

Annual Performance Report

2017



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Introduction

In the Implementation Plan of the Corridor, published as Book 5 of the Corridor Information Document on the 8th of January 2018, a number of KPI's and Other Measurements (OM) are described that are being monitored to be able to follow the overall performance of the Corridor. These indicators can be found in this performance report, with which all our stakeholders are informed about the progress of the Corridor on a yearly basis. Updates of the report are also foreseen for RAG and TAG meetings. To be able to easily understand the figures in this report, a clear explanation is foreseen on how the calculation was made and what is measured for each indicator.

To be able to compare, the list of indicators described in this document is similar to those used in the previous Annual Performance Reports.

The indicators can be divided into two business fields. The information on Corridor traffic, and the information on the Corridor capacity offered and allocated by the C-OSS. Each of these groups consists of Key Performance Indicators (KPI), for which clear objectives have been defined, and Other Measurements (OM), that give an insight into what is happening on the corridor, but to which no objective can be linked.

Choosing performance indicators

The KPIs and OMs 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: KPI/OM should be understandable to the public it is designed for
- ✓ Comparability: KPI/OM should be comparable across time and region
- ✓ Relevance and empowerment: KPI/OM should provide information on which project decisions can be based



Update on Corridor Traffic

The following pages will provide insight into the trains running on the Corridor. For this, it is necessary to know when a train is labelled as a corridor train:

The following criteria have to be met:

- An international freight train
- Crossing at least one border of the Corridor
- Running at least 70 KM on Corridor lines

The data used to calculate the given KPIs and OMs, comes from the national IM databases and the international TIS database, managed by RNE. More details are given per KPI or OM.

Where available, information is provided on the main causes of the evolutions displayed.

KPI 01 – Traffic Volume (Total) ⁽¹⁾

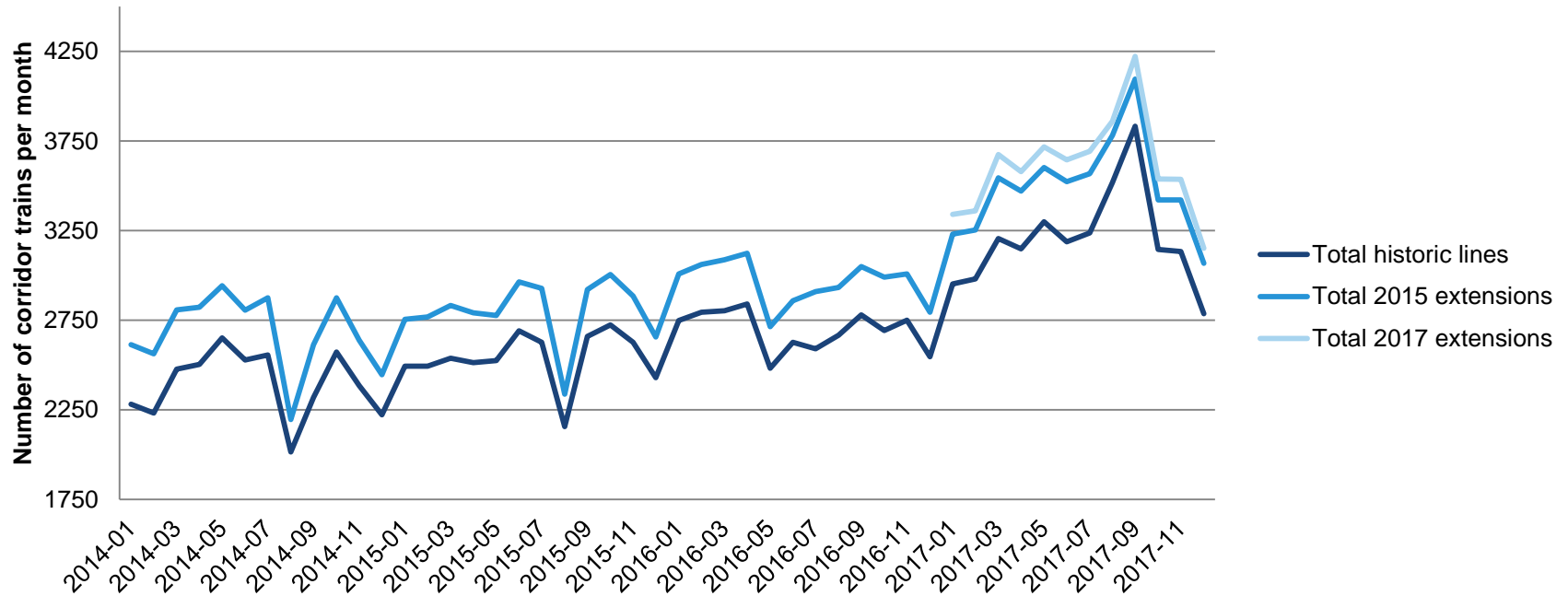
KPI 01 displays all corridor trains on the Rail Freight Corridor North Sea – Mediterranean. Trains that pass more than one border are counted only once. The data used per border is the following:

- Essen/Rosendaal: Infrabel data
- Mouscron/Tourcoing: Infrabel data
- Aubange/Rodange: Infrabel data
- Aubange/Mont-Saint-Martin: Infrabel data
- Baisieux/Blandain: Infrabel data
- Erquelinnes/Jeumont: Infrabel data
- Bettembourg/Zoufftgen: CFL data
- St.Louis/Basel: SNCF-réseau data
- Calais-Fréthun: SNCF-réseau data

Several graphs and tables are provided. The first graph gives an overview of the number of trains over the last four years, the second shows the 12-month evolution over the last four years, while the first table compares every month of 2017 with the corresponding month of the previous year.

