Creating a level playing field for Sustainable Fuels (SAFs)

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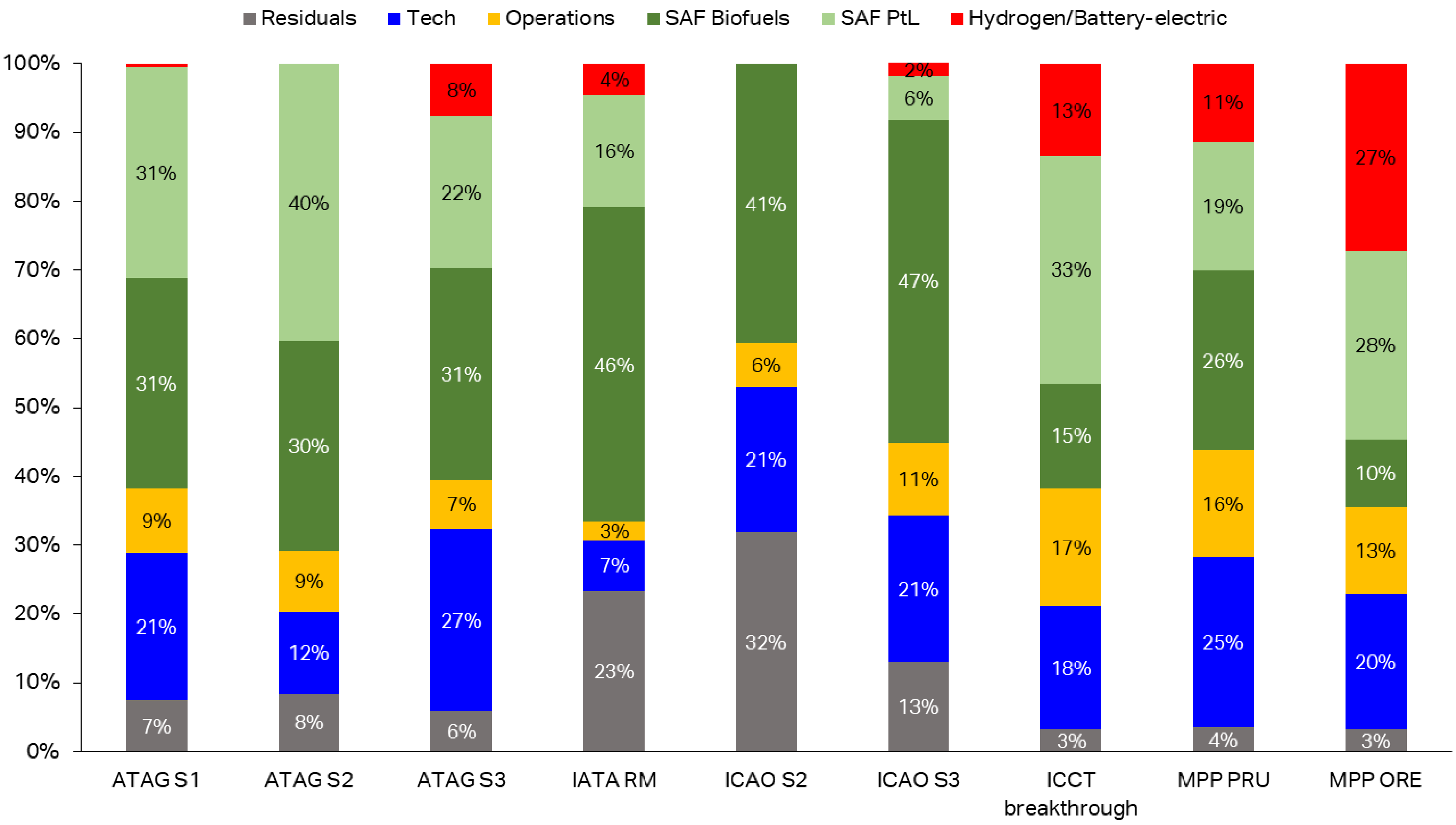
13 October 2023

Emissions reduction by mitigation measures in 2050: SAF is the most important lever



IATA's Policy Brief on SAF Deployment

POLICY

SAF Deployment

Government policy has an instrumental role to play in the deployment of Sustainable Aviation Fuels (SAF). IATA encourages policies which are harmonized across countries and industries, while being technology and feedstock agnostic. Incentives should be used to accelerate SAF deployment. Given SAF is in the early stages of market development, mandates should only be used if they are part of a broader strategy to increase the production of SAF and complemented with incentive programs that facilitate innovation, scale-up and unit cost reduction.

