



PERFORMANCE REPORT 2020 - 2024

# ENVIRONMENT

October 2020



making the difference

## Contents

Description & Analysis	<b>3</b>
KPI #1: KEA/HFE at FABEC level (excl. 10 best/worst days)	<b>4</b>
PI #1: HFE based on Actual at FABEC level (incl. all days)	<b>4</b>
PI #2: KEP/HFE based on filed FPL at FABEC level (excl. 10 best/worst days)	<b>5</b>
PI #3: HFE based on filed FPL at FABEC level (incl. all days)	<b>5</b>
PI #4: HFE based on Actual at State level (incl. all days)	<b>6</b>
PI #5: HFE based on filed FPL at State level (incl. all days)	<b>7</b>
<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	<b>8</b>

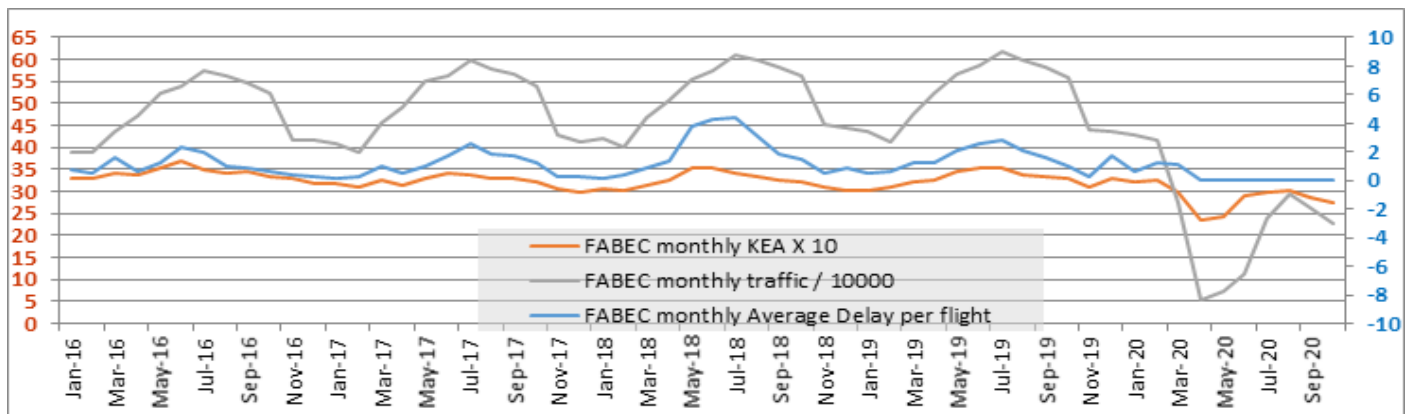
## Description & Analysis

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

In the FABEC area, the yearly rolling average value of efficiency of the flown trajectory (expressed in KEA) was 96,96% for the period of November 2019 - October 2020, excluding the 10 best and 10 worst days. This is the highest KEA value since 2015. It has increased by 0.26pp as compared to 96,70% in the period of November 2018 - October 2019 and increased by 0.06pp compared to the 12-month rolling average of September 2020. The rolling average has been decreasing slowly but steadily during the last year from 96,70% in the November 2019 to 96,66% in February 2020, then the revers trend started: the value were increasing until it reached 96,96% in October 2020, which is 0.21pp above the FABEC target for 2020, which was set to 96,75%. The difference between KEA and KEP is 2.96pp, which is 0.04pp bigger than in the previous month.

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

The flight efficiency (expressed in KEA including all days on monthly bases) has reached 97,25% in October 2020, which is 0.10pp higher when compared to September 2020 (97,15%) and 0.40pp lower compared to April 2020 (97,65%) which is the highest value since January 2016. The KEA in October 2020 has increased drastically by 0.57pp compared to the same month in 2019 (KEA in October 2019 was 96,68%). The reason for such an increase in the flight efficiency is a significant decrease of the traffic volume because of the corona crisis. This positive correlation between flight efficiency and traffic can be seen in the graph below.



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

Starting from November 2019 the KEP 12 month rolling average indicator shows slow but steady decrease from 93,98% to 93,95% in January, February and March 2020. KEP has been stable since April 2020 till July 2020 (93,94%). In August 2020 it increased by 0.02pp reaching 93,96%, in September it increased by 0.02pp reaching 93,98%, in October 2020 it increased again by 0.02pp reaching 94,00%. The KEP rolling value for October 2020 is 0.02pp bigger than the same value of the same period one year prior.