KPI 01 – Traffic Volume (Total) ⁽²⁾

2014 to 2017



Comparison to last year

	Jan 17 vs 16	Feb 17 vs 16	Mar 17 vs 16	April 17 vs 16	May 17 vs 16	June 17 vs 16	Jul 17 vs 16	Aug 17 vs 16	Sep 17 vs 16	Oct 17 vs 16	Nov 17 vs 16	Dec 17 vs 16	2017 vs 2016
Total	107%	106%	115%	111%	133%	123%	123%	129%	134%	114%	114%	110%	118%

Green: increase

Dark green: increase by more than 20%

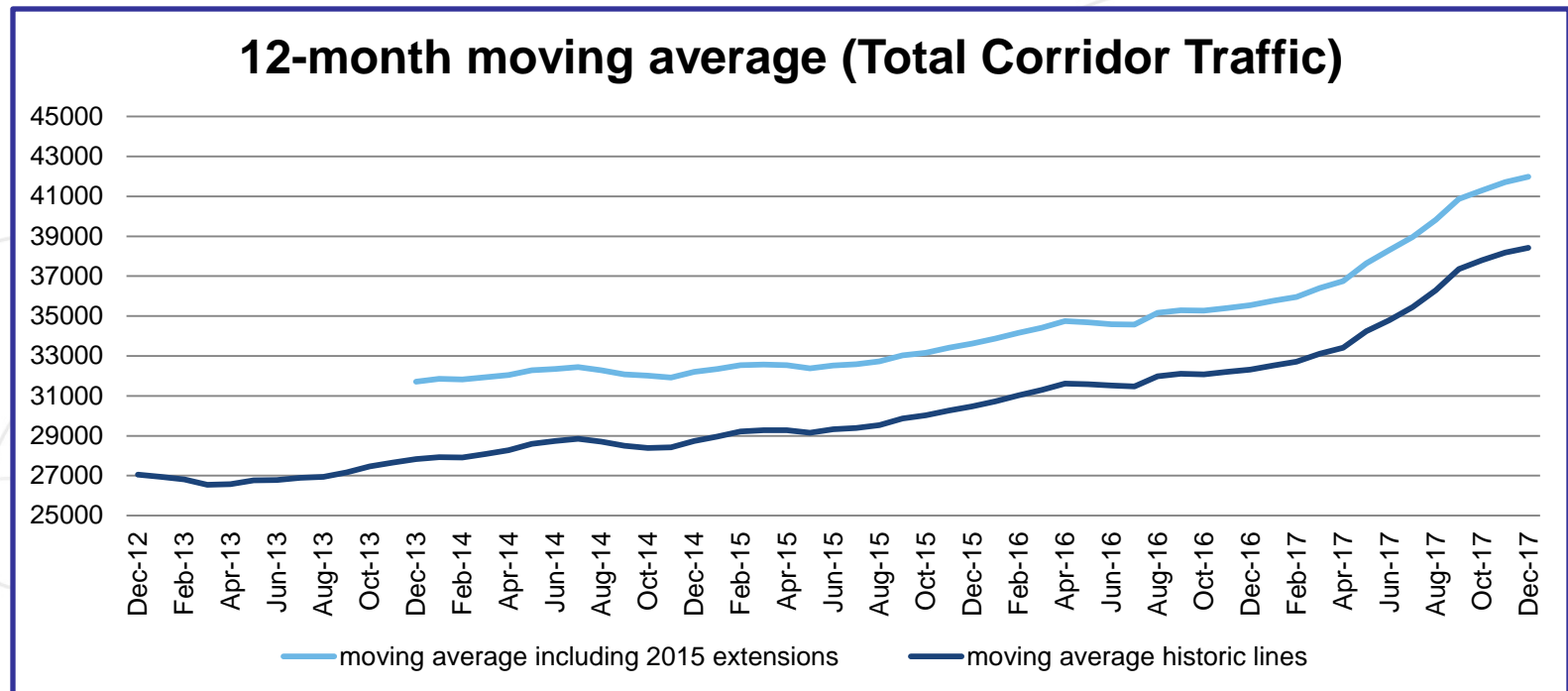
Orange: decrease

Red: decrease by more than 20%

KPI 01 – Traffic Volume (Total) ⁽³⁾

12-month moving average

The moving average is displayed to smooth out short-term fluctuations and highlight longer-term trends or cycles. Each figure shows the number of train runs during the last 12 months preceding the last day of the given month.



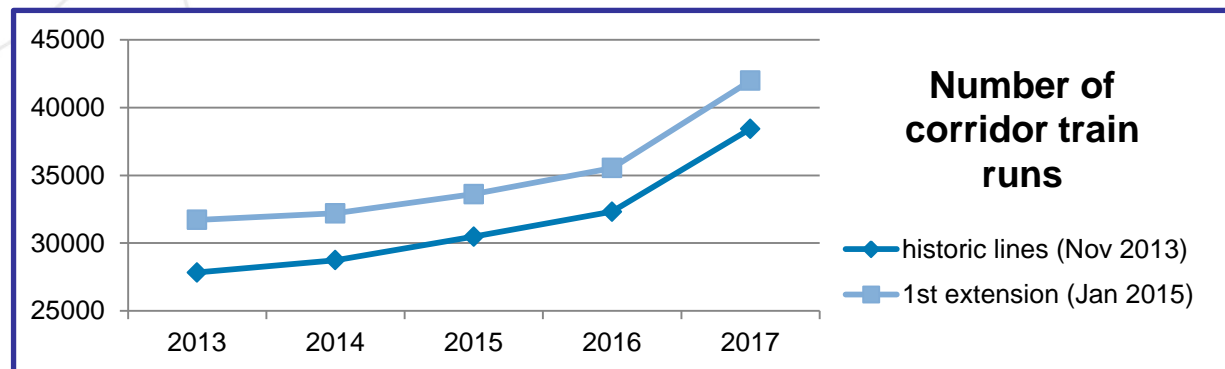
KPI 01 – Traffic Volume (Total) ⁽⁴⁾

The evolution of the total amount of Corridor traffic is influenced heavily by the economic growth of the Corridor region. However, the Corridor aims to increase the amount of Corridor trains in the following matter, compared to the year 2013, taking into account a low economic growth:

RFC NSM Objective	2020	2030
historic lines (Nov 2013)	+3%	+9%

For the year 2014, there was already a rise in Corridor traffic of **3%** compared to 2013. For 2015 and 2016, the rise continued (**+9%** and **+14%** compared to 2013). For 2017, the biggest rise so far could be noted (**+38%** compared to 2013)

Evolution compared to 2013 (start RFC NSM)	2013	2014	2015	2016	2017
historic lines (Nov 2013)	27.835	+3%	+9%	+16%	+38%
1st extension (Jan 2015)	31.711	+2%	+6%	+12%	+32%



KPI 02 – Punctuality ⁽¹⁾

KPI 03 measures the average punctuality of trains running on the corridor on a fixed number of locations. A train will be added to this train list if it meets the following criteria:

- Passing a Corridor border point AND
- Passing one of the predefined measuring points along the Corridor

This means that from 2017, the global corridor punctuality figure is no longer calculated on the basis of a fixed list of regular trains, but on all trains meeting the above described standard.