BACKGROUND INFORMATION

Airlines committed to net-zero carbon dioxide (CO_2) emissions by 2050 at the 77th International Air Transport Association (IATA) Annual General Meeting in 2021, and member states of the International Civil Aviation Organization (ICAO) agreed to a long-term aspirational goal (LTAG) of net-zero CO_2 emissions from aviation by 2050 in 2022. These commitments spring from the industry's conviction that it, and all forms of connectivity, are necessary for economic development. Air transport contributes directly to 15 of the 17 United Nations Sustainable Development Goals (all but Nr 14 and Nr 16)[1], and in particular to Goal Nr 1: No Poverty. Hence, flying is necessary, and flying sustainably is a must.

The anticipated traffic of the industry in 2050 would likely generate 1.8 billion tonnes of carbon emissions if fueled by traditional jet kerosene. In order to achieve net-zero emissions, 65% of the total emissions reductions will in all probability need to be achieved using Sustainable Aviation Fuel, or SAF. This, in turn, would represent more than 360 million tonnes (450 billion liters) of SAF annually by 2050, from every available sustainable feedstock.

Reaching this ambitious target will require support from governments and value-chain partners. Government policy must play a pivotal role in encouraging the scaling-up of SAF production.

Current State and Challenges

In 2022, global SAF production is estimated to have been between 240 and 380 thousand tonnes (300 to 450 million liters), covering only around 0.1% to 0.15% of total jet fuel demand. Despite a significant price difference between conventional jet fuel and SAF, every single drop of sustainable aviation fuel produced was purchased by aircraft operators and their customers. These purchases came at an additional cost to the industry of between USD 322 million to 510 million in the single year of 2022.

Challenges to the rapid development and deployment of SAF that could be addressed through policy measures include:

