RFC North Sea – Baltic
Performance Monitoring Report 2019

Performance indicators

Operations:
- KPI 01: Overall number of trains on the RFC
- KPI 02: Punctuality at Origin and Destination

Capacity Management (TT 2020 offered in 2019):
- 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
- KPI: 02 Overall number of trains per border

Introduction

➢ Since the Implementation Plan publication in 2015, 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 was 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 warrent 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 the moment 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 the following:

- 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 2019 on a monthly basis. Total amount of trains for 2019 was 95 482.
The next slide gives the general evolution of the corridor traffic on a yearly basis.


Overall number of trains on the RFC NS -B
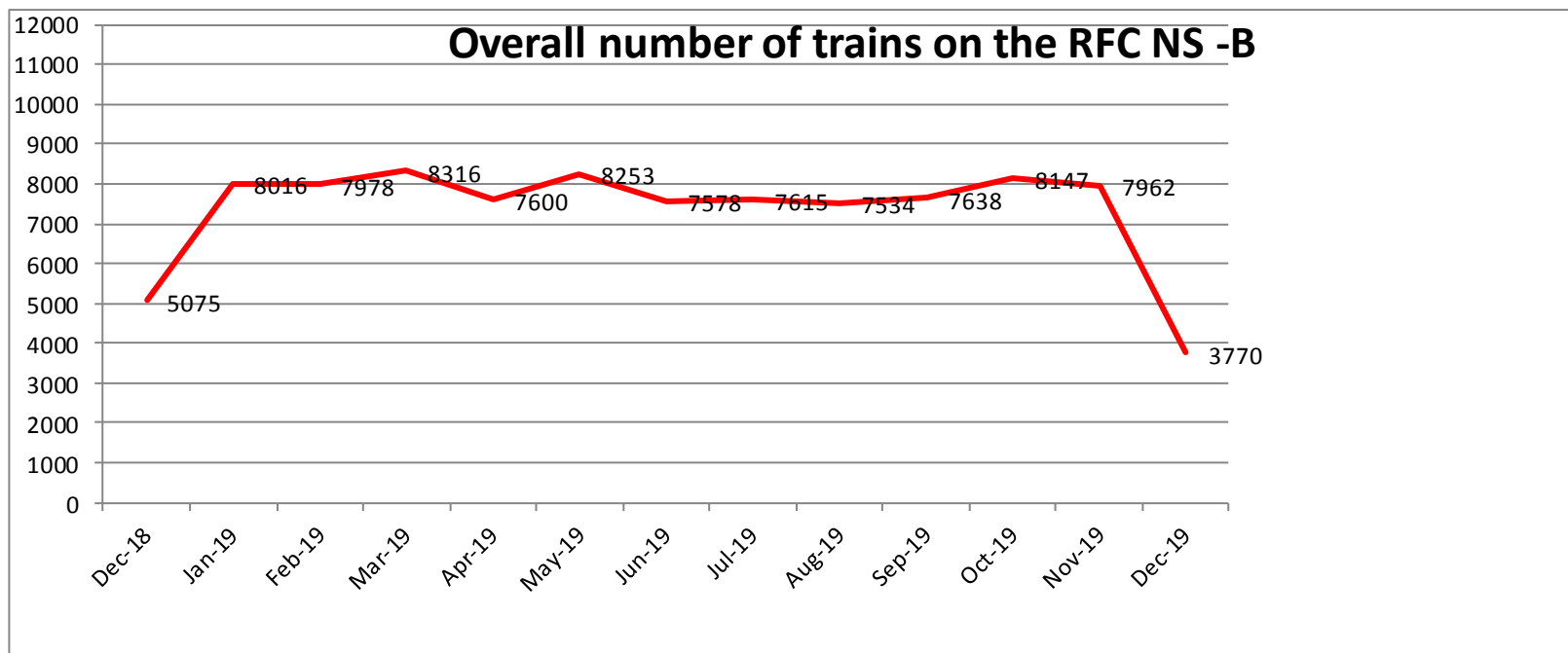
Number of freight trains on the Corridor from timetable change 2018 to timetable change 2019

The number of trains in December is low as only part of the month is taken into account – till timetable change in mid December.

KPI 01: Overall number of trains on the RFC

This graph illustrates the evolution of corridor traffic for 2016-2019

Overall number of trains on the RFC NS-B

Year	total amount of trains
2016	103047
2017	101858
2018	93804
2019	95482
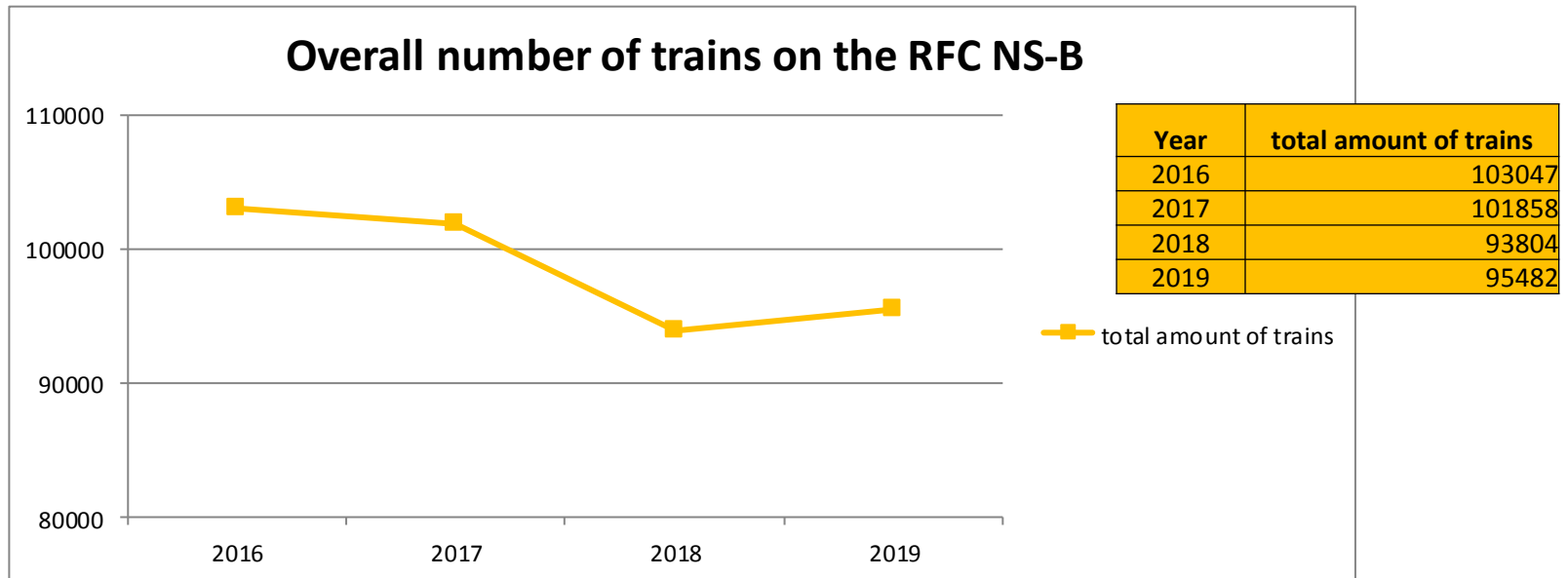
Operations KPI 02: Punctuality

KPI 02 measures the average punctuality of trains running on the Corridor at Origin and Destination. Origin is considered as RFC Entry and Destination as RFC Exit.

