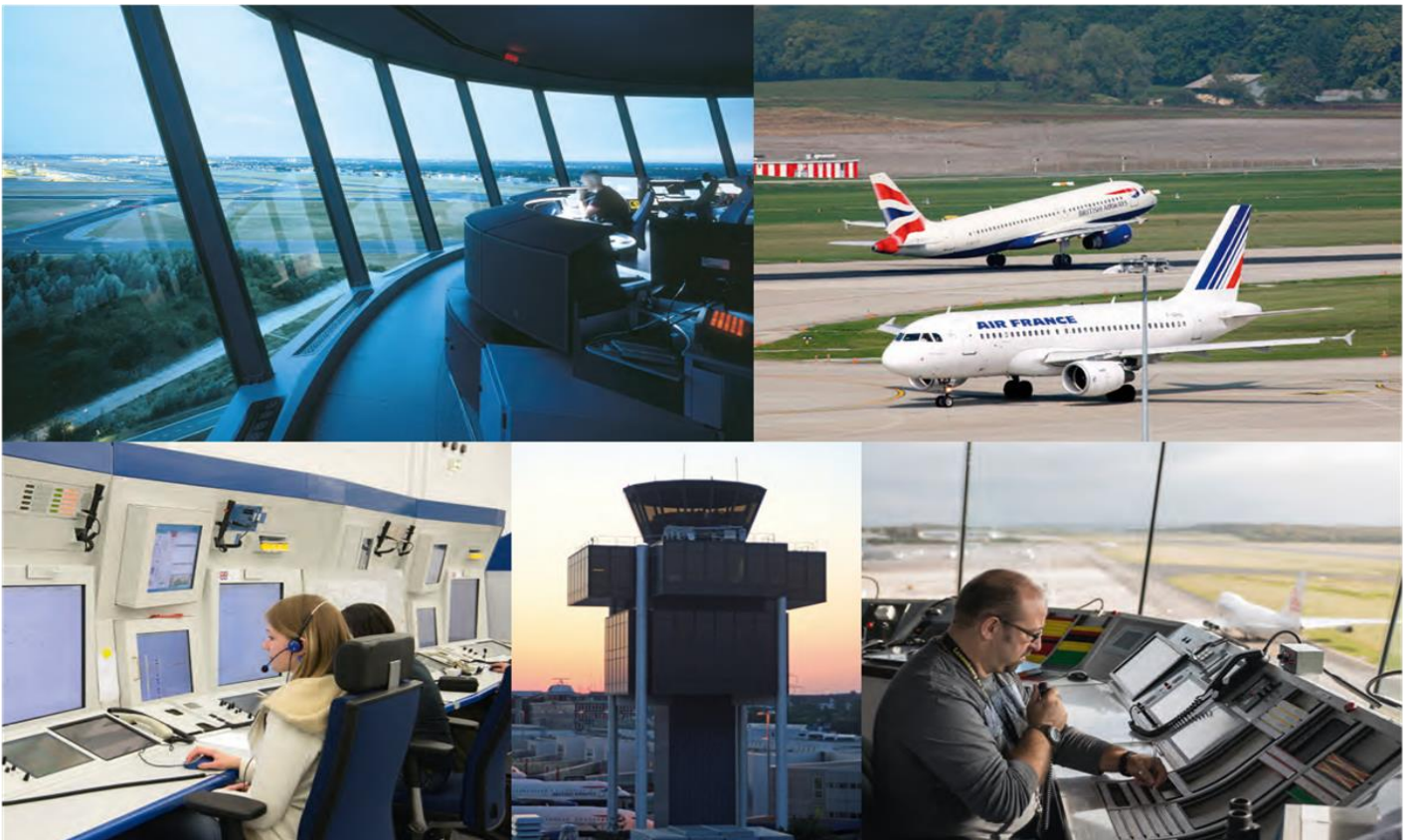




PERFORMANCE REPORT 2015 - 2019

ENVIRONMENT

December 2019



making the difference

Contents

Description & Analysis	3
KPI #1: KEA/HFE at FABEC level (excl. 10 best/worst days)	4
PI #1: HFE based on Actual at FABEC level (incl. all days)	4
PI #2: KEP/HFE based on filed FPL at FABEC level (excl. 10 best/worst days)	5
PI #3: HFE based on filed FPL at FABEC level (incl. all days)	5
PI #4: HFE based on Actual at State level (incl. all days)	6
PI #5: HFE based on filed FPL at State level (incl. all days)	7
<i>PI #6: ASMA</i>	
<i>PI #7: aTXOT</i>	
<i>PI #8: Effectiveness of Booking Procedure for FUA</i>	
<i>PI #9: Effectiveness of SUA usage</i>	
Glossary	8

