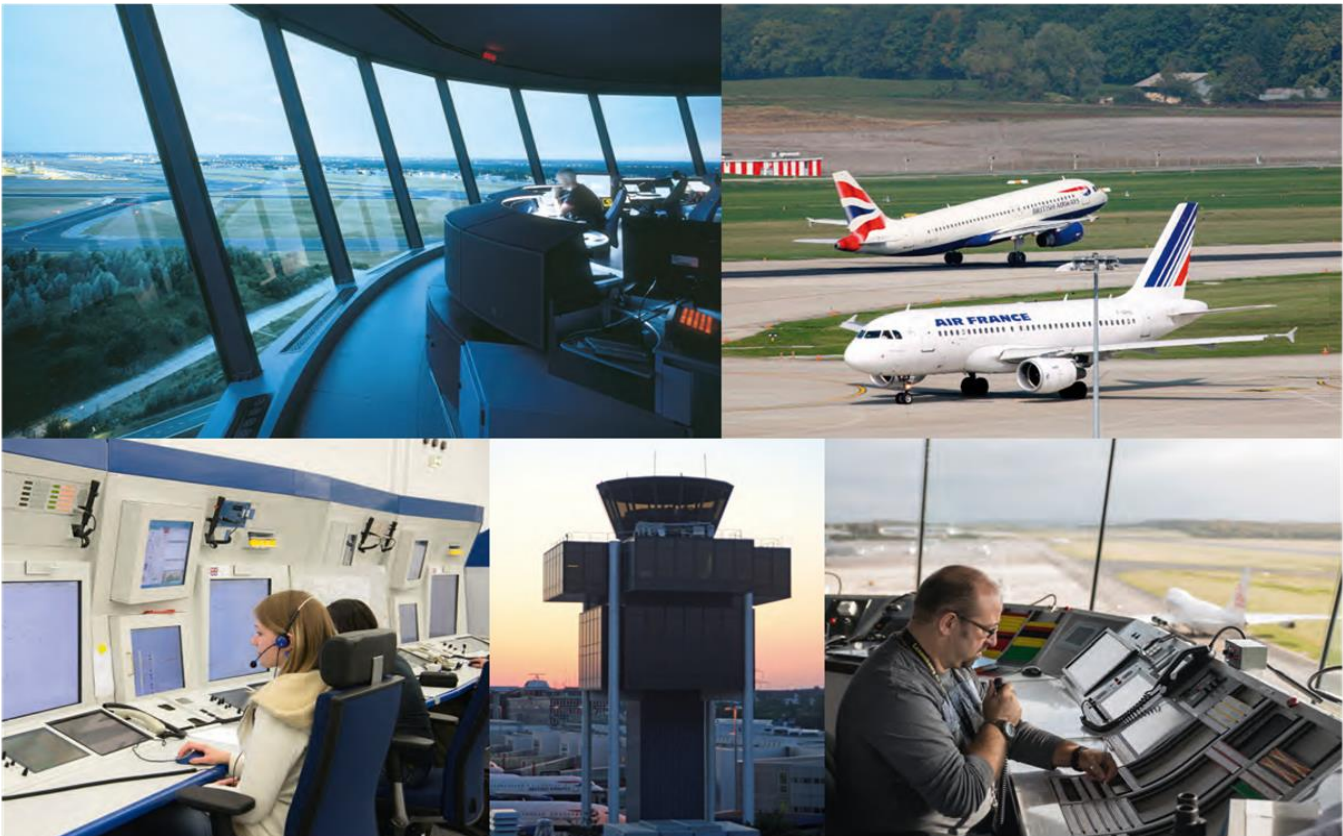




PERFORMANCE REPORT 2020 - 2024

# ENVIRONMENT

March 2023



making the difference

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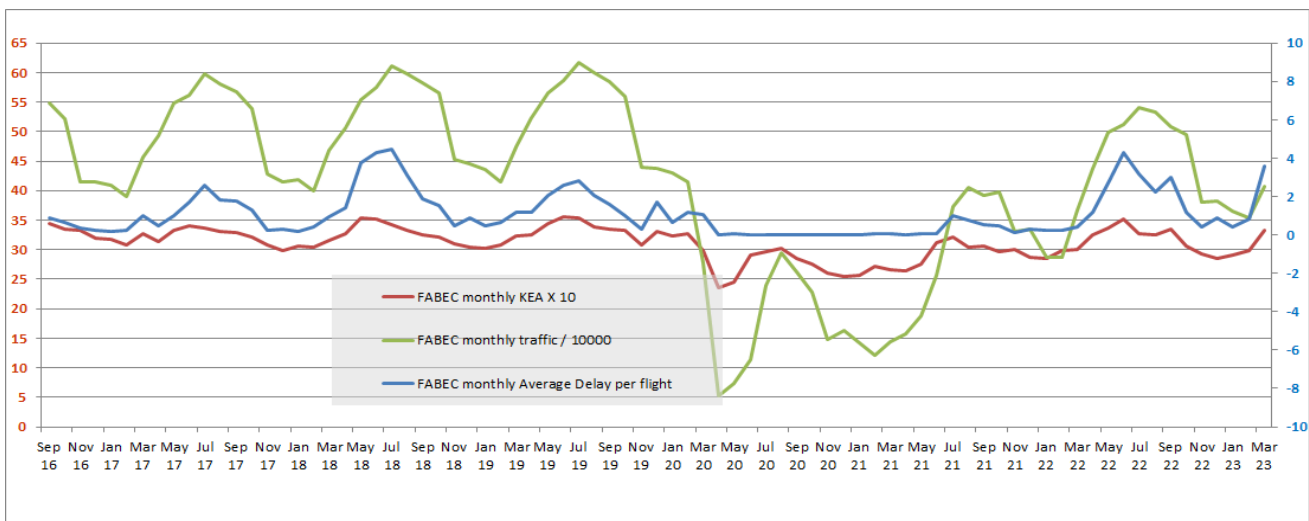
## Description & Analysis

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

In the FABEC area, the yearly rolling average value of efficiency of flown trajectory (expressed in KEA) was 96,81% for the period of April 2022 - March 2023, excluding the 10 best and 10 worst days. This value is 0.44pp less than the reference value (97,25%) and 0.2pp less compared to the 12-month rolling average of February 2022 (97,01%). The rolling KEA indicator has been decreasing slowly but steadily during the last year from January to October 2022. In November 2022, the value increased slightly and remained unchanged until January 2023 (96.83%). The value in March 2023 is 0.03pp less than the value of one month prior and 0.43pp less than the highest yearly rolling KEA value since 2015 reached in March and April 2021 (97,24%). In March 2023, the difference between KEA and KEP is 2.47pp, which is 0,01 pp less than one month prior.

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

The flight efficiency (expressed in KEA including all days on a monthly basis) has reached 96,67% in March 2023, which is 0.35pp lower compared to February 2023 (97,02%) and 0.98pp lower compared to April 2020 (97,65%), which is the highest value since January 2016. The KEA in March 2023 has slightly decreased by 0.32pp compared to the same month in 2022 (KEA in March 2022 was 96,99%). 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)

The KEP 12 month rolling average indicator was 94,34% for March 2023. It has increased by 0.06pp as compared to 94,28% in March 2022. The rolling average has been increasing slowly but steadily during the year of 2022 from 94,28% in March 2022 until it reached 94,36% in February 2023 and then slightly decreased in March 2023.

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

The figure shows a significant decrease of flight efficiency in March 2023 (94,04%) by 0.44pp compared to February 2023 (94,48%) and a significant increase in flight efficiency in March 2023 by 0.28pp compared to the value in March 2022 (94,04% in March 2023 vs 94,32% in March 2022).