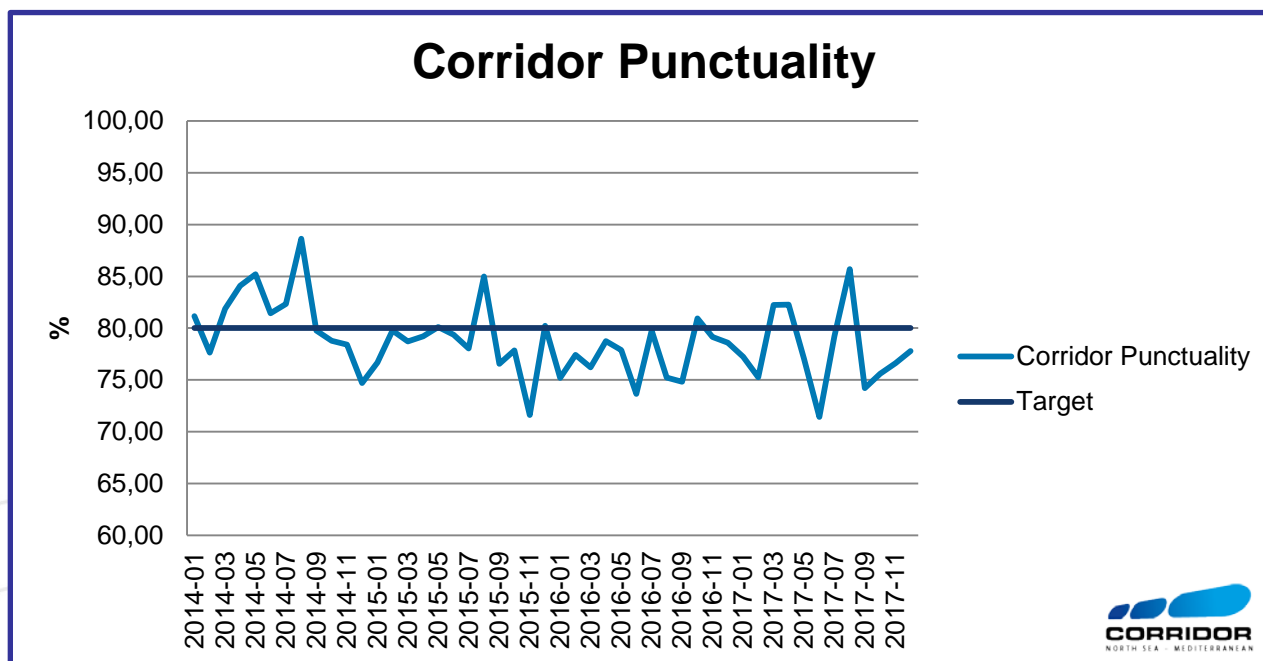
A corridor train is punctual when having a delay of maximum 30 minutes.

The data is displayed via two graphs and three tables:

- Overview of the average punctuality per month over the last four years
- Comparison of every month of 2017 with the corresponding month of the previous year
- 12-month evolution over the last three years
- Yearly punctuality figure compared to first year of the Corridor (2013)
- Average punctuality at entry and exit of the Corridor

The follow-up of this punctuality report is done via the Train Performance Management Working Group, to which Corridor users are regularly invited to participate.

KPI 02 : Punctuality (2)



Comparison to last year

	Jan 17 vs 16	Feb 17 vs 16	Mar 17 vs 16	April 17 vs 16	May 17 vs 16	June 17 vs 16	Jul 17 vs 16	Aug 17 vs 16	Sep 17 vs 16	Oct 17 vs 16	Nov 17 vs 16	Dec 17 vs 16	2017 vs 2016
Total	103%	97%	108%	104%	99%	97%	99%	114%	99%	93%	97%	99%	101%

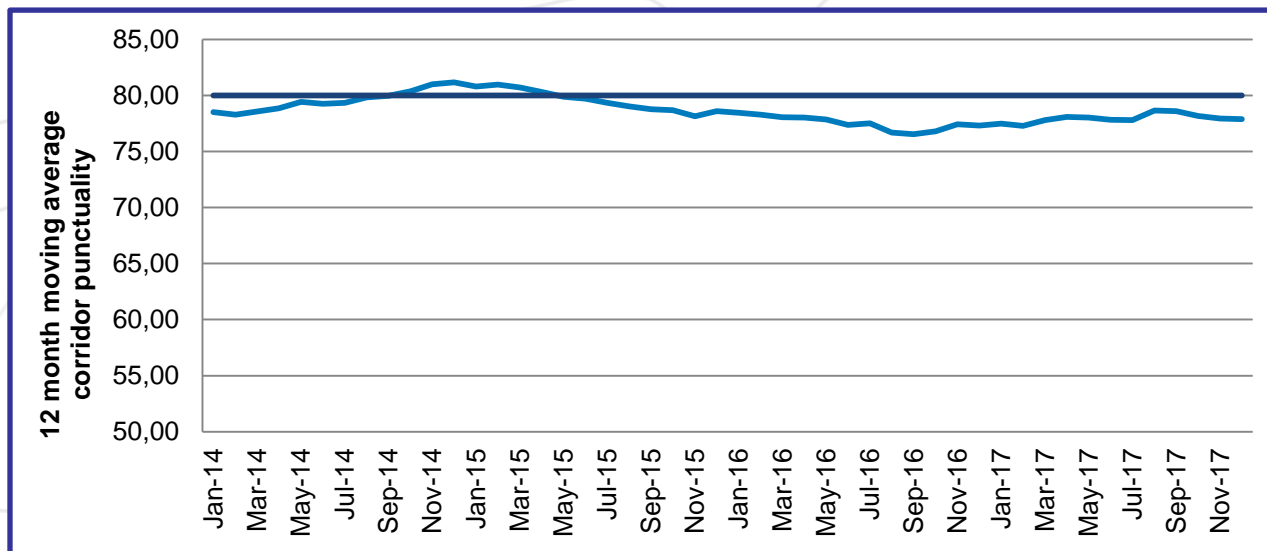
Light Green: small increase
Orange: small decrease

Dark green: increase by more than 20%
Red: decrease by more than 20%

KPI 02 : Punctuality ⁽³⁾

12-month moving average (average complete corridor)

The moving average is displayed to smooth out short-term fluctuations and highlight longer-term trends or cycles. Each figure shows the average punctuality during the last 12 months preceding the last day of the given month.



KPI 02 : Punctuality ⁽⁴⁾

Evolution since start Corridor

RFC North Sea – Med continues its efforts to reach the objective of 80% punctuality in the future. Unfortunately, for the fourth year running, this objective was not reached. For 2017, the global corridor punctuality figure is almost exactly the same as the one of 2013, at the start of the Corridor.