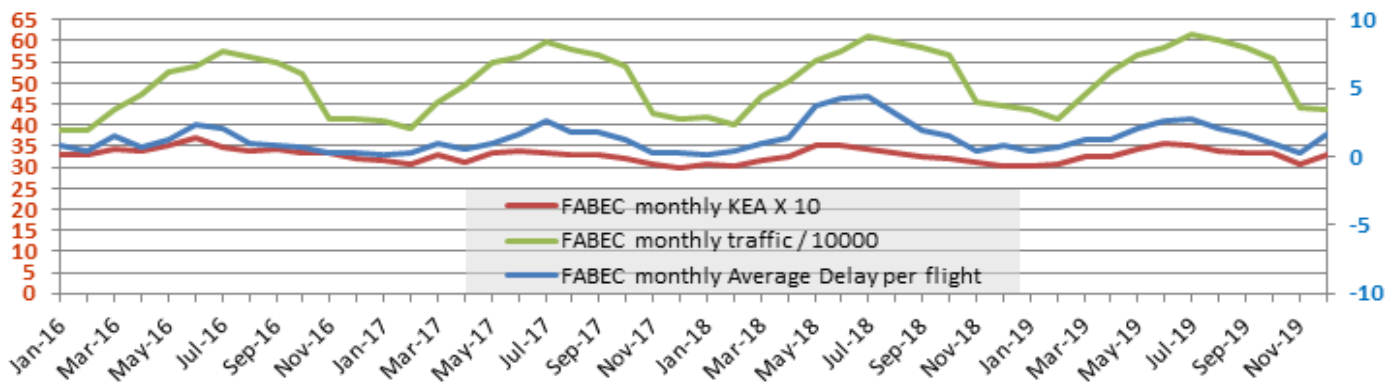
Description & Analysis

ENV KPI #1: KEA/HFE at FABEC level (excl. 10 best/worst days)

In the FABEC area, the yearly rolling average value of inefficiency of flown trajectory expressed in KEA is 3.32% for the period of January-December 2019, excluding the 10 best and 10 worst days. This value is 0.02pp greater compared to the value of one month prior and it has been increasing slowly but steadily during the last year from 3.25% in the period January - December 2018. The indicator is 0.36pp above the FABEC target setting for 2019, which was set to 2.96%, thus this target has not been met. This forecasted value for 2019 will most likely impair the possibility for FABEC to reach RP3 targets as well, since the reference performance value for RP3 starts in 2020 and subsequent performance targets assume that the RP2 ones are met. The difference between KEA and KEP is 2.72pp, which is equal to the value of the previous month.

ENV PI#1: HFE based on Actual at FABEC level (including all days)

The inefficiency (expressed in KEA including all days) has drastically increased by 0.22pp on a monthly basis compared to the previous month, reaching 3.31% in December. This significant decrease of flight efficiency was probably caused by industrial actions in France during the whole month of December. The KEA value follows the same trend of delays, which has been observed for many years. This positive correlation can be seen in the graph below. Compared to the same month in 2018, the increase in flight efficiency is 0.27pp (KEA of December 2018 is 3.04%).



ENV PI#2: KEP/HFE based on Filed FPL at FABEC level (excl. 10 best/worst days)

The KEP 12 month rolling average indicator has been stable from December 2018 reaching 6.00% in June 2019, but starting from August 2019 KEP shows a reversed trend increasing from 6.00% in July to 6.01% in August and 6.02% in September, October and November. The KEP rolling value for December 2019 reached 6.04%, which is 0.02pp higher than the value of the same period but one year prior, therefore showing no tendency for improvement.

ENV PI#3: HFE based on Filed FPL at FABEC level (including all days)

The figure shows a decrease of flight efficiency in December by 0.12pp compared to November and a decrease in flight efficiency in December 2019 by 0.29pp compared to the value in December 2018 (6.08% in December 2019 vs. 5.89% in December 2018).

