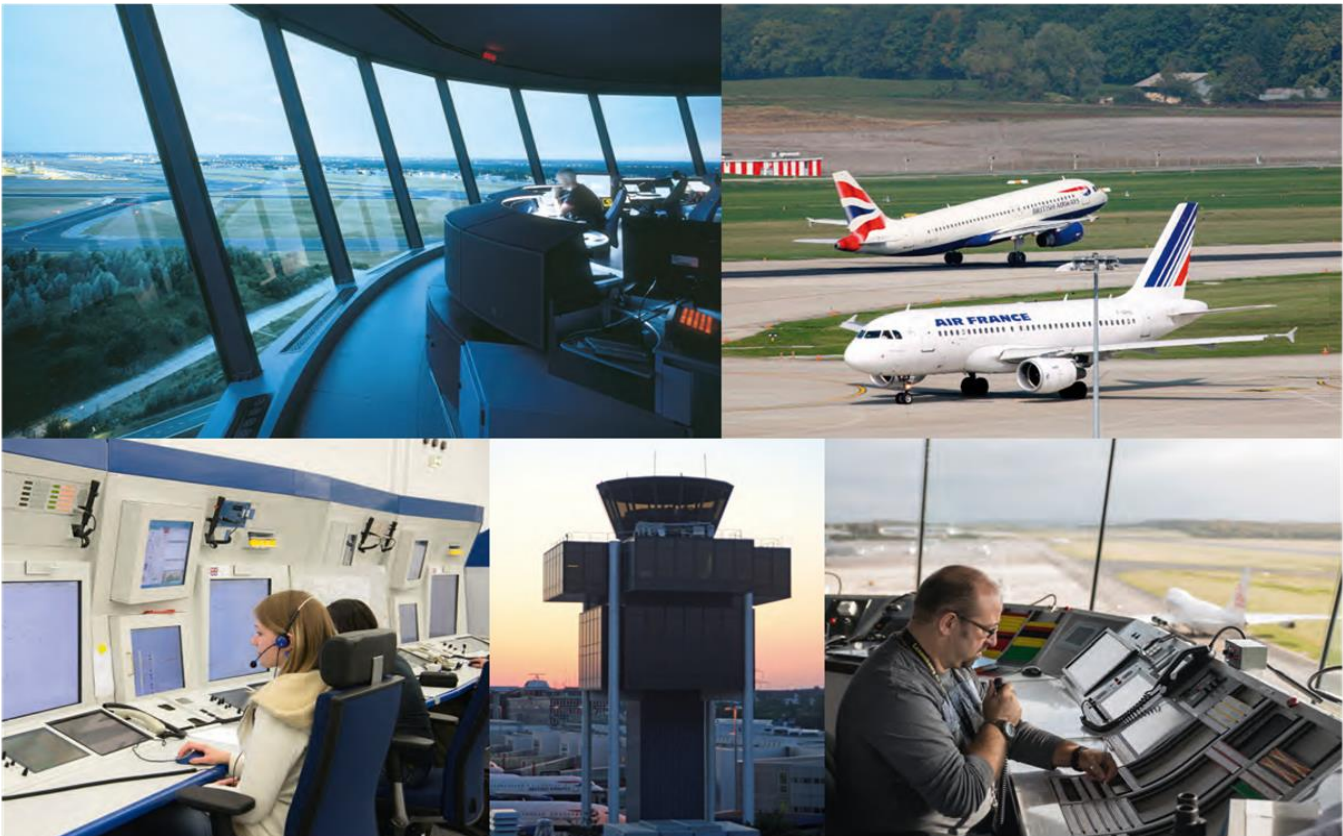




PERFORMANCE REPORT 2020 - 2024

# ENVIRONMENT

March 2024



skyguide



making the difference

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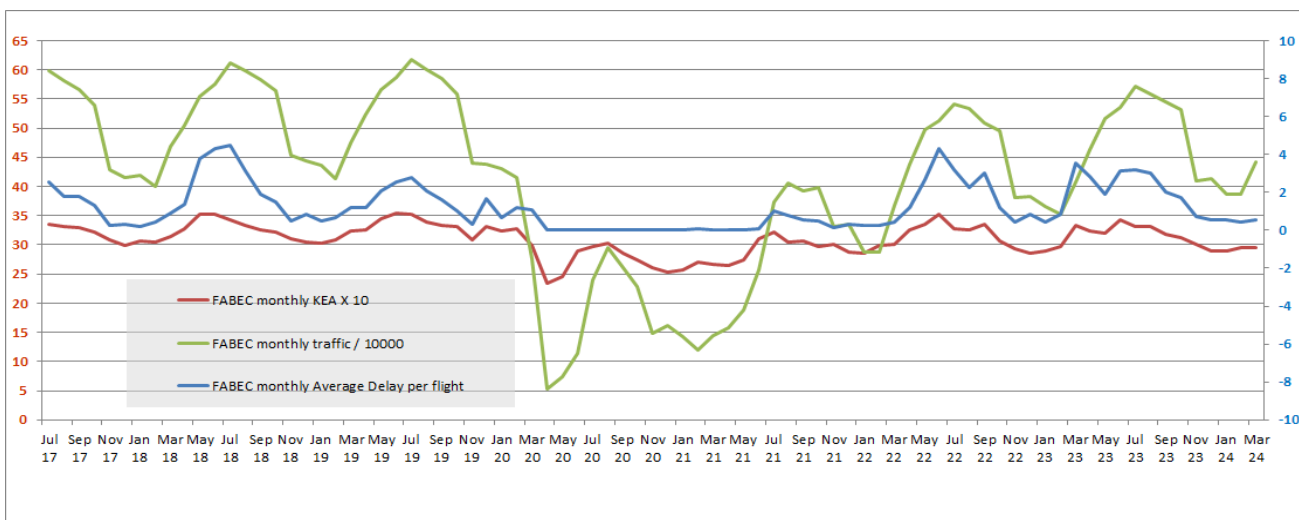
## Description & Analysis

### 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 96,87% for the period of April 2023 - March 2024, excluding the 10 best and 10 worst days. This value is 0.38pp less than the reference value (97,25%) and 0.06pp less compared to the 12-month rolling average of March 2023 (96,81%). The March 2024 value is 0.03pp higher compared to the previous month's value and 0.37pp less than the highest yearly rolling KEA value since 2015 reached in March and April 2021 (97,24%). In March 2024, the difference between KEA and KEP is 2.35pp, which is 0,02pp less compared to the month before.

### 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 97,04% in March 2024, which is 0.01pp less compared to February 2024 (97,08%) and 0.61pp lower compared to April 2020 (97,65%), which is the highest value since January 2016. The KEA in March 2024 has increased by 0.37pp compared to the same month in 2023 (KEA in March 2023 was 96,67%). The 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 months rolling average indicator was 94,52% for March 2024. It has increased by 0.18pp as compared to 94,34% in March 2023. Last year, the rolling average has been increasing slowly but steadily from April 2023 onwards. In December 2023, the indicator reached its highest level in 2023 (94,45%). The trend also continues in 2024.

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

The figure of March 2024 shows an increase of the flight efficiency indicator in March 2024 (94,70%) compared to one month prior (94,63%) but an increase in flight efficiency in March 2024 by 0.66pp compared to the value in March 2023 (94,70% in March 2024 vs 94,04% in March 2023).

