

IATA Economics

Outlook do transporte Aéreo - Portugal



Value of aviation globally

Jobs supported by aviation

87.7 million jobs

Total GDP supported by aviation

\$3.5 trillion

Tourism catalytic GDP supported

\$1 trillion

Global GDP supported by aviation

4.1%

Annual passengers

4.5 billion

Routes served globally

48,044

Annual air freight

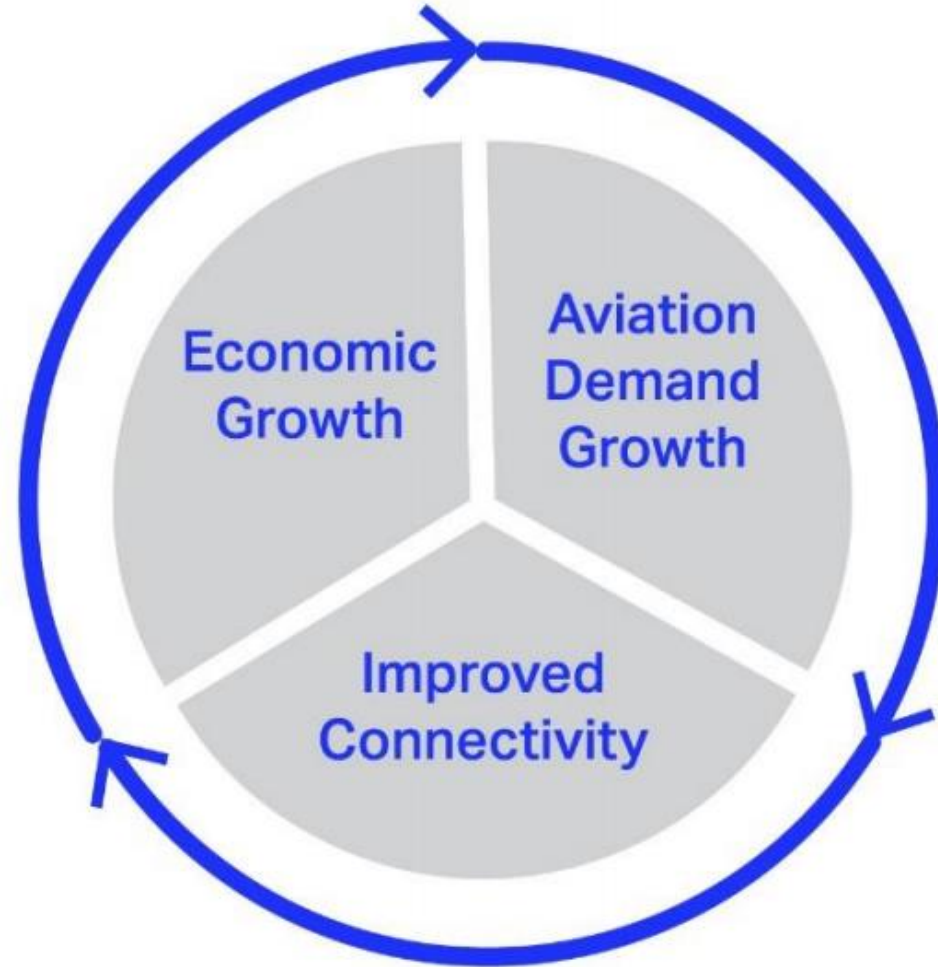
61 million tonnes

Source: IATA / ATAG ABBB Report 2020

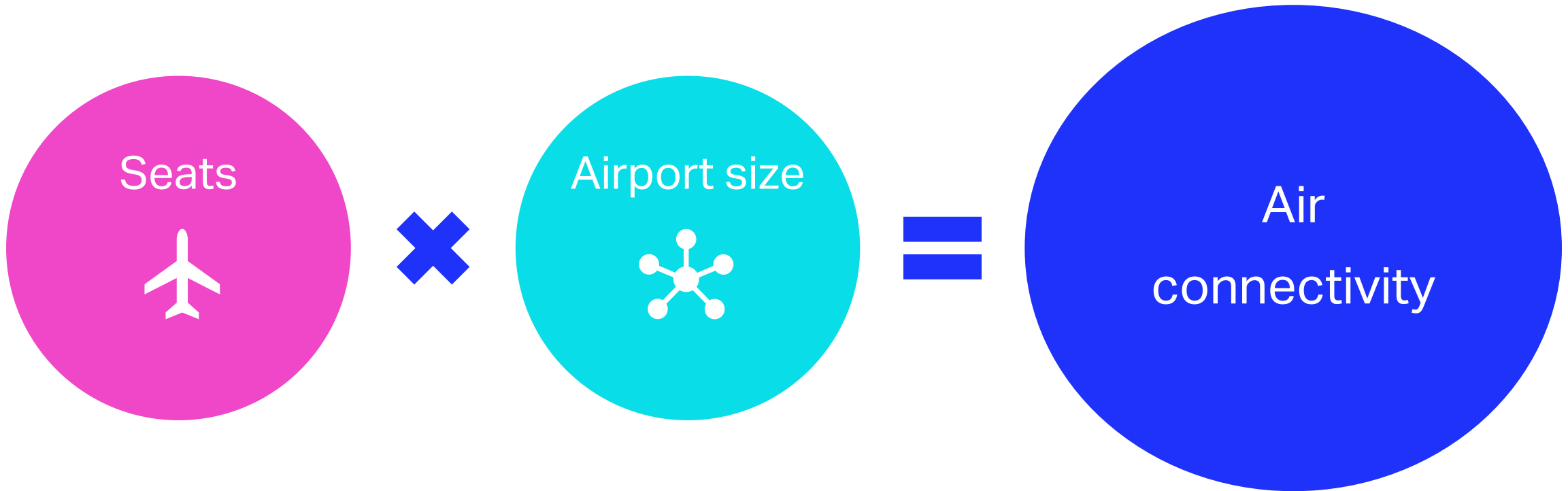


Air connectivity is an engine of economic growth