Yearly RFC NSM punctuality (30min on selected corridor trains)	2013	2014	2015	2016	2017
punctuality evolution compared to TT2013	77,9%	+1%	+1%	-1%	=

KPI 02 : Punctuality ⁽⁵⁾

Punctuality at RFC entry and exit

From 2017, the Corridor will supply the figures on the punctuality at RFC entry and exit, as part of the project to harmonise the KPIs across all Corridors.

Yearly punctuality KPI	15 minutes threshold	30 minutes threshold
At Origin (RFC Entry)	74%	80%
At Destination (RFC Exit)	68%	73%

The table above shows that – given a 30 minute threshold – on average, 7% punctuality is lost on the corridor. This – in general – is a very good result. However, we should also take into account the figures on KPI 3 (Planned Average Speed of Corridor Capacity, p21) which show a quite low commercial speed of the paths on the corridor, this also means that quite some buffer time is usually foreseen in the planning of the paths.

OM 01 – Traffic Volume (Per Corridor Border) ⁽¹⁾

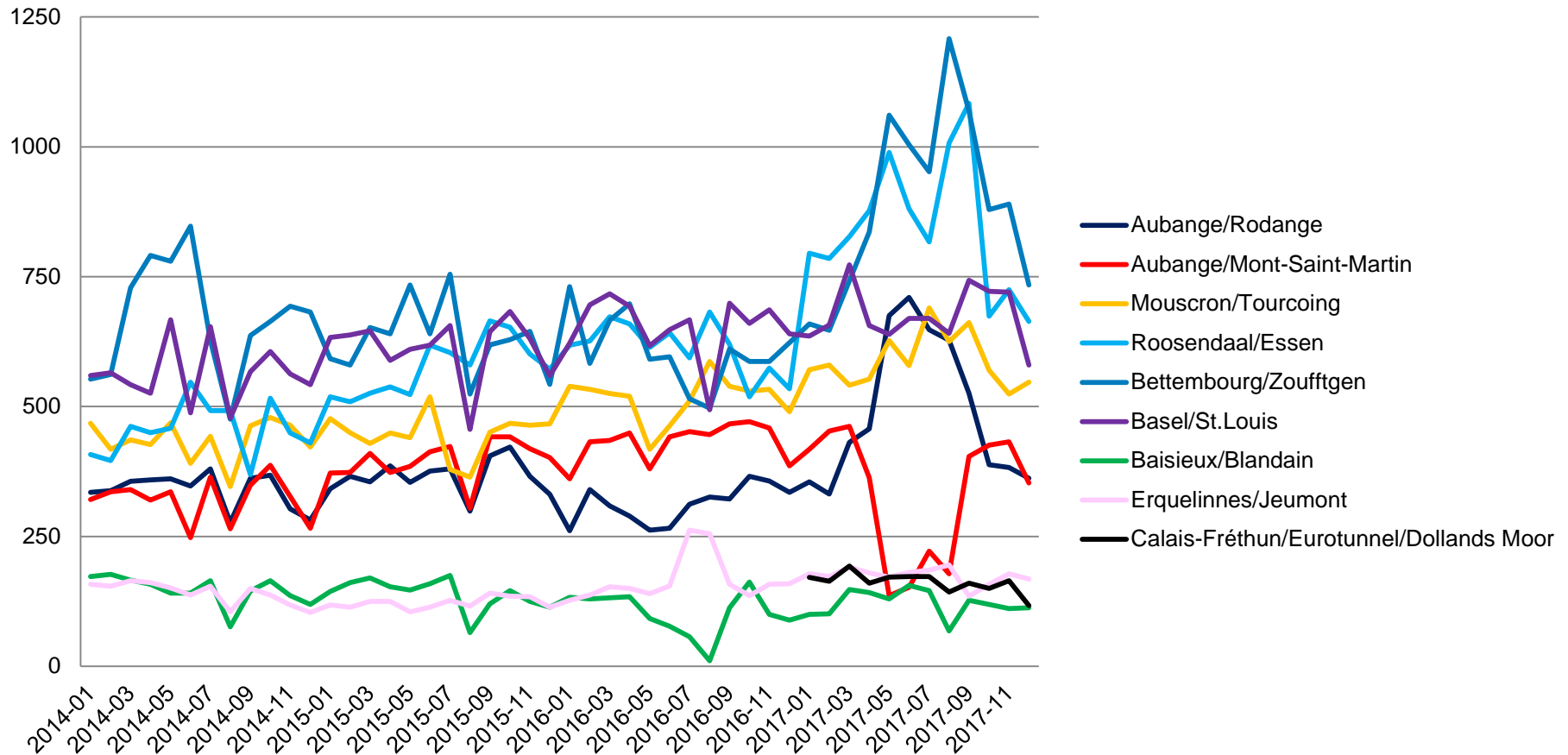
OM 01 displays all corridor trains on the Rail Freight Corridor North Sea – Mediterranean, per border. Trains that pass more than one border are thus counted several times. The data used per border is the following:

- Essen/Rosendaal: Infrabel data
- Mouscron/Tourcoing: Infrabel data
- Aubange/Rodange: Infrabel data
- Aubange/Mont-Saint-Martin: Infrabel data
- Baisieux/Blandain: Infrabel data
- Erquelinnes/Jeumont: Infrabel data
- Bettembourg/Zoufftgen: CFL data
- St.Louis/Basel: SNCF-réseau data
- Calais-Fréthun: SNCF-réseau data

The data is displayed via two graphs and one table. The first graph gives an overview of the number of trains over the last three years, the second shows the 12-month evolution over the same period, and the table compares every month of 2017 with the corresponding month of the previous year.