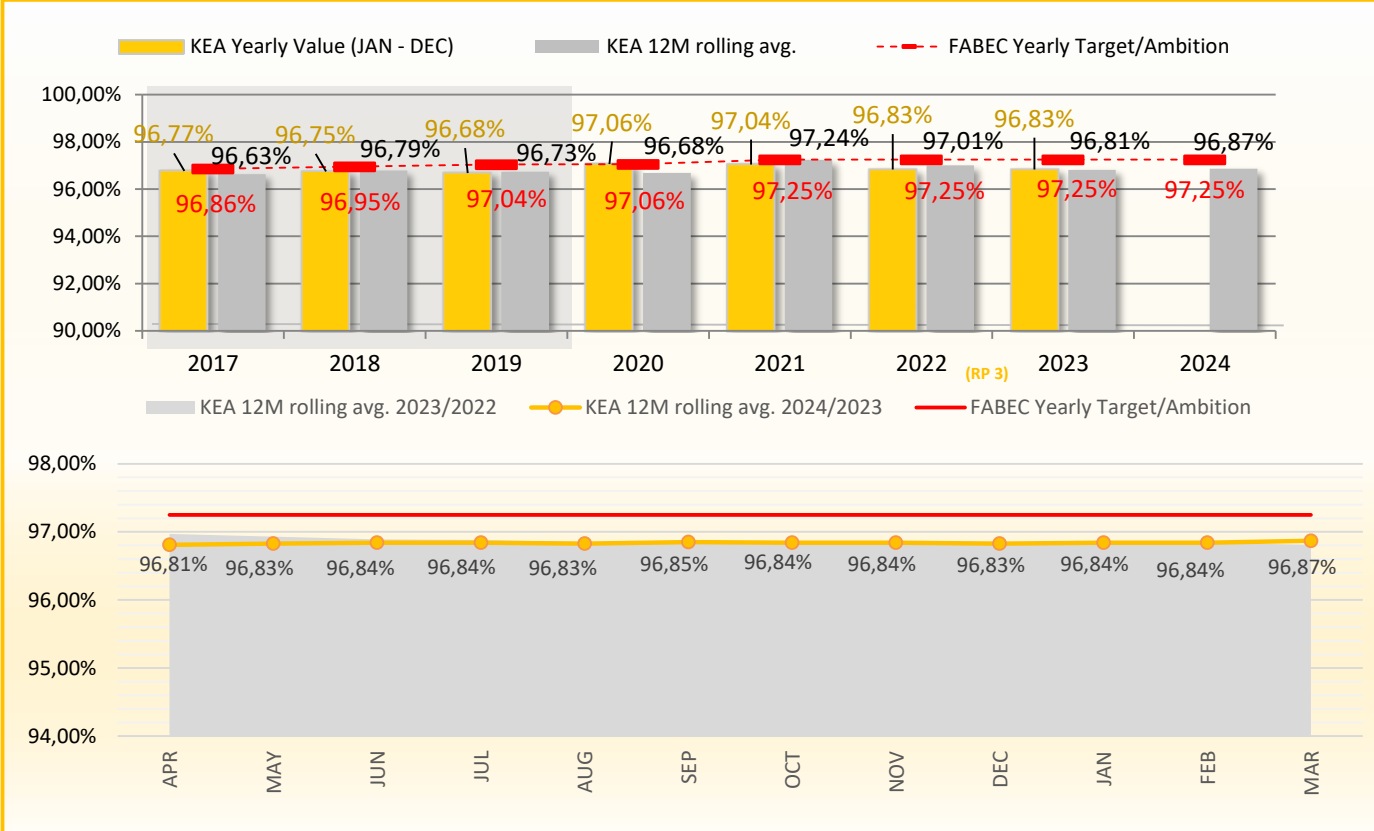
### ENV PI#4: HFE based on Actual at State level (including all days)

At national level, all countries except France and Germany demonstrated an increase of flight efficiency based on actual trajectories in March 2024 compared to February 2024.