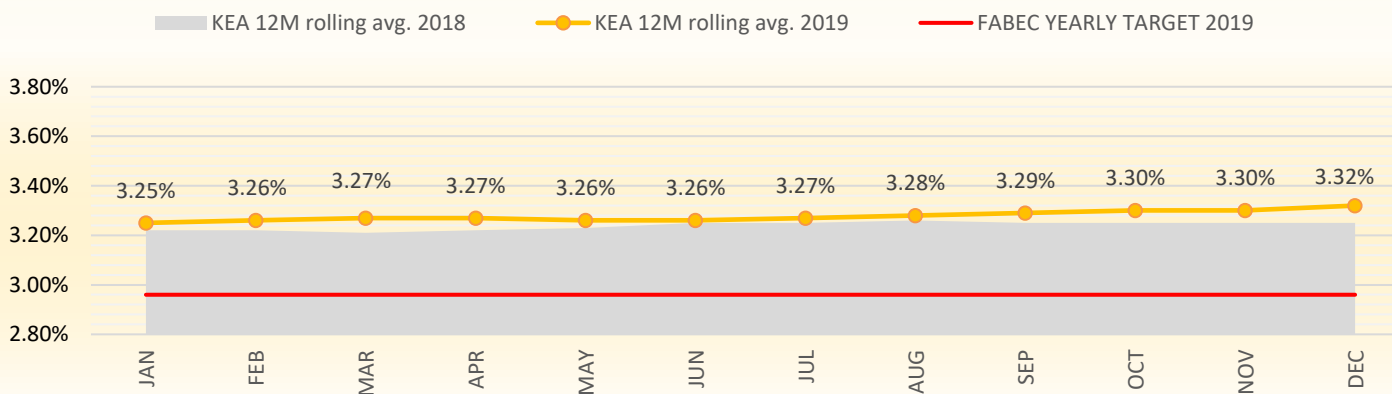
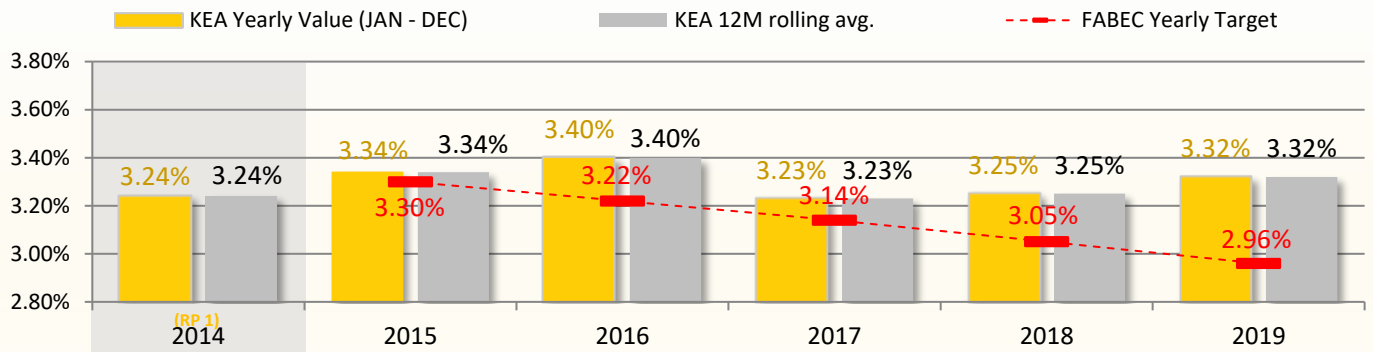
ENV PI#4: HFE based on Actual at State level (including all days)

At national level in 2019, all countries demonstrate a significant decrease of flight efficiency in December compared to November: Belgium (0.09pp), France (0.15pp), Germany (0.14pp), the Netherlands (0.04pp) and Switzerland (4.30pp).

