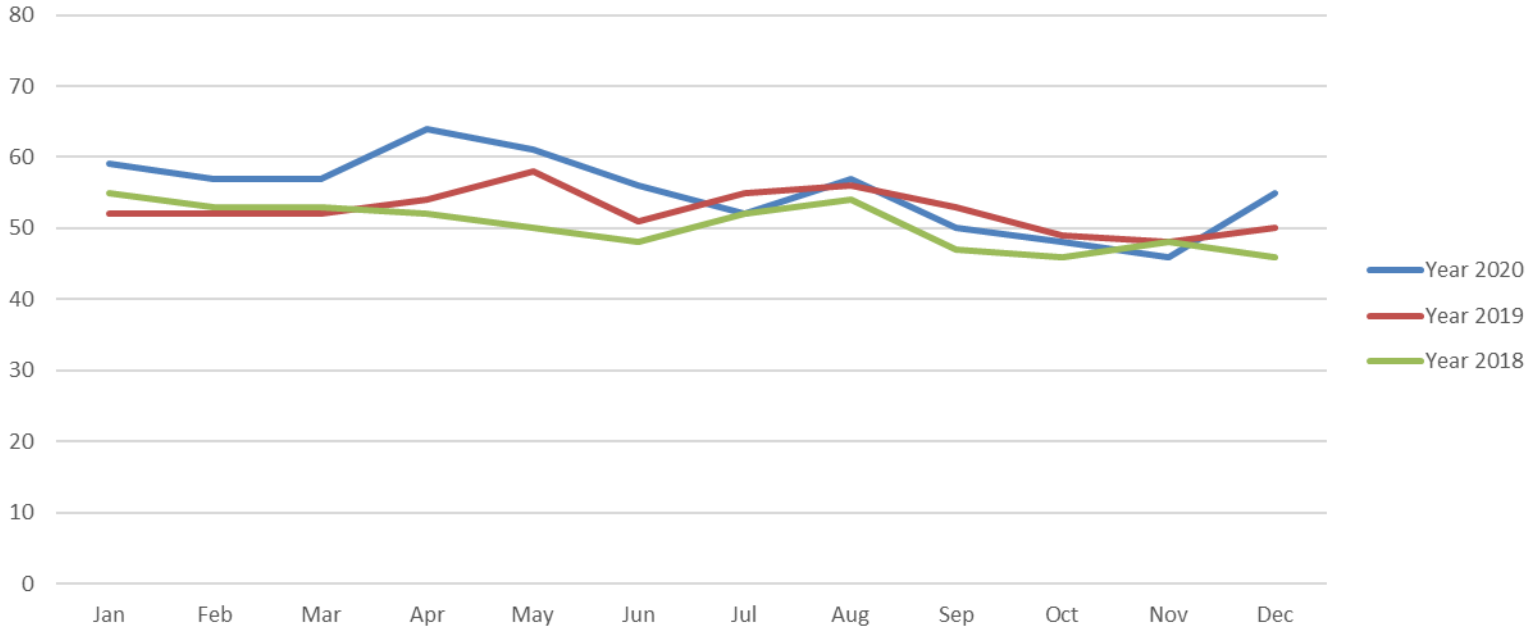
Average Punctuality 2018: 59%

Average Punctuality 2019: 59%

Average Punctuality 2020: 59%

In 2020, the increase of punctuality from March to June is (most likely) due to the impact of Covid-19. More capacity was available on the network due to less passenger and freight-train traffic

Punctuality at origin (RFC Entry) of the corridor East-West



Punctuality at origin (RFC Entry) 12 months (% within 30')

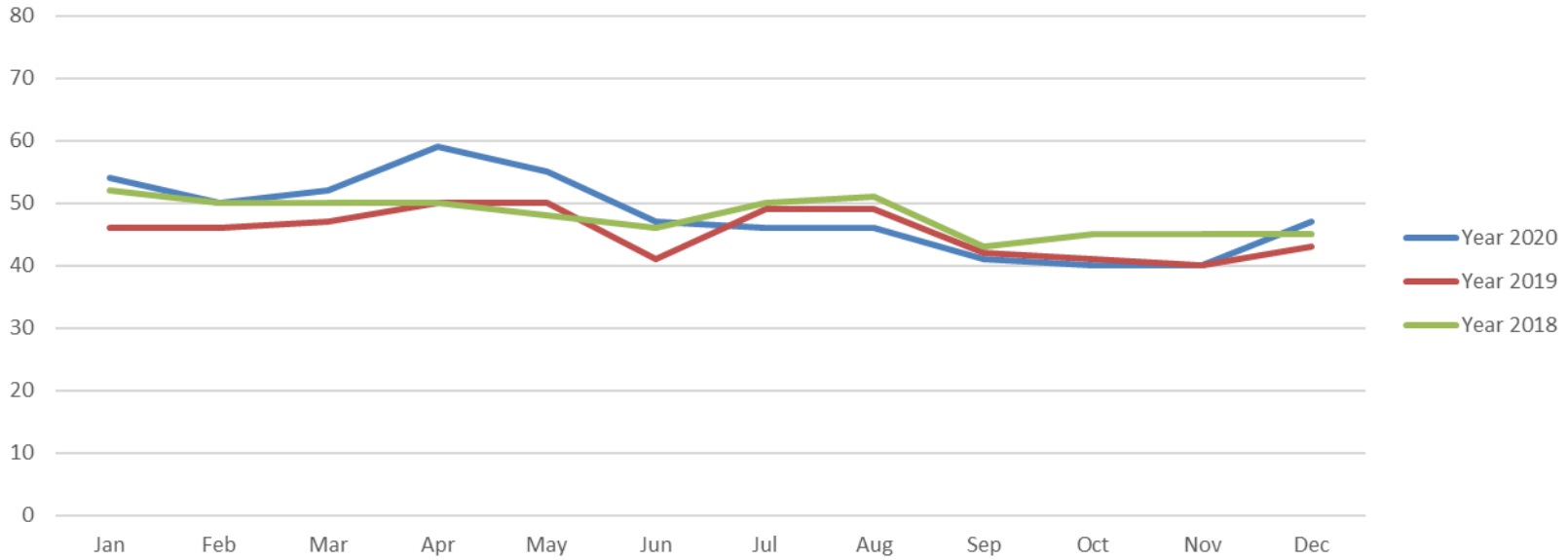
Average Punctuality 2018: 51%

Average Punctuality 2019: 53%

Average Punctuality 2020: 55%

In 2020, the increase of punctuality from March to June is (most likely) due to the impact of Covid-19. More capacity was available on the network due to less passenger and freight-train traffic

Punctuality at destination (RFC Exit) of the corridor West-East



Punctuality at destination (RFC Exit) 12 months (% within 30')