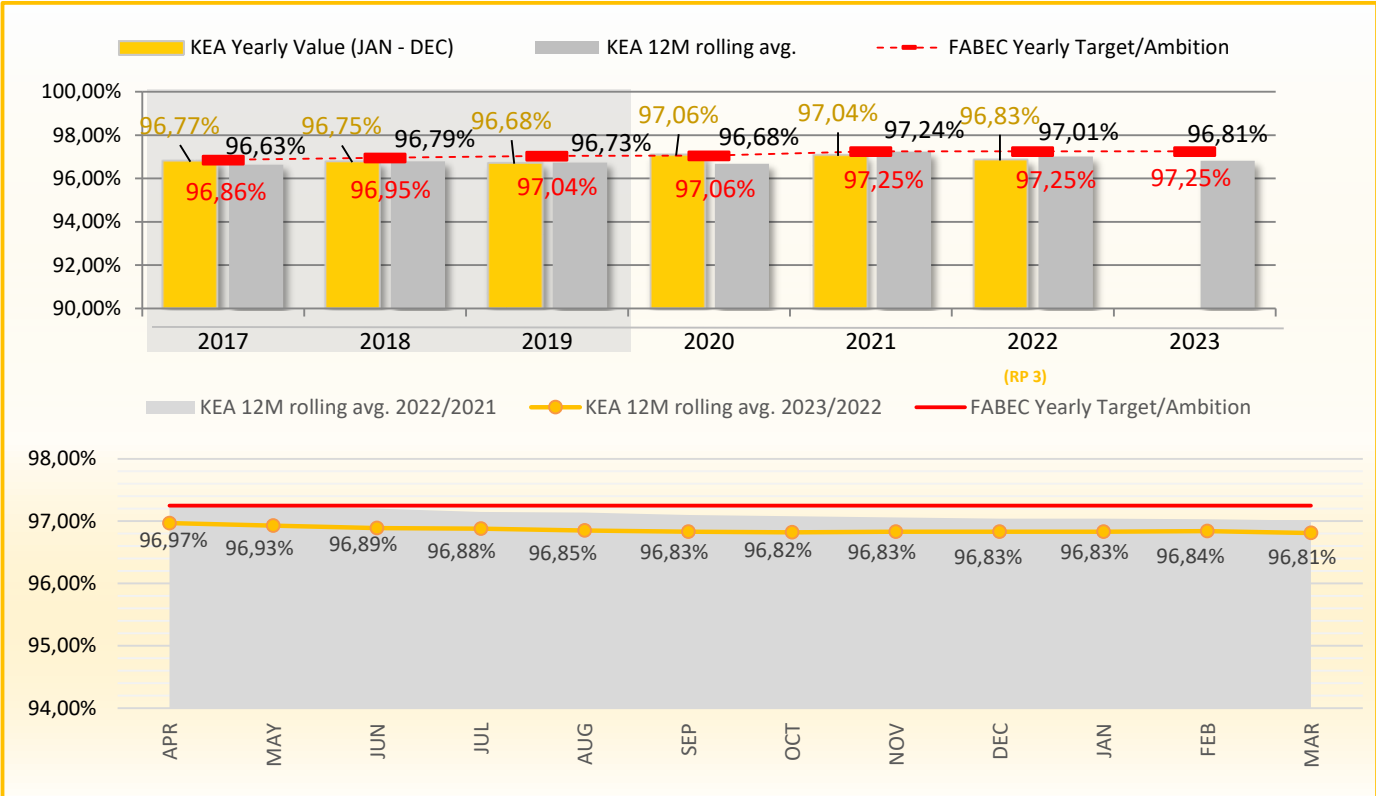
### ENV PI#4: HFE based on Actual at State level (including all days)

At national level, all countries demonstrated a decrease of flight efficiency based on actual trajectories in March 2023 compared to February 2023.

