



PERFORMANCE REPORT 2020 - 2024

ENVIRONMENT

December 2021



making the difference

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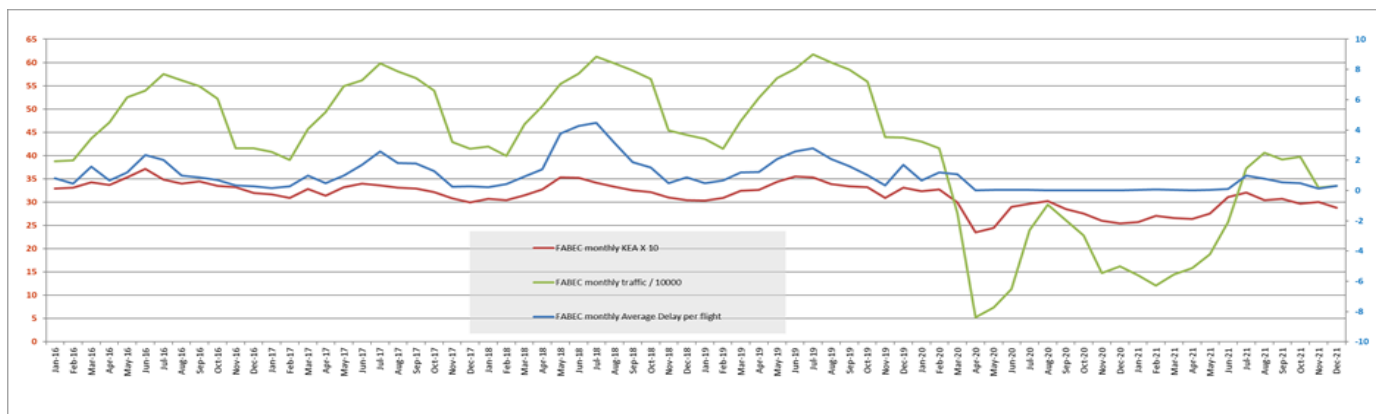
Description & Analysis

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

In the FABEC area, the yearly average value of efficiency (excluding the 10 best and 10 worst days) of the flown trajectory (expressed in KEA) was 97,04% for 2021. This value is 0.21pp less than the reference value (97,25%) and 0.02 pp less than the value from 2020 (97,06%), which was the highest yearly KEA value since 2015. The value has decreased by 0.02pp compared to the 12-month rolling average of November 2021 and 0.20pp less than the highest yearly rolling KEA value since 2015 reached in March and April 2021 (97,24%). The rolling KEA indicator has been increasing during the last year from 97,13% in January 2021, reaching the peak in March and April 2021. In 2021 the difference between KEA and KEP is 2.81pp, which is 0.22pp smaller than in 2020.

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 97,12% in December 2021, which is 0.12pp higher compared to November 2021 (97,00%) and 0.53pp lower compared to April 2020 (97,65%), which is the highest value since January 2015. The positive correlation between flight efficiency, traffic and capacity can be seen in the graph below.



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

The KEP 12 month rolling average indicator reached 94,23% for 2021 which is the highest yearly KEP value since 2015. The rolling average has been increasing slowly but steadily during the year of 2021 from 94,05% in January 2021 until it reached 94,23% in December 2021.

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

The figure shows an increase in flight efficiency based on the filed flight plan by 0.15pp in December 2021 (94,40%) compared to November 2021 (94,25%). The KEP value for December 2021 is 0.19pp better than it was in December 2020.