The graphs measure the punctuality at entry/exit on the Corridor based on TIS data. Trains in the report pass at least one of the points in the detailed point list. 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.

A train will be added to this train list if it meets the following criteria:

> ➤ International freight train;

> ➤ Trains which have a first Contracted Time Table (CTT) in the defined timetable

> ➤ 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 lower than 30 minutes.

The follow-up of this 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 of the Corridor West-East
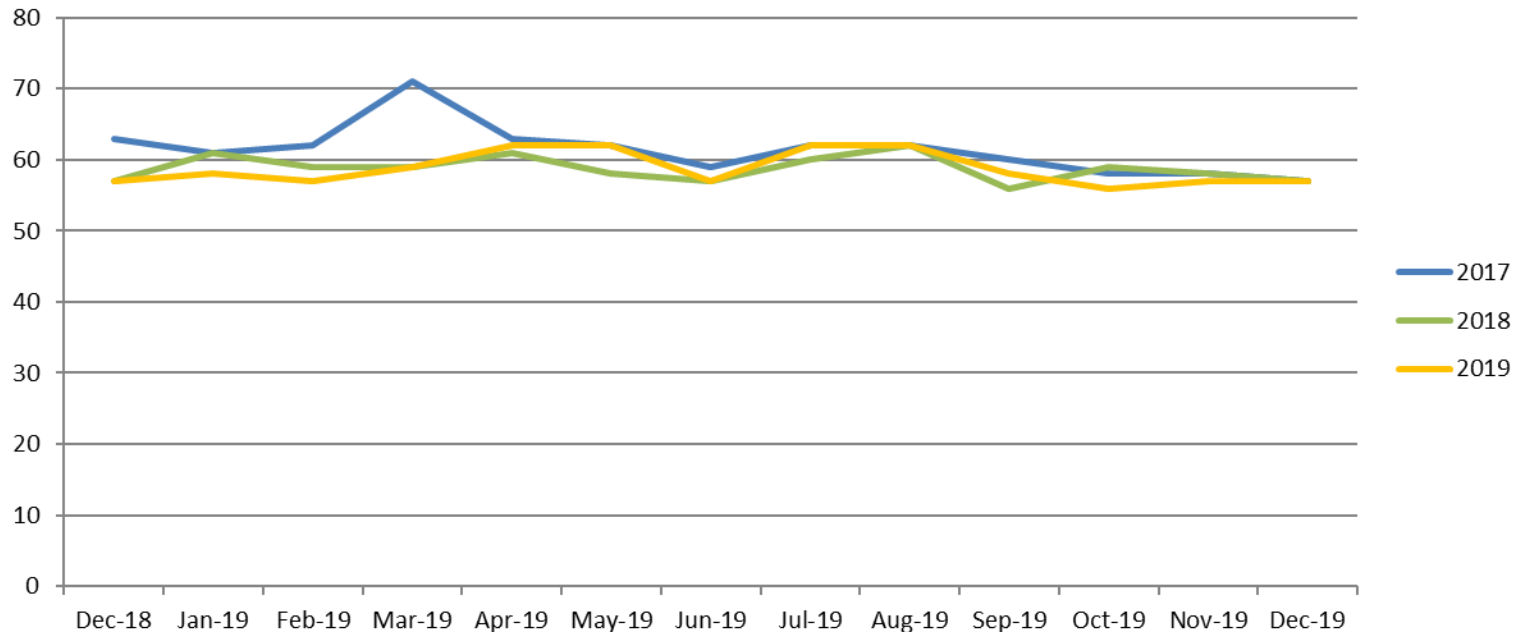
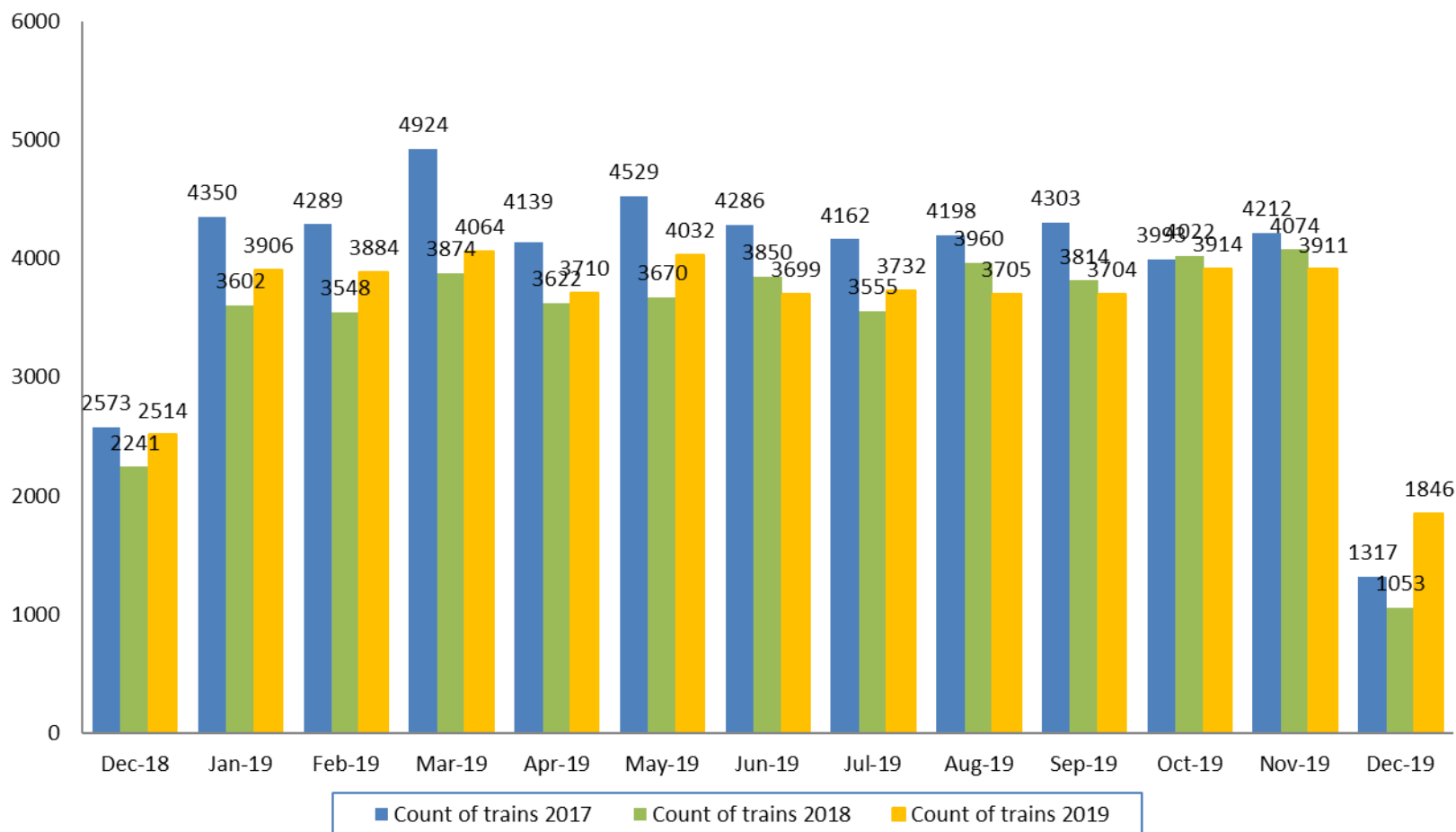## Punctuality at Origin 12 months (% within 30')