The virtuous circle of air connectivity and economic performance



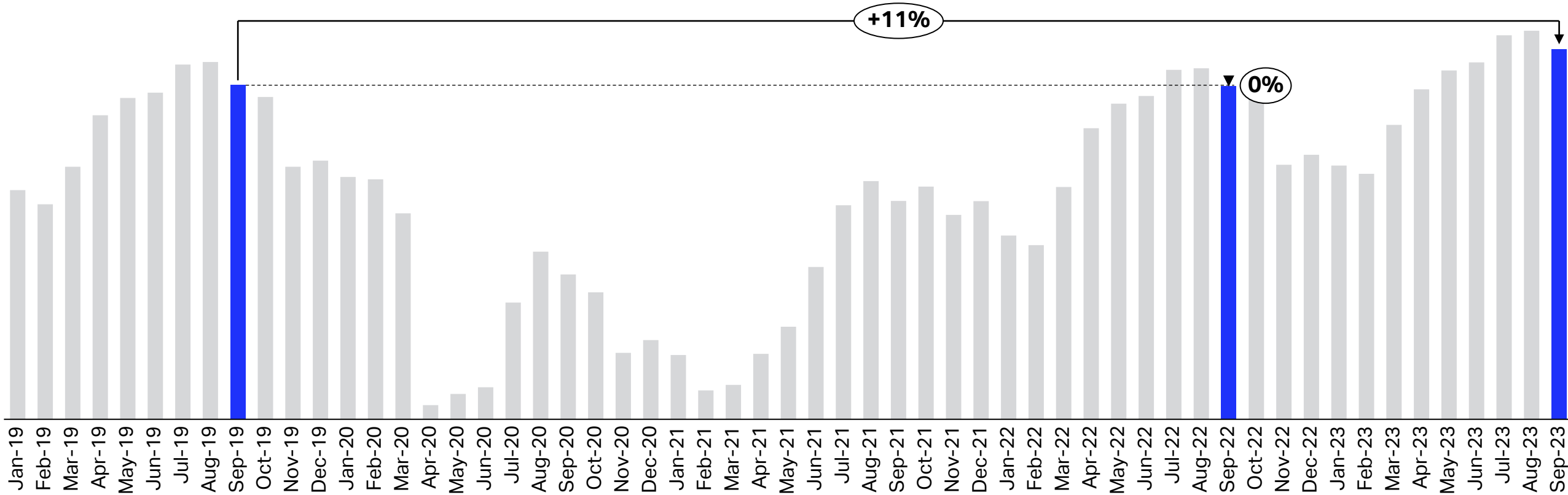
IATA Air Connectivity Index



The above is for illustration purposes only. For a full methodological explanation please refer to the [Air Connectivity report](#).

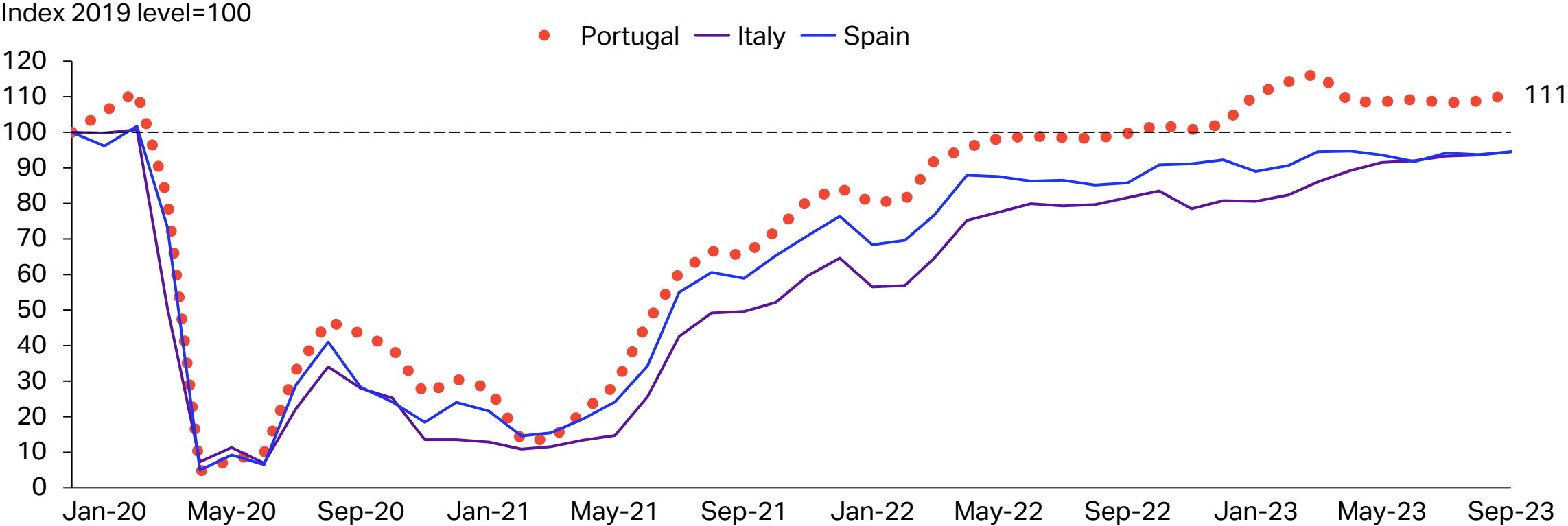
Portugal international air connectivity in Sep 2023 is 11% above pre-crisis levels

IATA International Air Connectivity Index for Portugal, monthly Jan 2019-Sep 2023



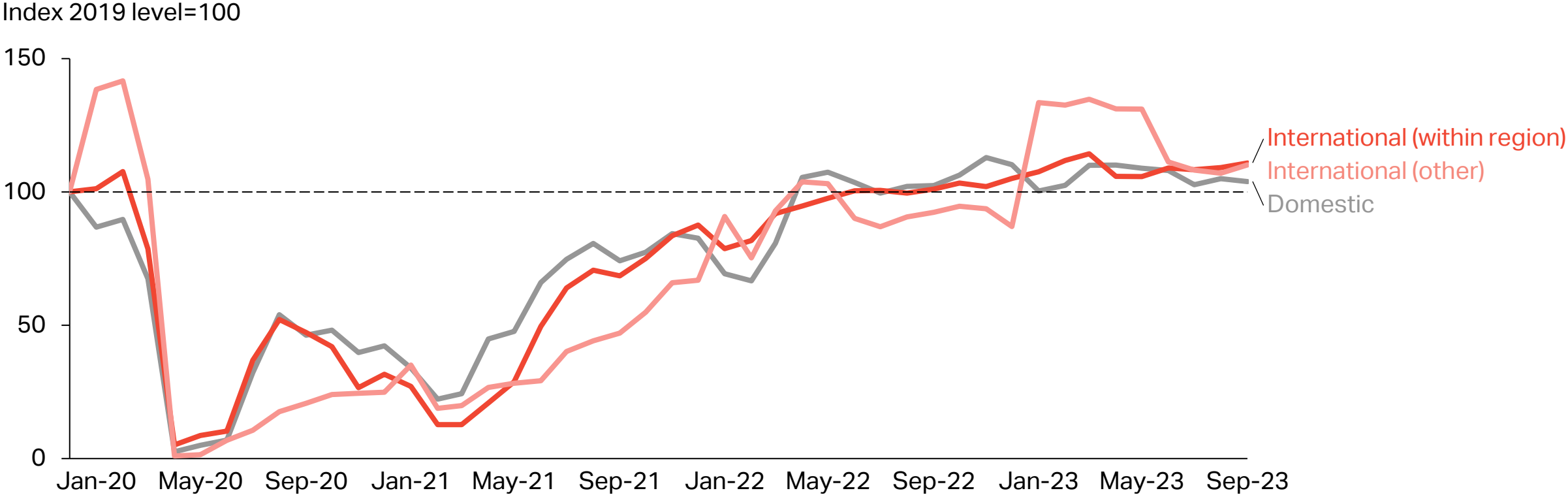
Portugal international air connectivity in Sep 2023 is 111% of pre-crisis levels