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

The figure shows a decrease of flight efficiency based on the filed flight plan by 0.05pp in October 2020 (94,17%) compared to September 2020 (94,22%). But it showed an increase by 0.80pp compared to June 2020 (93,37%) which was the lowest value since January 2016, indicating some problems in the filing of flight plans during the corona crisis, caused by extensive booking of military areas compared to pre-COVID time. KEP value for October 2020 is 0.22pp better than in October 2019.

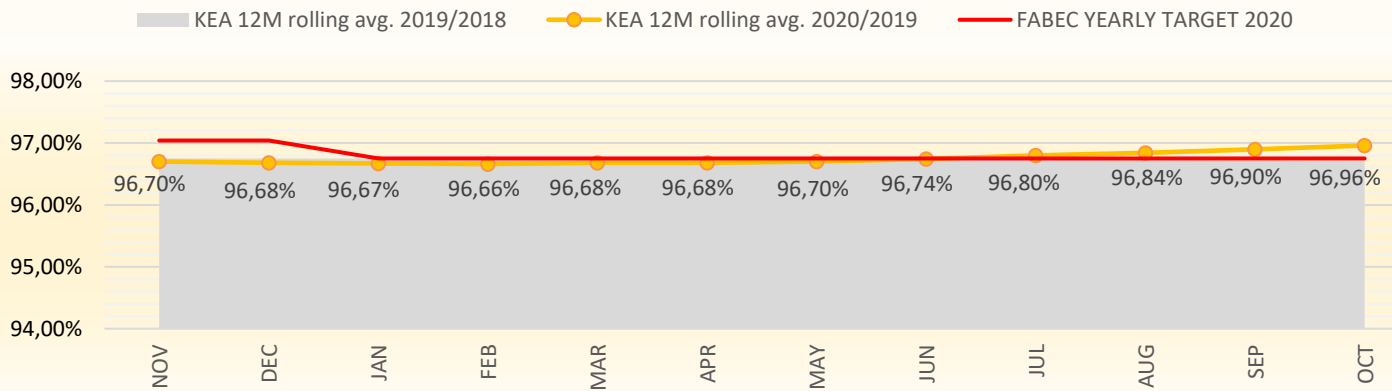
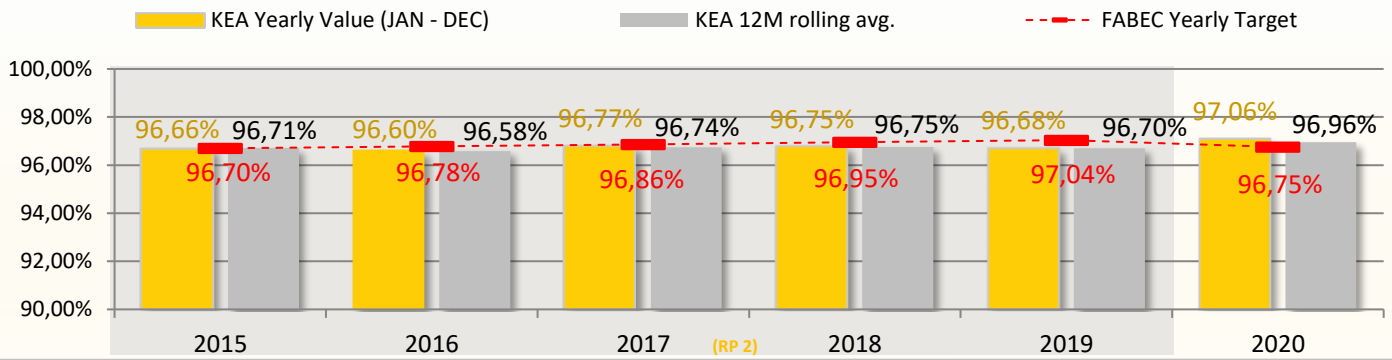
### ENV PI#4: HFE based on Actual at State level (including all days)

At the national level in October 2020, all countries demonstrated an increase of flight efficiency based on actual trajectories compared to September 2020: Belgium (0.22pp), France (0.07pp), Germany (0.06pp), the Netherland (0.22pp) and Switzerland (0.02pp).