OM 01 – Traffic Volume (Per Corridor Border) ⁽²⁾

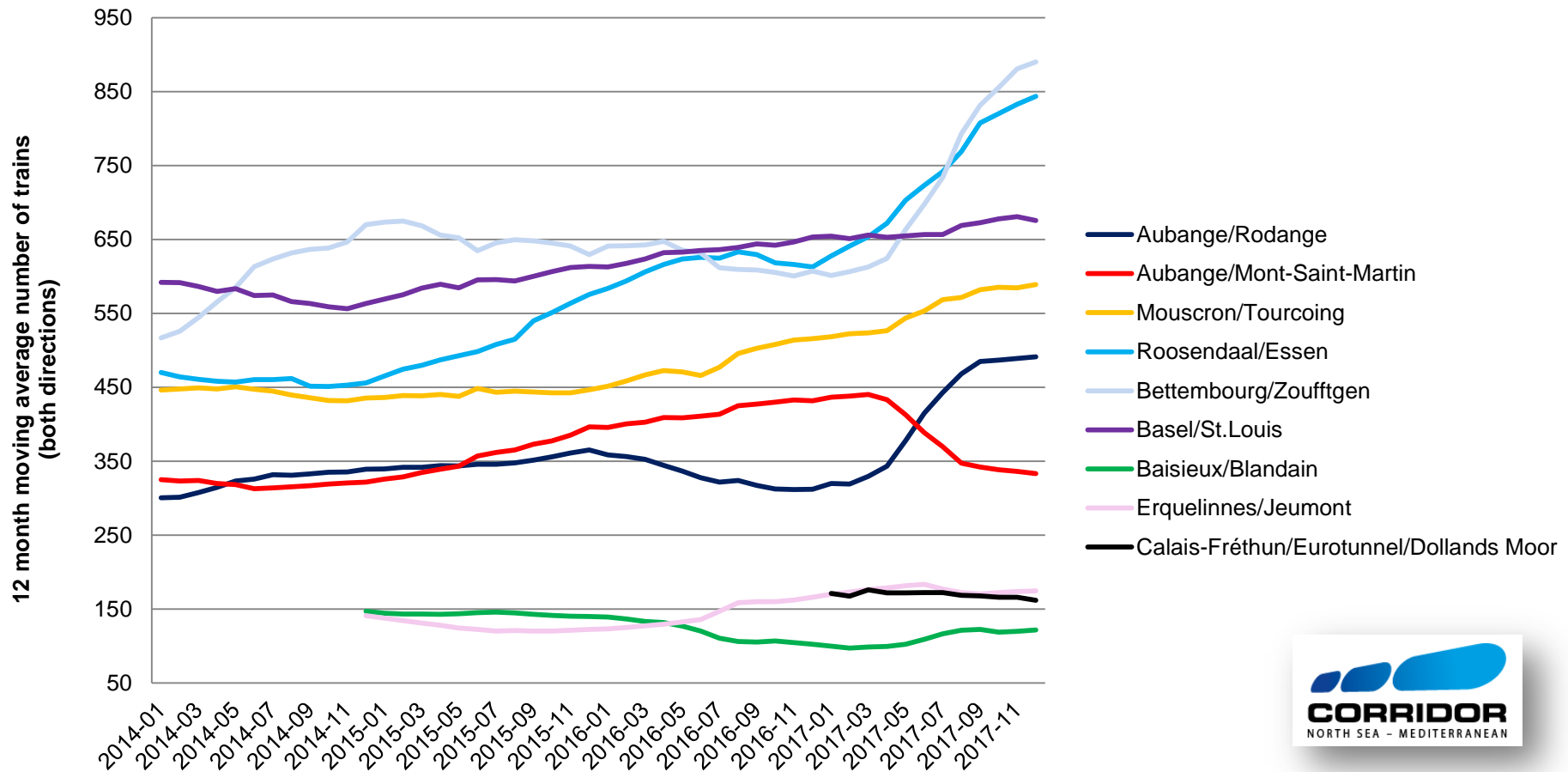
Number of corridor trains per border point per month



OM 01 – Traffic Volume (Per Corridor Border) ⁽³⁾

12-month moving average

The moving average is displayed to smooth out short-term fluctuations and highlight longer-term trends or cycles. Each figure shows the average number of corridor trains passing each border during the last 12 months, per month, preceding the last day of the given month.



OM 01 – Traffic Volume (Per Corridor Border) ⁽³⁾

2017 vs 2016

The table below provides an overview on the evolution of the number of trains at the given border compared to last year.

Traffic per border	2017 vs 2016	Total number of trains in 2017
Bettembourg/Zoufftgen	-4%	10681
Roosendaal/Essen	6%	10125
Basel/St.Louis	6%	8107
Mouscron/Tourcoing	16%	7069
Aubange/Rodange	-15%	5895
Aubange/Mont-Saint-Martin	9%	3999
Erquelinnes/Jeumont	36%	2094
Calais-Fréthun/Eurotunnel/Dollands Moor	<i>n.a.</i>	1941
Baisieux/Blandain	-27%	1461

Update on Corridor Capacity

The following pages will provide insight into the capacity that has been published by the C-OSS of the Corridor, and the requests that have been received for this capacity.

Capacity on the Corridor is published under the form of PaPs, via the online platform PCS. Only requests that have been placed via this tool can be taken into account.



KPI03 – Planned Average Speed of Corridor Capacity ⁽¹⁾

KPI 03 compares the average planned speed of trains scheduled in the yearly timetable with the average speed of pre-arranged paths on predefined Rail Freight Corridor North Sea – Mediterranean routes.

Per corridor route, an objective has been defined in the Corridor Implementation Plan, which is displayed in the table provided.

The goal of this KPI is to be able to determine the competitiveness of the speed of the PaPs offered by the corridor compared to the speed of existing traffics with similar origins and destinations.

KPI03 – Planned Average Speed of Corridor Capacity ⁽³⁾

We can see that for 2017, the average commercial speed of the PaPs was higher than the average commercial speed of all scheduled trains, for almost all corridor routes. This proves that preconstructing a certain volume of capacity can result in an improved quality.

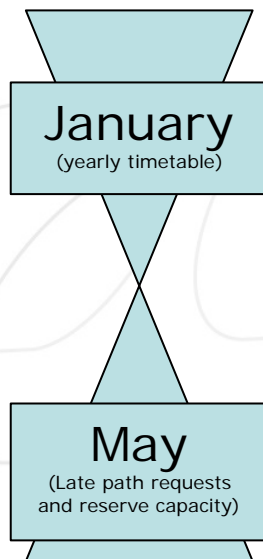
The evolution of this figure for PaPs offered in 2017 for timetable 2018, compared to the preceding timetable, was not always positive. However, it should be noted that on the route from the north of France to the South via Lyon, and on the Artère Nord-Est, significant improvements were made.

Nevertheless, only a stagnation or even decrease of the average speed was reached, especially in the northern part of the corridor.

KPI04 – Volume of offered capacity

KPI 04 displays all the PaPs (KMs per year) that have been published by the C-OSS of the Corridor in January 2017, for the **annual timetable 2018**, and in June 2017, as Reserve Capacity for late path requests and ad hoc requests for timetable 2018.

It must be noted that most PaPs run Monday to Friday, but some might have more (7) or less (minimum 3) running days, or that a given PaP might not be available on some days throughout the year.



