



PERFORMANCE REPORT 2015 - 2019

ENVIRONMENT

November 2019



making the difference

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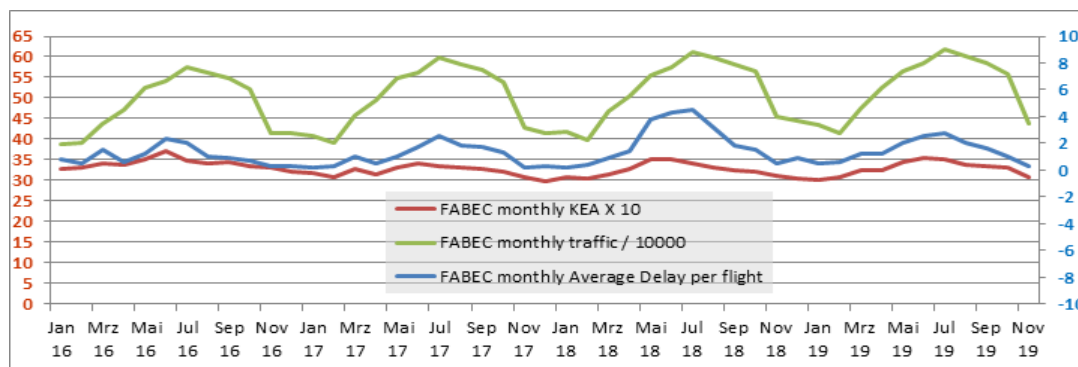
Description & Analysis

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

In the FABEC are, the yearly rolling average value of inefficiency of flown trajectory expressed in KEA (excluding the 10 best and 10 worst days) is 3.30%, calculated for the December 2018 - November 2019 period. This value is equal to the value of the previous month and it has slowly although it steadily been increasing during last year from 3.25% calculated for the period January 2018 - December 2018. The indicator is 0.34pp above the FABEC target setting for 2019, which was set to 2.96%. This means that the target will not be met. This forecasted value for 2019 will most likely impair the possibility for the 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, equal to the value of the previous month.

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

On a monthly basis, the inefficiency (KEA including all days) has drastically decreased compared to the previous month by 0.23pp reaching 3.09% in October. The KEA value follows the trend observed for many years: a decrease of KEA after the summer peak. The delays usually reach a peak in July (delays increased from 0.65 min per flight in February to 1.20 min per flight in March, then 1.21 min per flight in April, 2.07 min per flight in May, 2.57 min per flight in June, 2.80 min per flight in July, 2.09 min per flight in August, 1.61 min per flight in September, 1.03 in October and 0.33 in November). This dependency can be seen in the graph below. Compared to the same month in 2018, the increase in flight efficiency is 0.01pp (KEA of October 2018 is 3.10%). The reduction of the delays in 2019 compared to 2018 was possible thanks to the measures taken at network level. Their drawback is the increase of flight inefficiencies. The Aircraft have to fly longer routes to avoid congested areas.



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 is equal to the value of the same period but one year ago, 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 November by 0.09pp compared to previous month and a decrease in flight efficiency in November 2019 by 0.02pp compared to the value of 2018: 5.96% in November 2019 vs. 5.94% in November 2018. KEP YTD 2019 value in November is the same as the KEP YTD value of the previous month (6.04%).