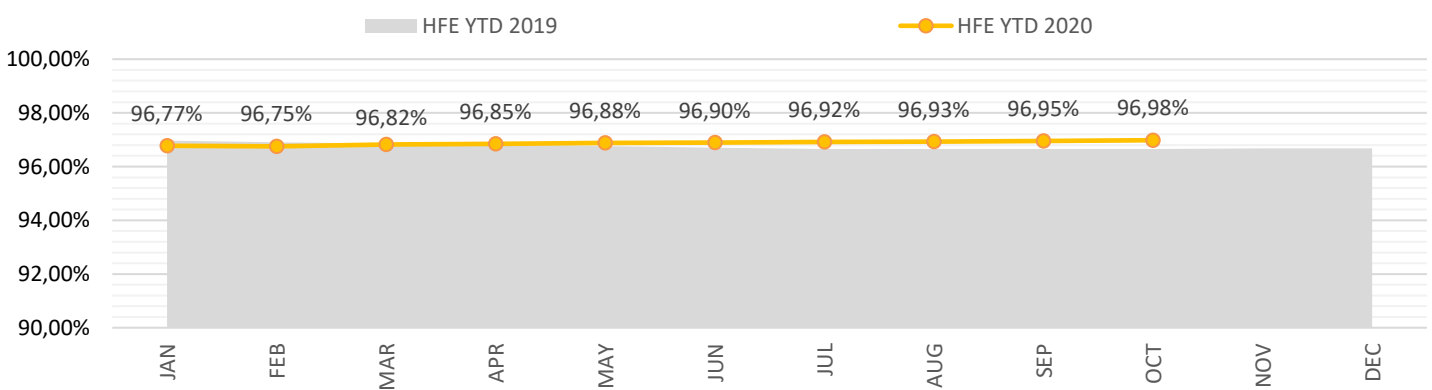
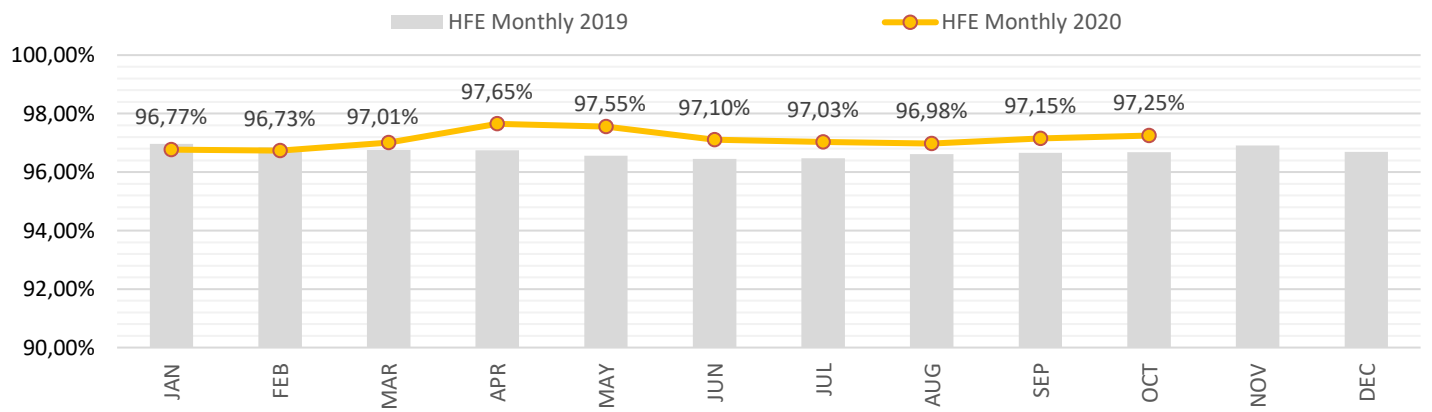
### ENV PI#5: HFE based on Filed FPL at State level (including all days)

At the national level in October 2020, Belgium (0.02pp), France (0.10pp), Germany (0.09pp) and Switzerland (0.10pp) demonstrated a decrease of flight efficiency based on filed flight plan compared to September 2020, but the Netherland keeps the same value compared to one month prior.