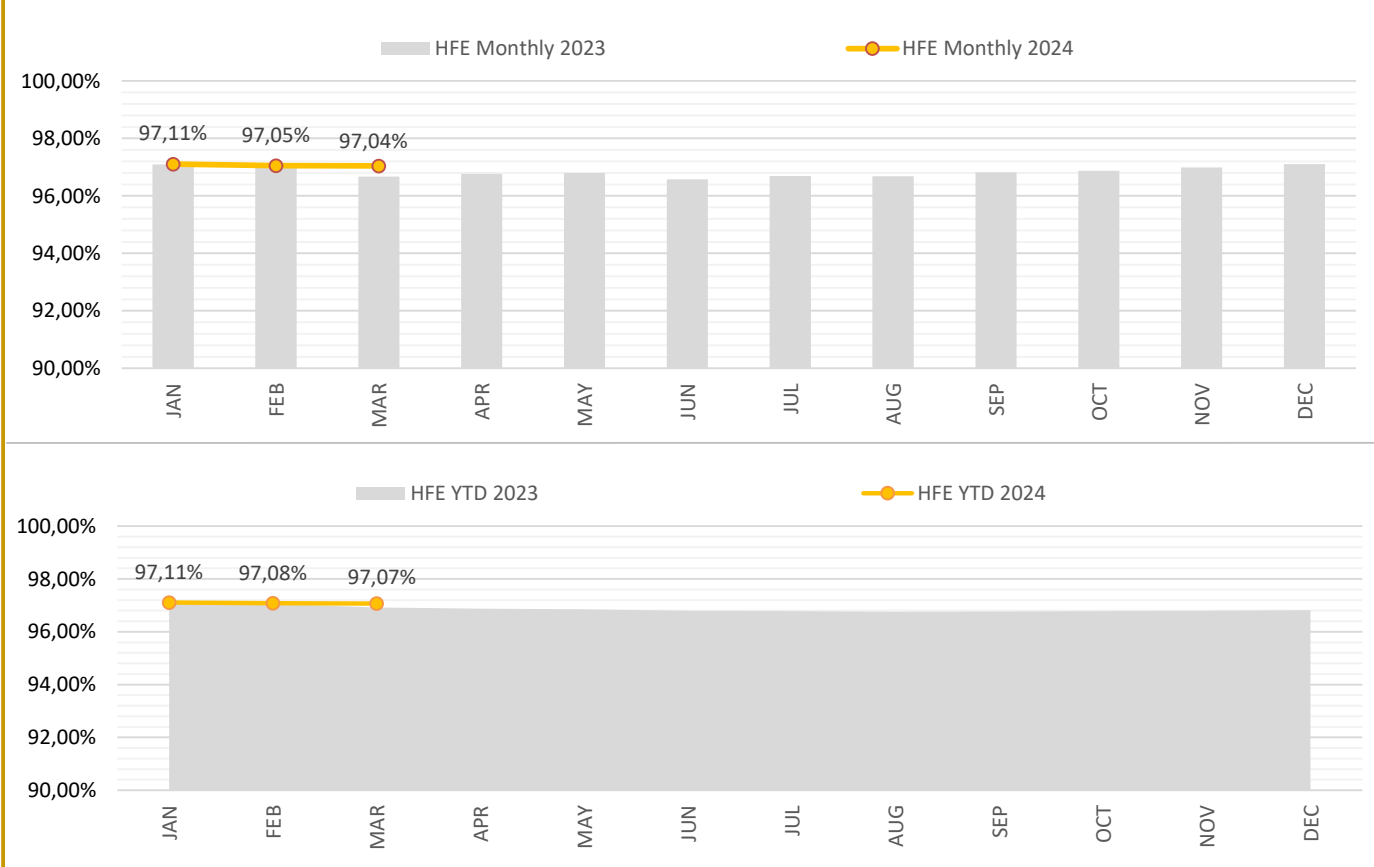
### ENV PI#5: HFE based on Filed FPL at State level (including all days)

At national level, all countries demonstrated an increase in flight efficiency based on the filed FPL in March 2024 compared to February 2024.