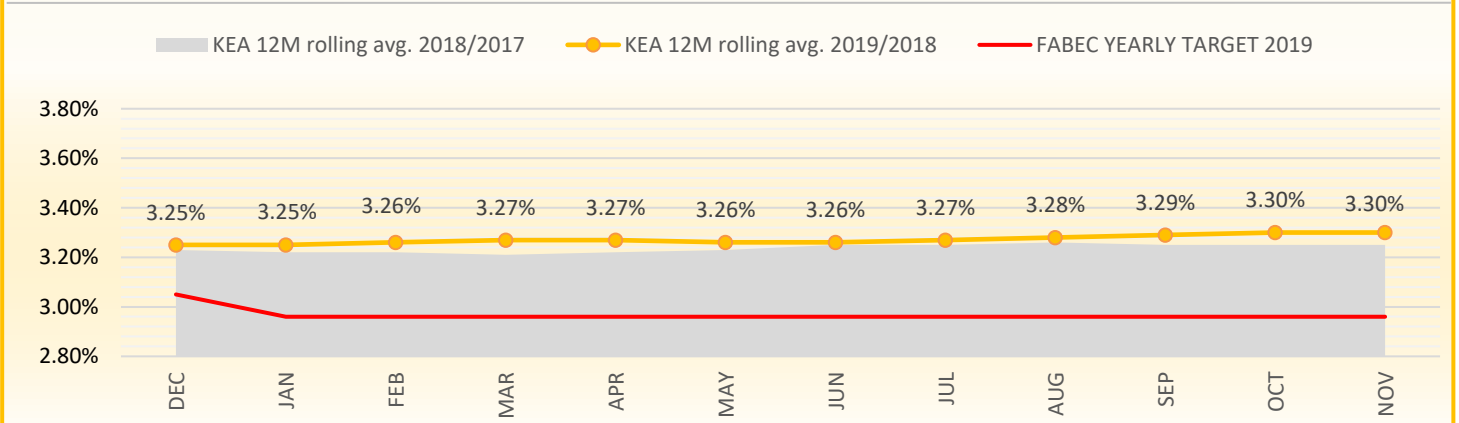
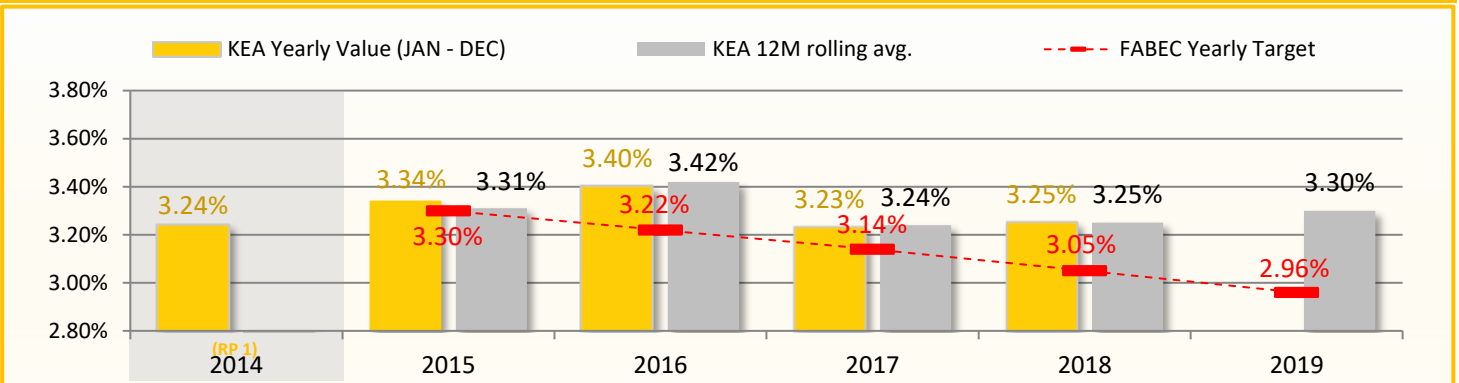
ENV PI#4: HFE based on Actual at State level (including all days)

At national level, all countries demonstrate a significant increase of flight efficiency in November 2019 compared to October 2019: France (0.17pp), the Netherland (0.49pp), Germany (0.21pp), Switzerland (0.23pp) and Belgium (0.36pp).