IATA International Air Connectivity Index for selected countries, monthly Jan 2020-Sep 2023



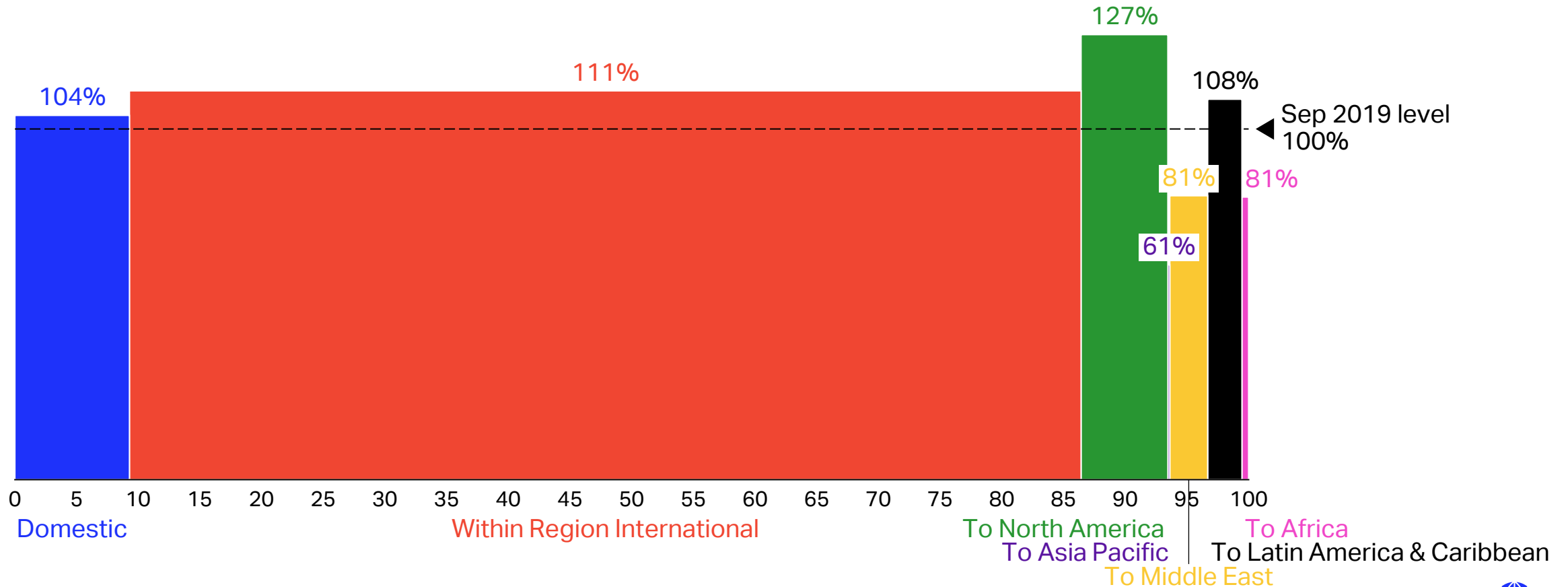
Portugal within region international air connectivity in Sep 2023 is 111% of pre-crisis levels

IATA Air Connectivity Index for Portugal by component, monthly Jan 2020-Sep 2023



Extent of recovery to Sep 2019 connectivity for Portugal by Sep 2023

Portugal connectivity recovery by route area in Sep 2023 as % of Sep 2019 level
 Horizontal scale shows proportion of Sep 2019 connectivity contributed by each route area