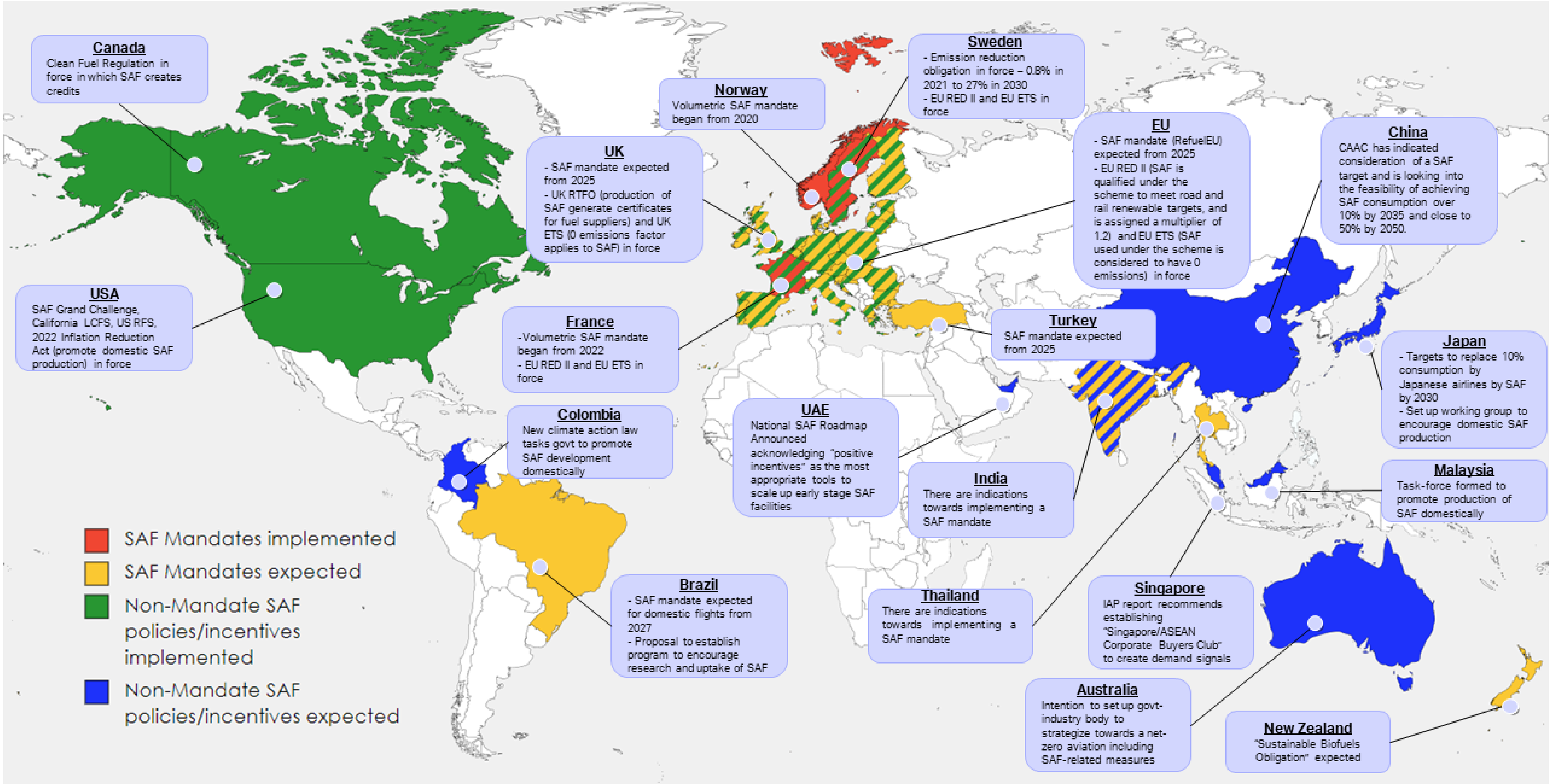
- Insufficient policy support in promoting the scaling up for SAF
- Absence of a harmonized approach in SAF accounting methodology
- Lack of access to SAF in existing fuel logistics and airport infrastructure
- Lack of understanding of SAF as an insetting measure in addition to carbon offsets
- Limited availability of cost-effective and sustainable SAF feedstock and feedstock treatment infrastructure

[1] https://www.undp.org/sustainable-development-goals

IATA welcomes policy efforts that:

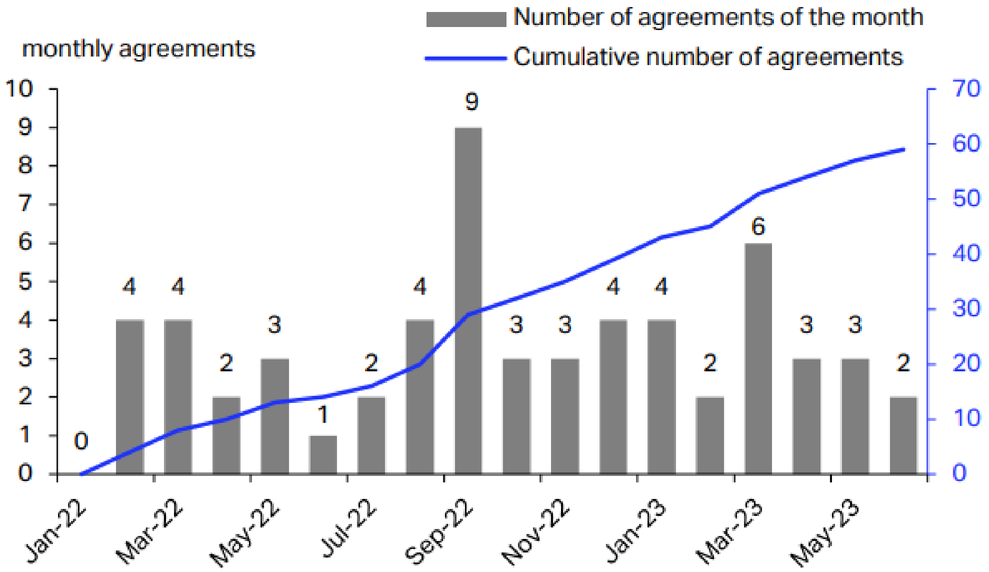
- Provide stable and predictable sources of capital to fund R&D and infrastructure
- Support more diversification of methods and feedstocks available for SAF production
- Ensure SAF gets its fair production share
- Facilitate the harmonization of SAF policies to reduce barriers for new market players