A total of **12,6 million KMs** were published for TT2018
(-16,0% compared to TT2017)

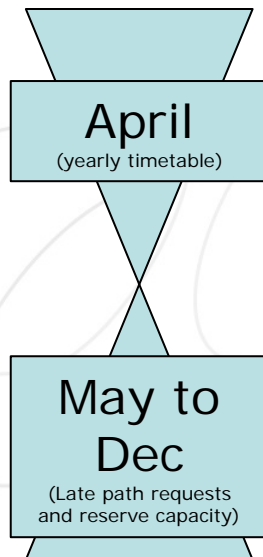
- 15,1 million for TT2017
- 9,2 million for TT2016
- 7,3 million for TT2015

A total of **2,4 million KMs** were published as RC for TT2018
(-38% compared to TT2017)

- 3,9 million for TT2017
- 2,0 million for TT2016
- 2,8 million for TT2015

KPI05 – Volume of requested capacity

KPI 05 displays all the requests for PaPs (KMs per year) that have been received by the C-OSS of the Corridor for the annual timetable 2018 (on April 11 2017 and between May and December 2017).



A total of **7,2 million KMs** were requested for TT2018 before the deadline of April (+0,6%)

- ➔ 7,1 million for TT2017
- ➔ 6,1 million for TT2016
- ➔ 2,8 million for TT2015

A total of **137 dossiers** were submitted via PCS to the C-OSS before the deadline of April

- ➔ 134 for TT2017
- ➔ 118 for TT2016
- ➔ 51 for TT2015

A total of **0,16 million KMs** were requested between May and December 2017 for TT2018 (so far)

- ➔ 0,47 million for TT2017
- ➔ 0,13 million for TT2016
- ➔ 0,40 million for TT2015

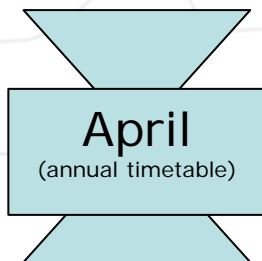
A total of **9 dossiers** were submitted via PCS to the C-OSS between May and December 2017 for TT2018 (so far)

- ➔ 14 for TT2017
- ➔ 5 for TT2016
- ➔ 11 for TT2015

KPI06 – Volume of pre-allocated capacity

KPI 06 shows the number of PaPs which have been (pre-) allocated by the C-OSS in the second half of April 2016. This means that the PaP sections requested were allocated, but only under the condition that possible feeder/outflow sections, which appear in most of the requests, can be constructed by the concerned IMs/ABs and that these proposals will be accepted by the applicant, and/or that the applicant does not withdraw its request before active timetable (end of August). The KPI is displayed as KMs per year.

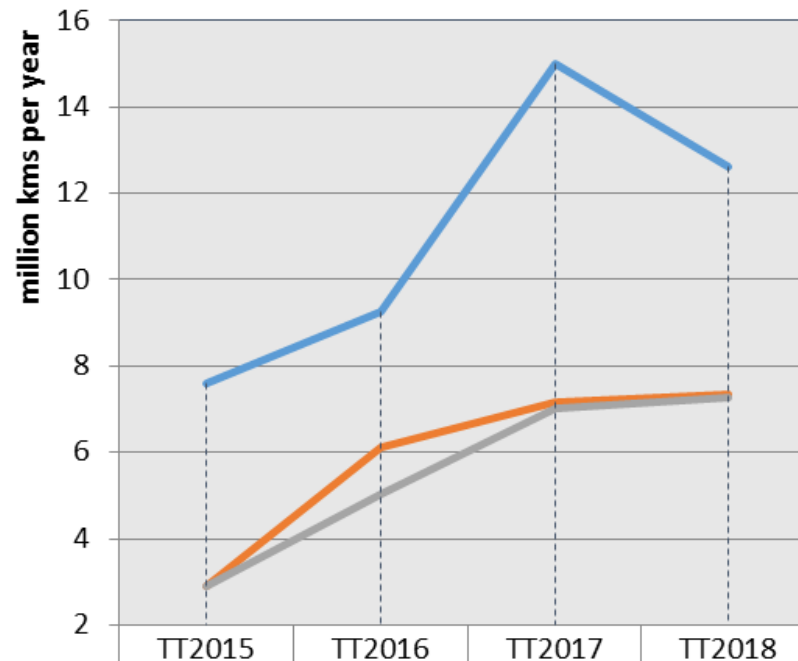
If the volume of requested capacity is close to the volume of pre-allocated capacity, this means that there are very little conflicting requests, and that thus the PaP offer can be perceived as adequate (7,1 vs 7,0 million KMs for TT2017).



A total of **7,1 million KMs** were pre-allocated for TT2018 in April 2017 (+1%)