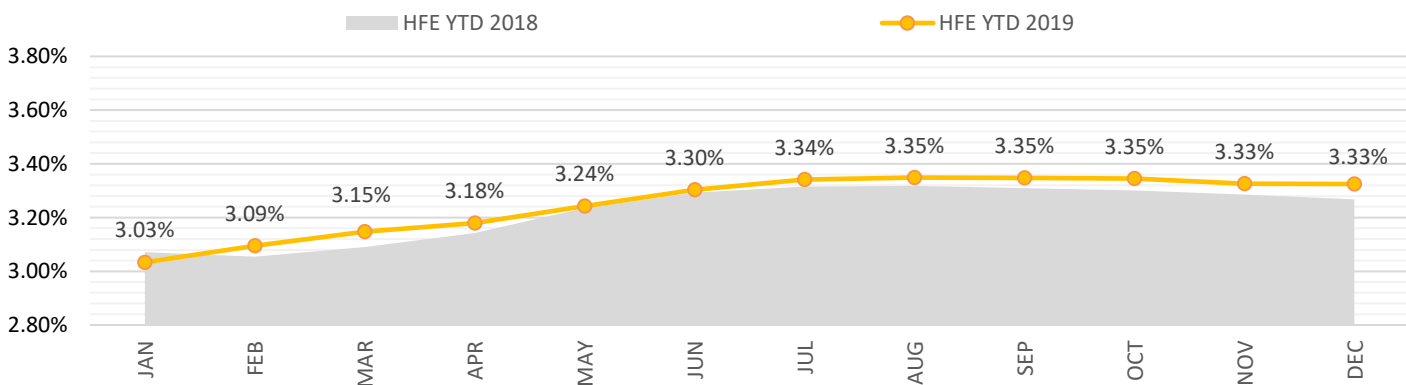
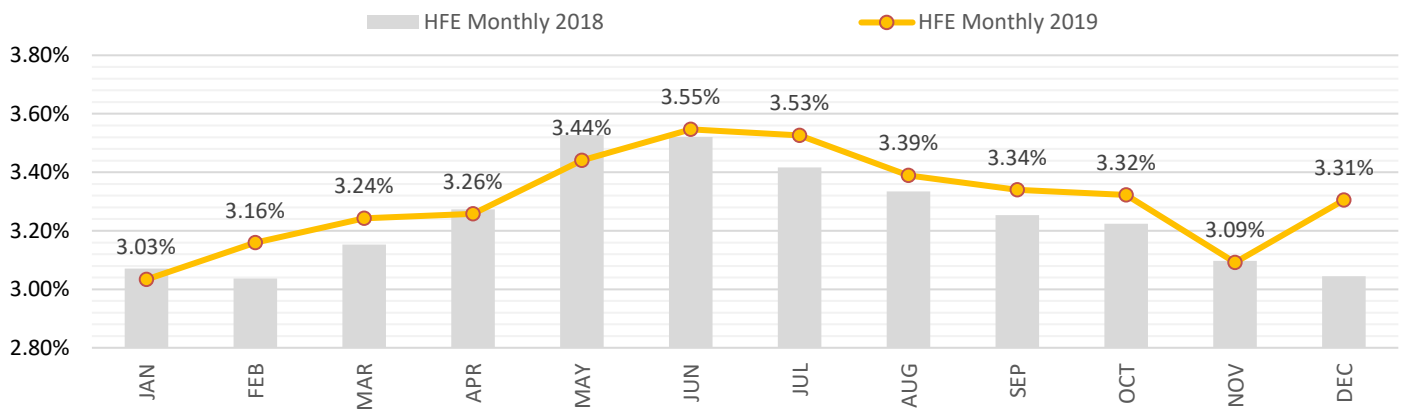
ENV PI#5: HFE based on Filed FPL at State level (including all days)

At national level, two countries demonstrate an increase in flight efficiency based on the filed FPL compared to one month prior: Belgium (0.21pp) and the Netherlands (0.02pp). In contrast, a decrease of flight efficiency based on the filed flight plan is observed in Germany (0.11pp), France (0.14pp) and Switzerland (0.44pp).