Global SAF policy landscape

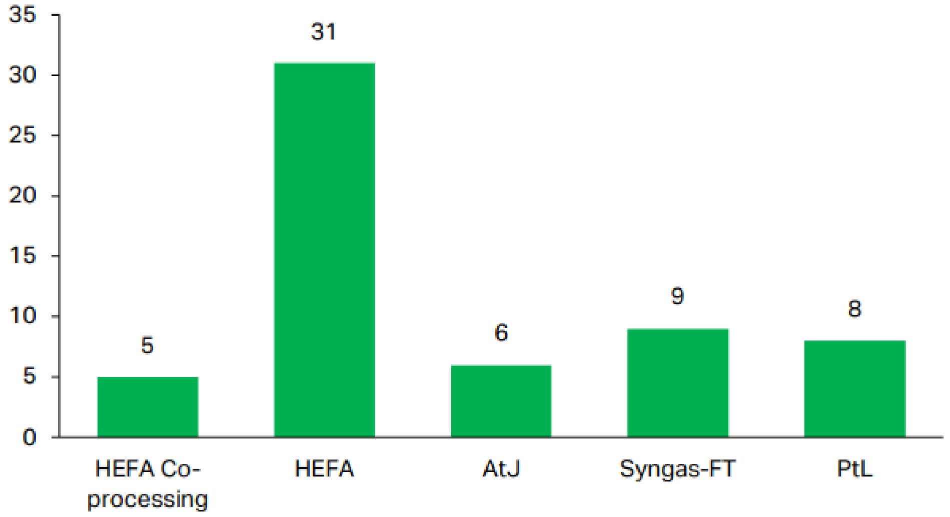


Some key facts on SAFs

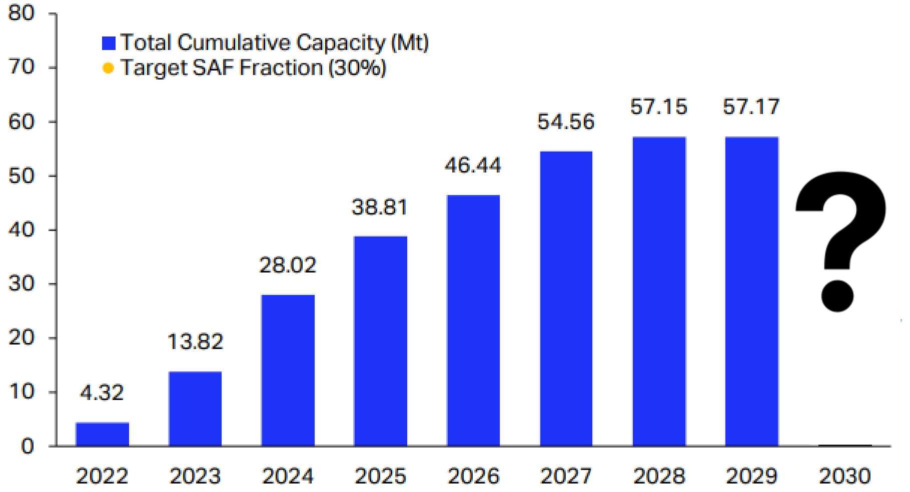
Total number of SAF offtake agreements (as of June 2023)