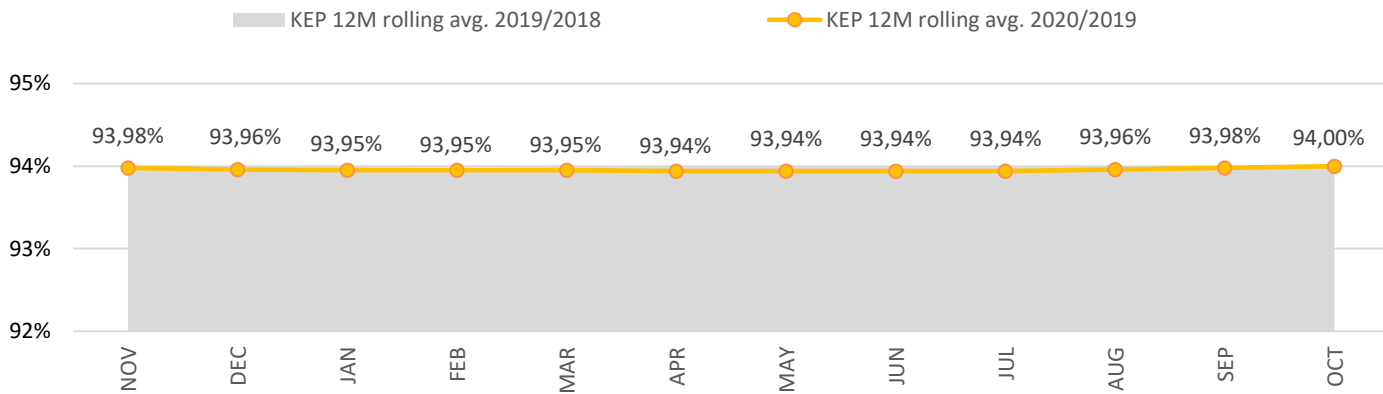
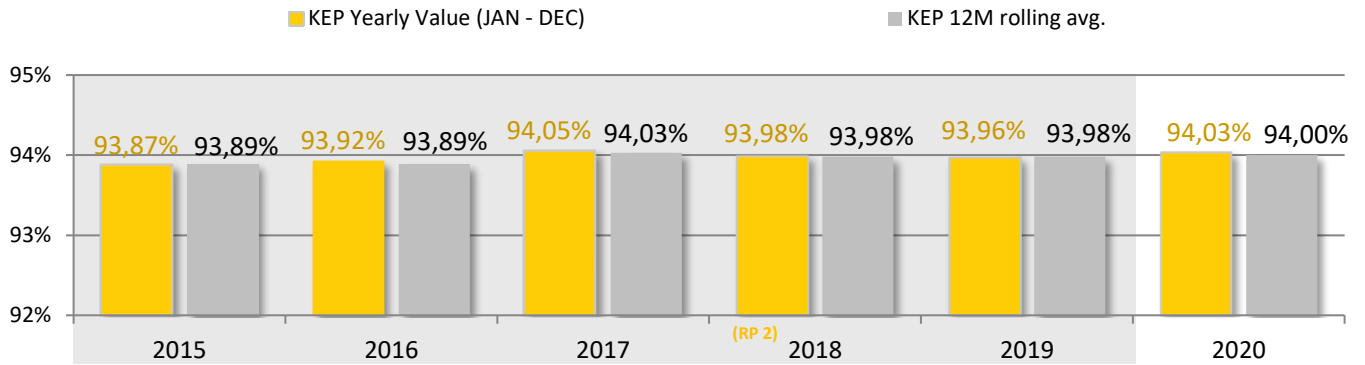
## KPI #1: KEA/HFE at FABEC level (excl. 10 best/worst days)