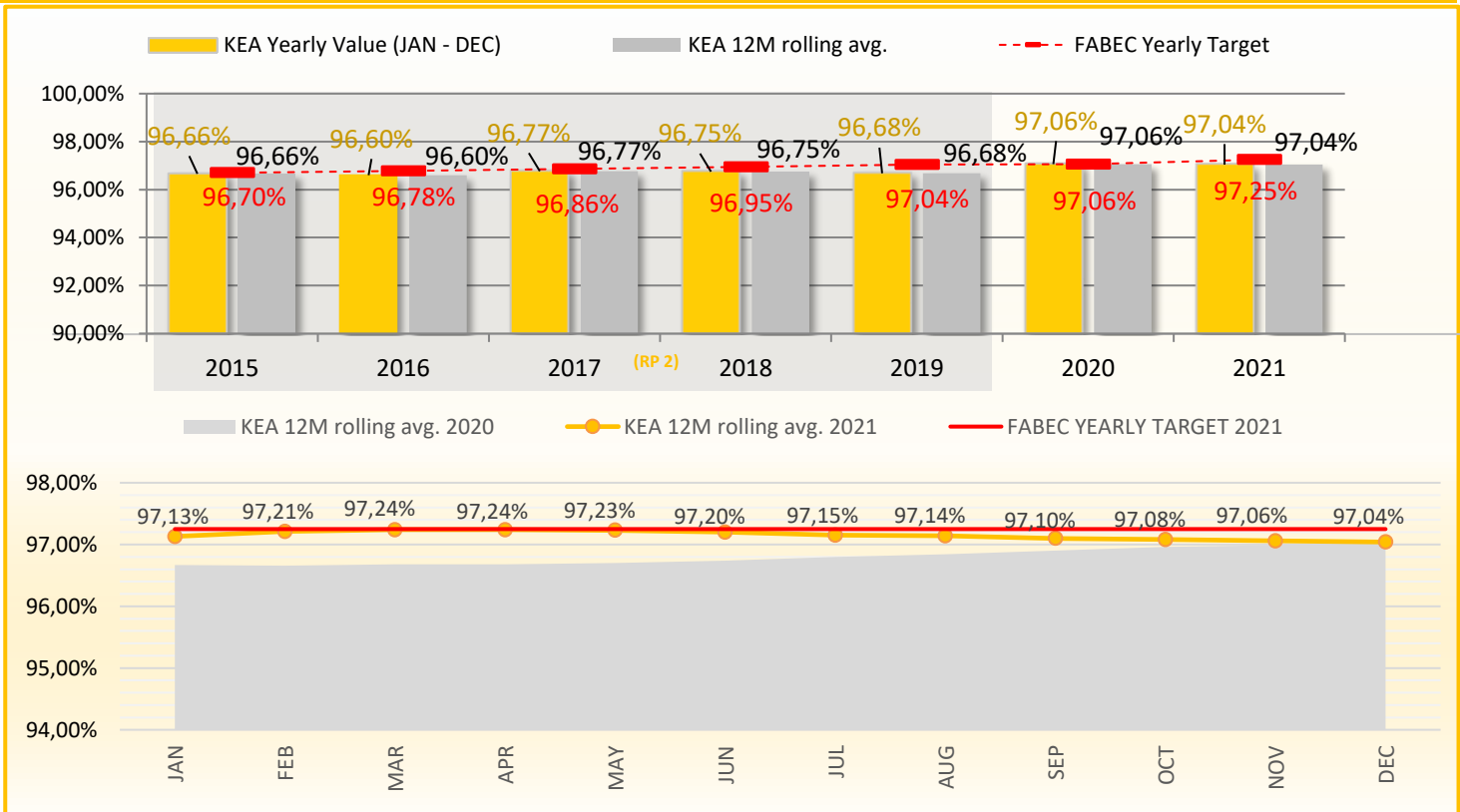
ENV PI#4: HFE based on Actual at State level (including all days)

At the national level in December 2021, all countries demonstrated an increase in flight efficiency based on actual trajectories compared to November 2021.