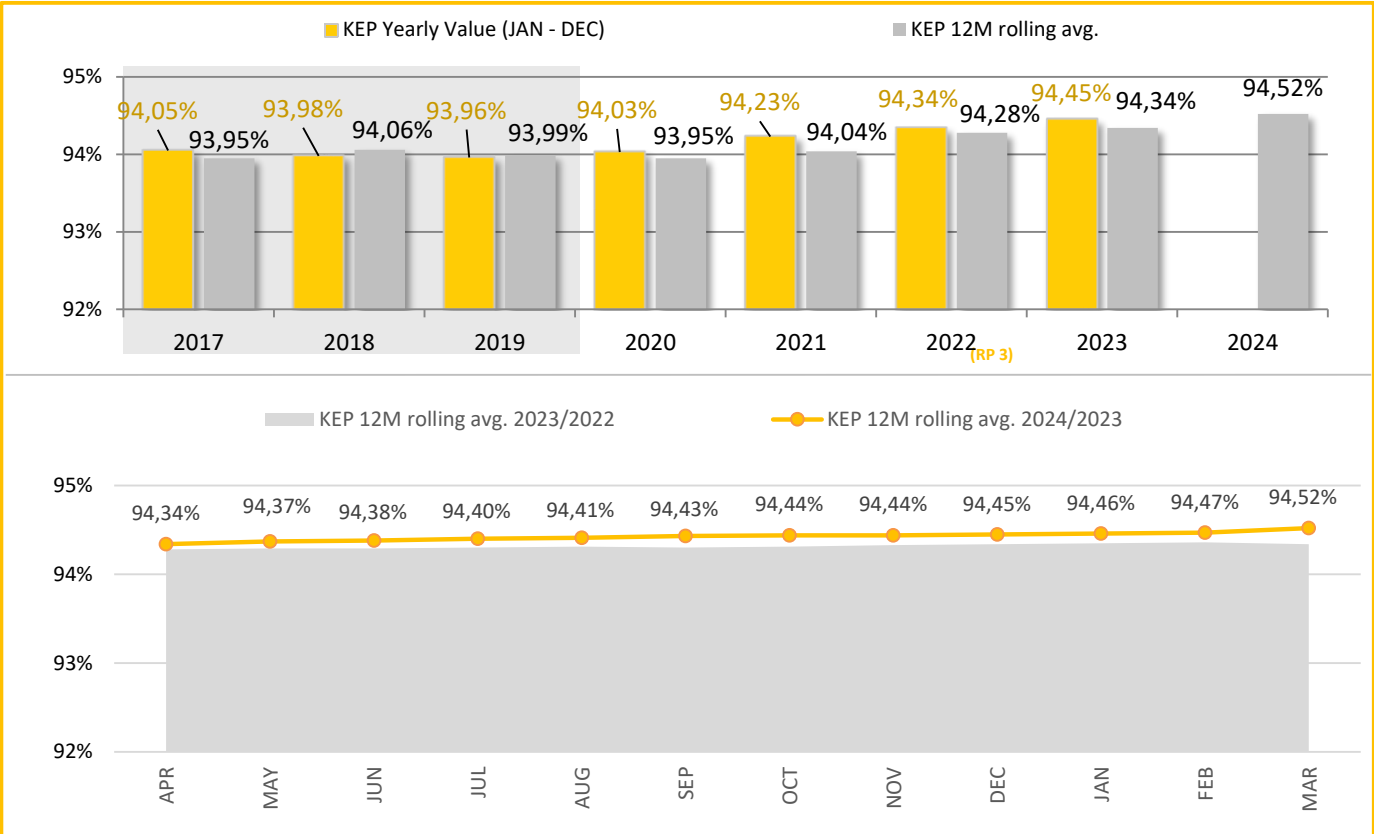
## KPI #1: KEA/HFE at FABEC level (excl. 10 best/worst days)