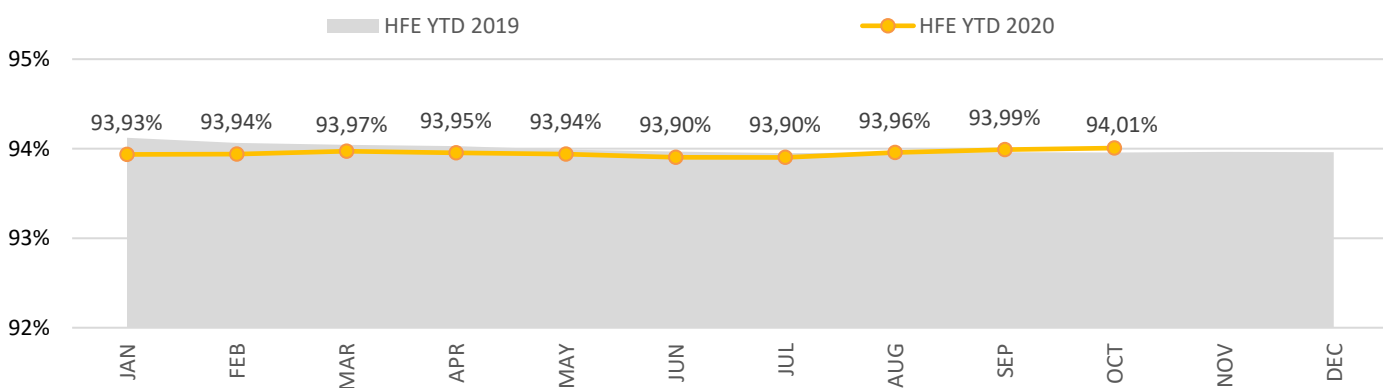
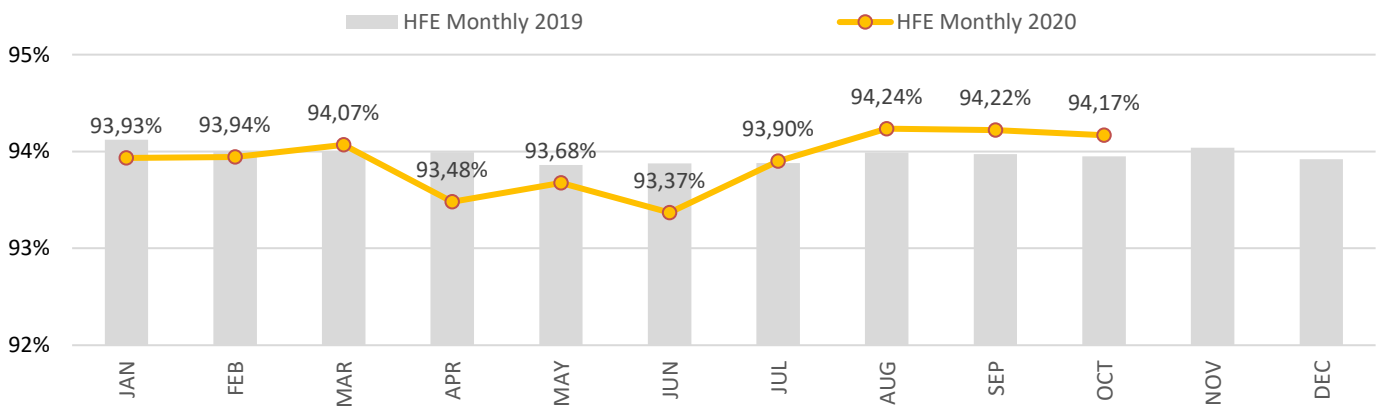
## PI #1: HFE based on Actual at FABEC level (incl. all days)