Average Punctuality 2017: 67%
Average Punctuality 2018: 59%
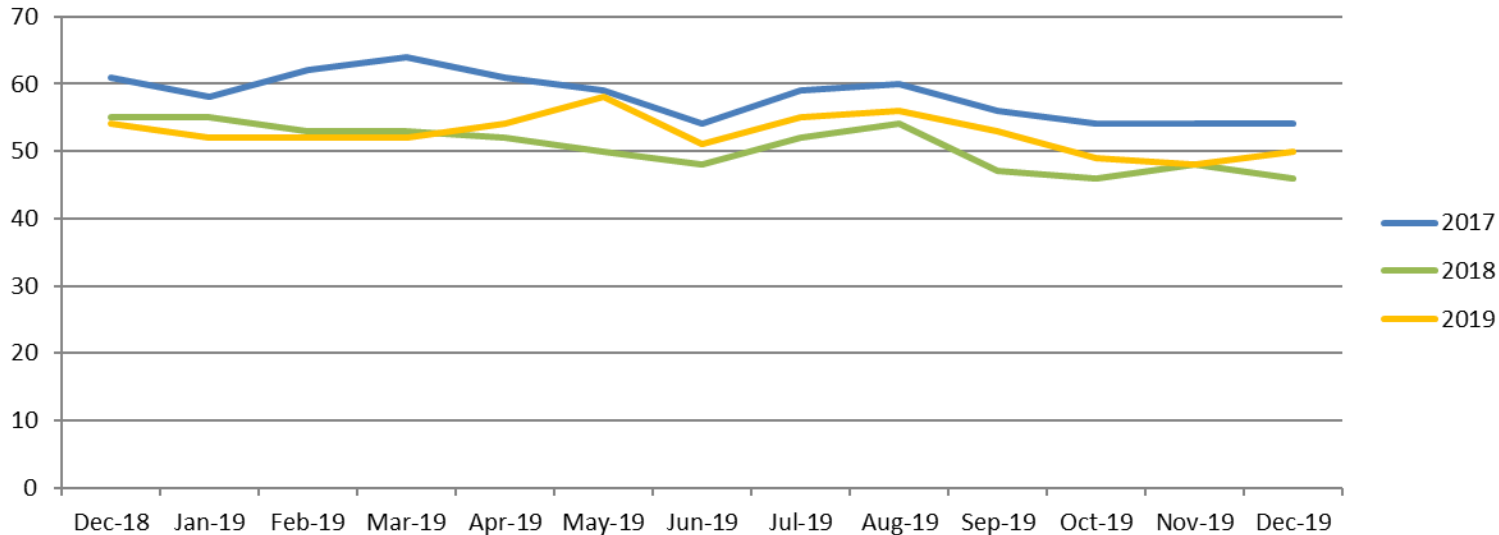**Average Punctuality 2019: 59%**

Punctuality at Origin of the Corridor West-East

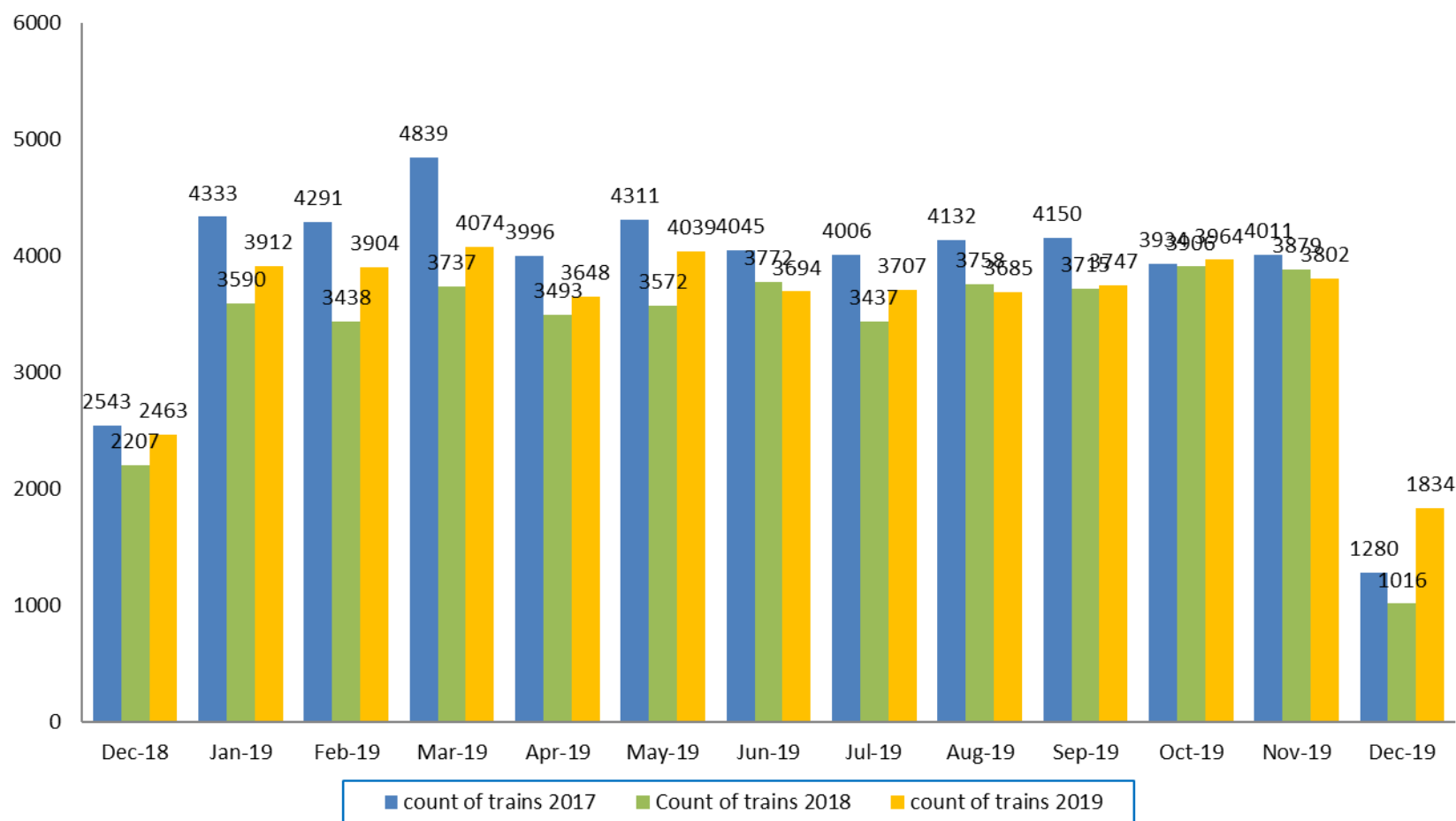# Punctuality at Origin of the Corridor East-West

