Achieving Net Zero Air Transportation

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“Travel brings power
and love back into your life.”
— Rumi, (1207-1273)
(Jalāl al-Dīn al-Rūmī, Mawlānā)
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International civil aviation can:

- **greatly help to create and preserve friendship and understanding among the nations and peoples of the world**
- **promote that co-operation between nations and peoples upon which the peace of the world depends**
- **international air transport services may be established on the basis of equality of opportunity and operated soundly and economically**

The undersigned governments have accordingly concluded this Convention to that end.

1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

IATA 2021
ICAO 2022
We must fly
We must fly sustainably
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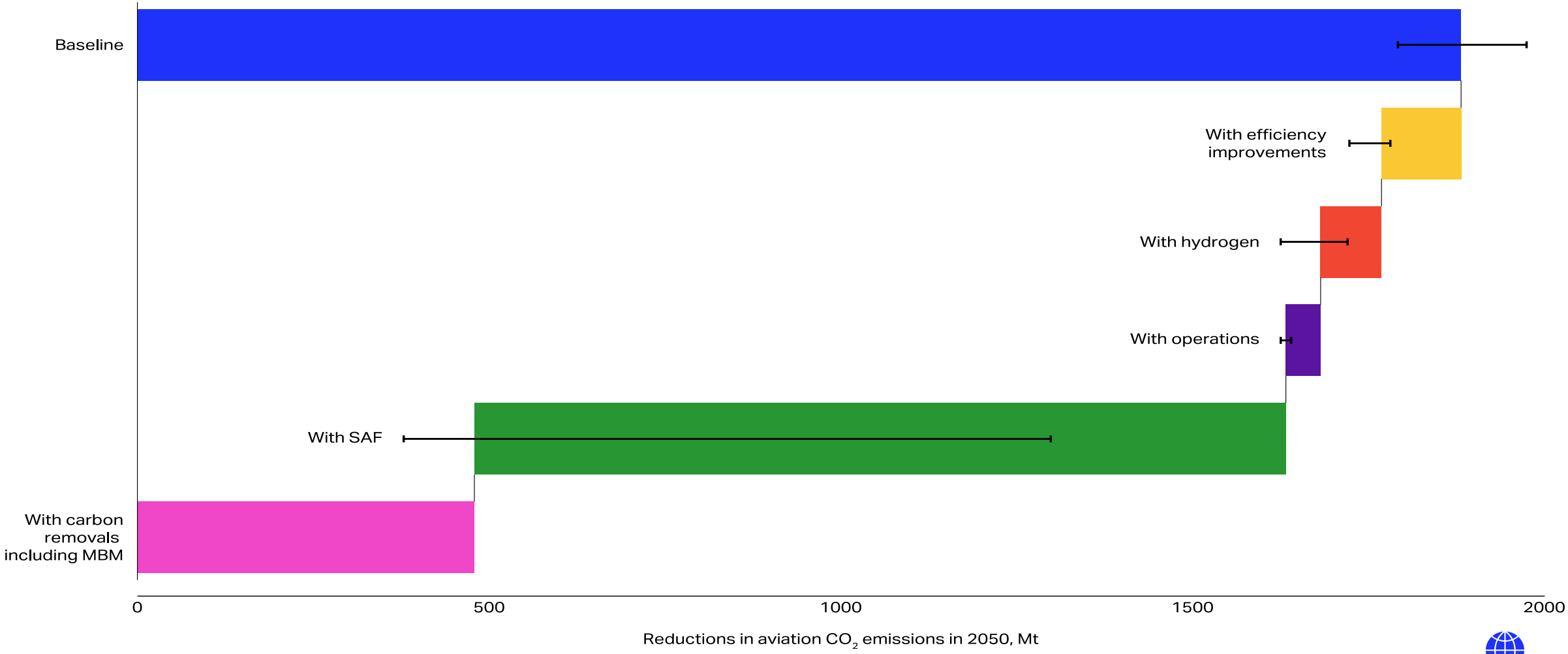
How we can achieve net zero aviation by 2050