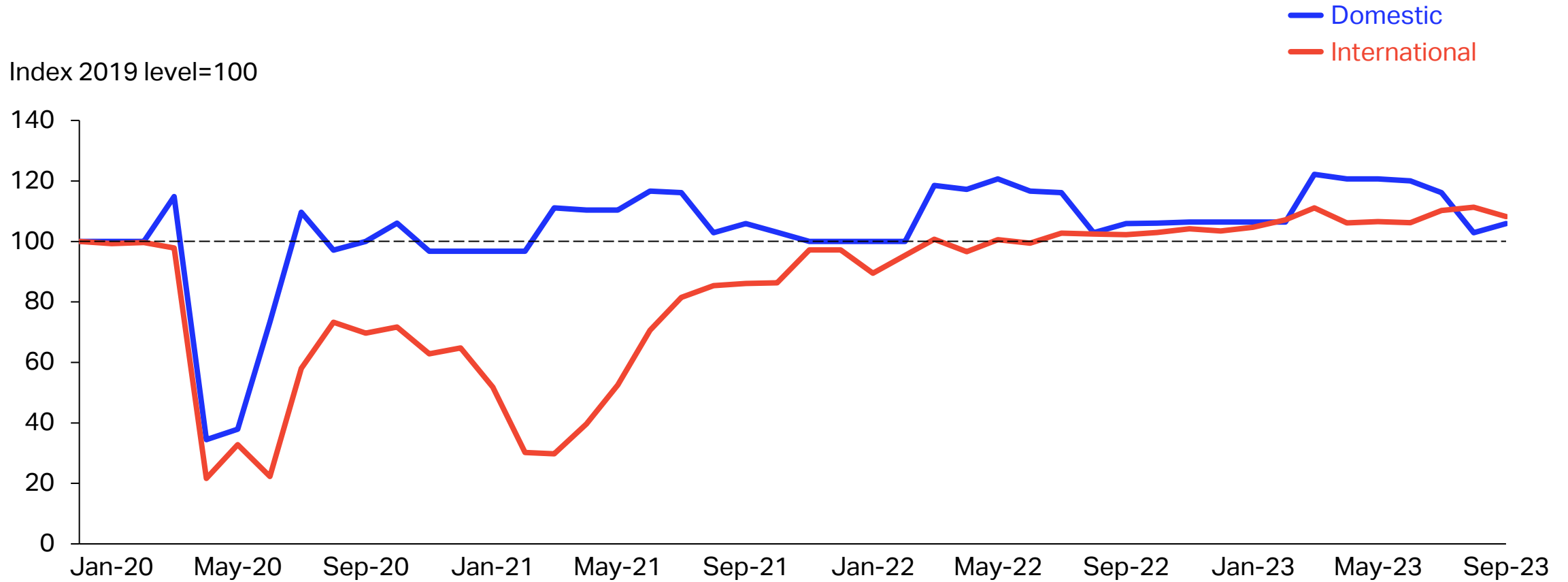


IATA Connectivity Index using data from OAG



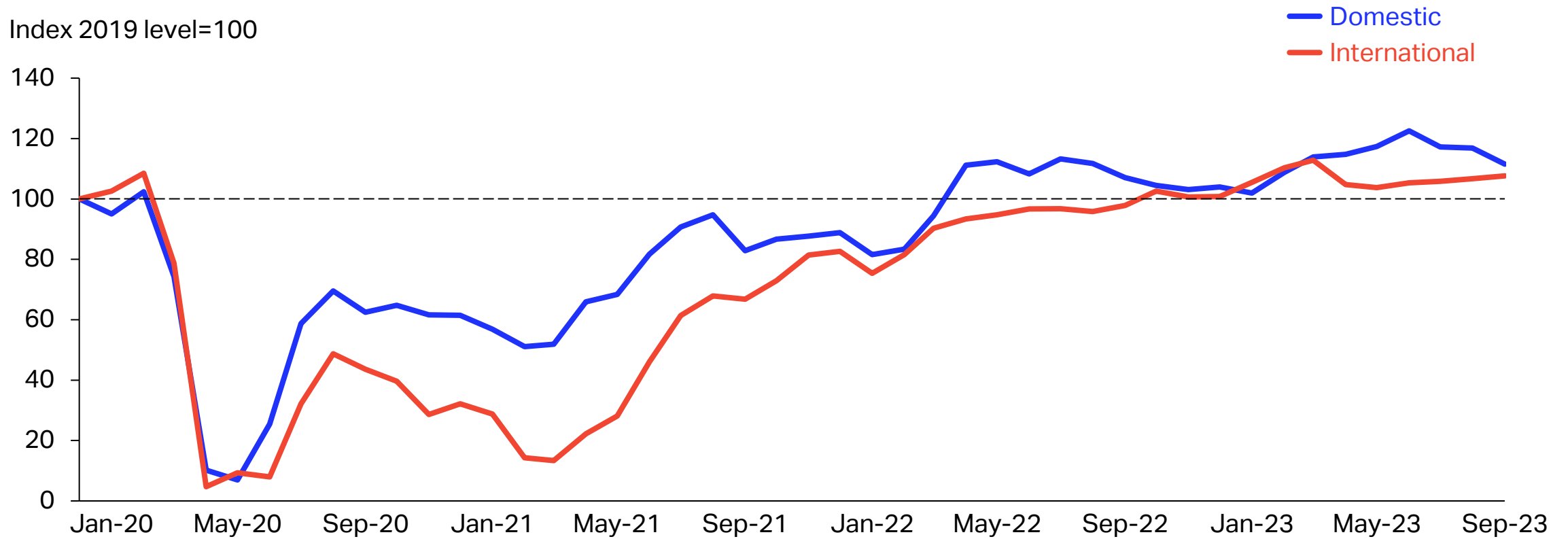
Portugal international routes in Sep 2023 at 108% of pre-crisis levels

Airport pairs for Portugal, monthly Jan 2020-Sep 2023



Portugal international frequency in Sep 2023 at 108% of pre-crisis levels

Flights for Portugal, monthly Jan 2020-Sep 2023



175 international destinations accessible from Portugal in Sep 2023 vs 178 pre-crisis

Indicator	Sep 2019	Sep 2023	% of 2019
International flights per week	3,535	3,805	108%
International destinations*	178	175	98%
Countries connected	51	47	92%

* Unique airport destinations with at least one scheduled flight per week

Sustainability of our industry

2009 Industry targets to address climate change

- >> An average improvement in fuel efficiency of 1.5% per year from 2009 to 2020
- >> A cap on net aviation CO2 emissions from 2020 (carbon-neutral growth)
- >> Net-zero carbon emissions by 2050

Four-pillar strategy

Improved **technology**, including deployment of Sustainable Aviation Fuels

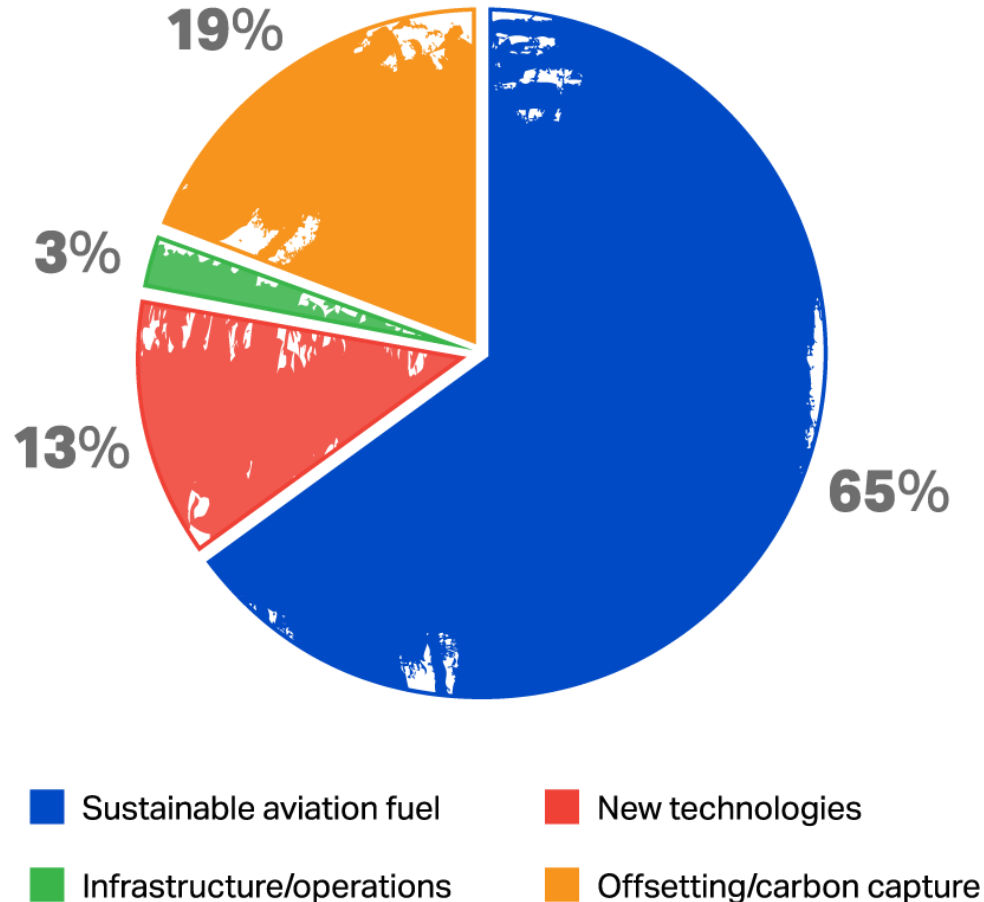
More efficient aircraft **operations**

A single **global market-based measure**, to fill the remaining emissions gap

Infrastructure improvements, including modernizing air traffic management systems

The plan

Contribution to achieving Net Zero Carbon in 2050



Net Zero 2050 is achievable through:

Combination of measures

Sustainable Aviation Fuel, new, technologies, operational and infrastructure improvements, and offsetting/carbon capture.