Punctuality

Punctuality at Origin 12 months (% within 30')
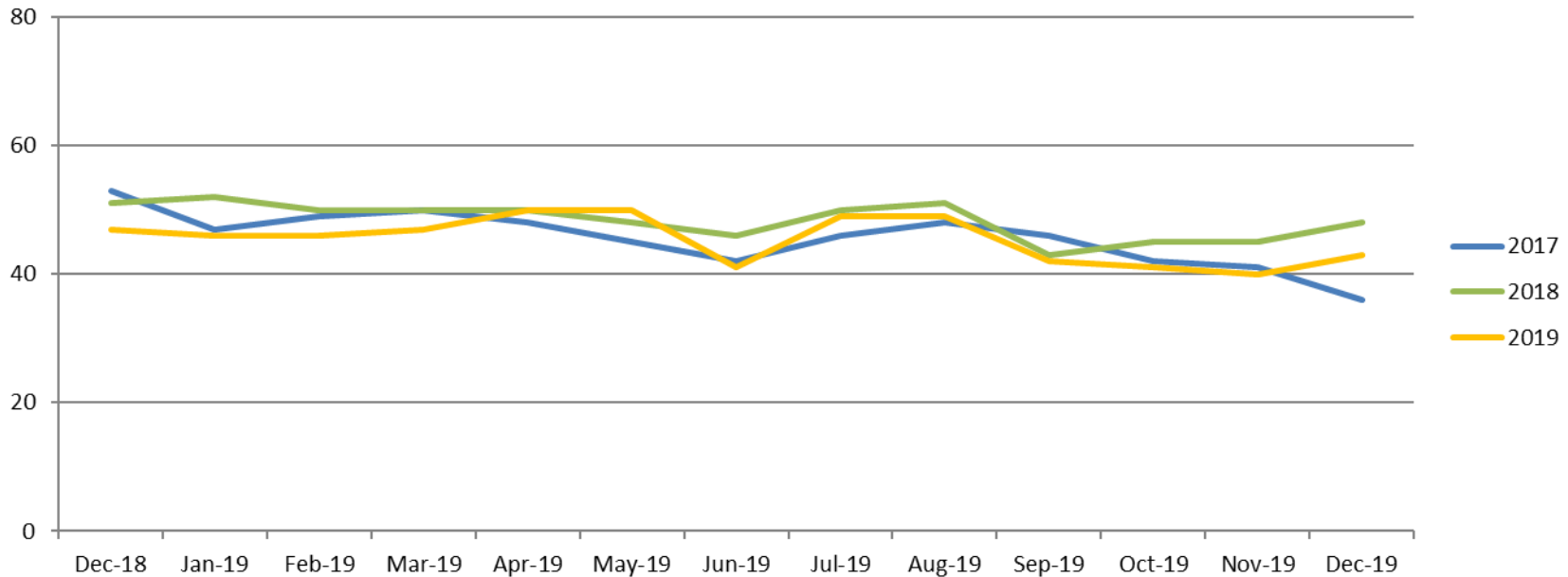
Average Punctuality 2017: 63%
Average Punctuality 2018: 51%
Average Punctuality 2019: 59%