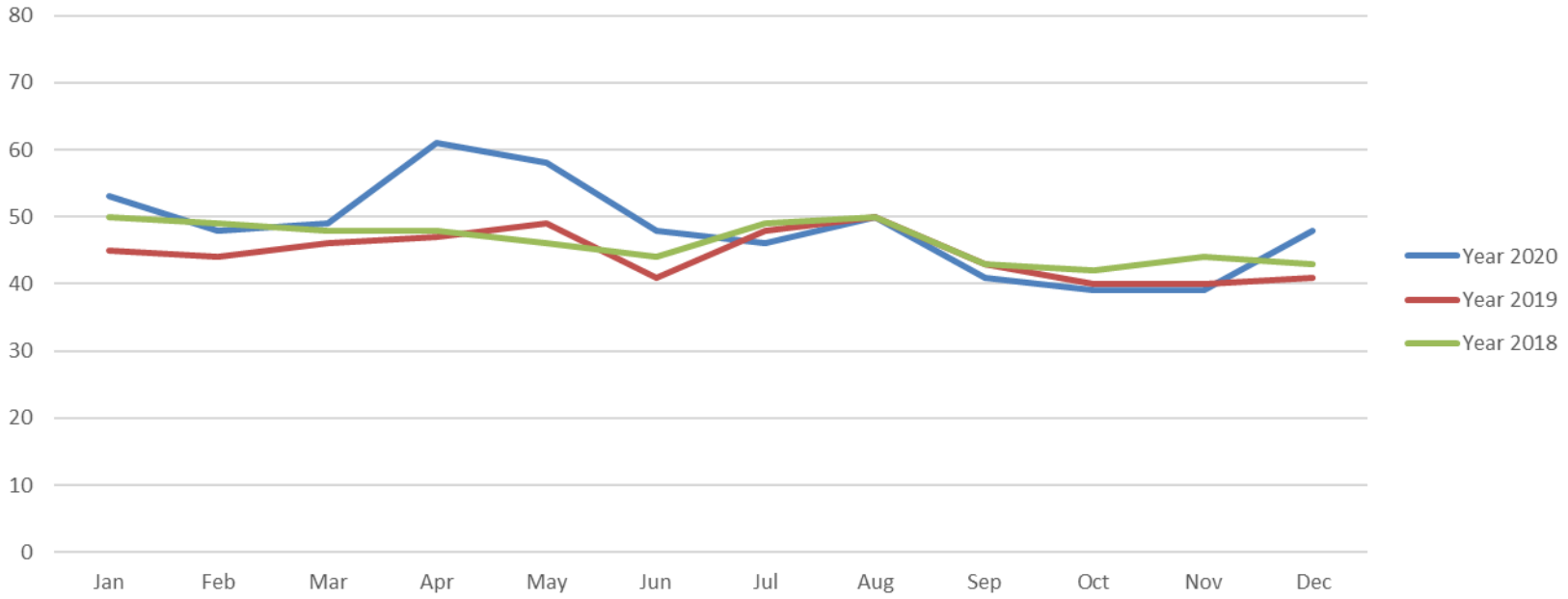
Average Punctuality 2018: 48%

Average Punctuality 2019: 45%

Average Punctuality 2020: 48%

In 2020, the increase of punctuality from March to June is (most likely) due to the impact of Covid-19. More capacity was available on the network due to less passenger and freight-train traffic

Punctuality at destination (RFC Exit) of the corridor East-West



Punctuality at destination (RFC Exit) 12 months (% within 30')