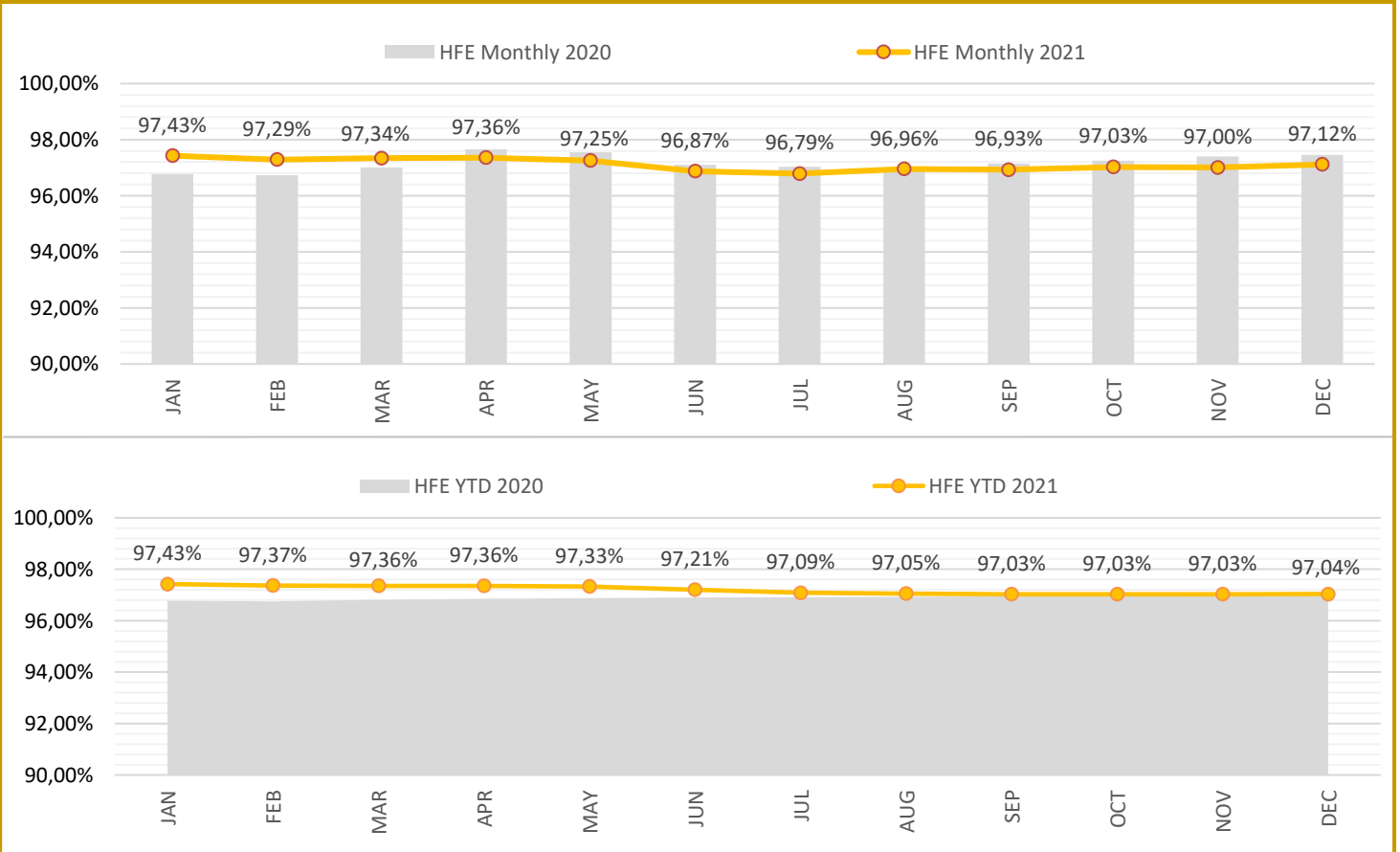
ENV PI#5: HFE based on Filed FPL at State level (including all days)

At the national level in December 2021, France, Germany, the Netherlands, and Switzerland demonstrated an increase of flight efficiency based on the filed flight plan compared to November 2021. Belgium demonstrates a decrease compared to one month prior.