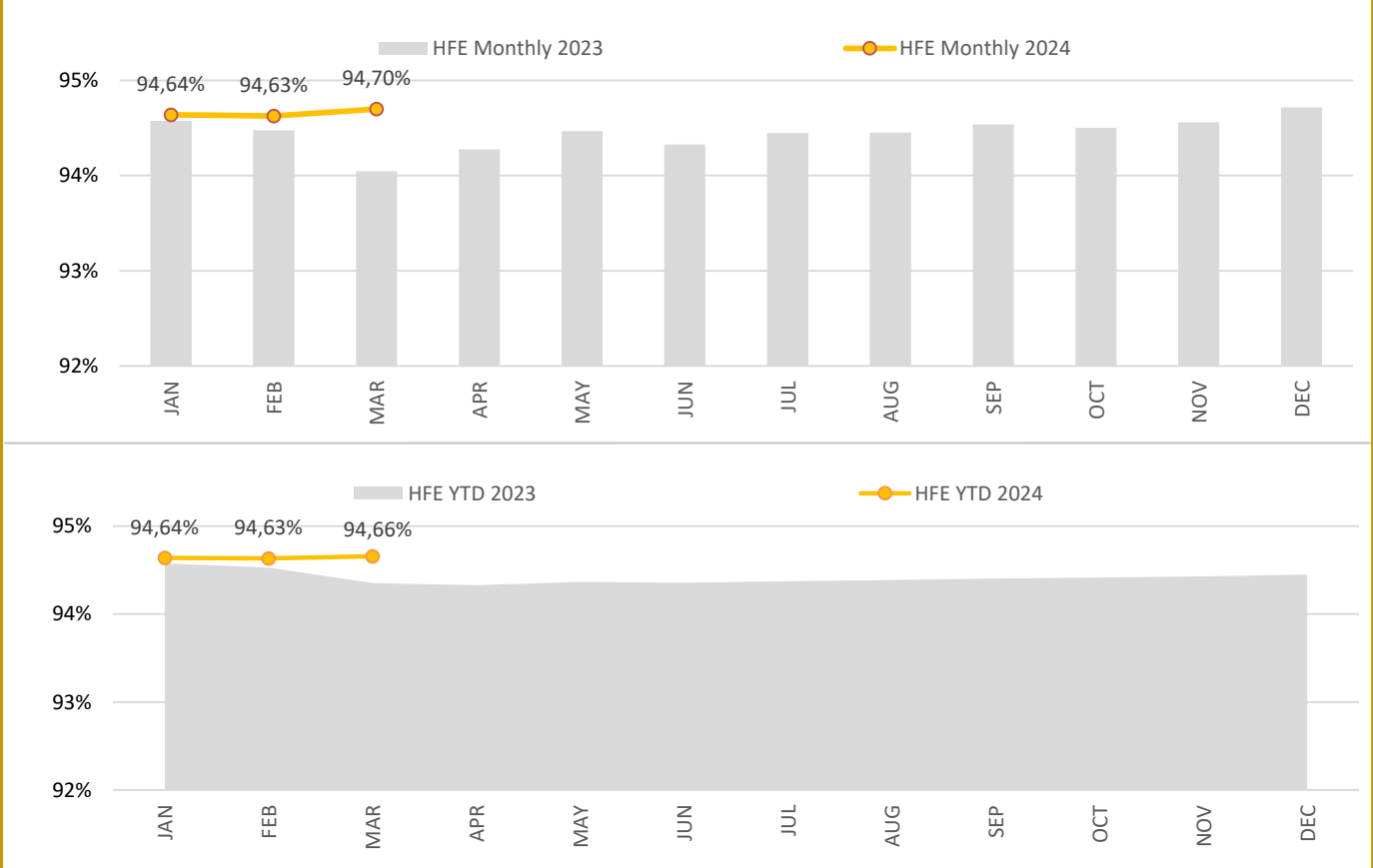
## PI #1: HFE based on Actual at FABEC level (incl. all days)