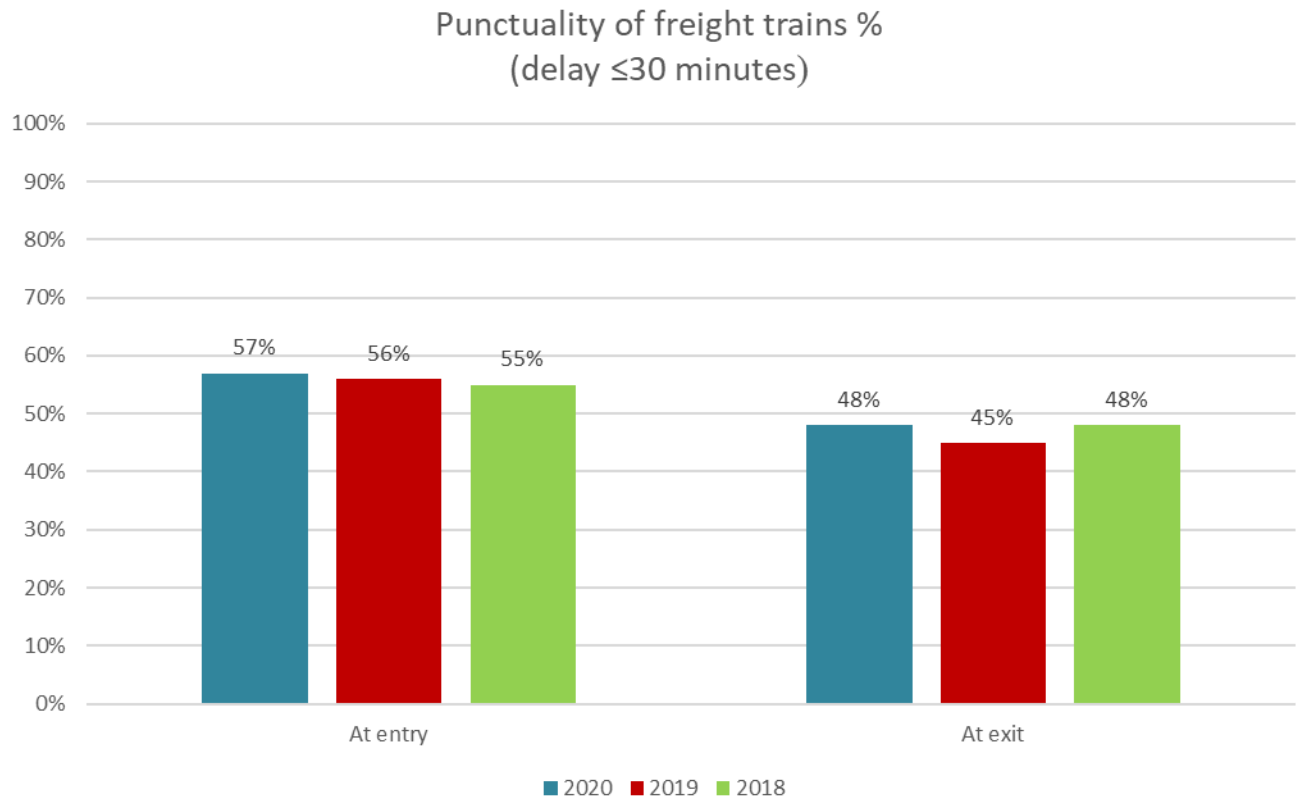
Average Punctuality 2018: 47%

Average Punctuality 2019: 45%

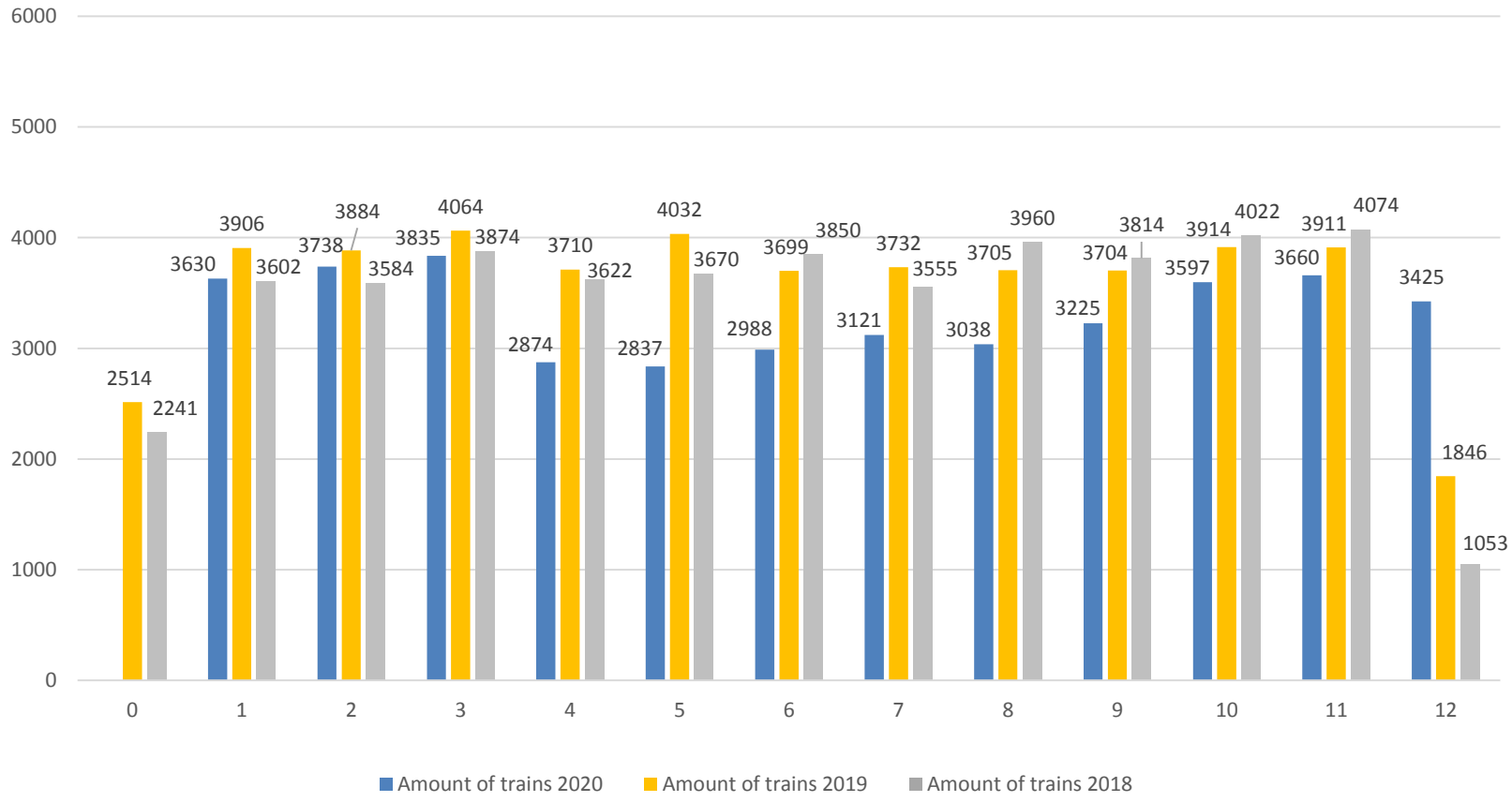
Average Punctuality 2020: 48%

In 2020, the increase of punctuality in March to June is (most likely) due to the impact of Covid-19. More capacity was available on the network due to less passenger and freight-train traffic

Punctuality of freight trains at RFC Entry and RFC Exit

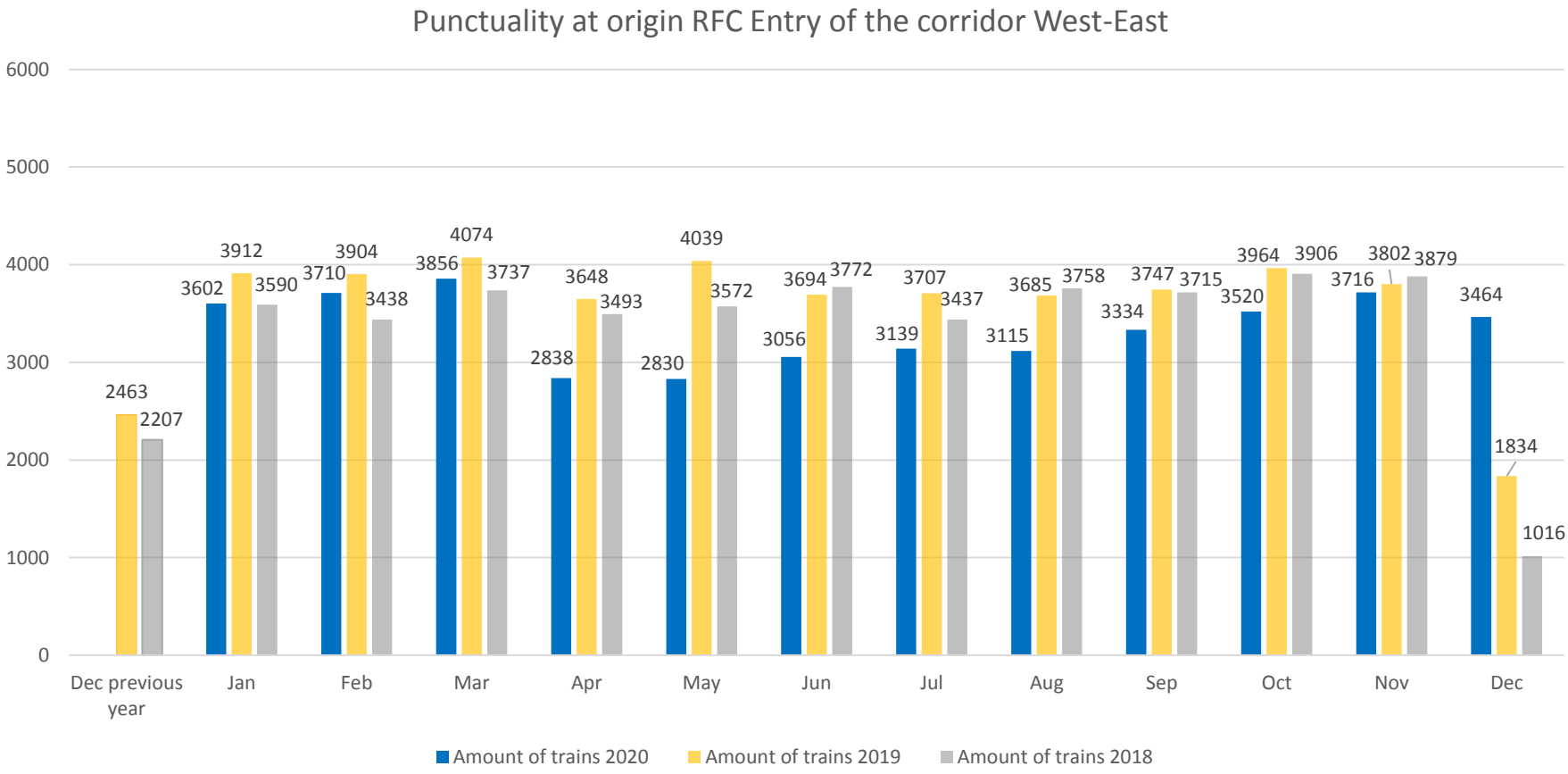


Punctuality at origin (RFC Entry) of the corridor West-East, count of trains



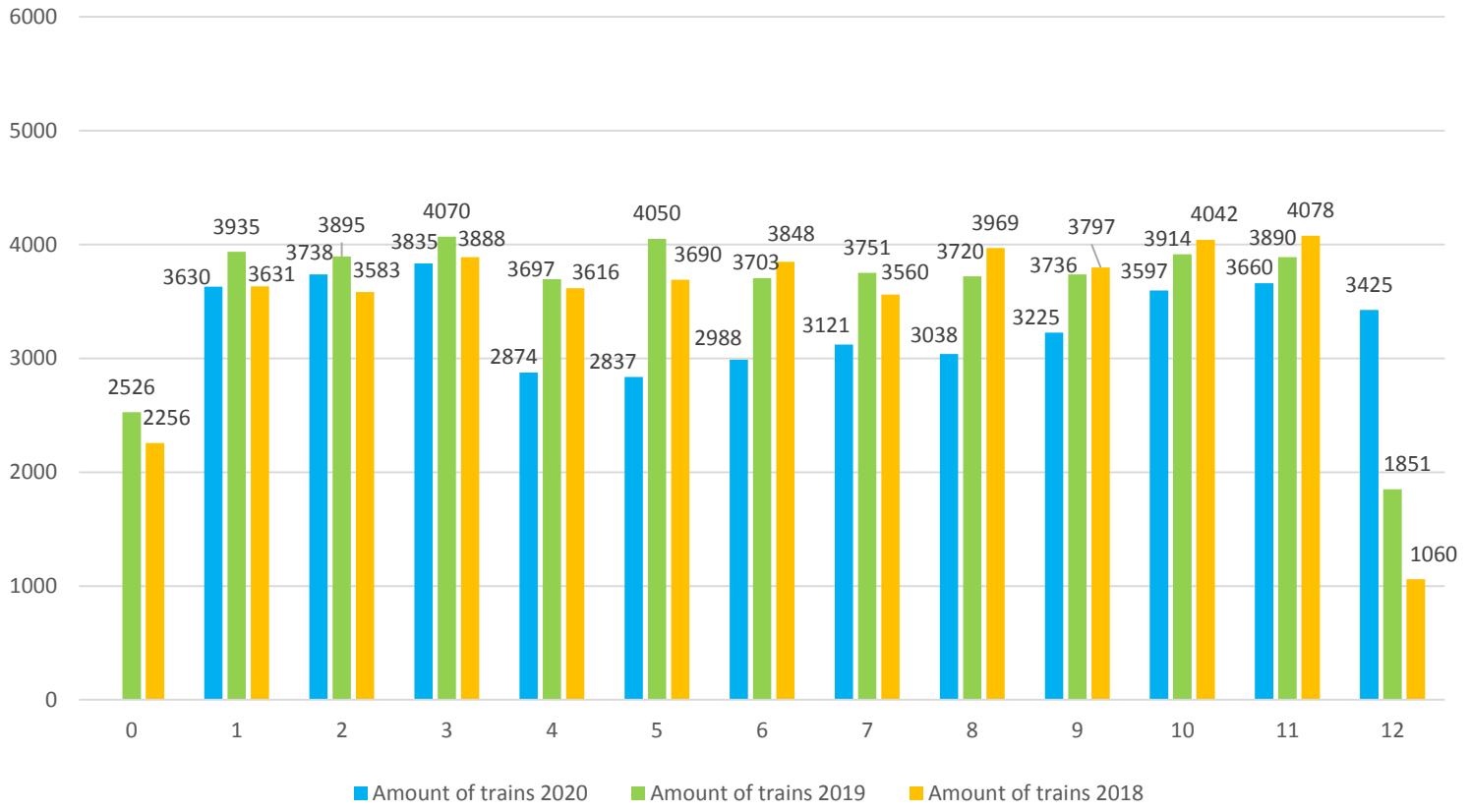
•2018 and 2019, figures based on TT year
•2020, figures based on calendar year