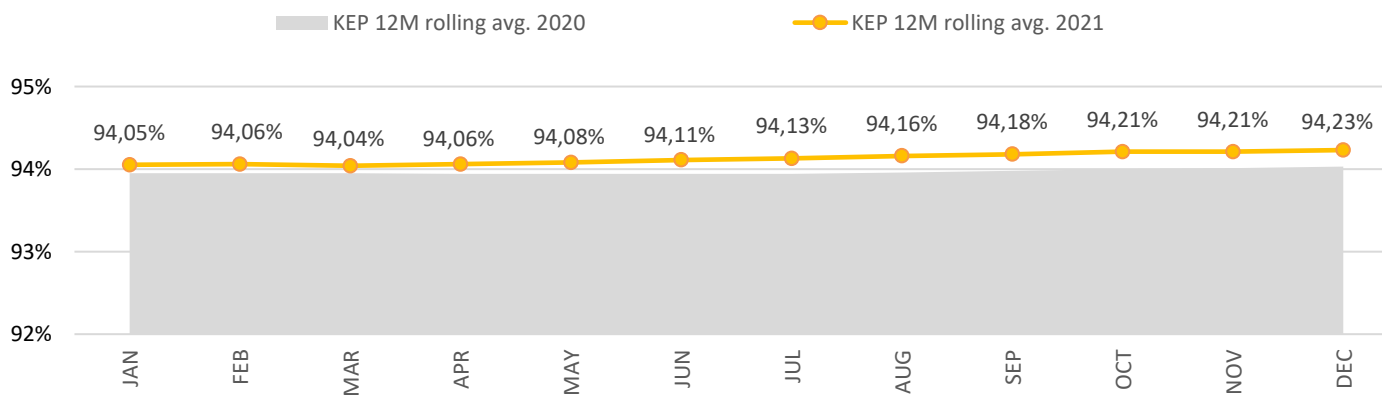
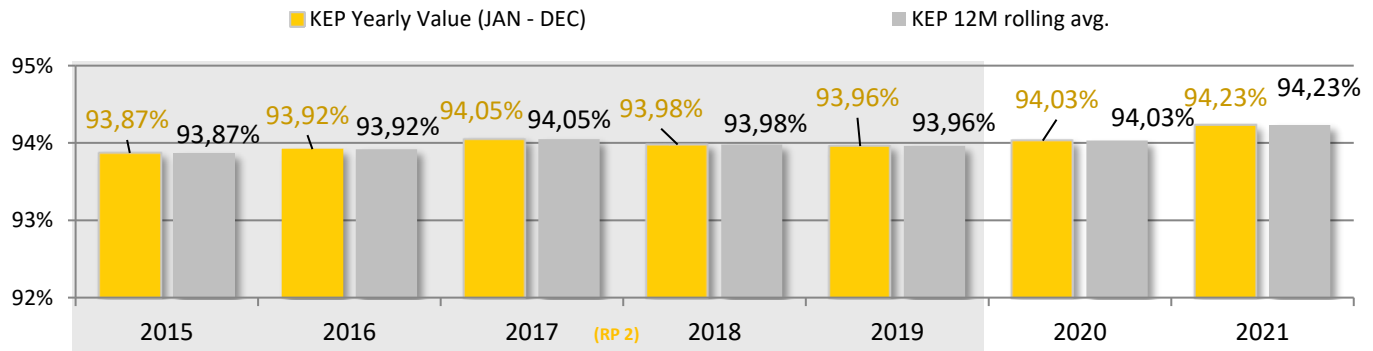
KPI #1: KEA/HFE at FABEC level (excl. 10 best/worst days)