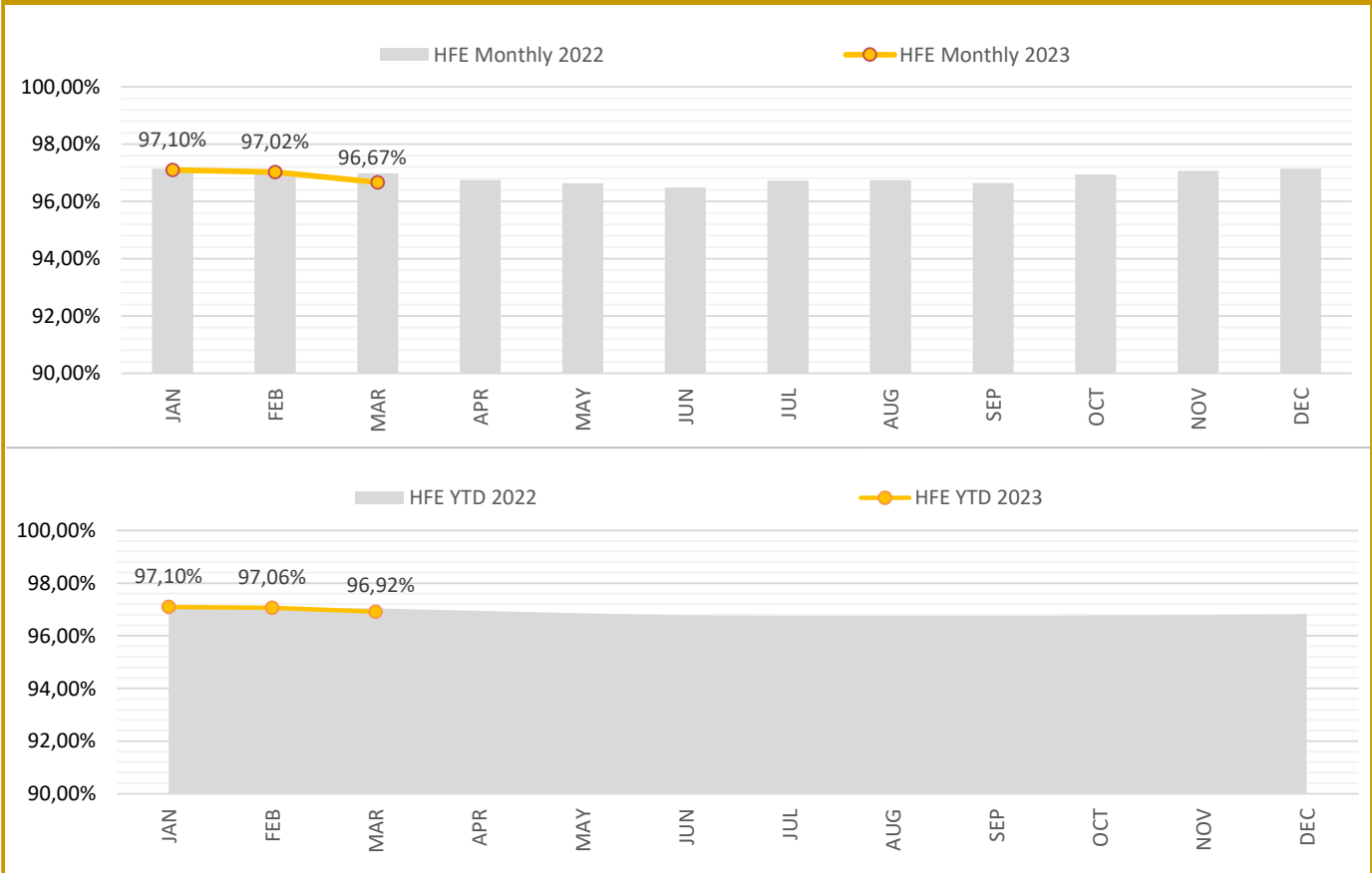
### ENV PI#5: HFE based on Filed FPL at State level (including all days)

At national level, all countries demonstrated a decrease in flight efficiency based on the filed FPL in March 2023 compared to February 2023.