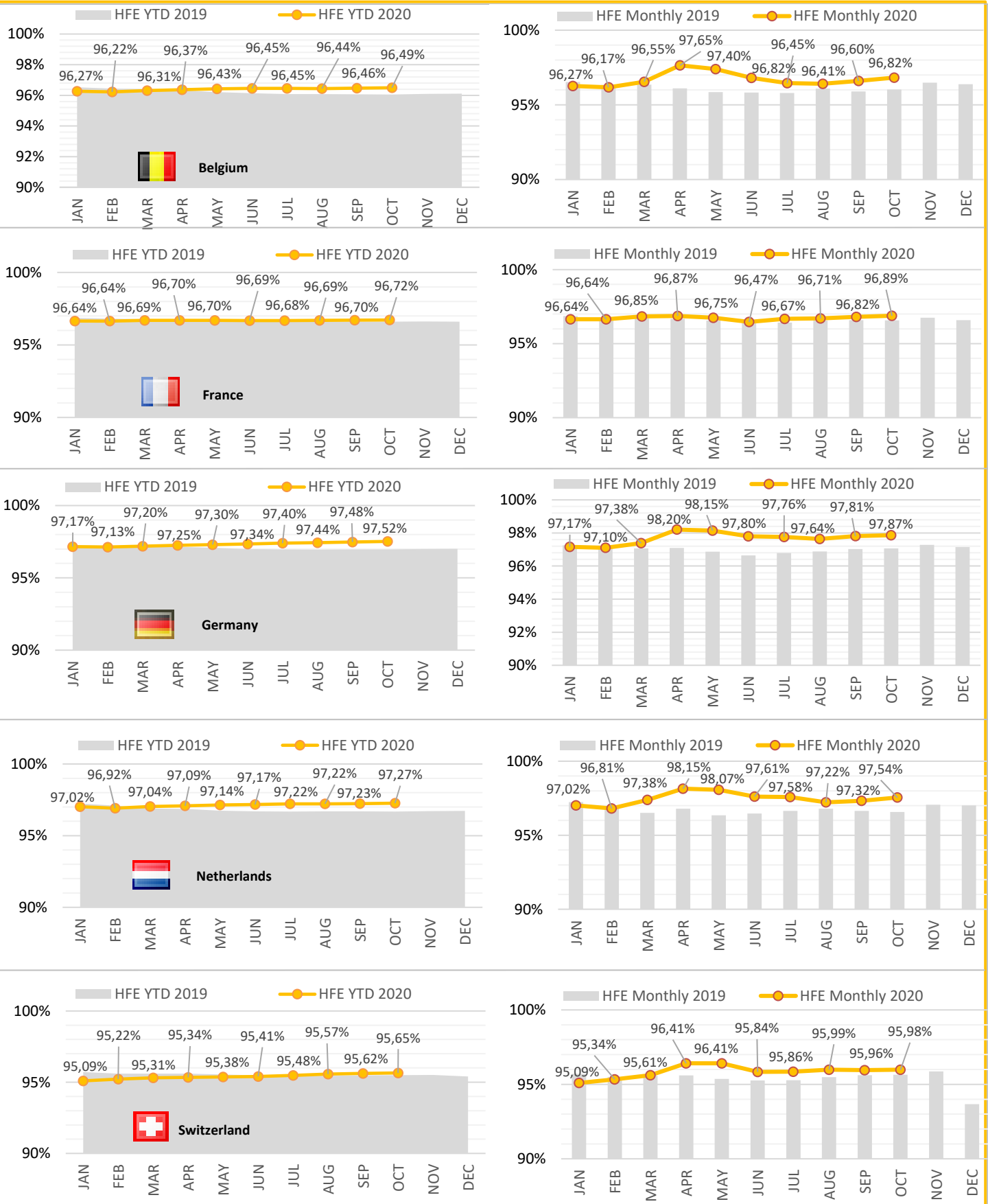
### PI #2: KEP/HFE based on filed FPL at FABEC level (excl. 10 best/worst days)