- 7,0 million for TT2017
- 5 million for TT2016
- 2,8 million for TT2015

KPI04 / KPI05 / KPI06 Overview ⁽¹⁾

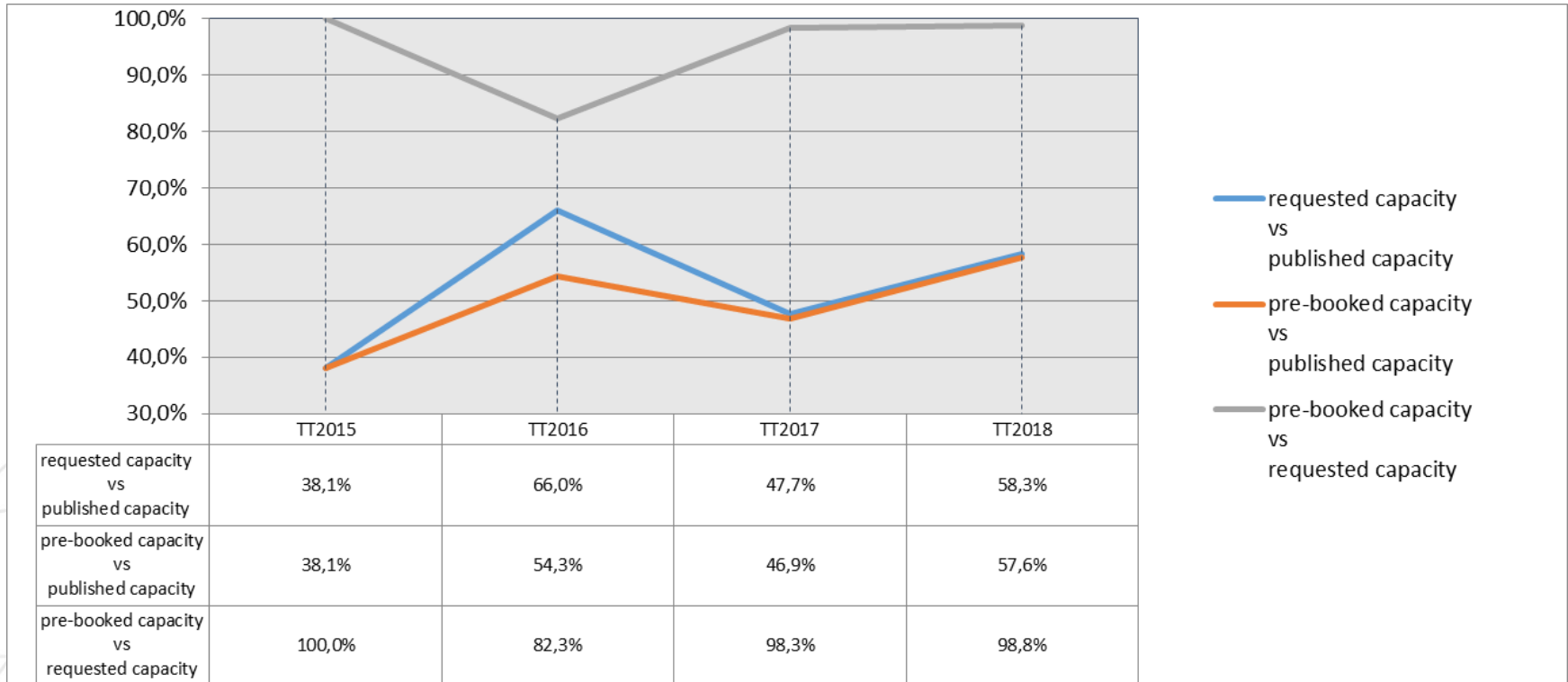


Evolution PaP requests RFC NSM

- published capacity
- requested capacity
- pre-booked capacity

	TT2015	TT2016	TT2017	TT2018
published capacity	7.579.208	9.251.193	15.004.276	12.608.726
requested capacity	2.886.553	6.102.251	7.151.035	7.355.015
pre-booked capacity	2.886.553	5.020.228	7.031.275	7.268.201

KPI04 / KPI05 / KPI06 Overview ⁽¹⁾

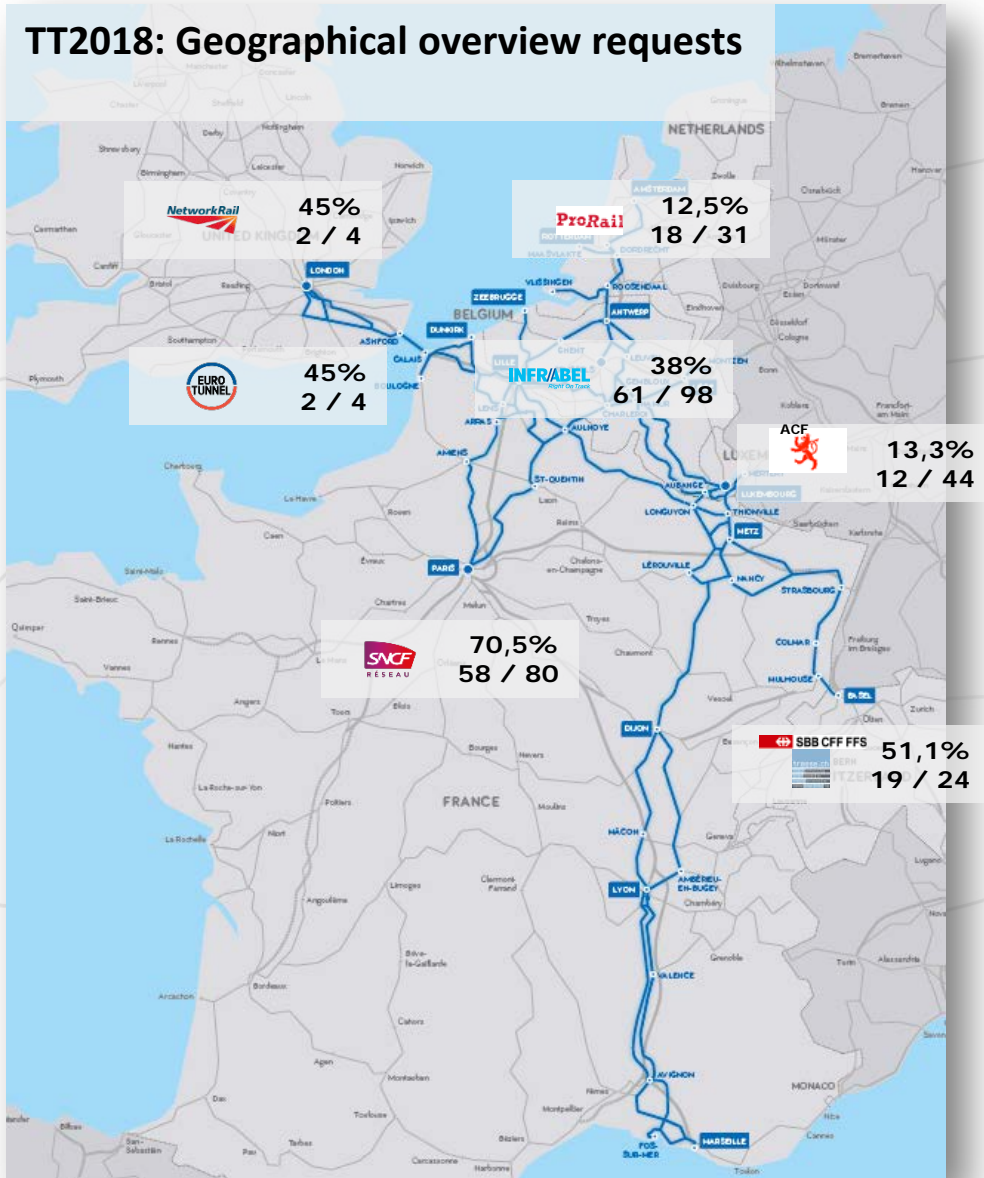


KPI04 / KPI05 / KPI06 Overview (2)

Per Infrastructure Manager are indicated:

Percentage of capacity requested in April which was offered in January

Number of PaPs at least partly requested in April / PaPs published in January



KPI 07: Relation between capacity allocated by the C-OSS and total (scheduled) traffic ⁽¹⁾

KPI 07 provides information on the share of trains running on the corridor which were ordered via the C-OSS, compared to the total amount of corridor circulation.