Punctuality at Origin of the Corridor East-West

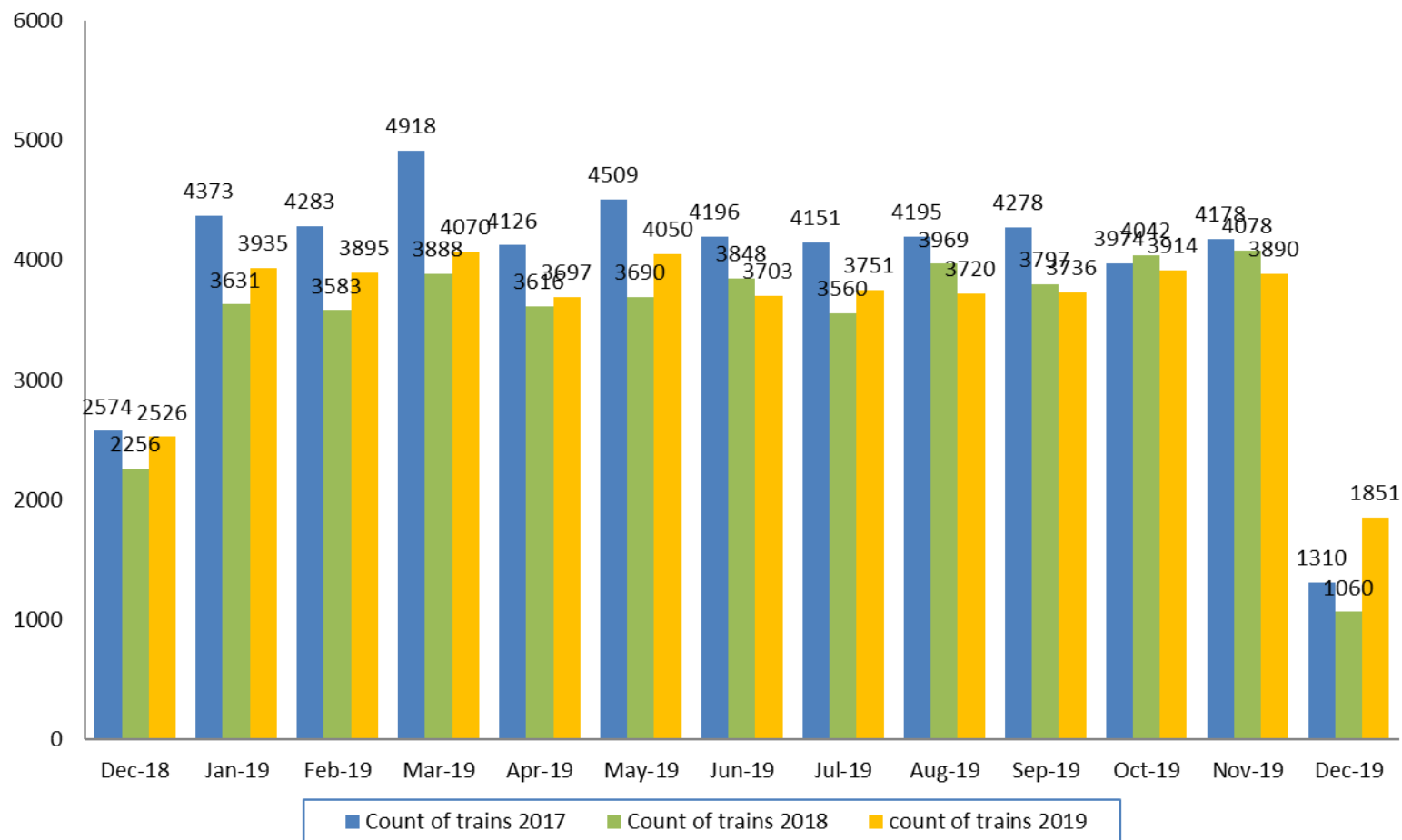# Punctuality at Destination of the Corridor West-East

Punctuality at Destination 12 months (% within 30')

Average Punctuality 2017: 55%
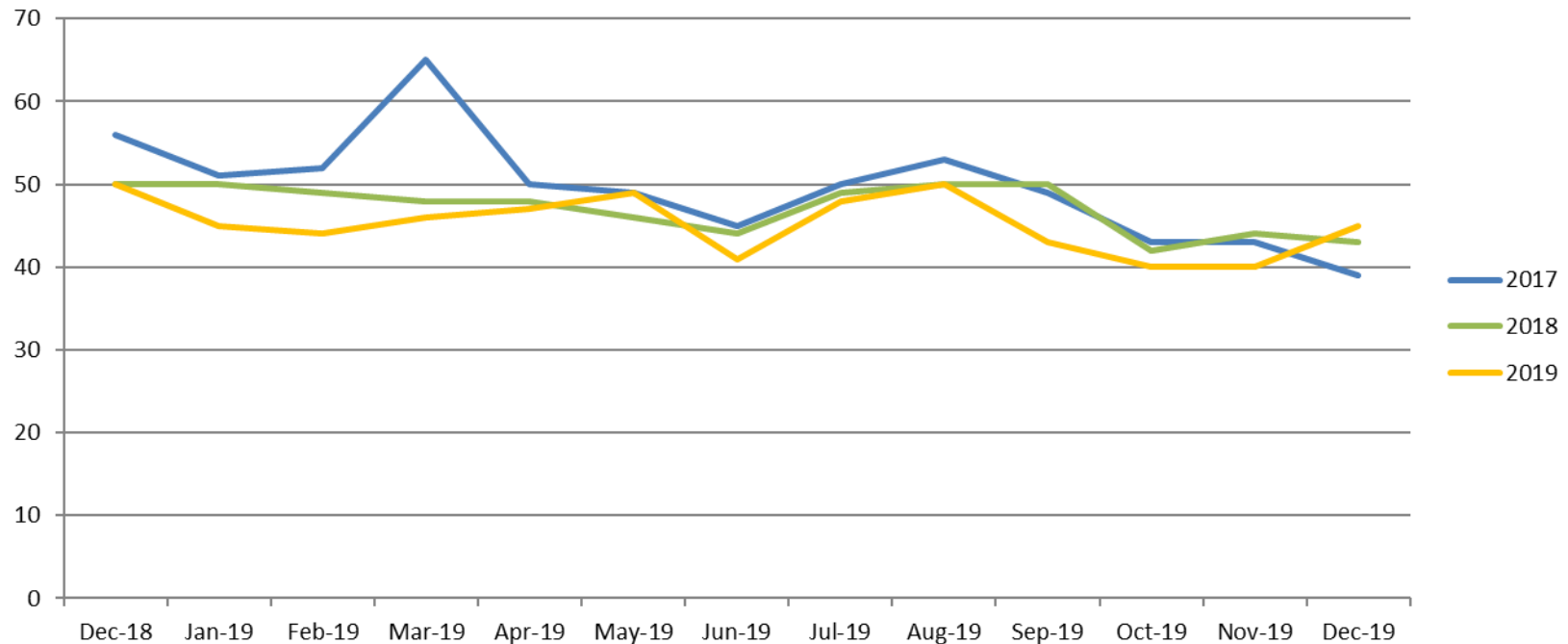**Average Punctuality 2018: 48%**
Average Punctuality 2019: 45%