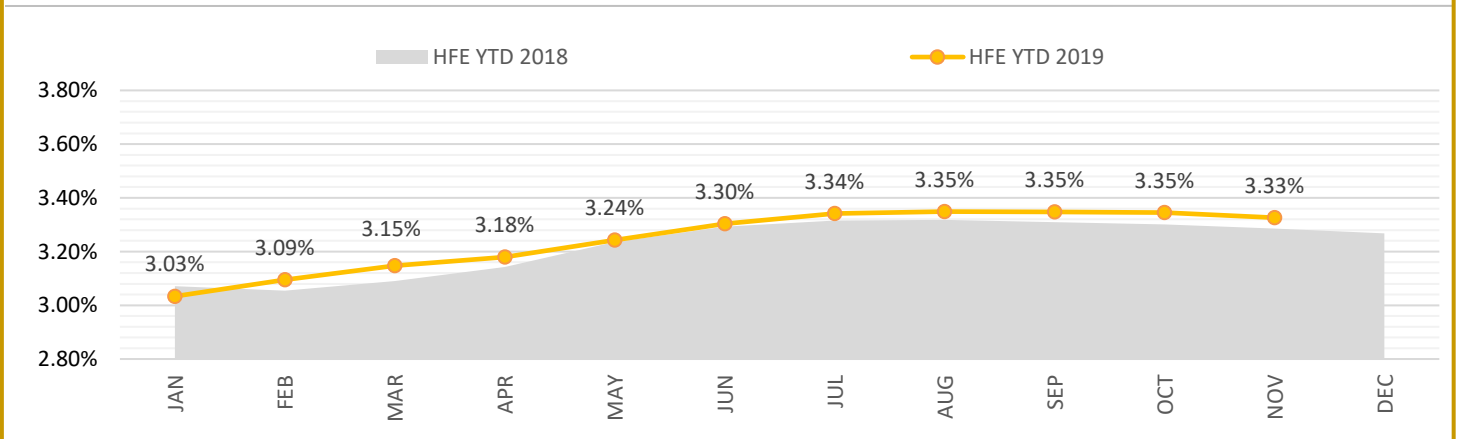
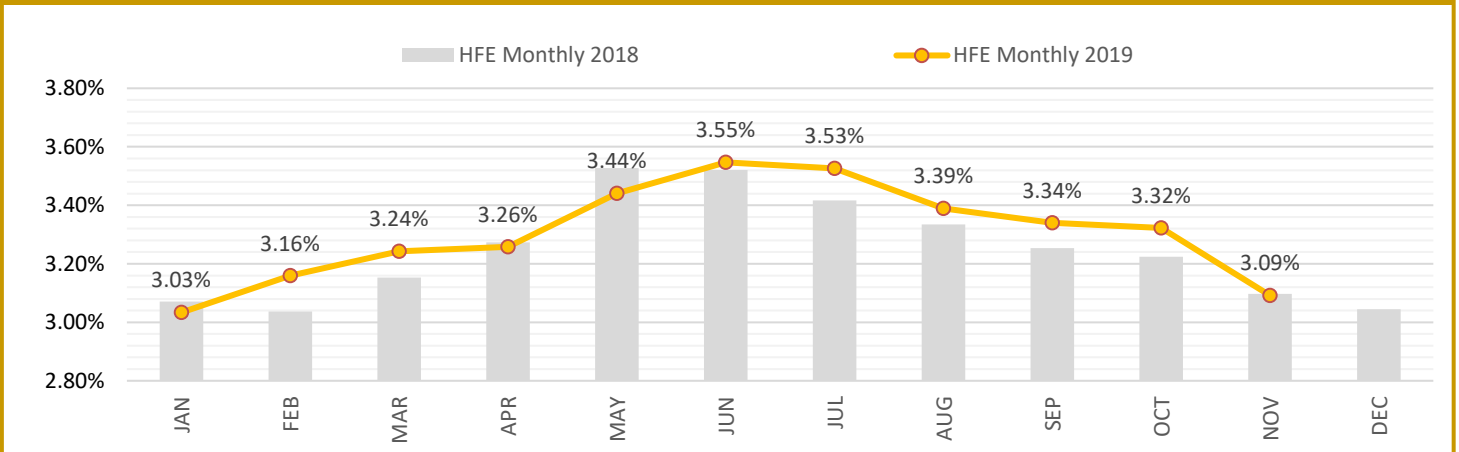
ENV PI#5: HFE based on Filed FPL at State level (including all days)

At national level, all countries demonstrate an increase in flight efficiency based on the filed FPL compared to the previous month: Belgium (0.31pp), Germany (0.11pp), France (0.01pp), Switzerland (0.04pp) and the Netherlands (0.31pp).