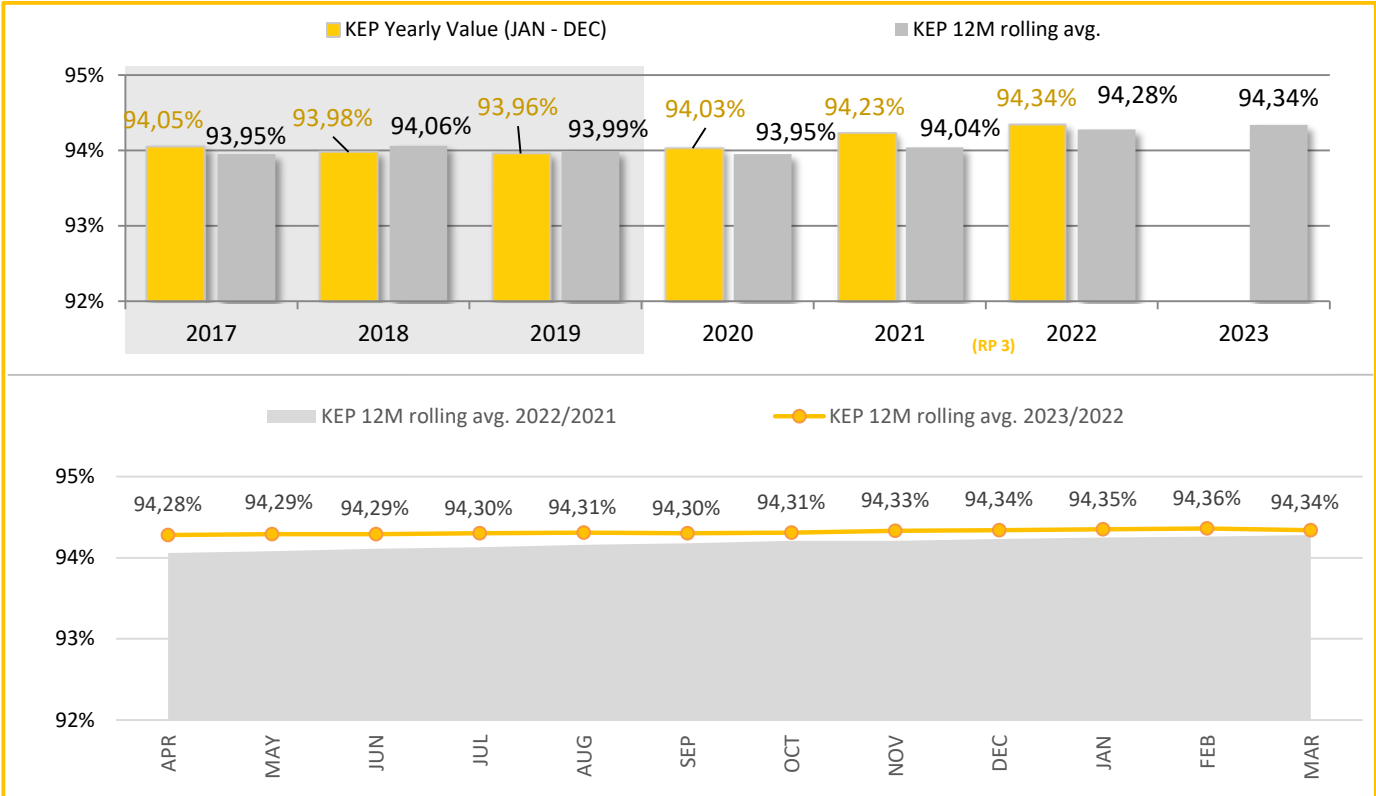
## KPI #1: KEA/HFE at FABEC level (excl. 10 best/worst days)