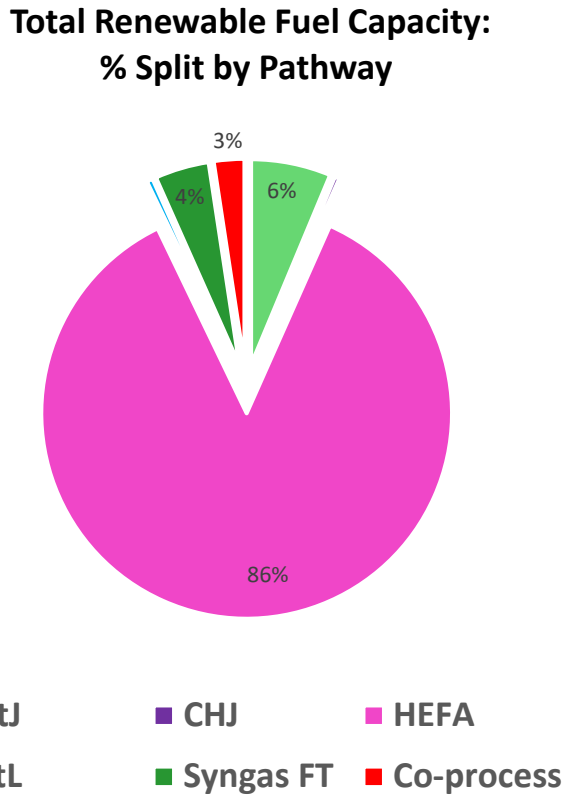


Source: IATA Net Zero Roadmaps, IATA Sustainability and Economics, June 2023

Entirely new markets

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%**

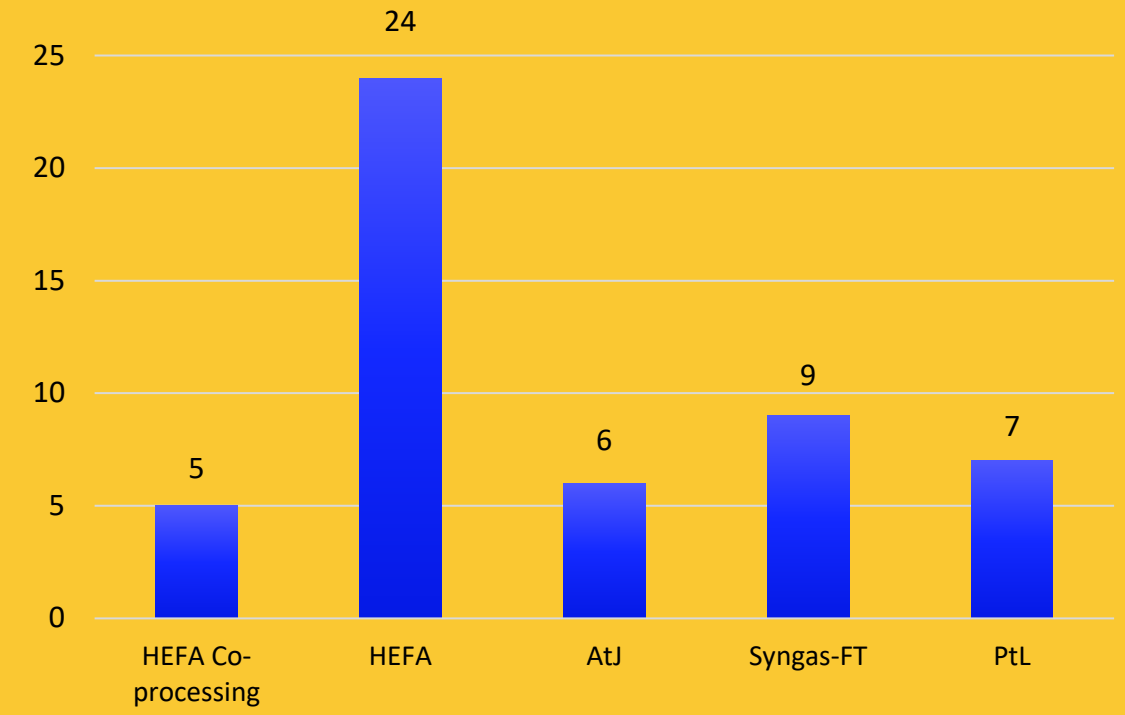
Need diversification from HEFA pathway*…