Collective effort

of the entire industry together with governments, oil producers and investors.



IATA Roadmaps:

Providing a strategic vision to achieve Net Zero CO₂ emissions by 2050

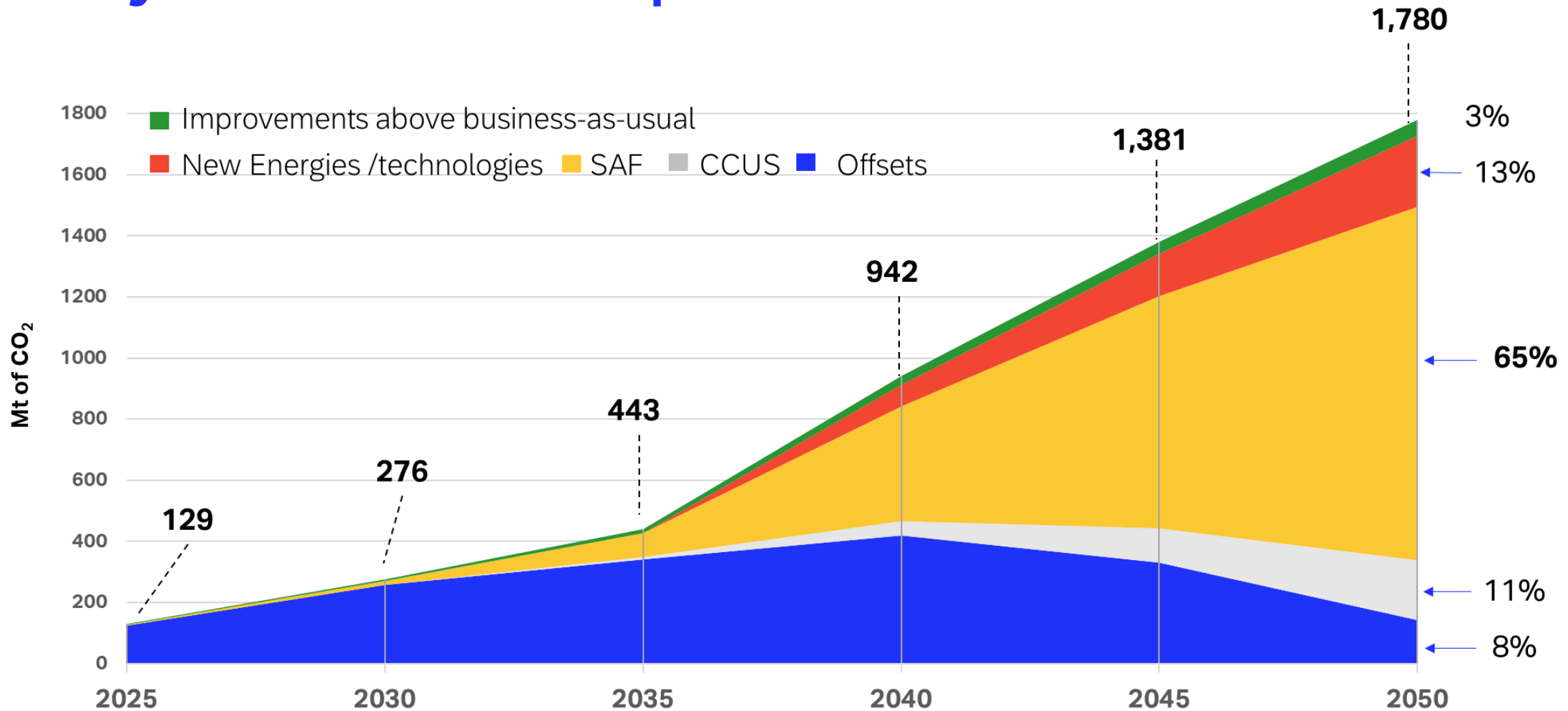
Operations
Net Zero Roadmap

Aircraft Technology
Net Zero Roadmap

Energy and New Fuel
Net Zero Roadmap

Policy
Net Zero Roadmap

Why the Roadmaps?