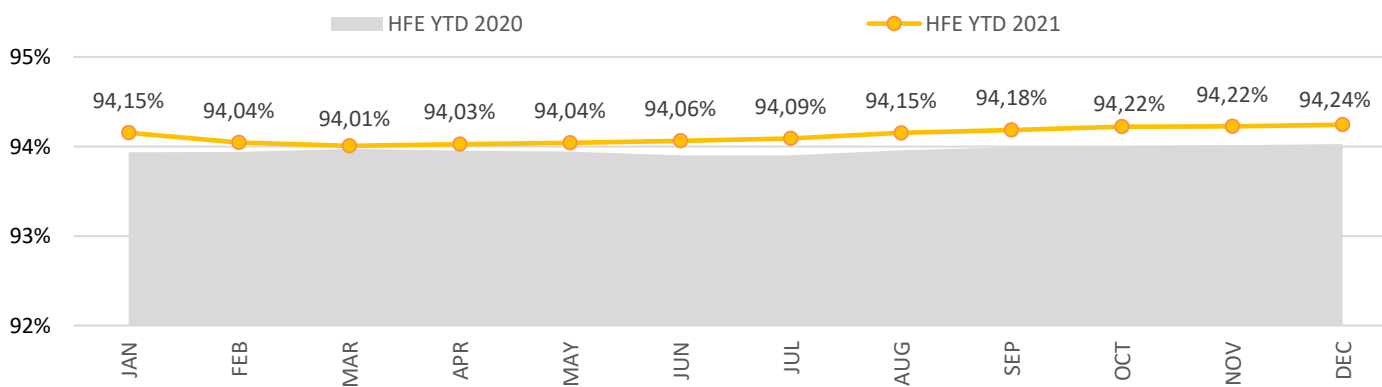
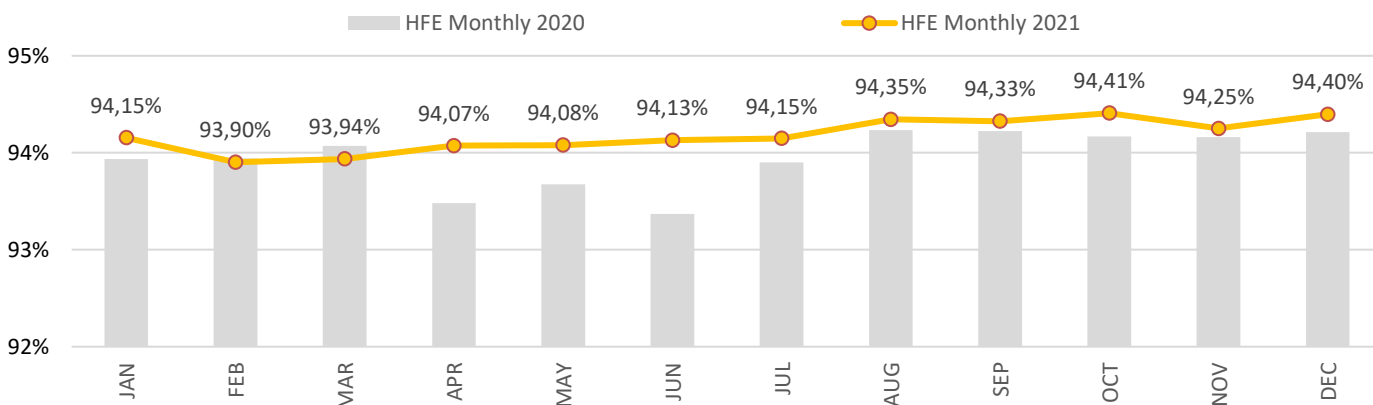
PI #1: HFE based on Actual at FABEC level (incl. all days)