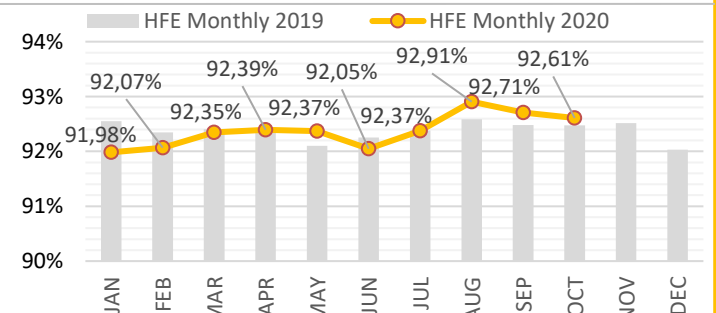
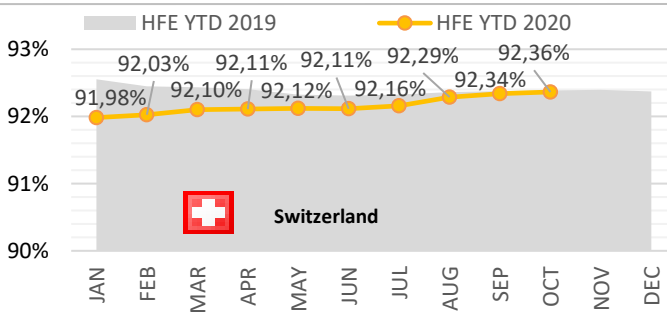
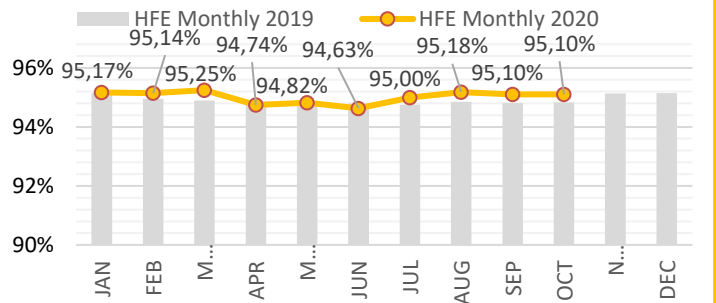
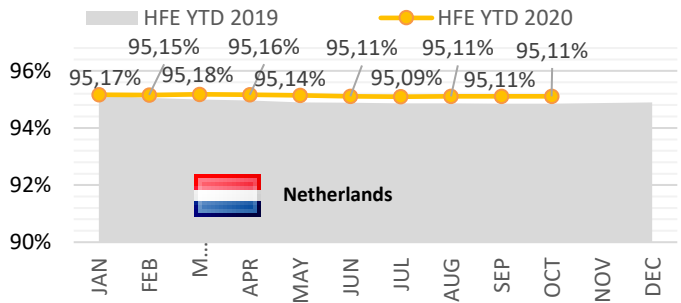
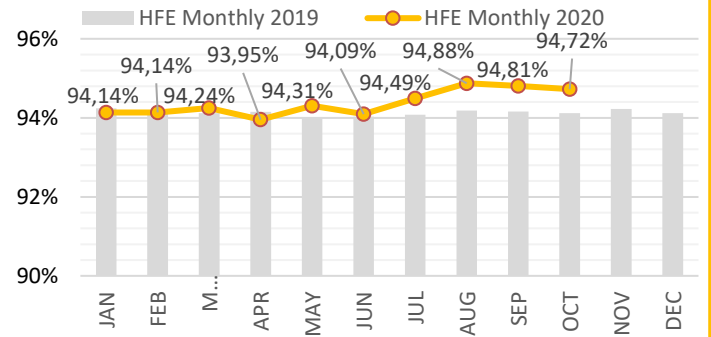
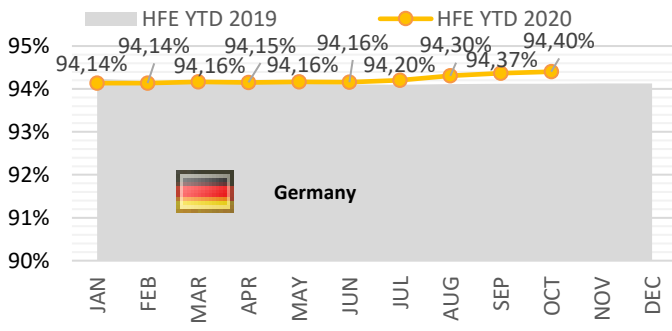
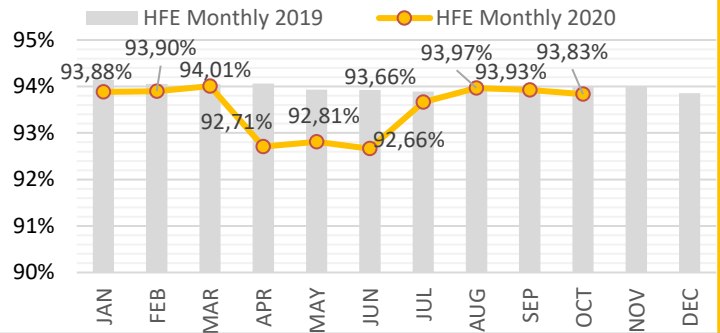
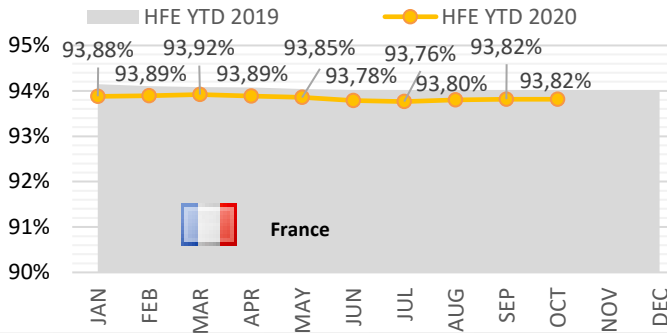
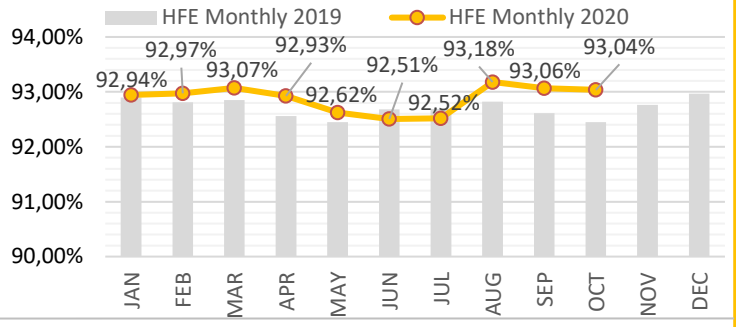
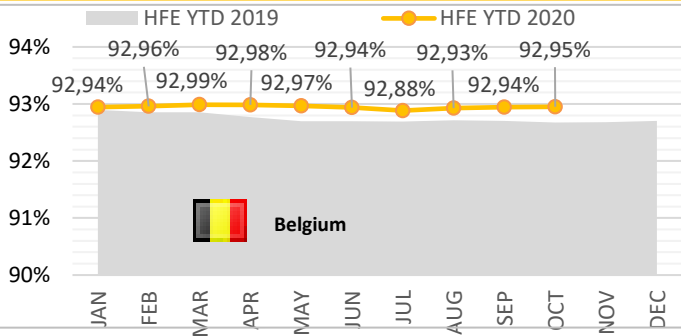
### PI #3: HFE based on filed FPL at FABEC level (incl. all days)