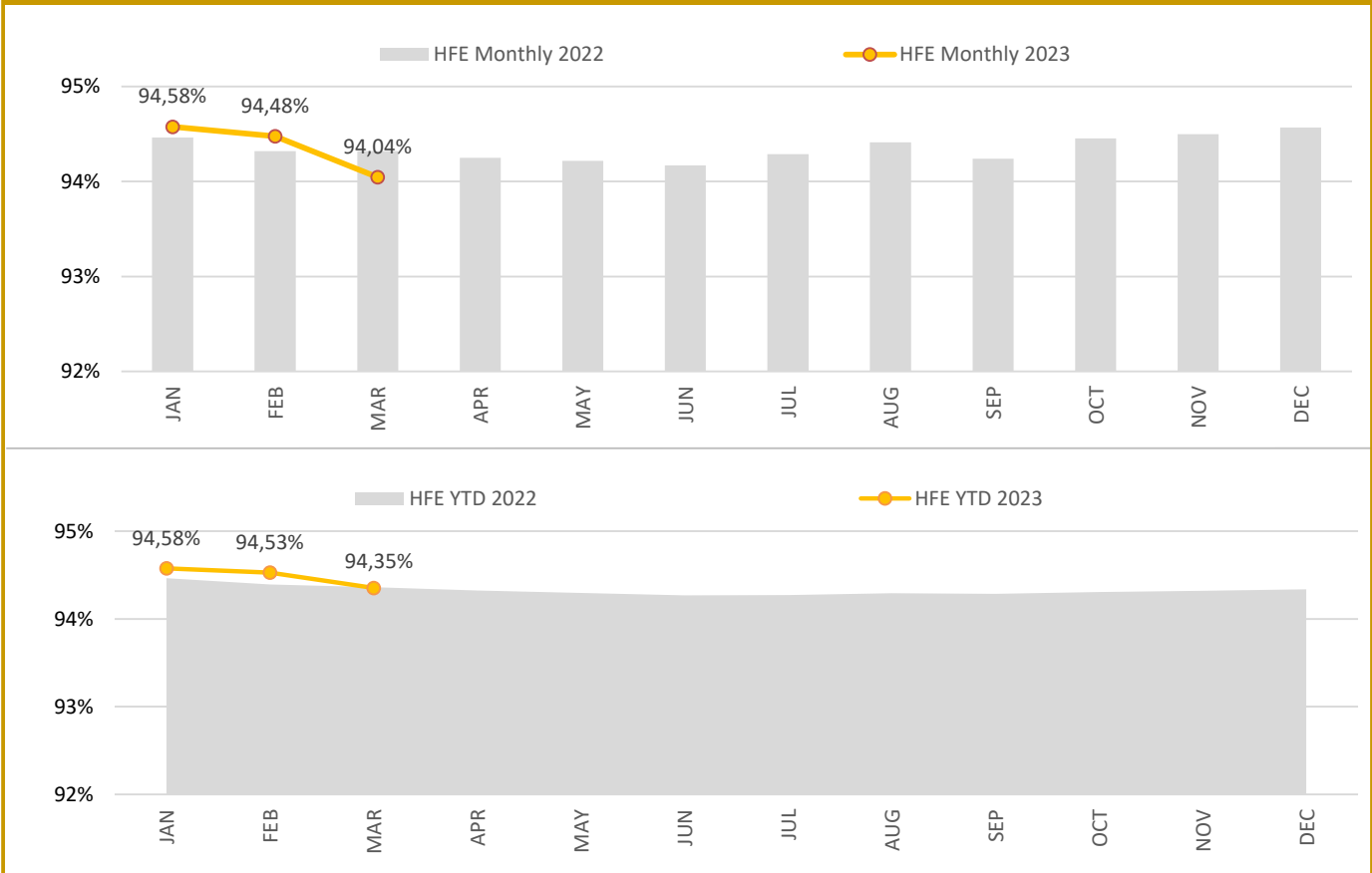
## PI #1: HFE based on Actual at FABEC level (incl. all days)