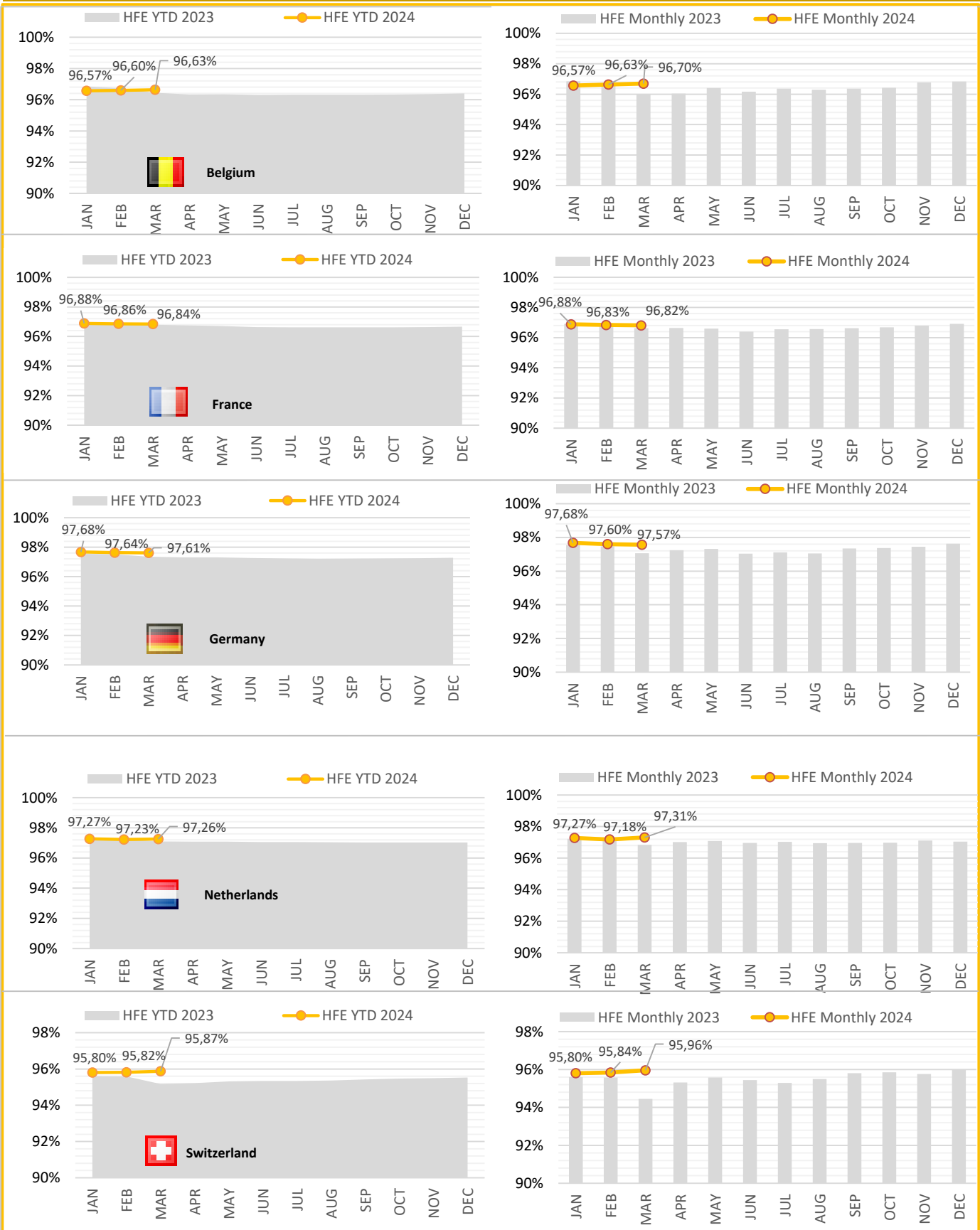
## PI #2: KEP/HFE based on filed FPL at FABEC level (excl. 10 best/worst days)