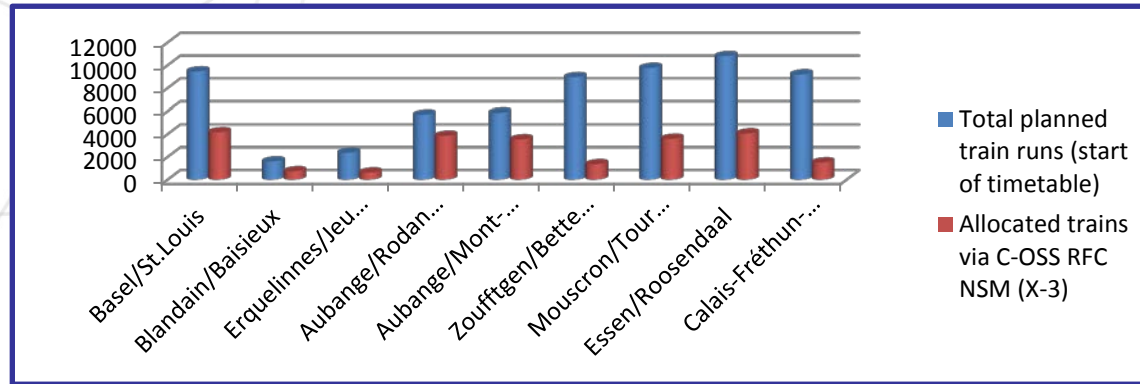
To have an idea of this, we have analysed the number of scheduled international freight train runs at the RFC NSM borders for timetable 2016 and 2017 **(as per start of timetable)**, to be able to compare these figures to the number of train runs foreseen for timetable 2016 and 2017 as ordered and allocated via the RFC NSM OSS **(end of August)**

- This means a border crossing via PaP
- Or via feeder/outflow

KPI 07: Relation between capacity allocated by the C-OSS and total (scheduled) traffic ⁽²⁾



RFC NSM border	Share of scheduled trains allocated via the C-OSS (X-3)		
	TT 2016	TT 2017	TT 2018
Basel/St.Louis 1	53%	47%	44%
Blandain/Baisieux 2	51%	21%	46%
Erquelines/Jeuumont 3	5%	0%	26%
Aubange/Rodange 4	39%	47%	68%
Aubange/Mont-St-Martin 5	84%	56%	60%
Zoufftgen/Bettembourg 6	16%	14%	15%
Mouscron/Tourcoing 7	64%	43%	37%
Essen/Roosendaal 8	8%	18%	38%
CalaisFréthun-tunnel 9			16%
all	41%	33%	34%



Figures can only be regarded as an indication:

- Works or last minute demands from the customer might lead to changing timetables, routing or calendar; partly or entirely
- Cancellations (between allocation by C-OSS and start of timetable; partly or entirely)

OM 03: Volume of requests - OM 04: Number of conflicts

OM 03 (volume of requests) and OM 04 (number of conflicts) cannot be analysed separately.

It is important to stress that a request means one dossier in PCS. Such a dossier can have the following characteristics:

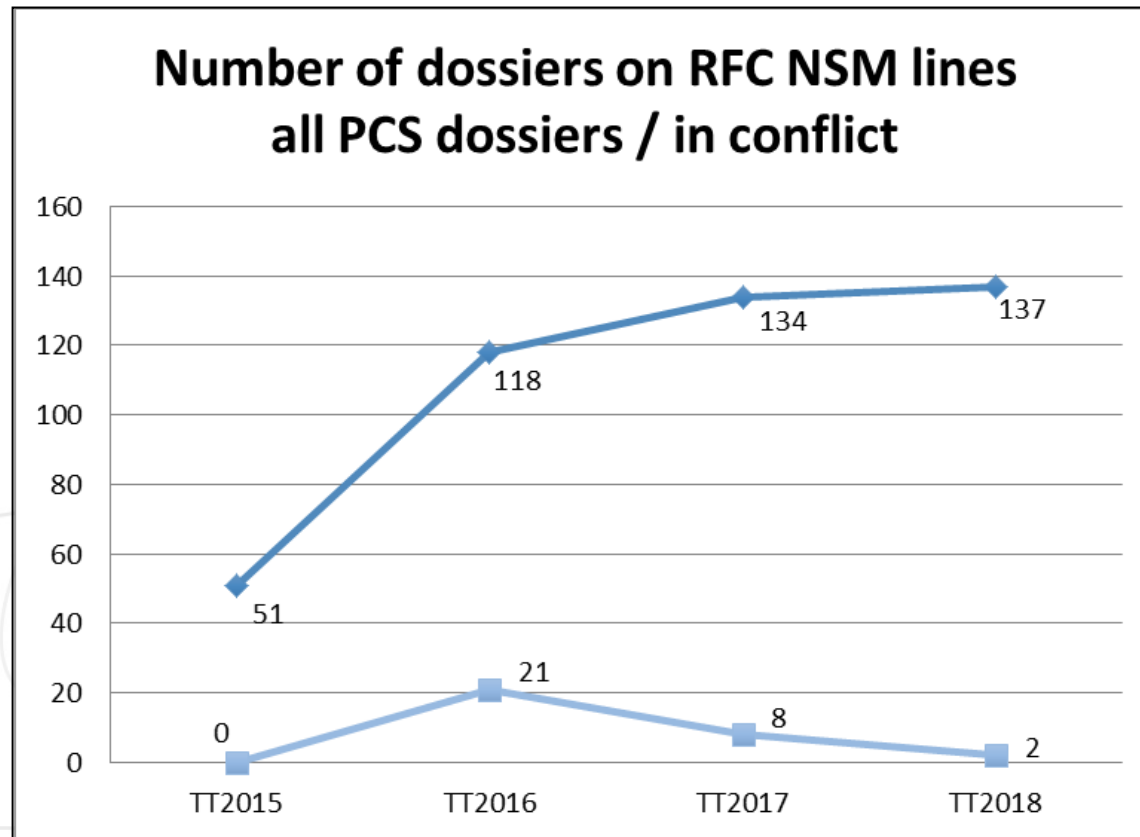
A request for:

- A PaP running one day of the year ↔ A PaP running all days of the year
- A PaP running on one section ↔ A PaP running on ten sections
- A PaP with feeder/outflow sections ↔ A pure PaP
- A PaP on one Corridor ↔ A PaP on several Corridors
- A PaP crossing a border on another Corridor ↔ A PaP crossing a Rail Freight Corridor North Sea – Mediterranean border

For this reason, the number of requests in itself doesn't tell a lot. However, to be able to analyse and understand the level of conflicts (conflicting requests placed between January and April), this figure should be known.

OM 04 provides information on the number of conflicts for timetable 2018 at X-8, for which the priority rule had to be applied.

OM 03: Volume of requests - OM 04: Number of conflicts



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