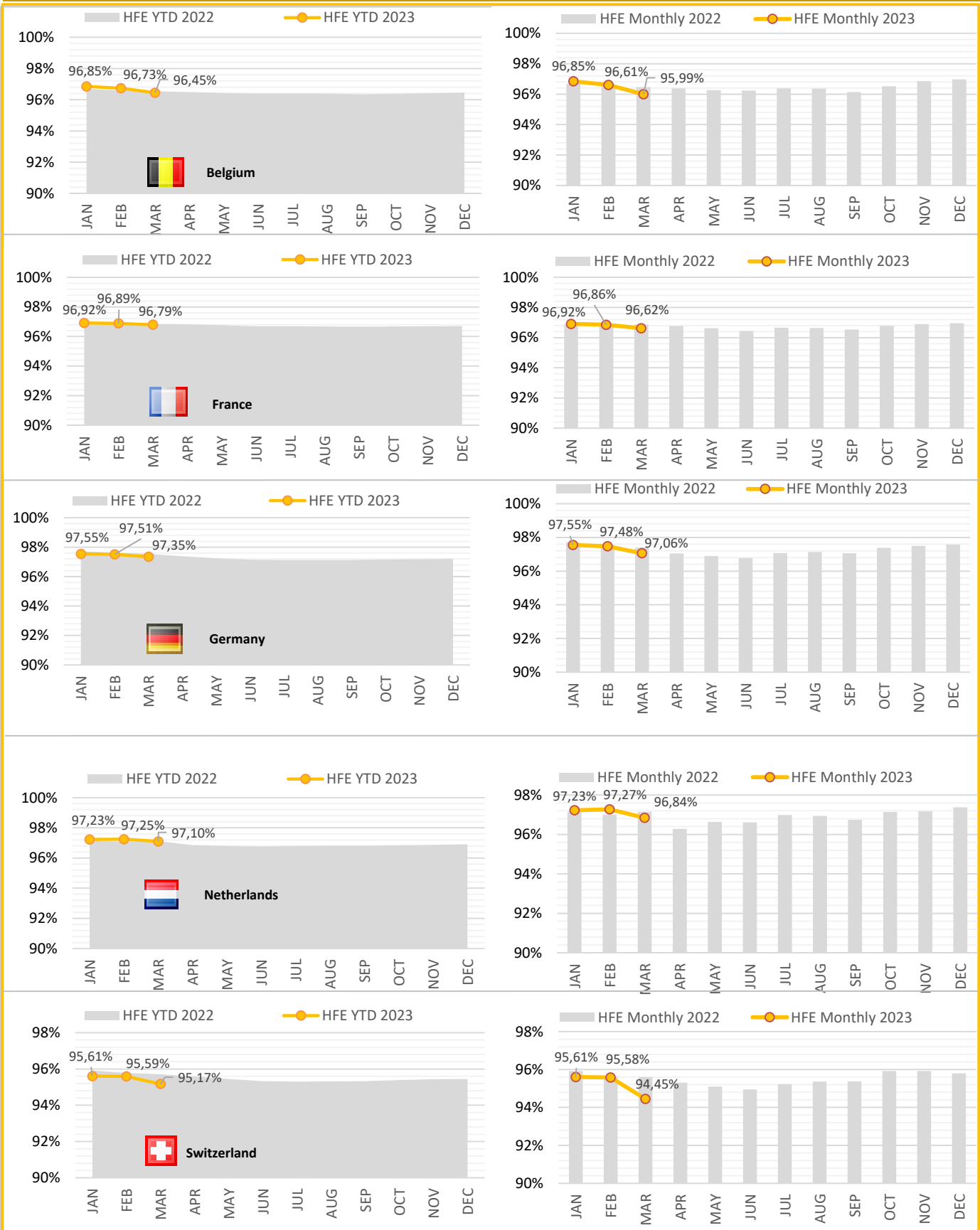
**PI #2: KEP/HFE based on filed FPL at FABEC level (excl. 10 best/worst