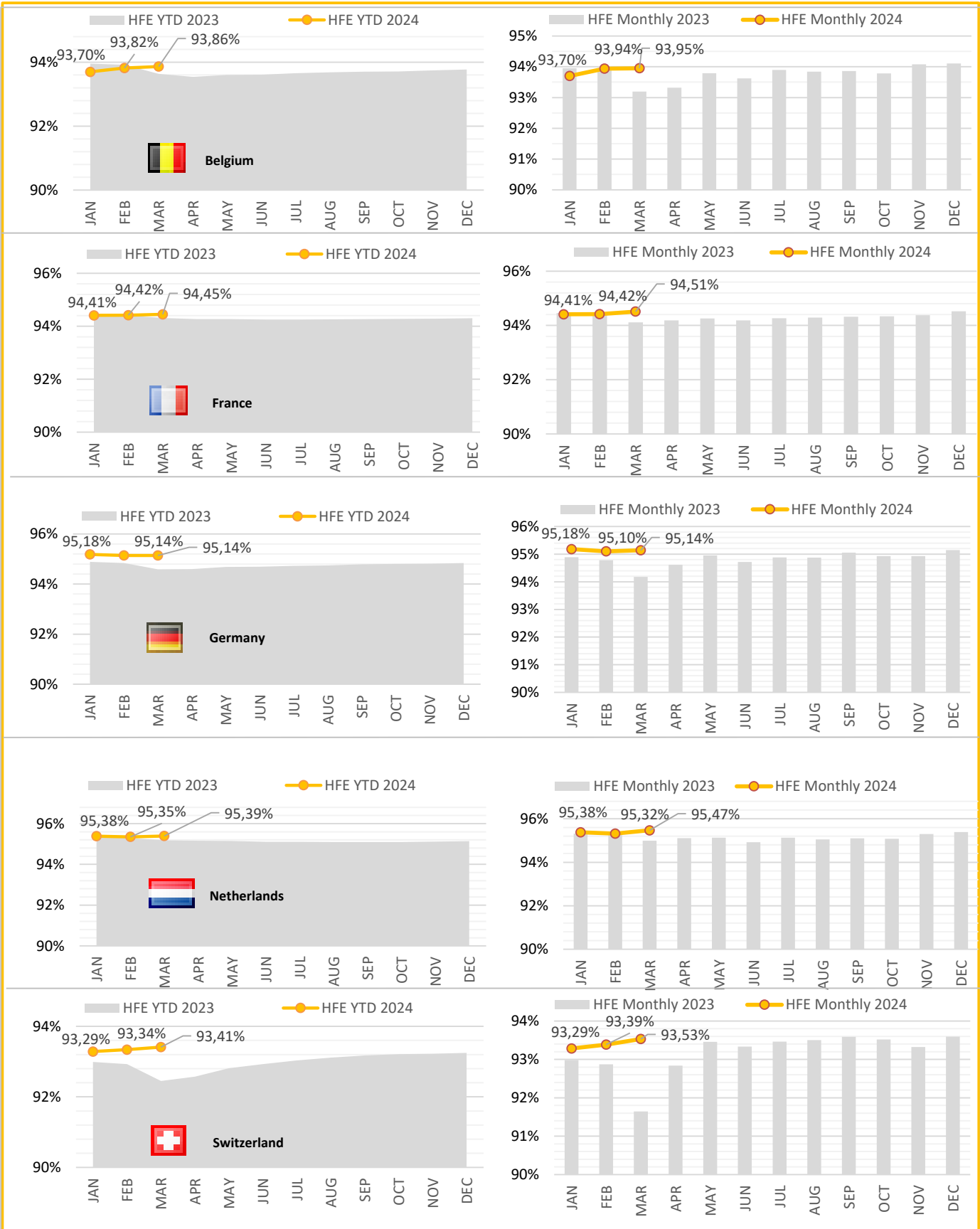
## PI #3: HFE based on filed FPL at FABEC level (incl. all days)



## 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)

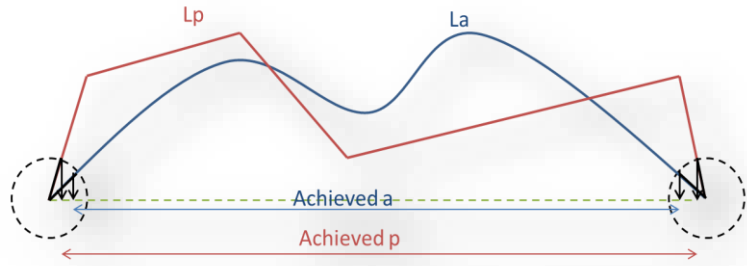


## Glossary

### 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

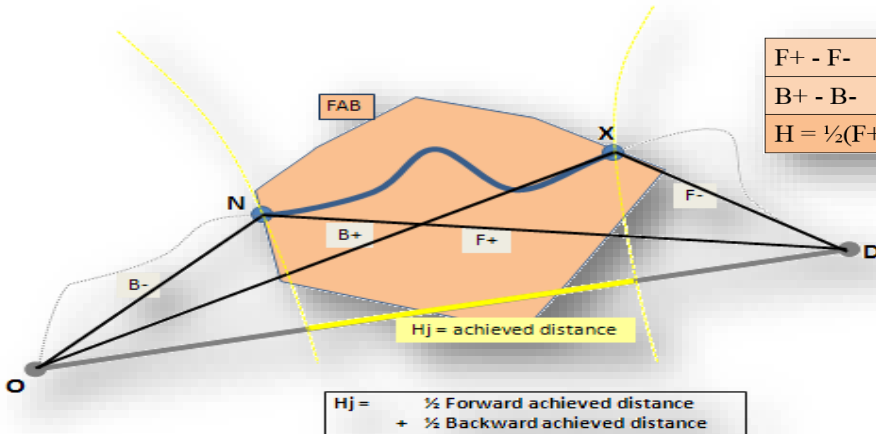
4 reference points are identified for KEP/KEA calculation :

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 2024

[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.