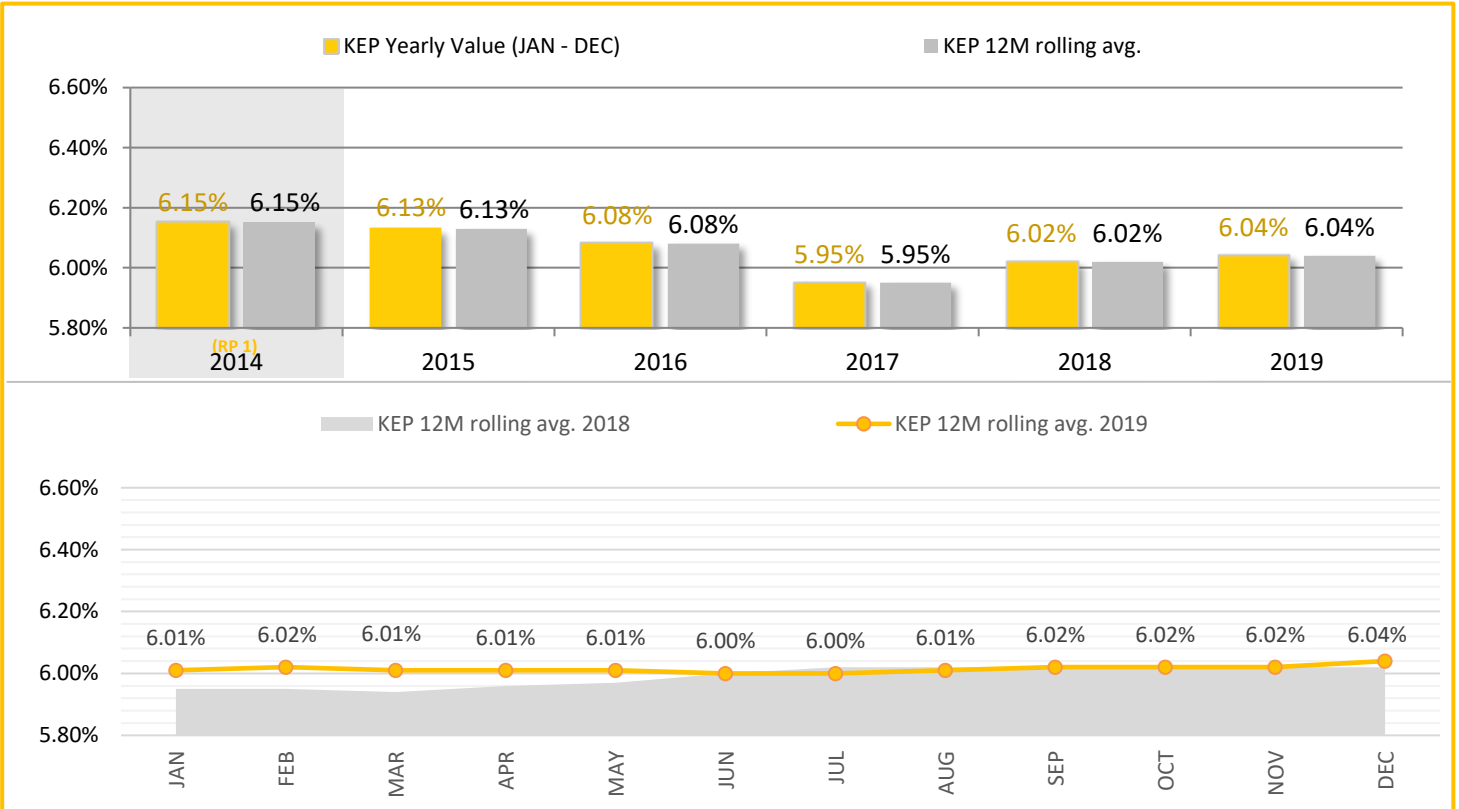
KPI #1: KEA/HFE at FABEC level (excl. 10 best/worst days)



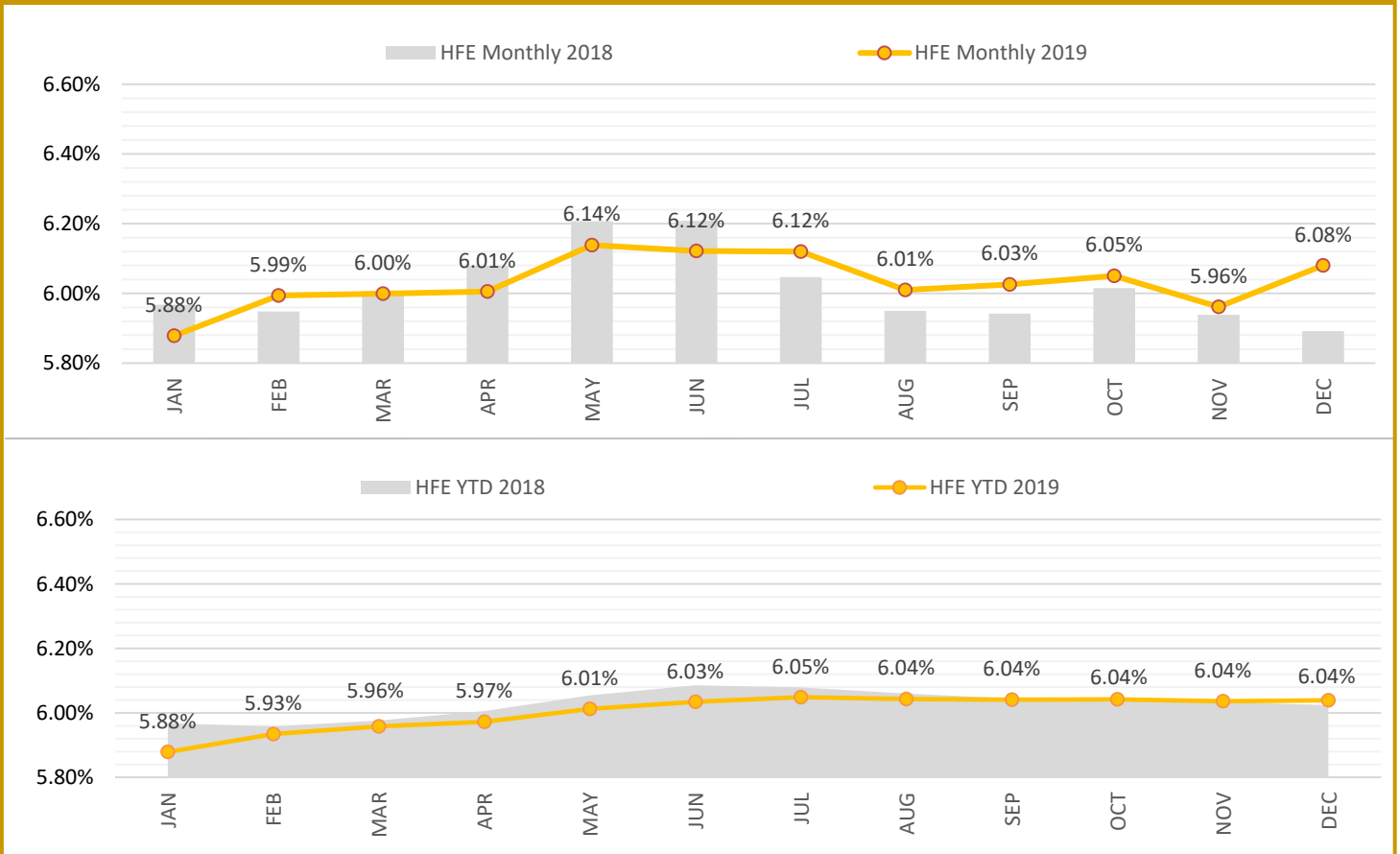
PI #1: HFE based on Actual at FABEC level (incl. all days)