## 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)

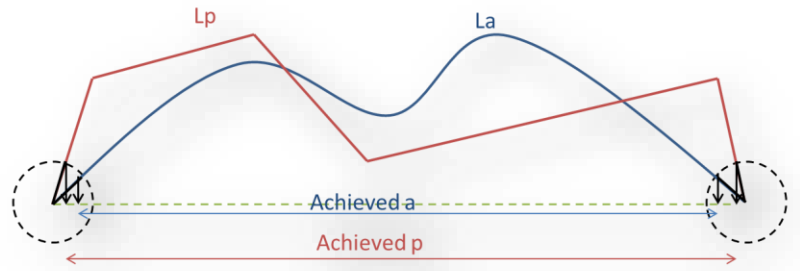


## Glossary

### 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

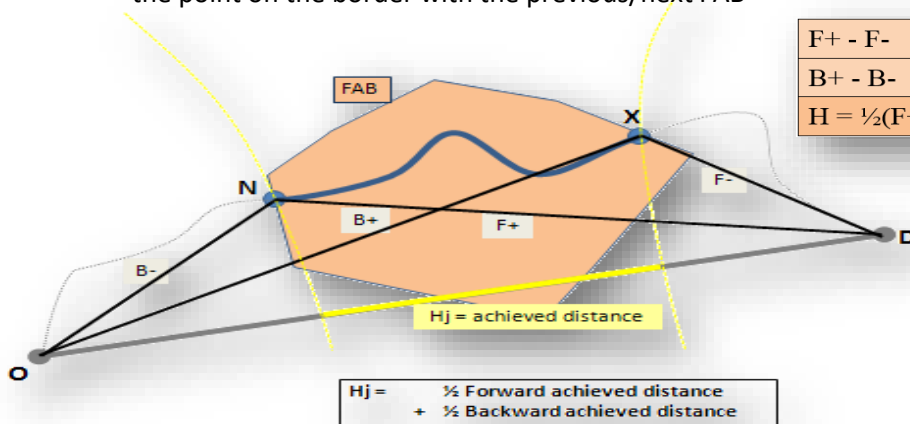
4 reference points are identified for KEP/KEA calculation :

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:

Editor: FABEC PMG  
Sources: EUROCONTROL PRU (<http://ansperformance.eu/>), FABEC ANSPs  
Status: October 2020  
[www.FABEC.eu](http://www.FABEC.eu)

### 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.