Previous IATA CO₂ Abatement Analysis



Roadmaps Scope

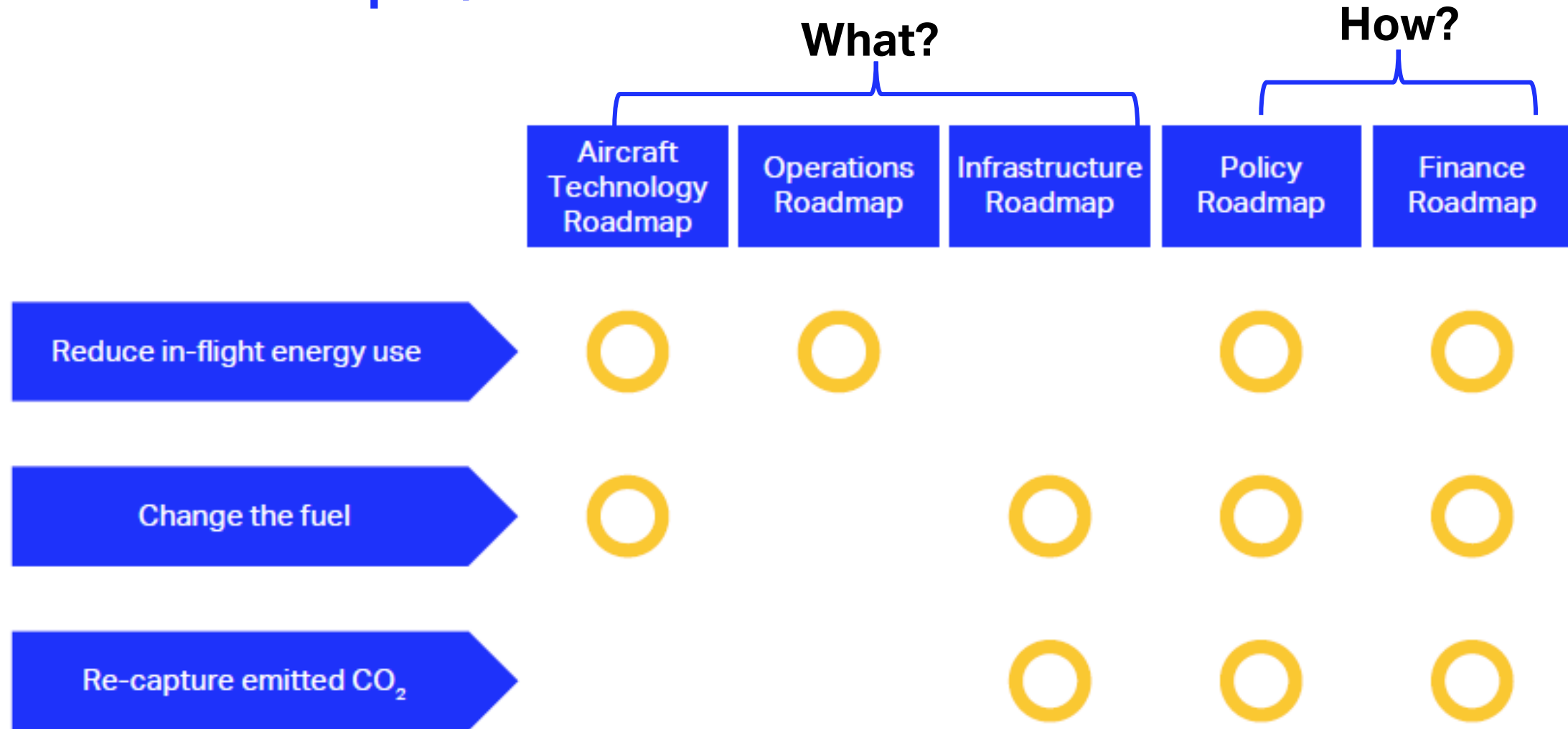
The roadmaps are

- **A strategic tool to unify direction and provide a sheet for common action**
- **A more tangible way to track progress**
- **5 steps to a comprehensive Net Zero roadmap**

The roadmaps are not

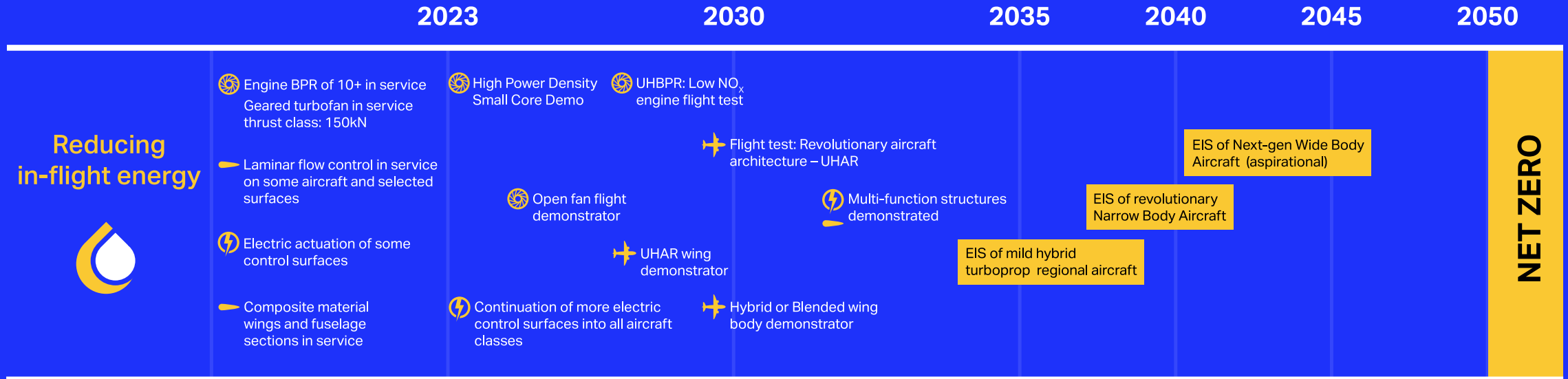
- **A recipe**
- **A specific fixed scenario of what will happen**
- **A “fixed” static document**

5 roadmaps, 3 levers of action



Source: IATA Sustainability and Economics

Aircraft Technology Roadmap



Propulsion
 Aerodynamics and structures

Flight demonstrator
 Systems

Decision point
 Major milestone

Acronyms

UHBPR: Ultra High By-Pass Ratio
EIS: Entry Into Service
SAF: Sustainable Aviation Fuels

a/c: Aircraft
UHAR: Ultra High Aspect Ratio
NM: Nautical Miles
HFC: Hydrogen Fuel Cell

KPI: Key Performance Indicator
GI: Gravimetric Index
LH₂: Liquid Hydrogen
UAM: Urban Air mobility



Change fuel

Batteries & hybrid aircraft

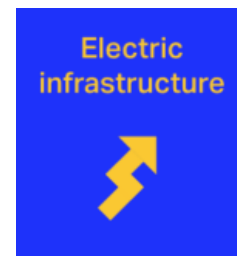
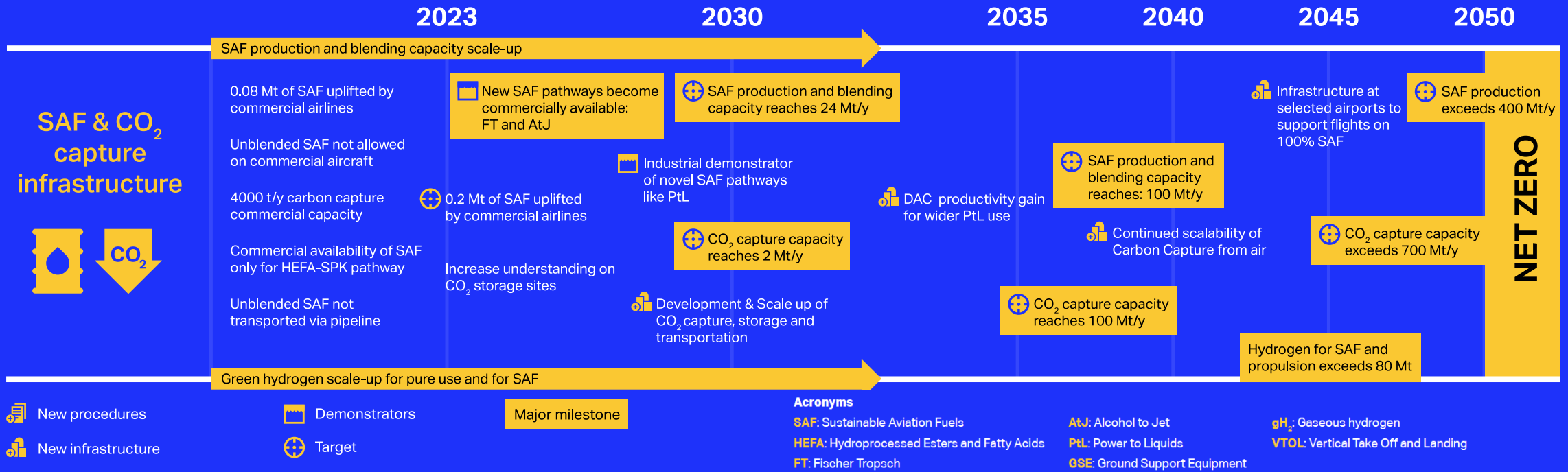