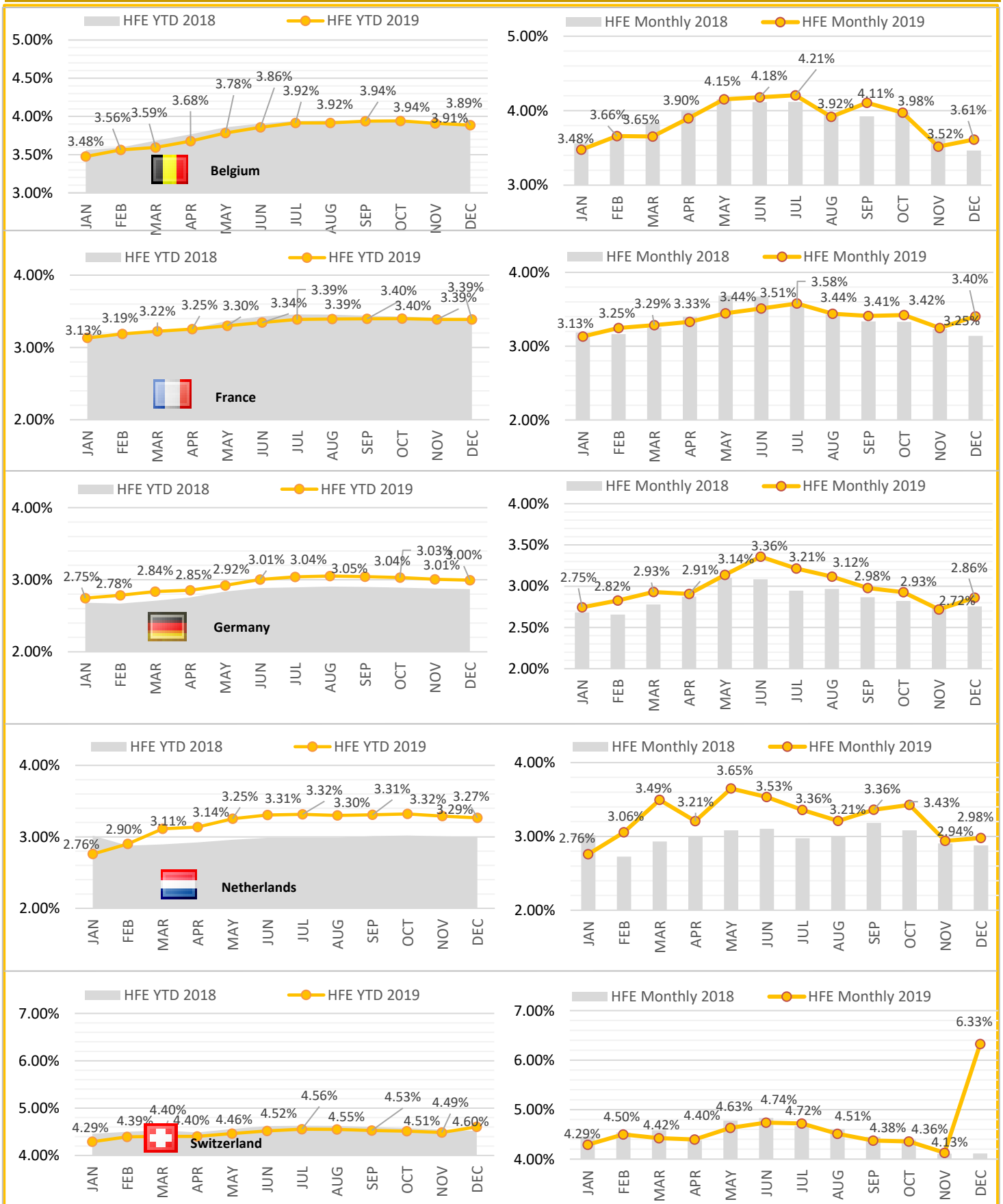
PI #2: KEP/HFE based on filed FPL at FABEC level (excl. 10 best/worst days)