days)**



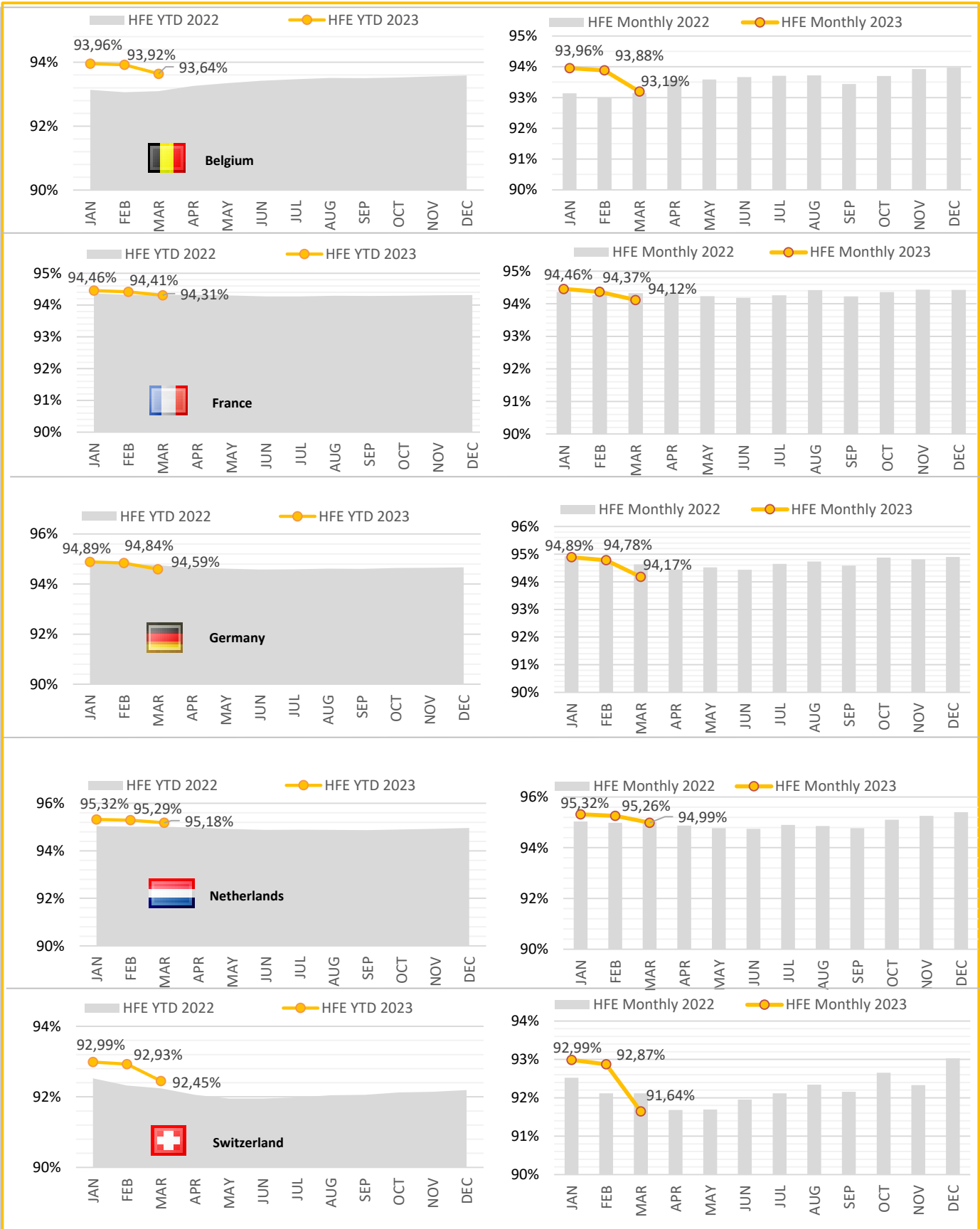
**PI #3: HFE based on filed FPL at FABEC level (incl. all days)**