Punctuality at origin (RFC Entry) of the corridor East-West, count of trains



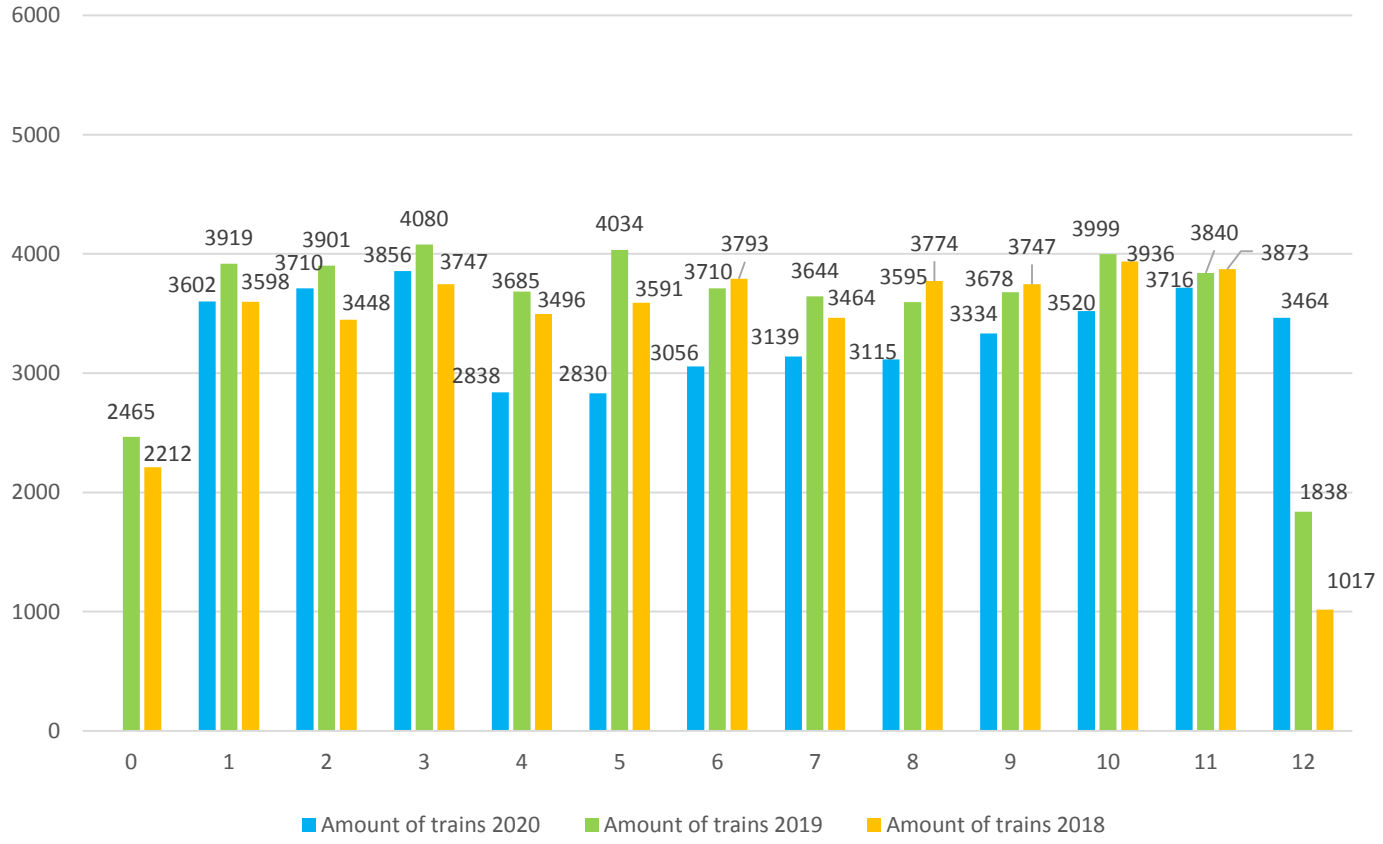
•2018 and 2019, figures based on TT year
•2020, figures based on calendar year