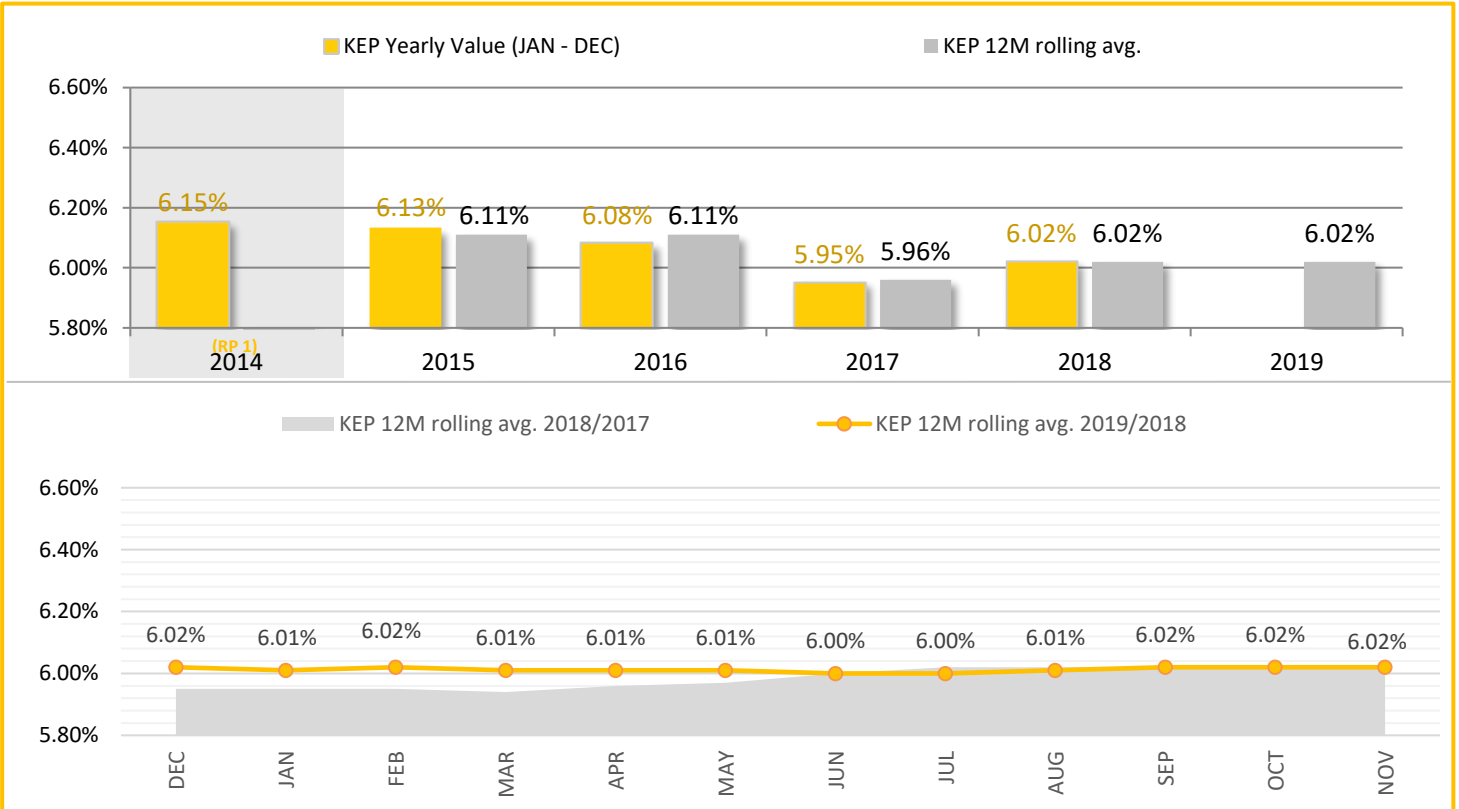
KPI #1: KEA/HFE at FABEC level (excl. 10 best/worst days)