Punctuality at Destination of the Corridor West-East

Punctuality at Destination of the Corridor East-West

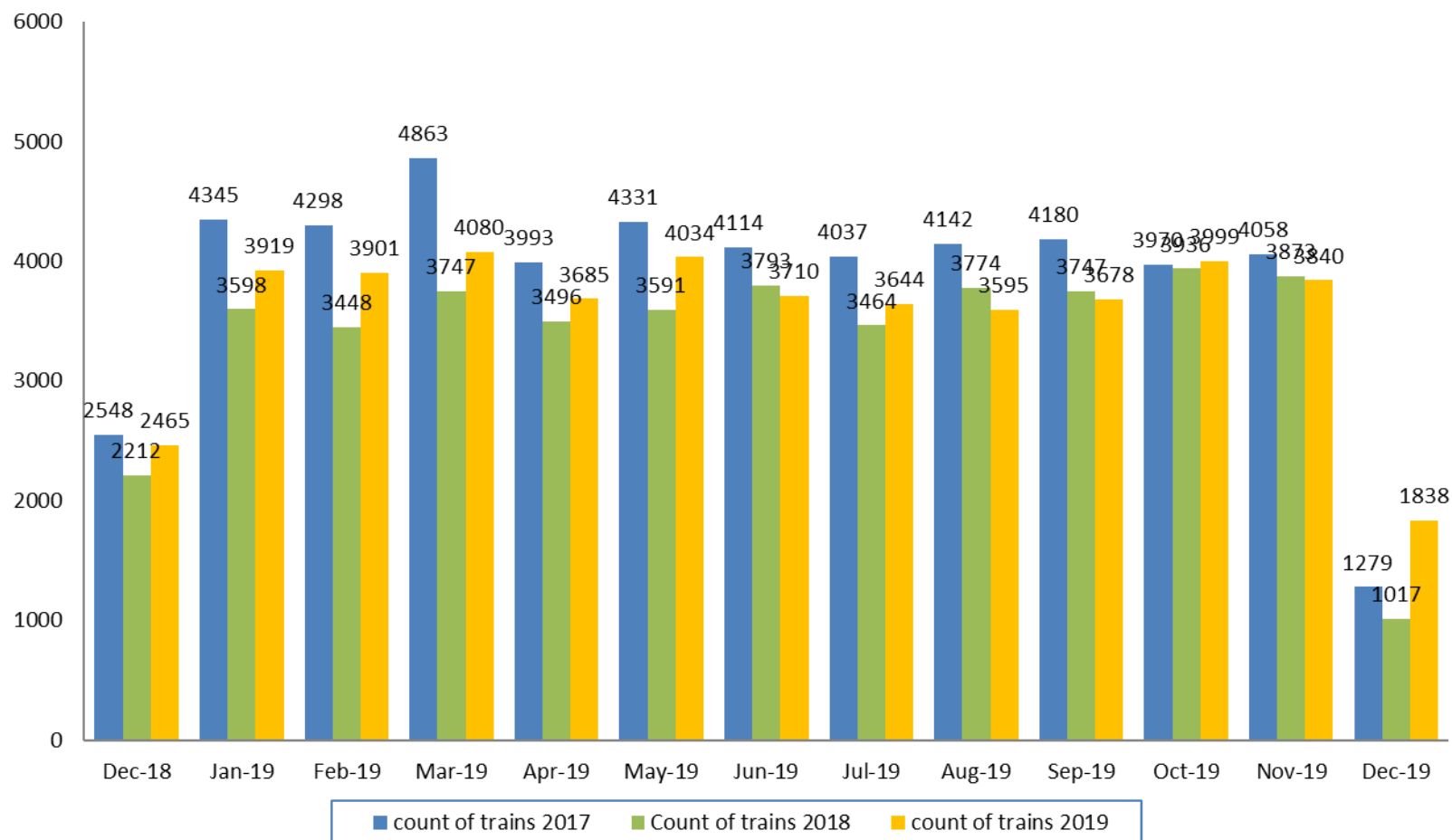**Punctuality at Destination 12 months (% within 30')**

Average Punctuality 2017: 54%
Average Punctuality 2018: 47%
Average Punctuality 2019: 45%

Punctuality at Destination of the Corridor East-West

Punctuality of freight trains at Origin and Destination

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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

Volume of capacity (KMs*RDs)