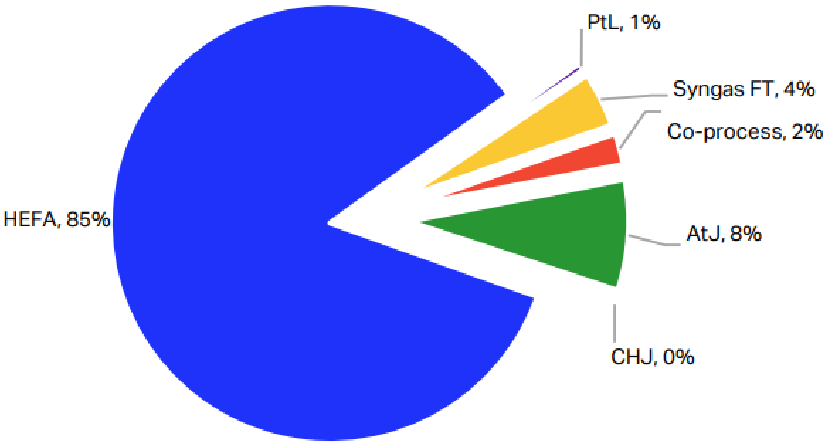
Total number of SAF offtake agreements per pathway (as of June 2023)



Cumulative renewable fuel capacity vs. target SAF fraction (Mt)



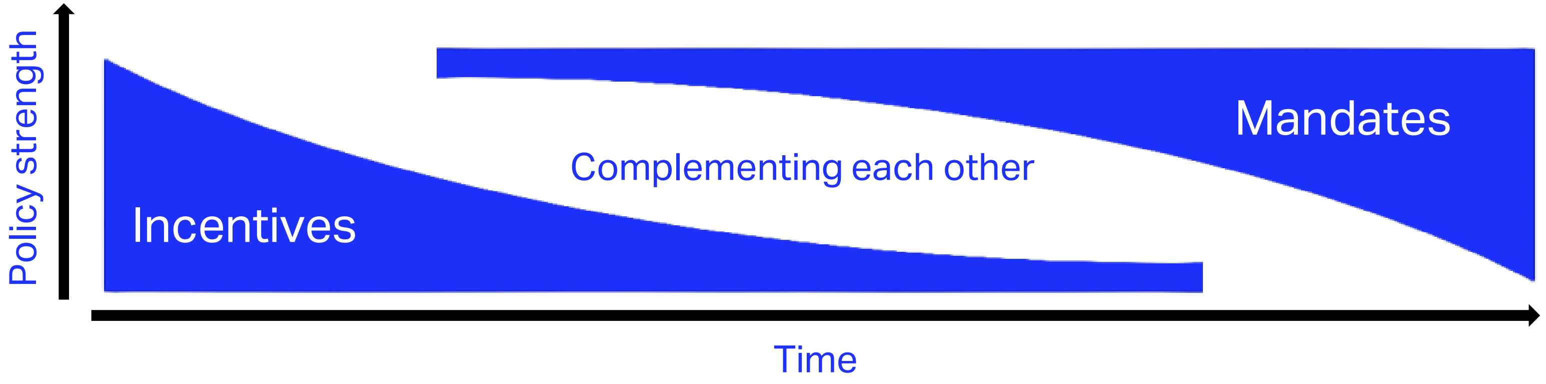
Total SAF capacity, % share by pathway



Source: IATA Sustainability & Economics Q2 2023 Quarterly Chartbook

Policy instruments for SAFs: Incentives & Mandates

Timing of the policy instruments is the key



Incentives should come first

- Create a functioning market first through incentives
- Stimulate new players and the diversification of SAF production
- Facilitate innovation + reduce unit cost + support 'first-of-a-kind' production facilities

Mandates to follow when production is there

- Should be complemented with incentives
- Not in favor of any specific feedstock or pathways
- Combined with policies with mid- to long-term goals of ramping up SAF production

Coordination at local, national, and international levels

Cross-sector and cross-country harmonization are the key

Energy sector

- Counter-productive subsidies: Most countries still subsidize fossil fuel production more than renewables

Harmonization across countries

- Highest possible uniformity in aviation regulations, standards, and procedures through ICAO

Low-carbon fuels

- Governments' support to LCFs need to be balanced and does not dis-incentivize SAF production