Punctuality at destination (RFC Exit) of the corridor West-East, count of trains



•2018 and 2019, figures based on TT year
•2020, figures based on calendar year

Punctuality at destination (RFC Exit) of the corridor East-West, count of trains



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Capacity management

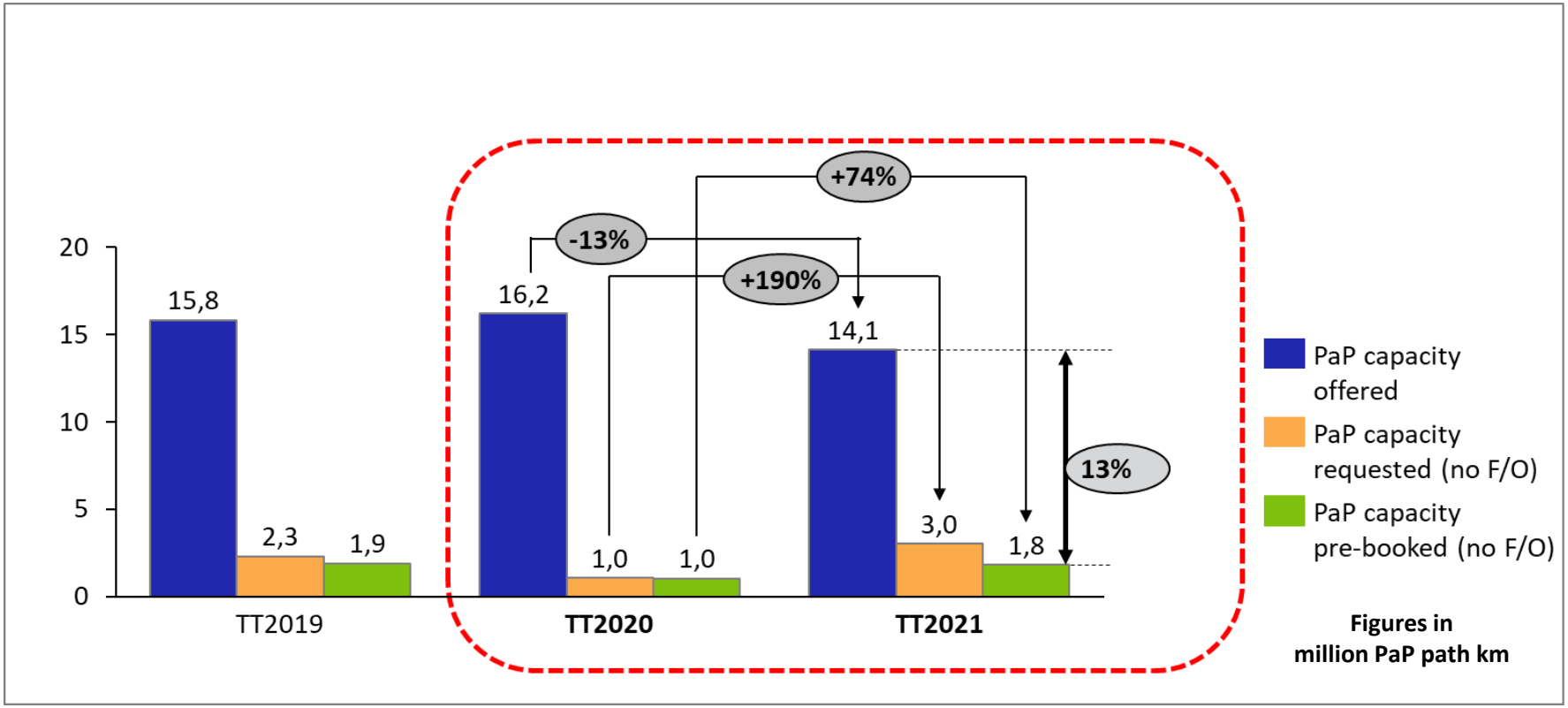
- To follow the performance on the Corridor regarding capacity, a number of KPIs are described on the following pages which will provide insight into the capacity that has been offered, requested, allocated and monitored by the C-OSS.

- Most of these KPIs stem from the Framework for Capacity Allocation (FCA). Others were commonly agreed and are described in the RNE KPI guidelines

- Only requests including PaPs that have been placed via PCS for the *Annual timetable* and for the *Reserve capacity* are taken into account.

Capacity management

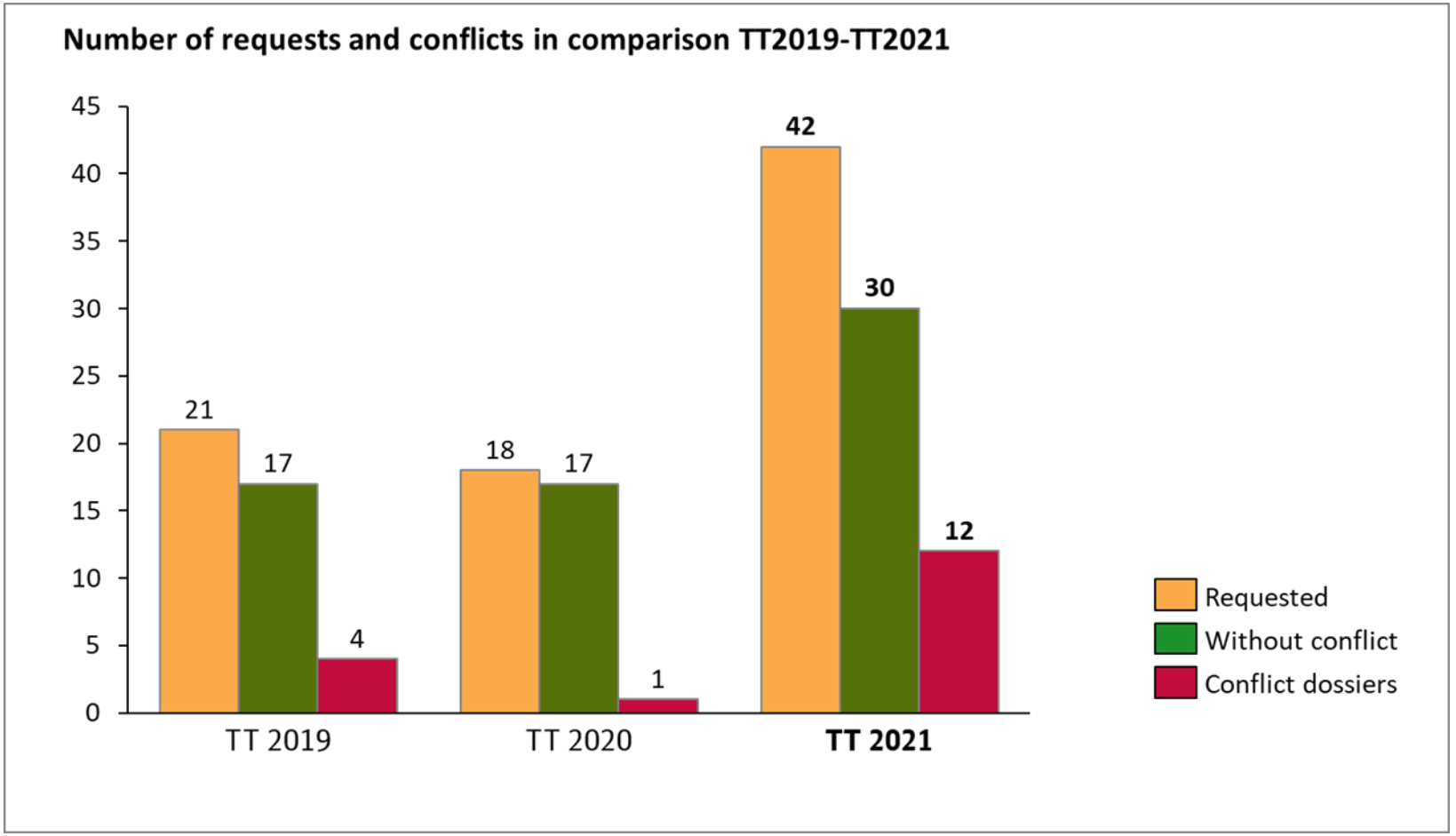
KPI 01: Volume of offered capacity
KPI 02: Volume of requested capacity
KPI 03: Volume of pre-booked capacity



Capacity management

KPI 04: Volume of requests

KPI 05: Number of conflicts



Capacity management

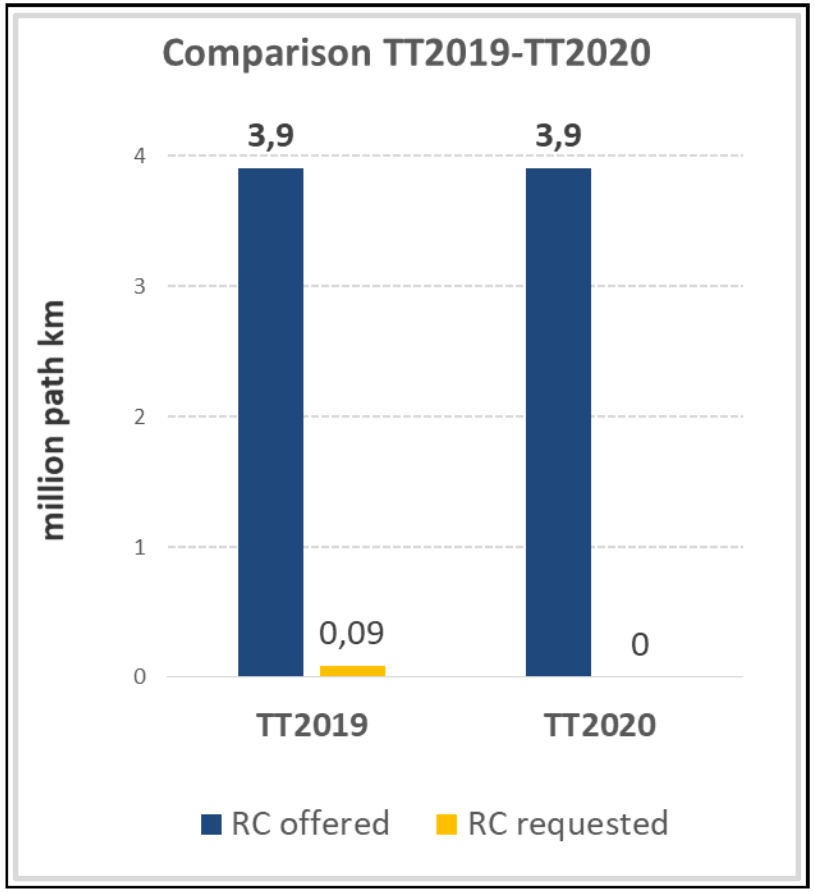
KPI 06: Volume of offered and requested Reserve Capacity (RC)

- Reserve Capacity for ad hoc requests has been published by the C-OSS in October 2019, for the TT2020 starting in December 2019

- Reserve Capacity is offered as a flexible approach, in the form of capacity slots per day and direction, requested up to 30 days before a train run.