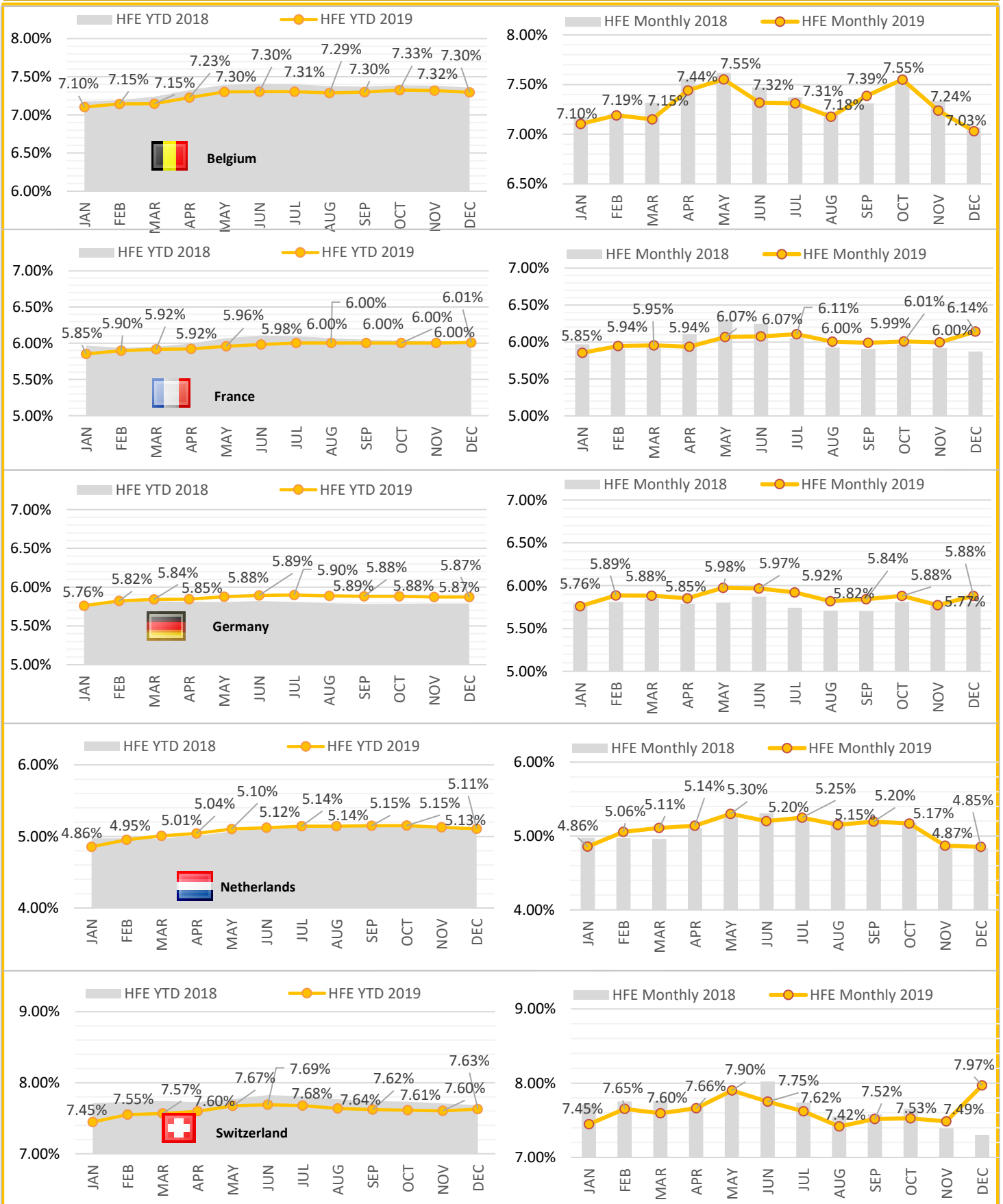
PI #3: HFE based on filed FPL at FABEC level (incl. all days)