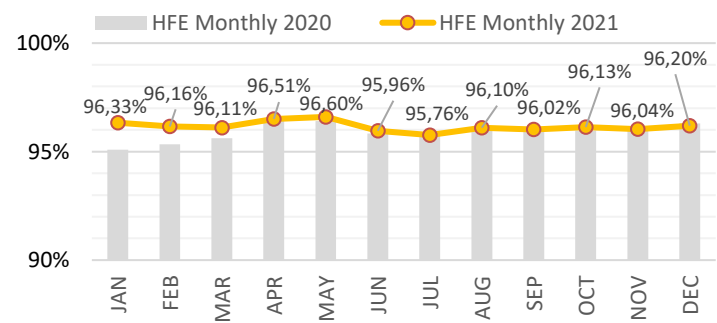
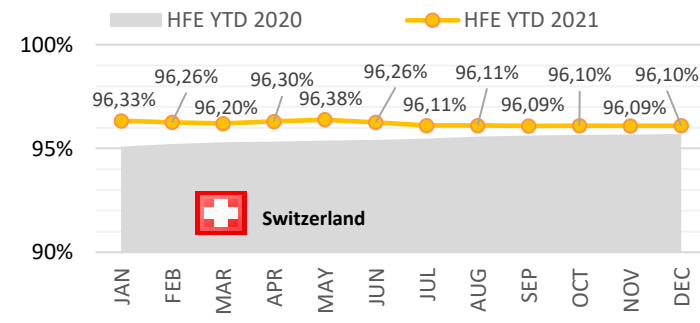
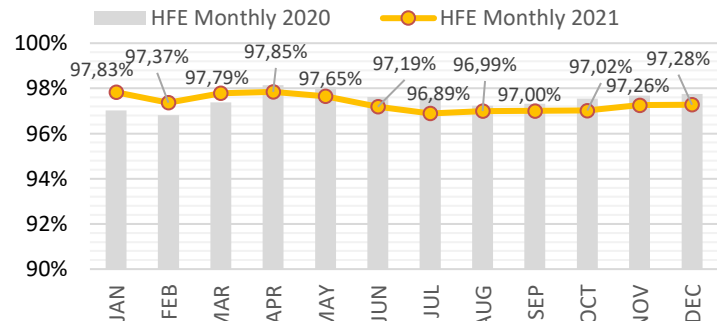
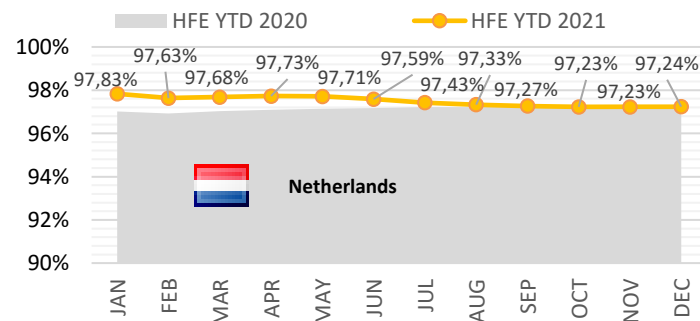
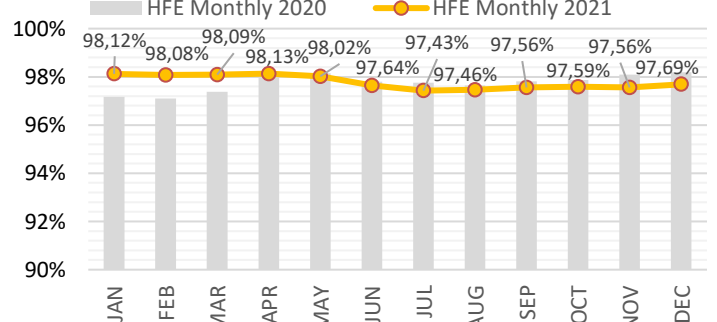
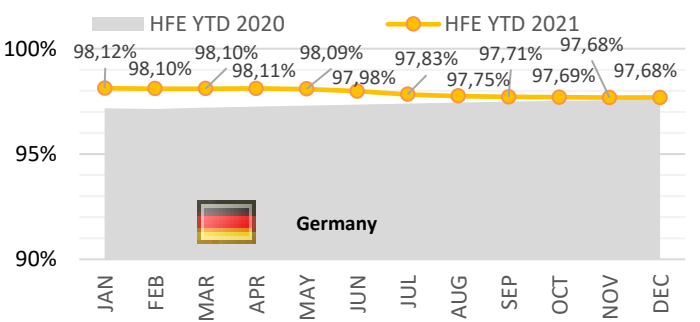
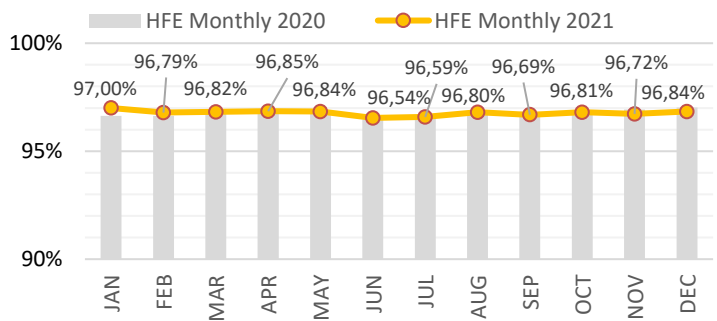
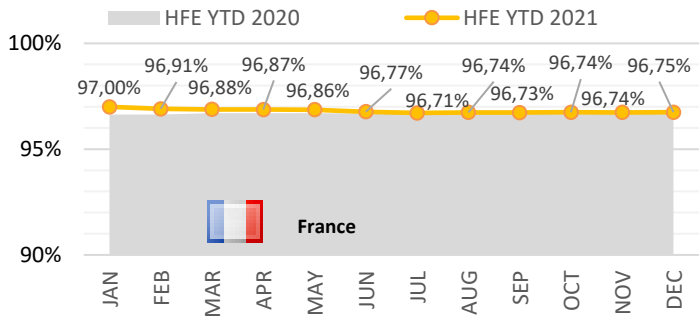
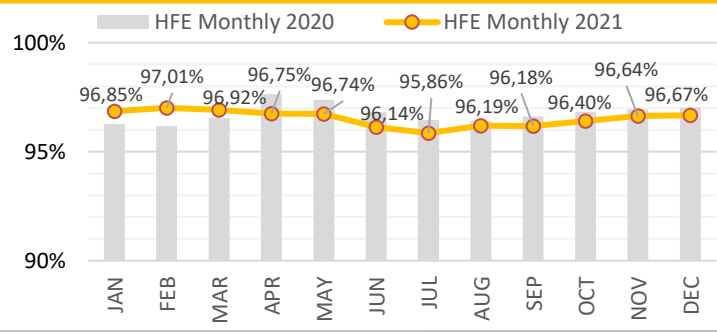
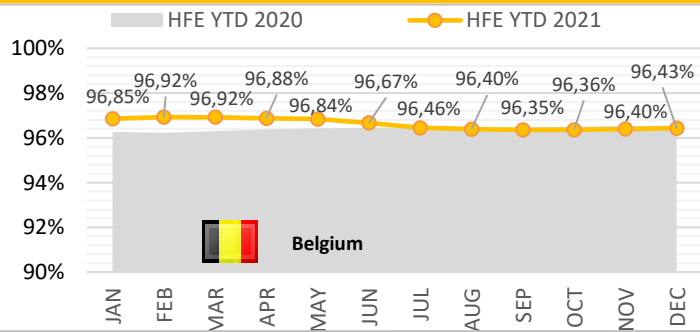
PI #2: KEP/HFE based on filed FPL at FABEC level (excl. 10 best/worst days)