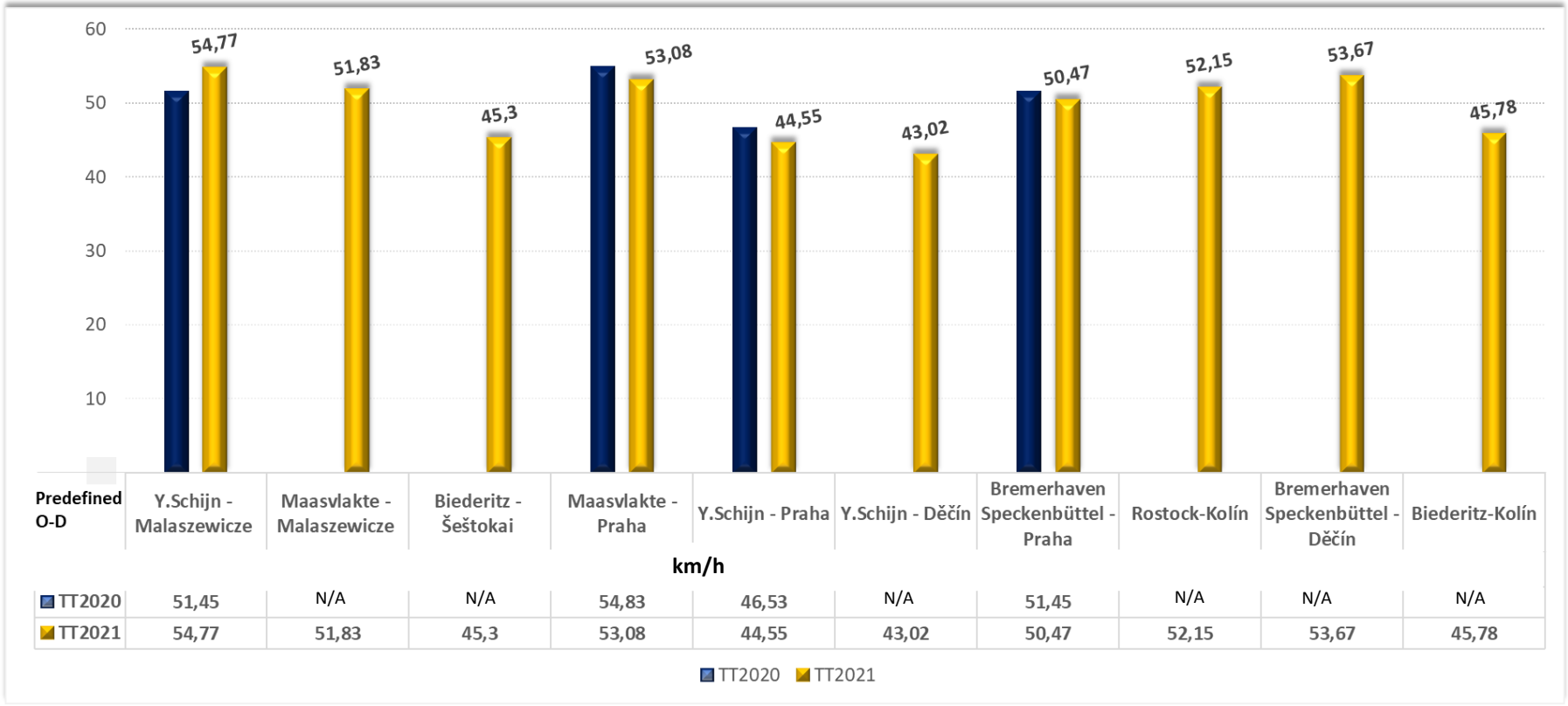
KPI for TT2020:

- Volume offered RC: 3,9 mio path km
- Volume requested RC: 0 mio path km



Capacity management

KPI 07: Average planned speed of PaPs



Predefined O-D	Y.Schijn - Malaszewicze	Maasvlakte - Malaszewicze	Biederitz - Šeštokai	Maasvlakte - Praha	Y.Schijn - Praha	Y.Schijn - Děčín	Bremerhaven Speckenbüttel - Praha	Rostock-Kolín	Bremerhaven Speckenbüttel - Děčín	Biederitz-Kolín
km/h										
TT2020	51,45	N/A	N/A	54,83	46,53	N/A	51,45	N/A	N/A	N/A
TT2021	54,77	51,83	45,3	53,08	44,55	43,02	50,47	52,15	53,67	45,78

TT2020 TT2021

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.

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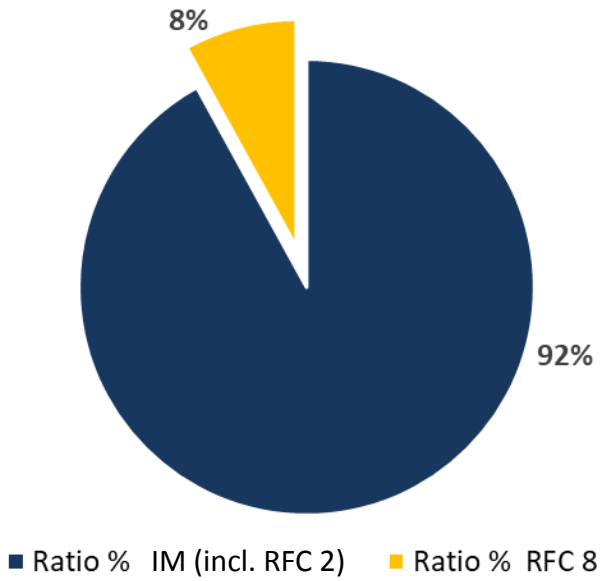
Market Development

KPI 01: Ratio of the capacity allocated by the C-OSS to total allocated capacity TT2021

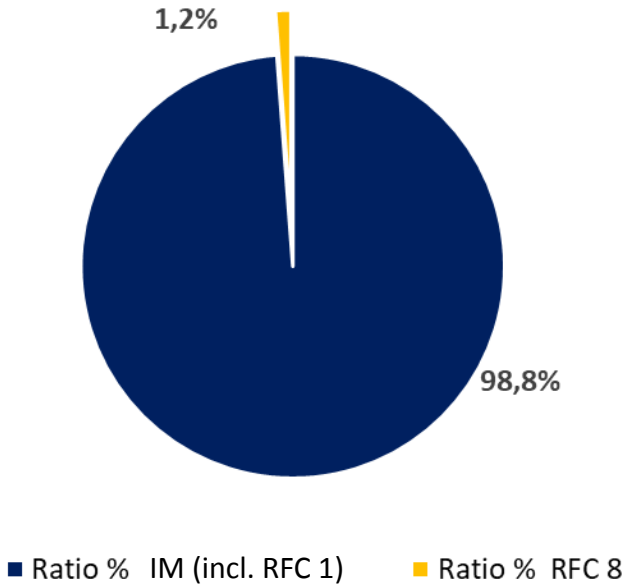
Roosendaal / Essen-Grens



Volume of allocated international freight trains	
Total	Allocated by C-OSS RFC 8
12.296	984