Source: IATA

* HEFA is most mature today but least scalable for future needs

Airline offtakes starting to address this

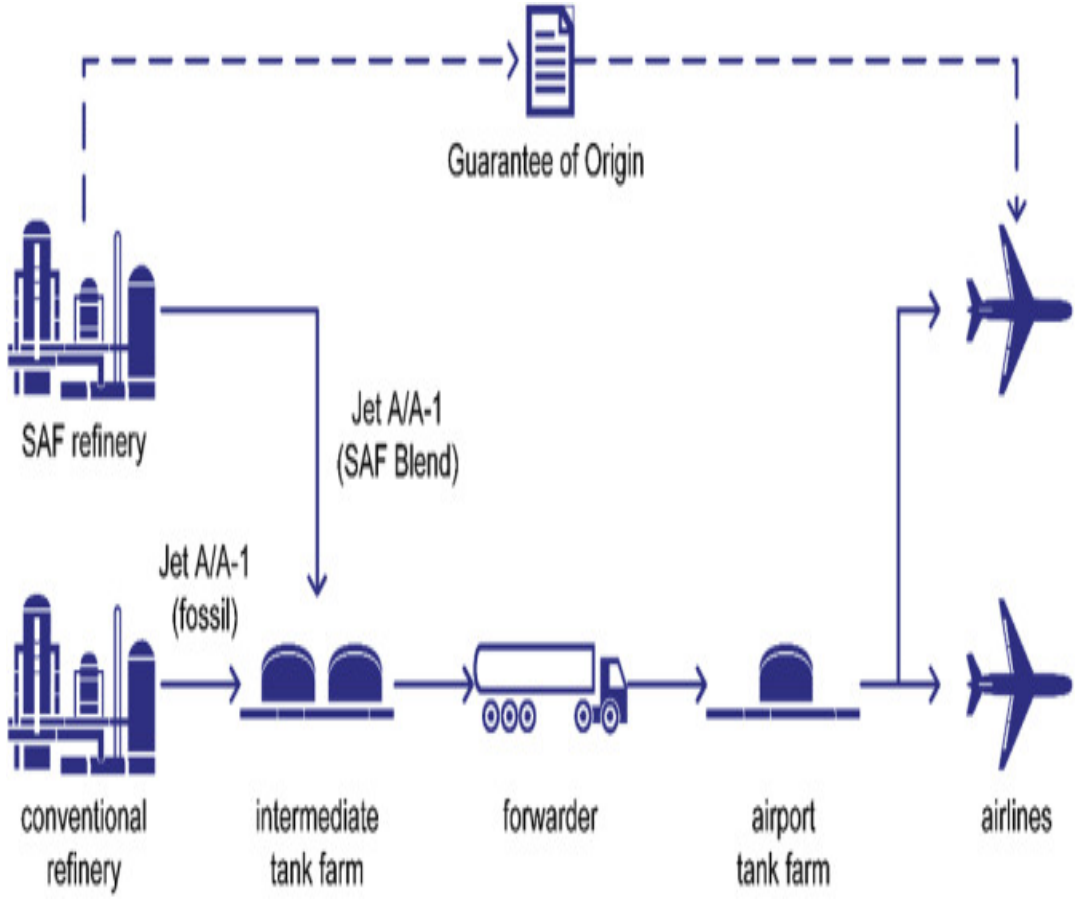


Source: IATA

Book & Claim

Need for a **globally recognized** approach:

- Separate the physical SAF & its associated credits, i.e., location does not impact emissions, location of SAF uplifting matters not
- Reduce the need for long distance shipping & importation of SAF
- Integral bridging mechanism to allow developing economies time to access the SAF value chain



The physical output of SAF is only part of the story!

Feedstock, if left unutilized, are linked to negative socio-economic and environmental externalities of their own.

Projects that aggregate wastes or recultivate degraded land create numerous socio-economic co-benefits, which become **major pull factors for attracting investment**:

Sustainable Supply Chains

Job & Wealth Creation

Energy Security

Land Restoration

Biodiversity

Regional Development

+ SAF

Challenges to SAF Deployment

- Insufficient policy support
- Absence of a harmonized approach in SAF accounting methodology
- Lack of access to SAF in existing fuel logistics and airport infrastructure
- Lack of understanding of SAF as an insetting measure in addition to carbon offsets
- Limited availability of cost-effective and sustainable SAF feedstock and feedstock treatment infrastructure
- Limited investment and high costs of financing SAF production infrastructure
- Competition for resources and incentives with other sectors (road transport and renewable power)

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Meet the enablers

Game changer

- A world where **energy** is:
  - Sustainable
  - Cheap
  - Abundant
  - Accessible to all

- A world where **transportation** is:
  - Sustainable
  - Cheap
  - Abundant
  - Accessible to all

Source: Picasa