Change fuel

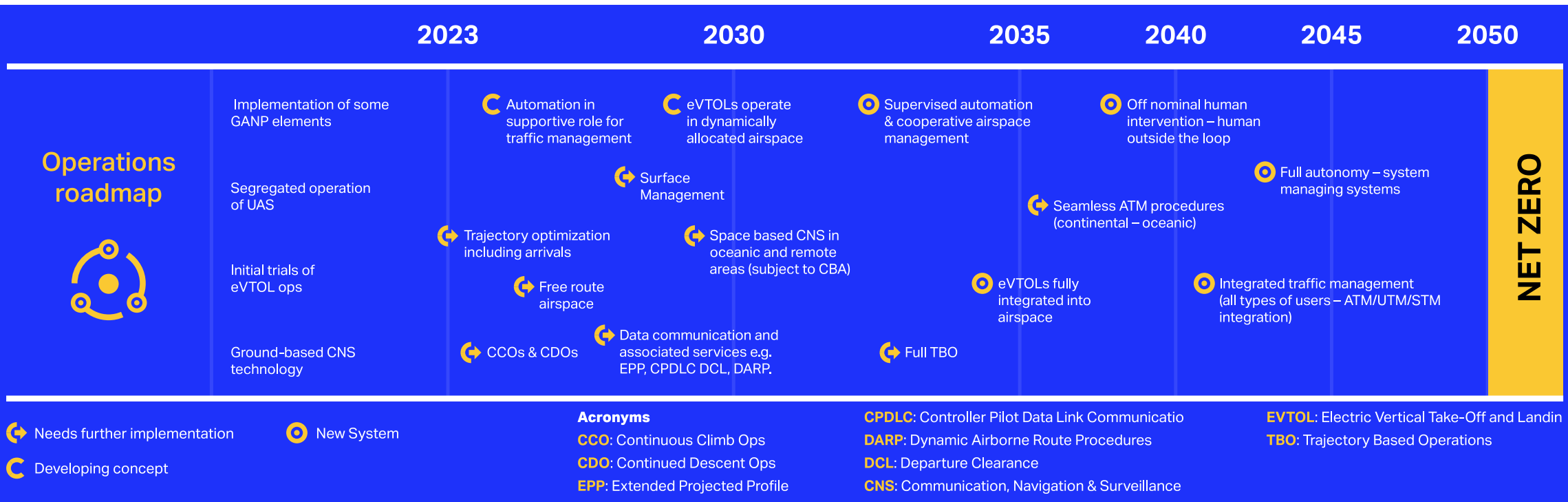
SAF & hydrogen aircraft



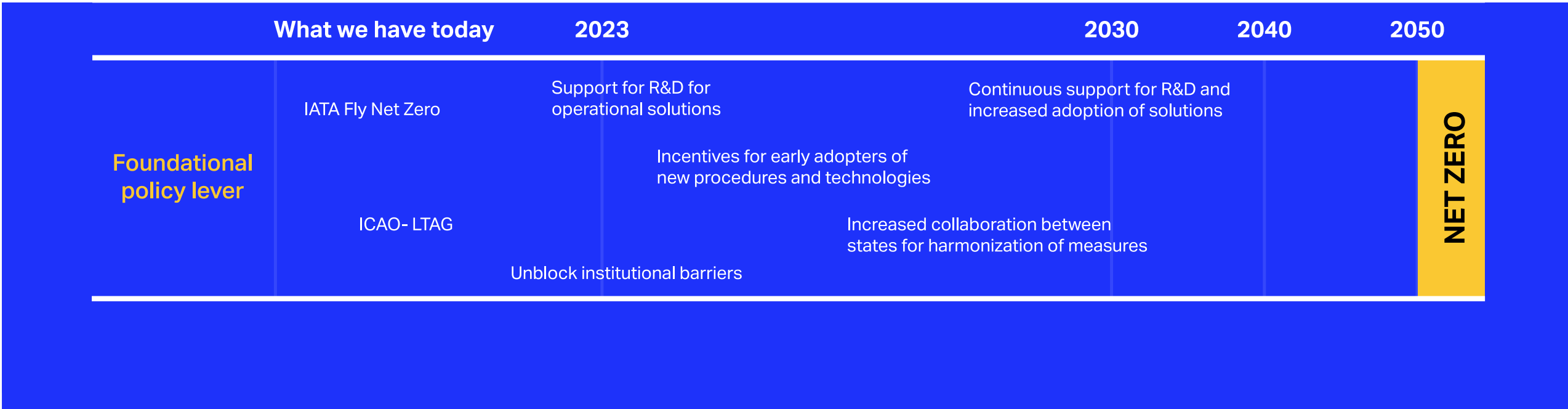
Energy & New Fuels Infrastructure Roadmap



Operations Roadmap



Policy Roadmap



The aviation industry cannot decarbonize alone, and the support of regulators and policy makers on this journey is absolutely essential.