Montzen Frontiere / Aachen West Grenze

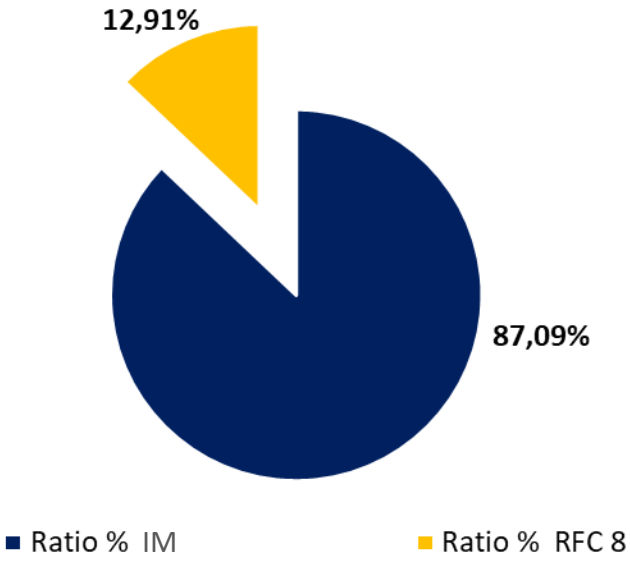
Volume of allocated international freight trains	
Total	Allocated by C-OSS RFC 8
26.092	312



Market Development

KPI 01: Ratio of the capacity allocated by the C-OSS to total allocated capacity TT2021

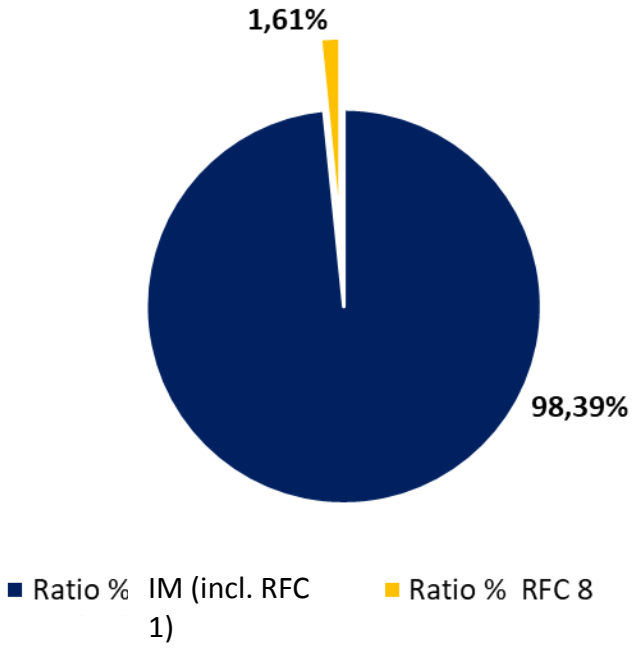
Oldenzaal Grens / Bad Bentheim Grenze



Volume of allocated international freight trains	
Total	Allocated by C-OSS RFC 8
7.623	984

Zenvenaar Grens / Emmerich

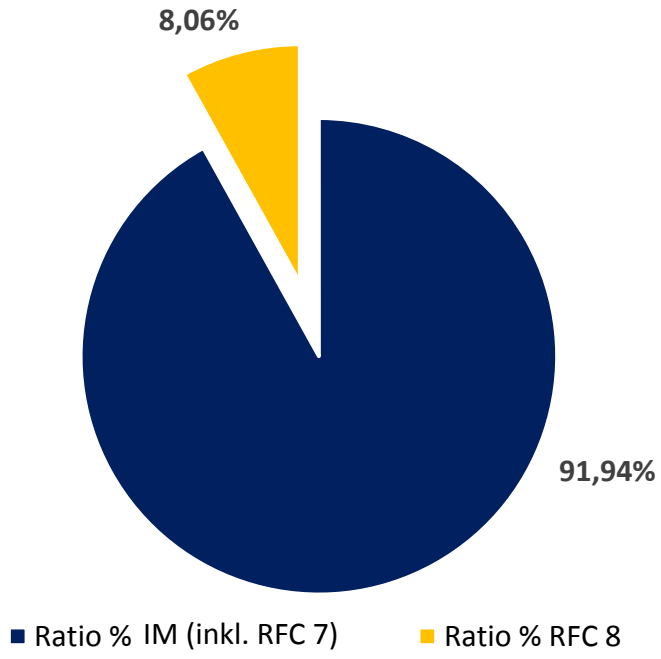
Volume of allocated international freight trains	
Total	Allocated by C-OSS RFC 8
32.378	520



Market Development

KPI 01: Ratio of the capacity allocated by the C-OSS to total allocated capacity TT2021

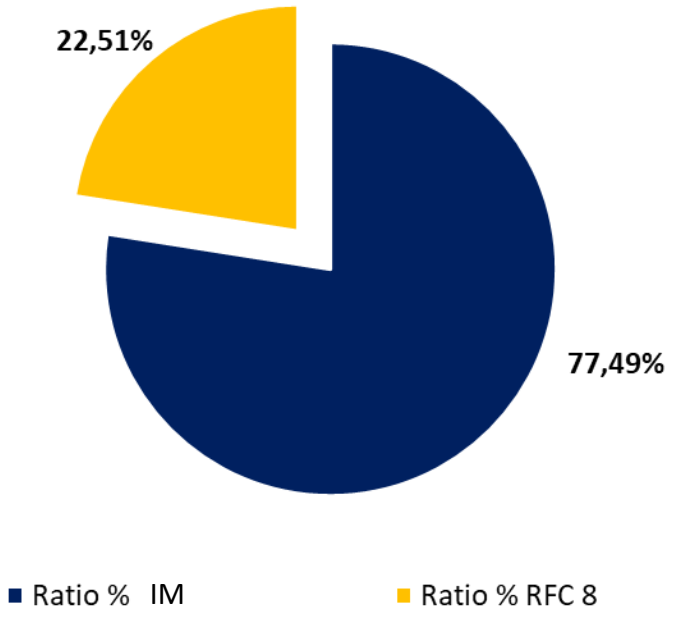
Bad Schandau Gr / Děčín st.hr.



Volume of allocated international freight trains	
Total	Allocated by C-OSS RFC 8
48.995	3.949

Frankfurt (Oder) Oderbrücke / Kunowice (Gr)

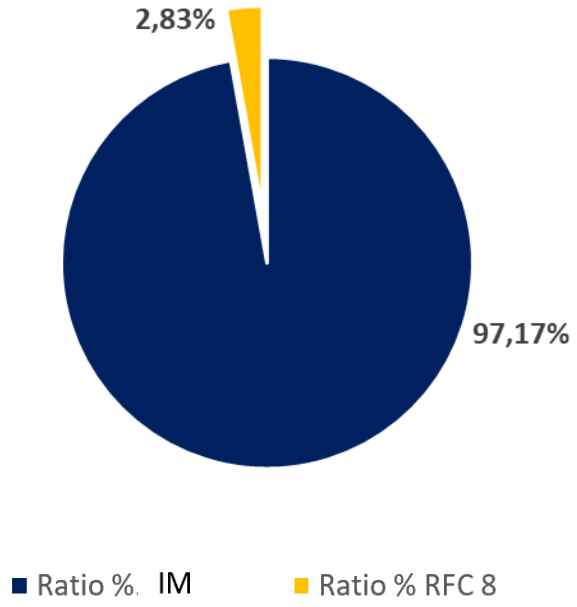
Volume of allocated international freight trains	
Total	Allocated by C-OSS RFC 8
10.424	2.346