Volume of Capacity offered/requested/pre-allocated

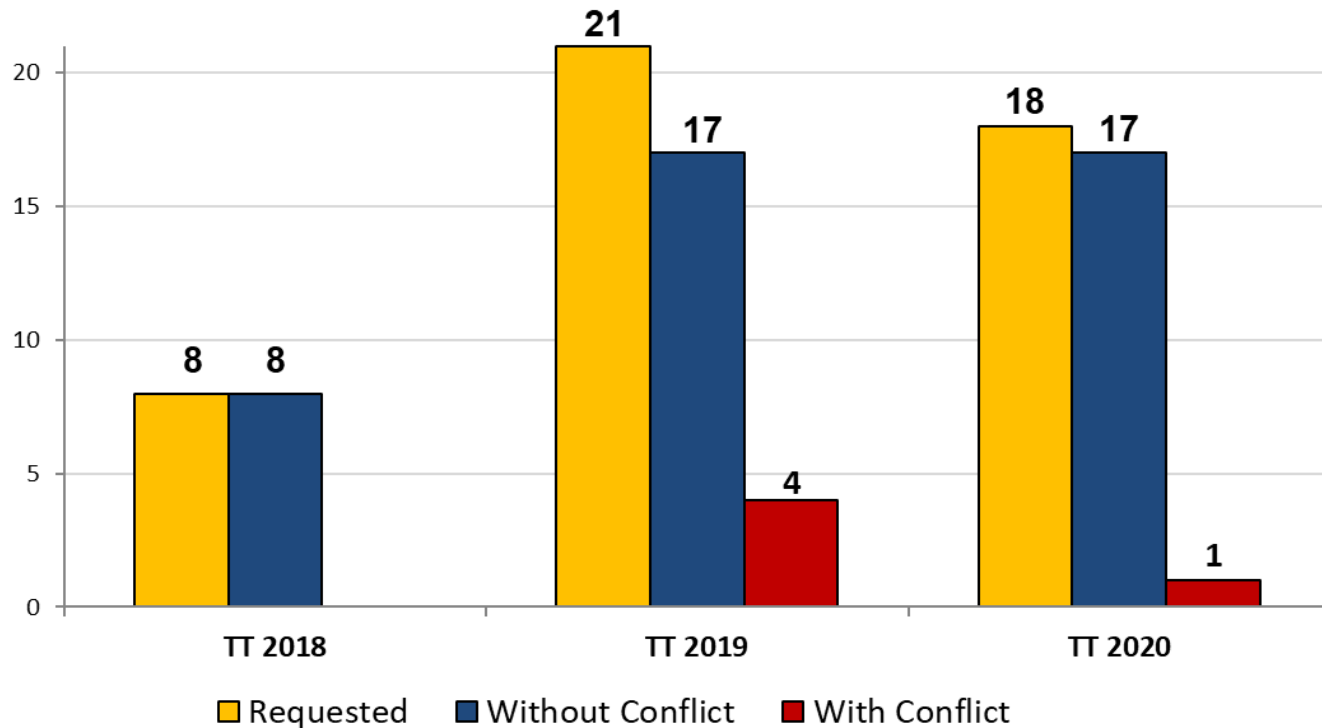|	TT 2018	TT 2019	TT 2020
■ K-Value Offered	12.398.171	15.800.000	16.247.848
■ K- Value Requested	680.481	2.325.365	1.044.951
■ K-Value Pre- allocated	680.481	1.863.775	1.044.951
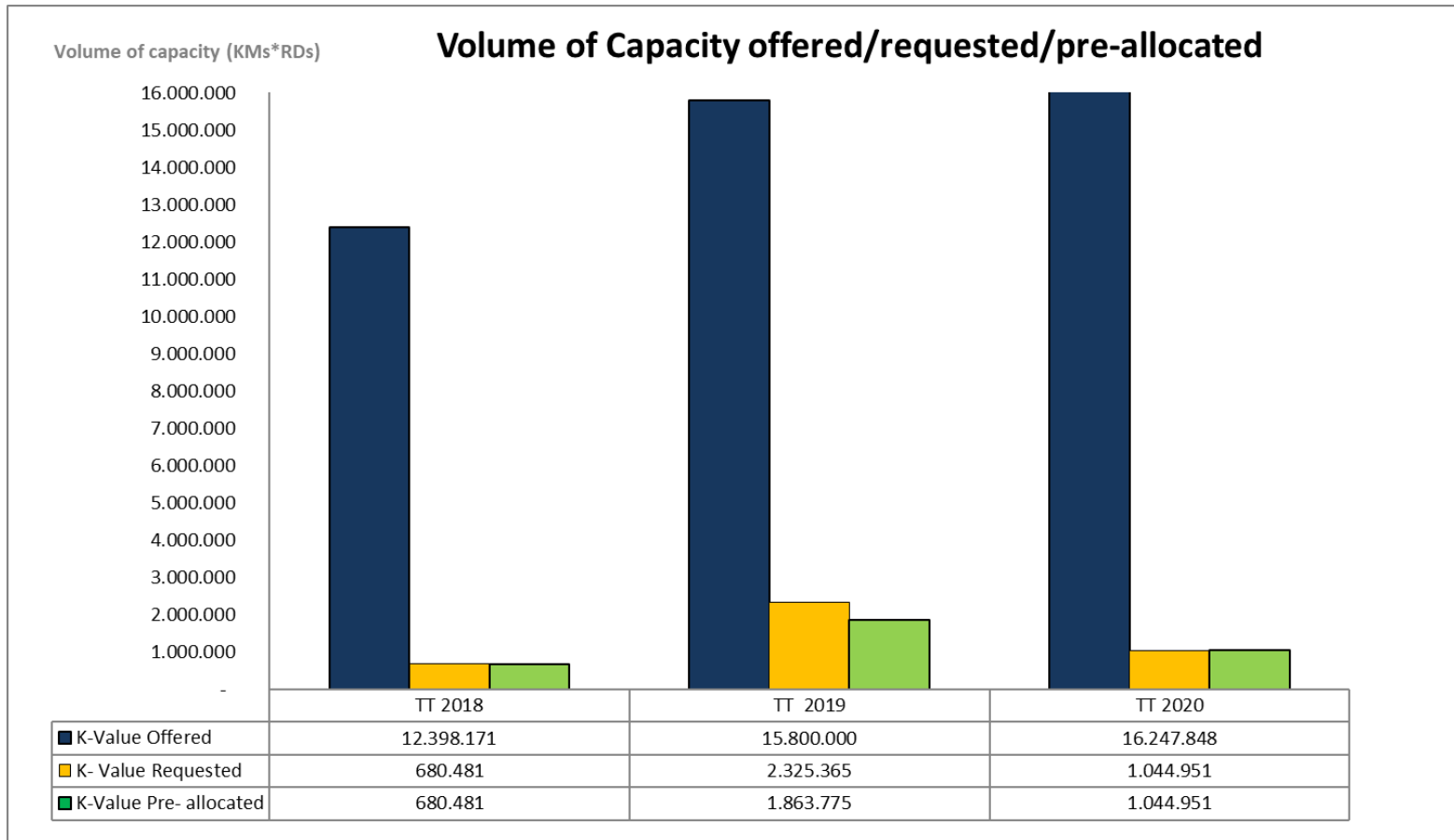
Capacity management
KPI 04: Volume of requests
KPI 05: Number of conflicts

Number of PCS-Dossiers and conflicts in comparison TT2018-TT2020

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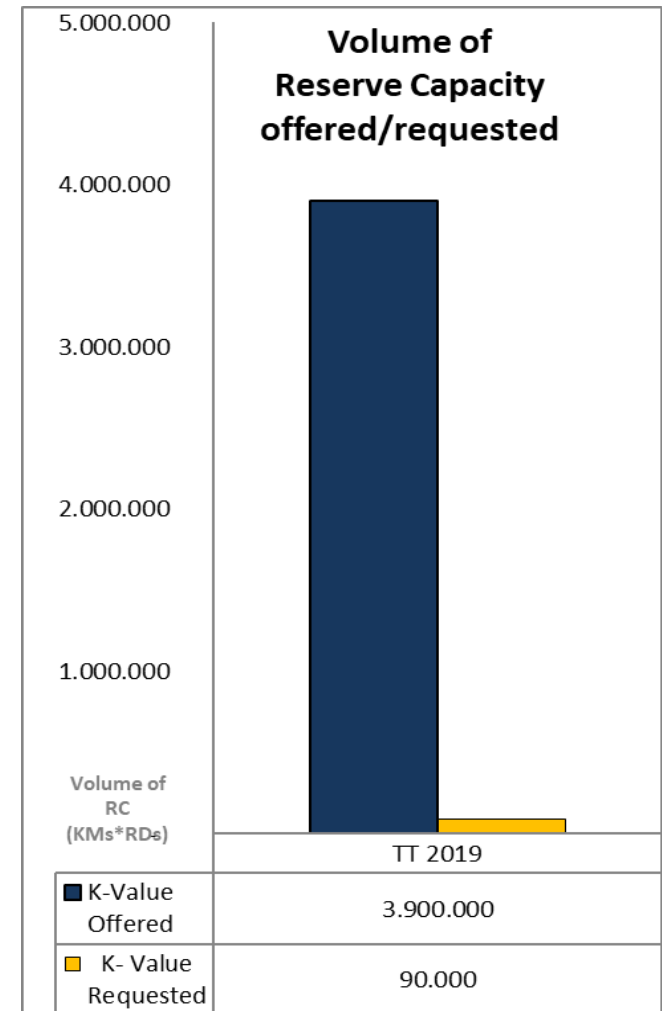# KPI 06: Volume of offered and requested Reserve Capacity (RC)
Volume of RC requests

➤ Reserve Capacity for ad hoc requests has been published by the C-OSS in October 2018, for the TT2019 starting in December 2018

➤ 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 TT2019:
➤ Volume offered RC: 3,9 million path km
➤ Volume requested RC: 0,09 million path km
➤ Volume RC requests: 1