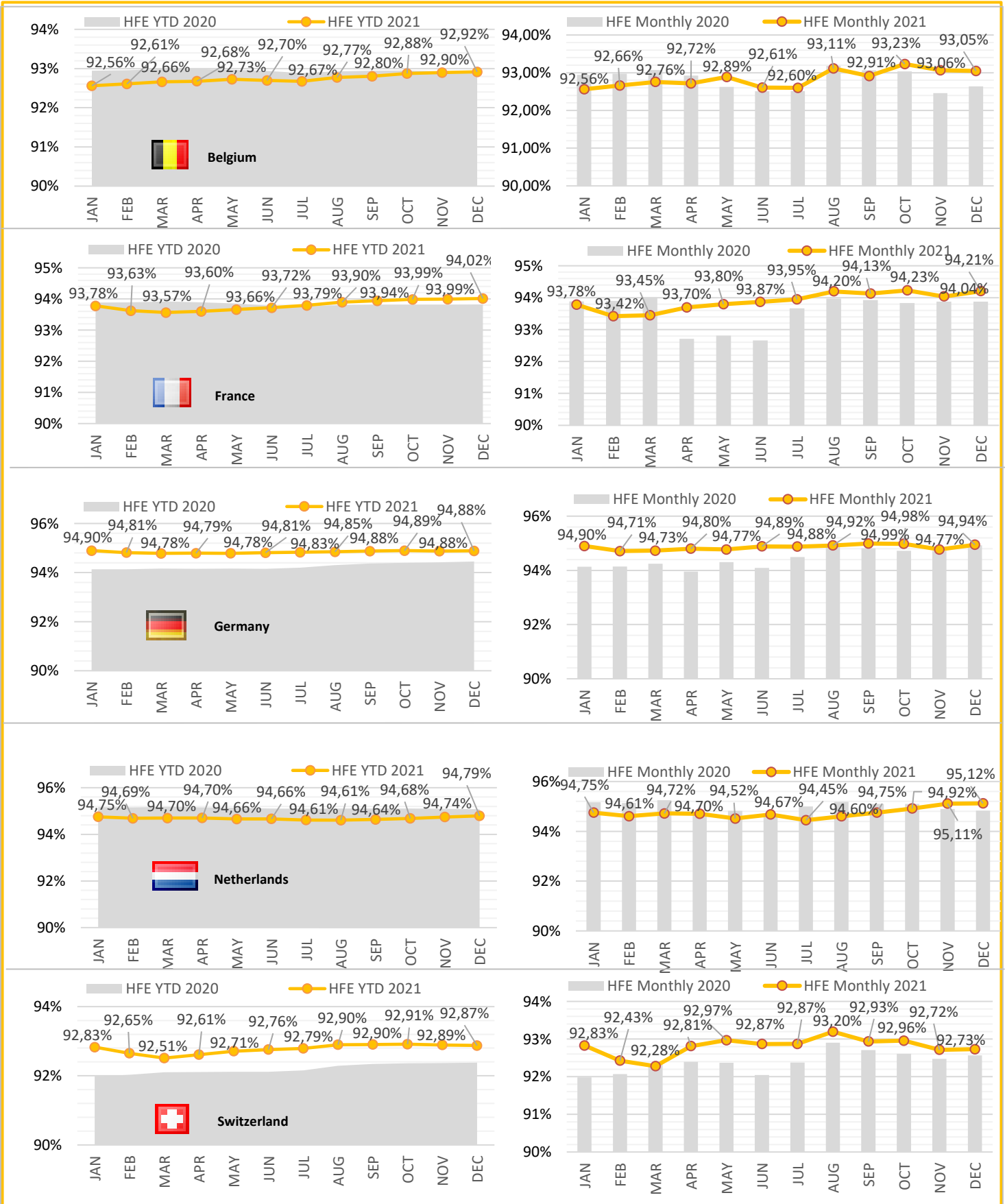
PI #3: HFE based on filed FPL at FABEC level (incl. all days)