Market Development

KPI 01: Ratio of the capacity allocated by the C-OSS to total allocated capacity TT2021

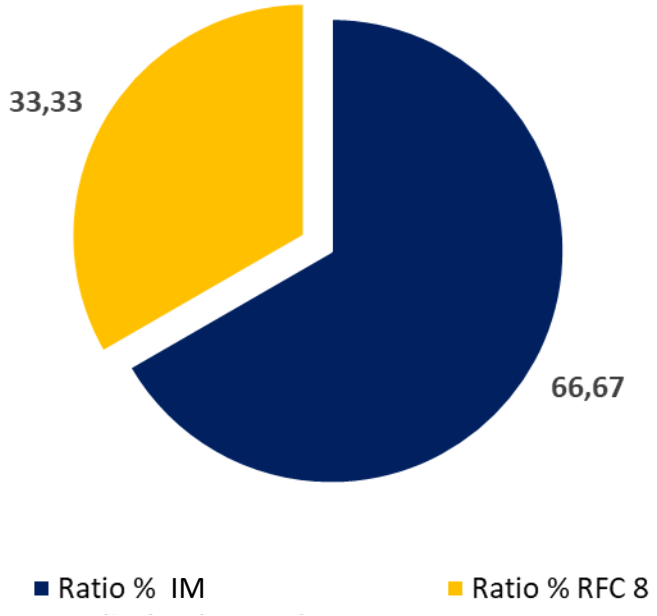
Horka / Bielawala Dolna (Gr)



Volume of allocated international freight trains	
Total	Allocated by C-OSS RFC 8
5.200	147

Trakiszki (Gr) / Mockava Pasienis

Volume of allocated international freight trains	
Total	Allocated by C-OSS RFC 8
2.184	728



Market Development

KPI 02: Overall number of trains per border

For KPI 02, Overall number of trains per border, it was decided by the RNE KPI Working Group to use the figures provided by the IM from their own national system.

KPI 02 displays corridor trains on Rail Freight Corridor North Sea–Baltic per border. Trains that pass more than one border are thus counted several times.

Border pairs on the corridor are:

- Montzen – Aachen
- Essen – Roosendaal
- Zevenaar – Emmerich
- Oldenzaal - Bad Bentheim
- Venlo – Kaldenkirchen*
- Frankfurt Oderbrücke - Kunowice/Rzepin
- Węgliniec/Bielawa Dolna - Horka
- Bad Schandau - Děčín
- Mockava – Trakiszki

*Venlo – Kaldenkirchen is not an RFC North Sea – Baltic border crossing, but due to works at the border Zevenaar – Emmerich trains can be diverted via this border crossing. Hence this border point is also taken into consideration.

Market Development

KPI 02: Overall number of trains per border 2020

West-East

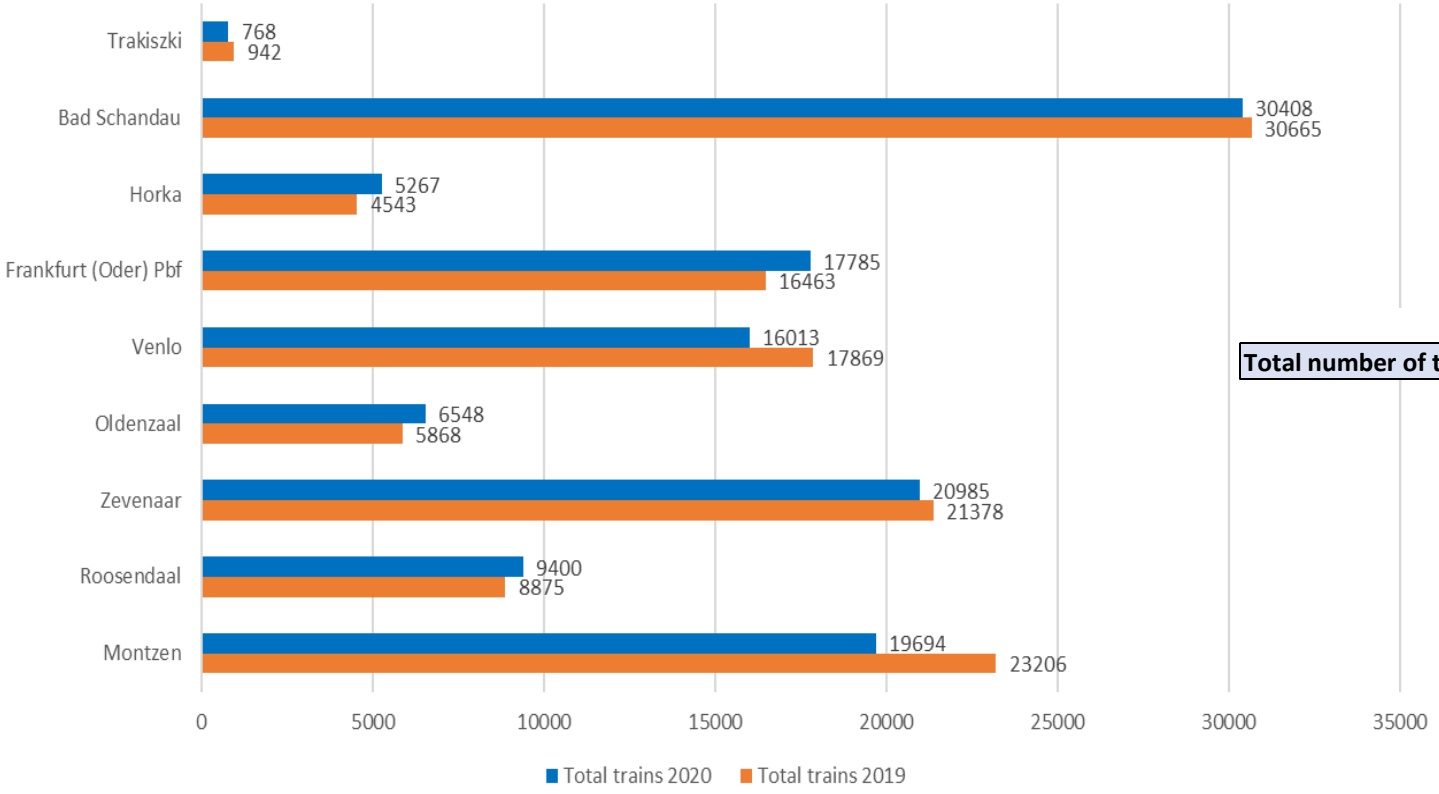
Border pairs	Border point	2020 Number of trains
Montzen-Aachen	Montzen-Frontière	9989
Roosendaal-Essen	Essen-grens	4661
Zevenaar-Emmerich	Zevenaar-Oost	10604
Oldenzaal-Bad Bentheim	Oldenzaal	3281
Venlo-Kaldenkirchen	Venlo	8172
Frankfurt-Kunowice/Rzepin	Frankfurt (Oder) Pbf	8775
Horka-Wegliniec/Bielawa Dolna	Horka Gbf	2681
Bad Schandau- Děčin	Schöna	15160
Trakiszki-Mockava	Trakiszki (Gr)	389

East-West

Border pairs	Border point	2020 Number of trains
Aachen-Montzen	Montzen-Frontière	9705
Essen - Roosendaal	Essen-grens	4739
Emmerich - Zevenaar	Zevenaar-Oost	10381
Bad Bentheim-Oldenzaal	Oldenzaal	3267
Kaldenkirchen-Venlo	Venlo	7841
Kunowice/Rzepin-Frankfurt	Frankfurt (Oder) Pbf	9010
Wegliniec/Bielawa Dolna-Horka	Horka Gbf	2586
Děčin-Bad Schandau	Schöna	15248
Mockava-Trakiszki	Trakiszki (Gr)	379

Market Development
KPI 02: Overall number of trains per border 2020

Comparison 2020 with 2019, total number of trains, per border



	2019	2020
Total number of trains	129809	126868