## 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)



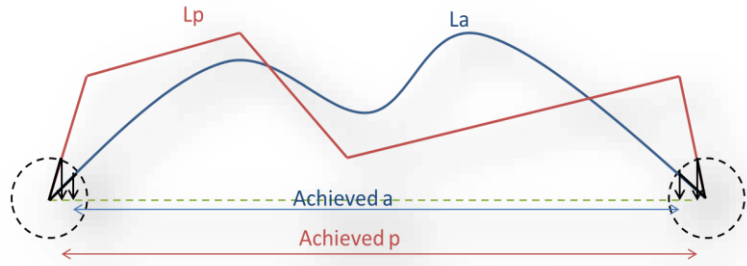


## Glossary

### 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

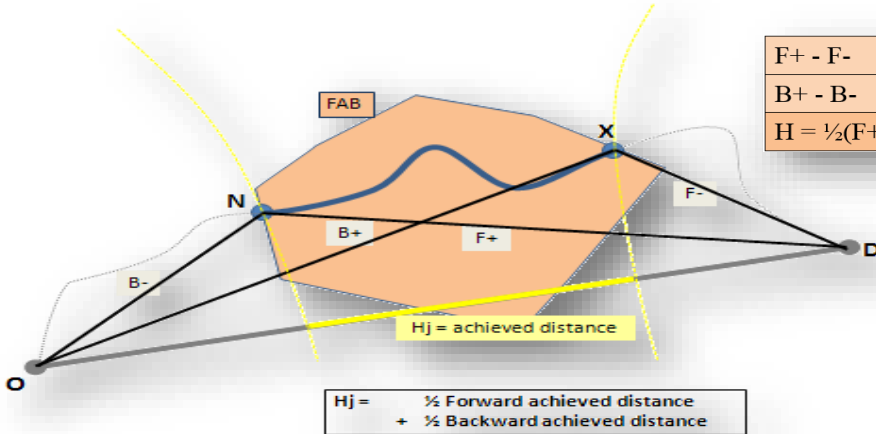
4 reference points are identified for KEP/KEA calculation :

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

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

For further details on PRU methodology, please refer to the following documentation:

[http://prudata.webfactional.com/wiki/images/6/61/HFE\\_Methodology\\_2014\\_05\\_23.pdf](http://prudata.webfactional.com/wiki/images/6/61/HFE_Methodology_2014_05_23.pdf)

### 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: March 2023  
[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 PMG's attention.