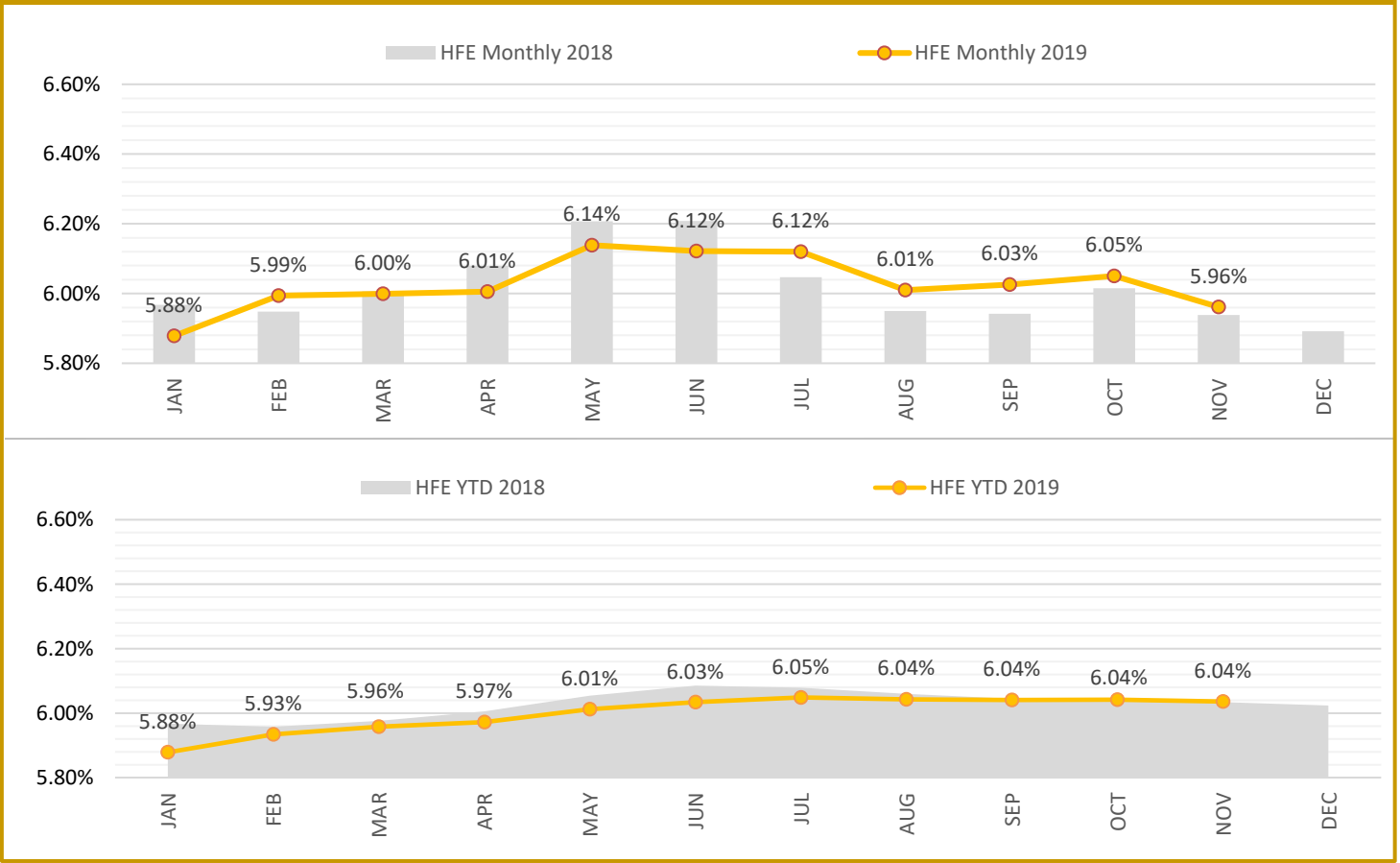
PI #1: HFE based on Actual at FABEC level (incl. all days)