PI #4: HFE based on Actual at State level (incl. all days)



PI #5: HFE based on filed FPL at State level (incl. all days)

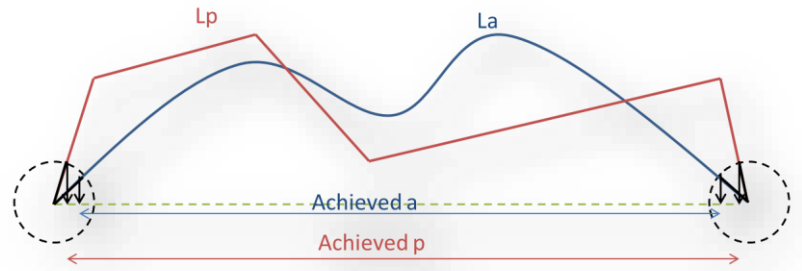


Glossary

KEP / KEA definition

KEP compares the length of the en route section of the last filed flight plan L_p with the corresponding Achieved p of the great circle distance.

KEA compares the length of the en route section of the actual trajectory L_a with the corresponding Achieved a of the great circle distance.



$$KEA = (L_a - \text{Achieved } a) / \text{Achieved } a$$

$$KEP = (L_p - \text{Achieved } p) / \text{Achieved } p$$

KEP is the reference for SES-wide improvement with a global target set by the European Commission. KEA is the reference for FAB improvements with individual targets set by the European Commission.

Achieved distance calculation

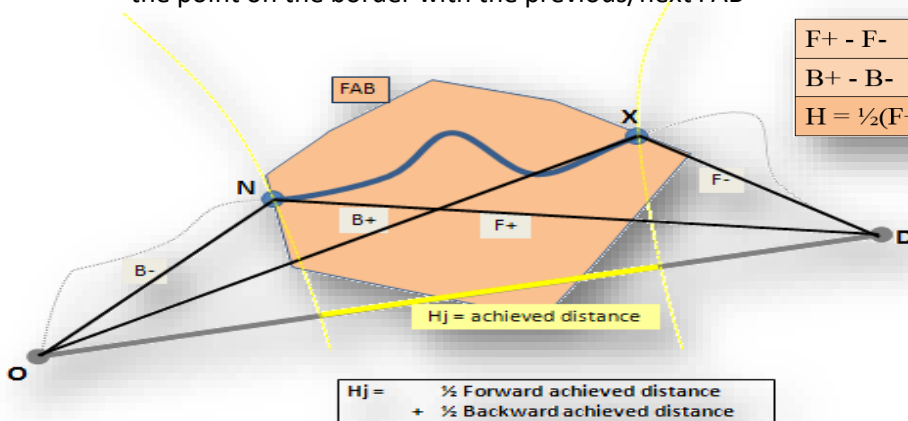
4 reference points are identified for KEP/KEA calculation :

The **O**rigin and **D**estination points are the targets of the trajectory and the reference points for the Great Circle:

- the airports inside the SES area
- when the airports are outside the SES area, they are the trajectory point at the SES border

The **e**Ntry and **e**Xit points are the first and last points of the part of the trajectory considered within a FAB:

- the point on the 40NM circle around departure or arrival airport
- the point on the border with the previous/next FAB



F+ - F-	Forward achieved distance
B+ - B-	Backward achieved distance
$H = \frac{1}{2}(F+ - F-) + \frac{1}{2}(B+ - B-)$	Achieved distance

$$H_j = \frac{1}{2} \text{ Forward achieved distance} + \frac{1}{2} \text{ Backward achieved distance}$$

TABLE OF ABBREVIATIONS

ADEP - Airport of Departure

ANSP - Air Navigation Service Provider

ATFM - Air Traffic Flow Management

FABEC - Functional Airspace Block Europe Central

TMA - Terminal Manoeuvring Area, delimited by a 40 NM circle around the origin and destination airport.

ADES - Airport of Destination

PRU - Performance Review Unit

YTD - Year to Date value

FPP - FABEC Performance Plan

FABEC Performance Report Environment:

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Notice

The FABEC PMG has made every effort to ensure that the information and analysis contained in this document are as accurate and complete as possible.

Only information from quoted sources has been used and information relating to named parties has been checked with the parties concerned.

Despite these precautions, should you find any errors or inconsistencies we would be grateful if you could please bring them to the FABEC PMGs attention.