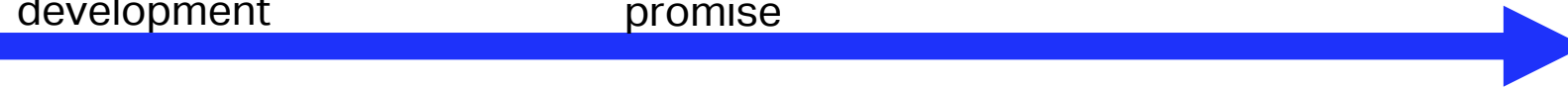


Finance Roadmap



Early stages of project development

Mature technologies show tangible commercial promise

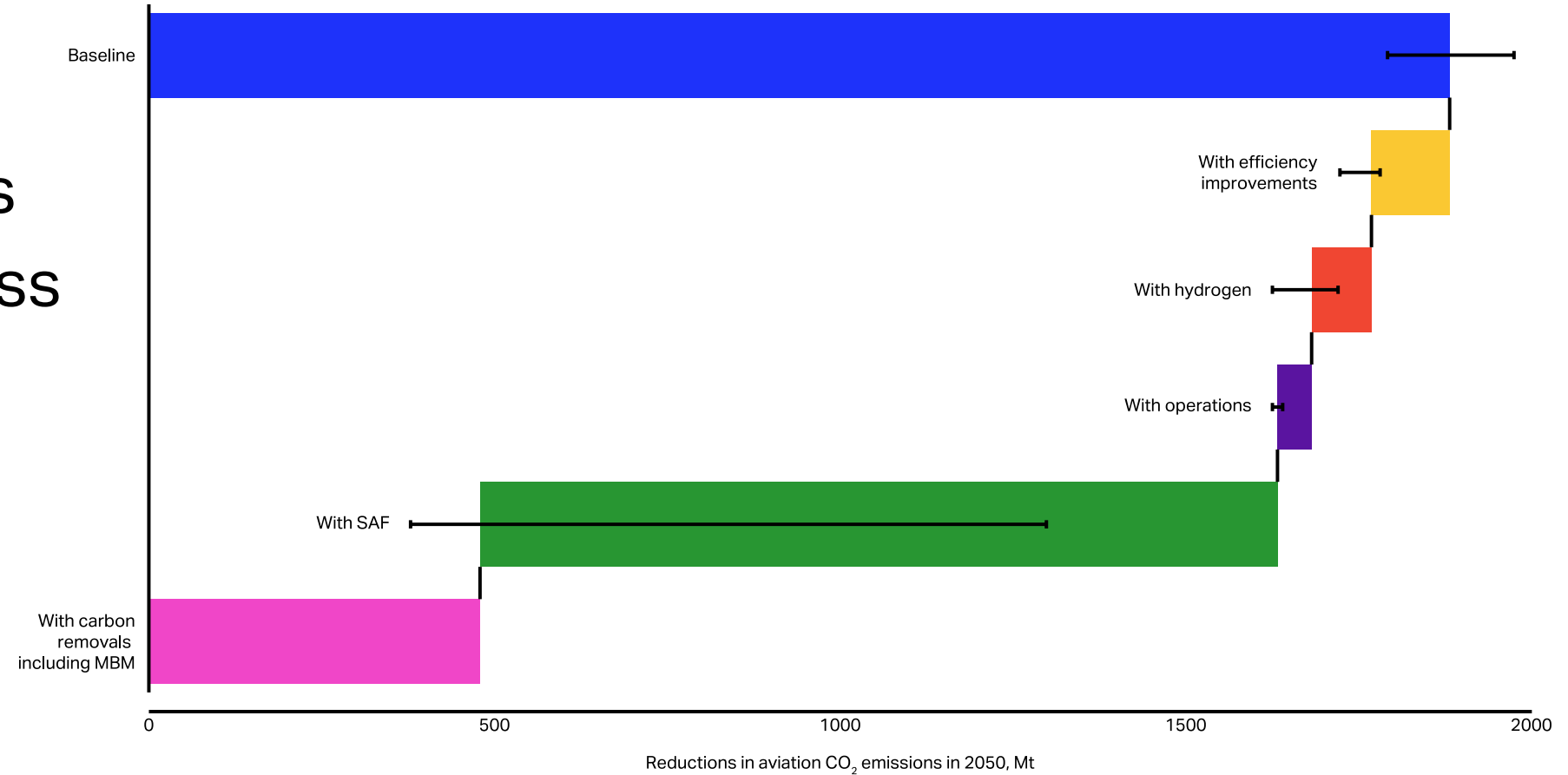


The investment needed to bring about aviation's transition to net zero by 2050 could be as high as **USD 5 trillion** over the period to 2050. The annual investments required in that case would be close to **USD 180 billion**. This is not disproportionate to the annual investments in other industries

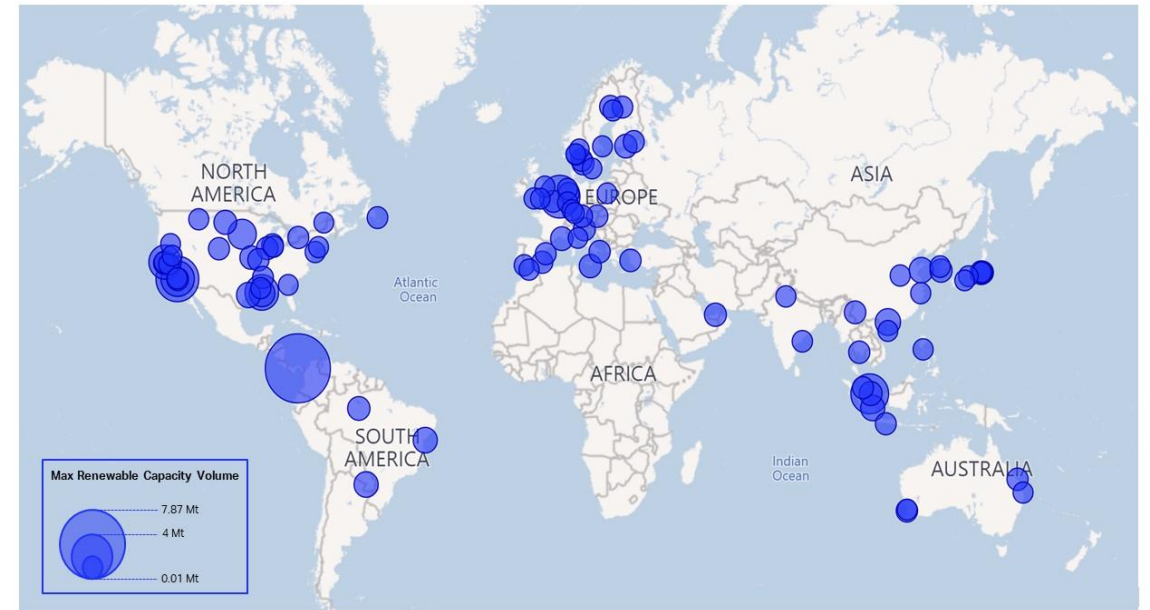


The Effect of Finance and Policy “Enablers”

- Harmonize policies
- Accelerate progress
- Reduce costs
- Enable transition



Renewable Fuel Projects Operating 2023 vs. announced 2028



SAF in numbers

Year	2019	2020	2021	2022
Estimated SAF Output (Mt)	<0.02	0.05	0.08	0.24 (300 million liters)
Global Jet Fuel (Mt)	288	157	182	254
SAF % of Global Jet Fuel	<0.01%	0.03%	0.04%	0.1%



Conclusions

- It is **possible** to achieve the **Net Zero** goal by 2050.
- Success depends on **early, harmonized policy support**, which should be technology agnostic, and include targeted financing .
- The greatest challenge is not related to any specific solution, but to **the pace at which it needs to happen, and the collaboration needed.** .

Q&A

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