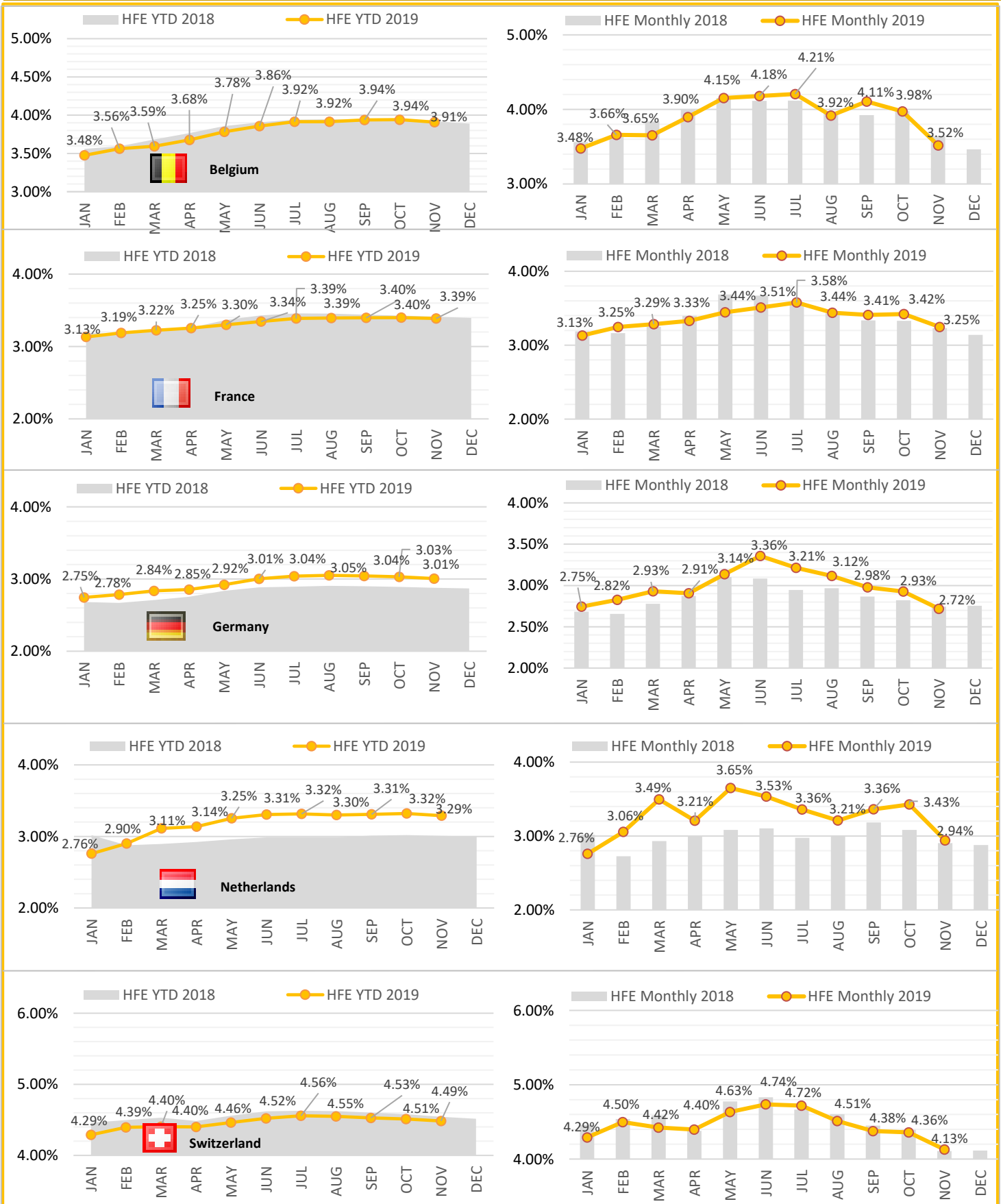
PI #2: KEP/HFE based on filed FPL at FABEC level (excl. 10 best/worst days)