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)

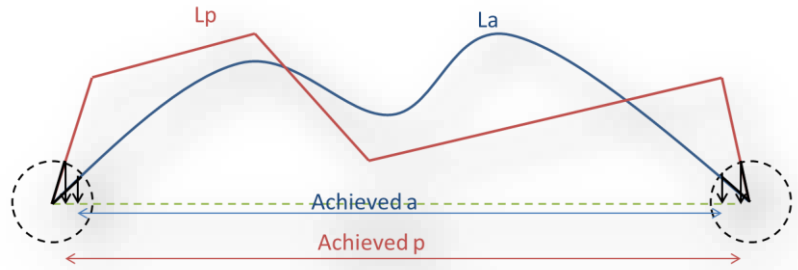


Glossary

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

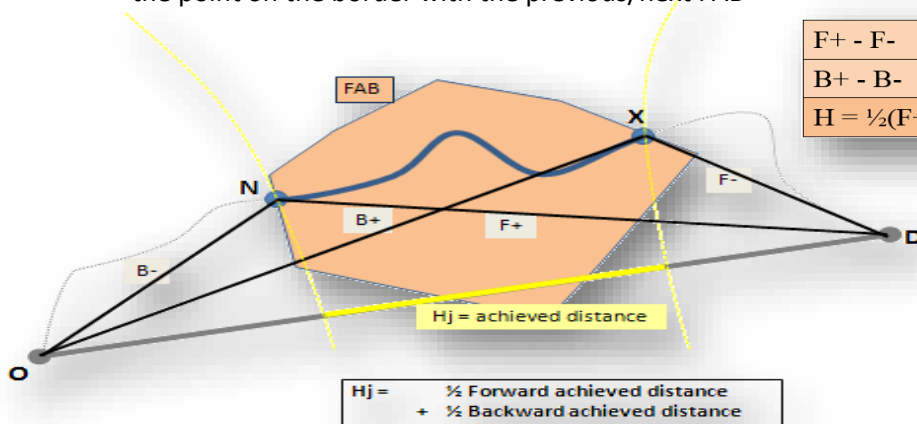
4 reference points are identified for KEP/KEA calculation :

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:

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Sources: EUROCONTROL PRU (<http://ansperformance.eu/>), FABEC ANSPs
Status: December 2021

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 PMG's attention.