Volume of Reserve Capacity offered/requested

Volume of RC (KMs*RDs)	TT 2019
■ K-Value Offered	3.900.000
☐ K- Value Requested	90.000

Capacity management
KPI 07: Average speed of PaPs

This performance indicator shows the average of the planned commercial speed of the PaPs on the Origin/Destination pair concerned per direction for TT 2020 (published in January 2019). O/D pairs were defined by the Corridor as the most important sections on the Corridor.
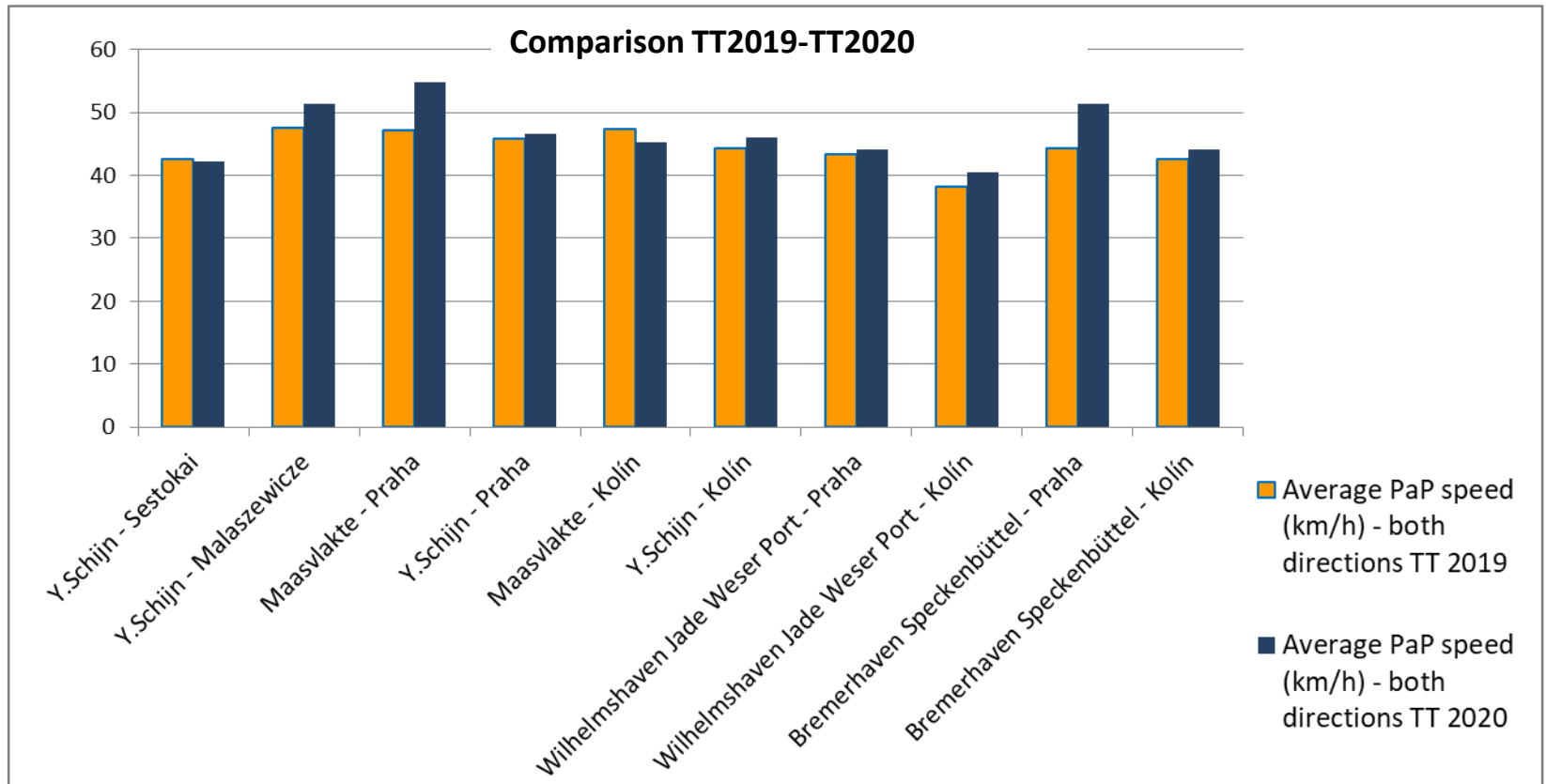
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Market Development
KPI 01: Ratio of the capacity allocated by the C-OSS
and the total allocated capacity

This KPI provides information on the share of trains allocated in the yearly timetable by the C-OSS compared to the total number of allocated international freight trains in the yearly timetable per RFC border.

Border crossing	Ratio of the capacity allocated by the C-OSS TT2019	Ratio of the capacity allocated by the C-OSS TT2020
Roosendaal - Essen-Grens	12,91%	10,83%
Montzen-Frontiere -Aachen West Grenze	1,46%	0%
Bad Bentheim	8,54%	6,82%
Emmerich	3,71%	0%
Bad Schandau Gr / Děčín st.hr.	5,04%	0,49%
Frankfurt (Oder) Oderbrücke / Kunowice (Gr)	18,15%	10,14%
Horka / Bielawala Dolna (Gr)	0%	0%
Trakiszki (Gr) / Mockava Pasienis	0%	23,20%

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 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
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*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.

Market Development
KPI 02: Overall number of trains per border West - East

Border pairs	Border point	Number of trains
Montzen - Aachen	Montzen-Frontière	11513
Roosendaal - Essen	Essen-Grens	4530
Zevenaar - Emmerich	Zevenaar Oost	10871
Oldenzaal - Bad Bentheim	Oldenzaal	2984
Venlo - Kaldenkirchen	Venlo	9062
Frankfurt - Kunowice/Rzepin	Frankfurt (Oder) Pbf	8304
Węgliniec/Bielawa Dolna – Horka	Horka Gbf	2279
Bad Schandau - Děčín	Schöna	15366
Trakiszki - Mockava	Trakiszki (Gr)	475

Market Development
KPI 02: Overall number of trains per border East - West

Border pairs	Border point	Number of trains
Aachen -Montzen	Montzen-Frontière	11693
Essen - Roosendaal	Essen-Grens	4345
Emmerich - Zevenaar	Zevenaar Oost	10507
Bad Bentheim - Oldenzaal	Oldenzaal	2884
Kaldenkirchen - Venlo	Venlo	8807
Kunowice/Rzepin- Frankfurt	Frankfurt (Oder) Pbf	8159
Horka – Wegliniec/Bielawa Dolna (Gr)	Horka Gbf	2264
Děčín - Bad Schandau	Schöna	15299
Mockava - Trakiszki	Trakiszki (Gr)	467