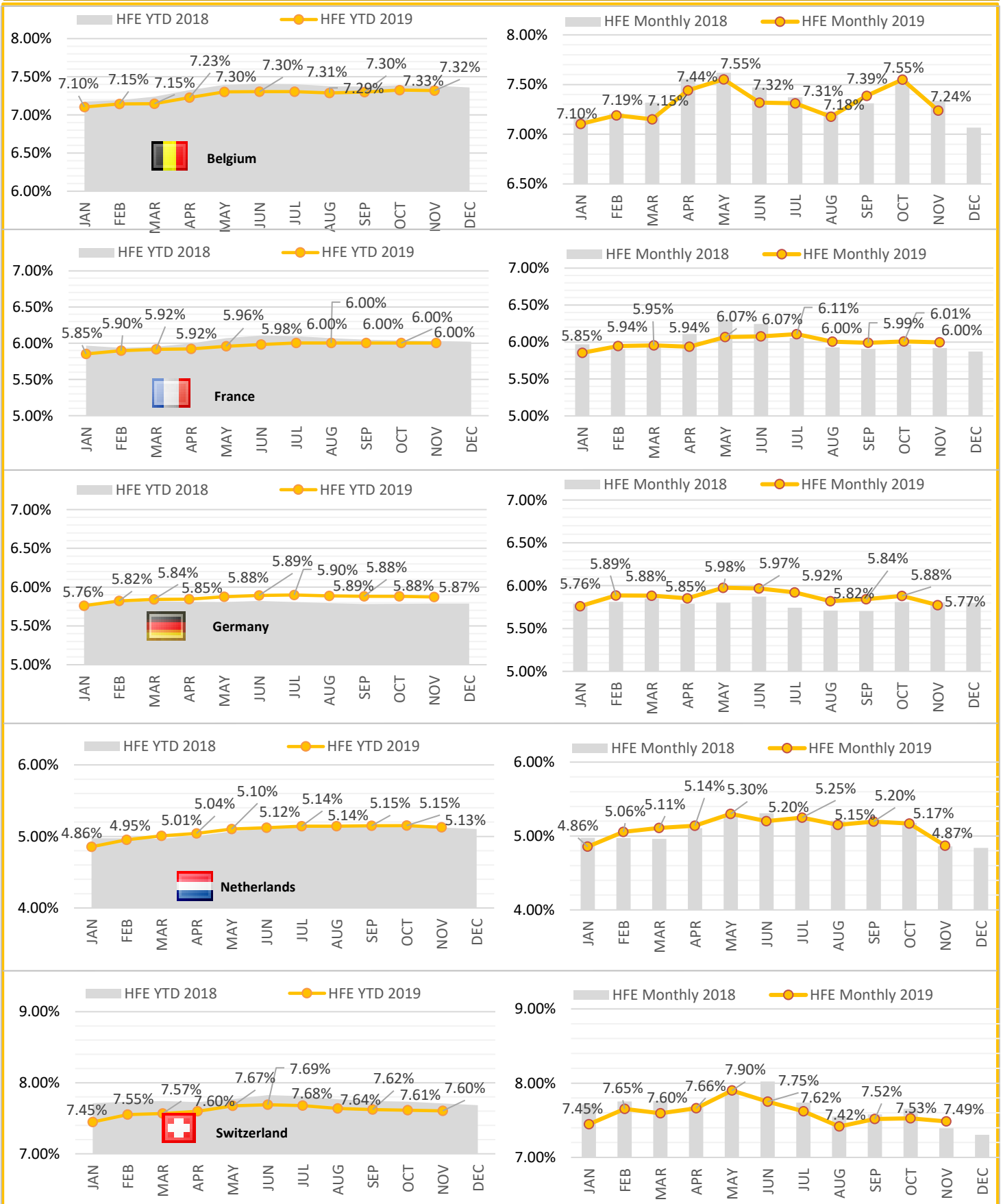
PI #3: HFE based on filed FPL at FABEC level (incl. all days)



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)

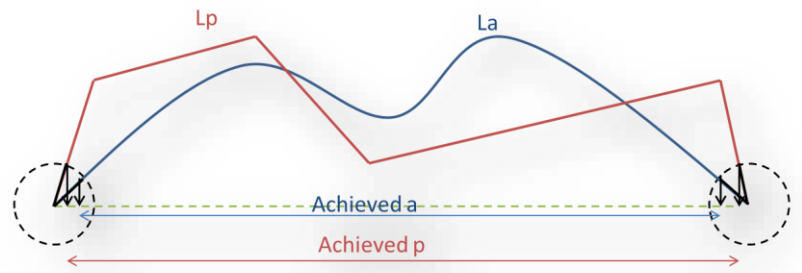


Glossary

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

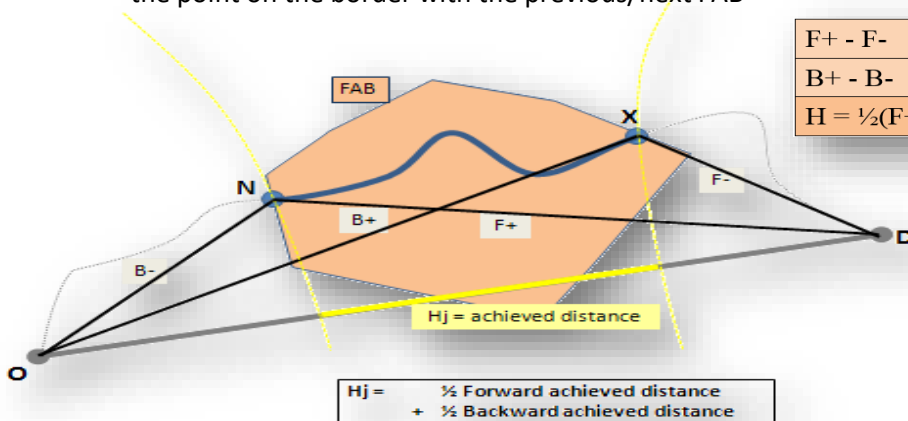
4 reference points are identified for KEP/KEA calculation :

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 **eN**try and **eX**it 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.