

GLOBAL SUSTAINABLE AVIATION FUEL DECLARATION

APRIL 2022

Our Vision

The Global Sustainable Aviation Fuel (SAF) Declaration signatories aim to decarbonise the aviation industry by accelerating the development, production and consumption of sustainable aviation fuels. Although aviation only generates approximately 2–3% of global anthropogenic carbon dioxide emissions, we recognise that aviation must play its part in achieving the Paris Agreement targets, and that SAFs are currently one viable technical solution immediately available, alongside fleet renewal and ATM optimisation, to reduce the emissions of the commercial airline industry. While alternative technologies such as hydrogen and electrical propulsion may be relevant solutions to decarbonise the lower end of commercial aircraft once these technologies are sufficiently mature to be introduced into passenger service, larger aircraft flying long distances can only be decarbonised through a combination of the use of SAFs and ambitious fleet efficiency improvements.

SAFs are low-carbon to carbon-neutral jet fuel alternatives developed from renewable energy and/or sustainable feedstocks, absorbing carbon dioxide (CO₂) in their production. At present, SAFs can replace up to 50% of conventional fossil fuel-based kerosene as a ‘drop-in’ fuel, providing a mechanism for airlines to reduce their current net-carbon footprint; further research should allow SAFs to replace 100% of fossil fuel-based kerosene in the coming years.

SAFs already offer a means for (limited) decarbonisation by airlines today, with c. 40 kilotonnes having been produced in 2019, and with production capacity expected to scale-up to c. 4 million tonnes by 2025 — an increase by a factor of c. 100 times. However, to achieve a net zero target for aviation by 2050 it is likely that a production capacity of the order of 500 million tonnes of SAF would be required — a further increase by a factor of c. 100 times.

The Declaration therefore calls on participants from the aerospace, aviation and fuel value chains to work jointly towards the uptake of sustainable aviation fuel as an essential vector for decarbonisation, with the ambition to ensure a quick and ambitious ramp up over the next ten years. A significant contribution of SAFs to the complete decarbonisation of aviation will require:

- Minimising the production cost of SAFs, allowing us to switch from fossil fuels to SAFs at the lowest incremental cost
- Maximising the availability of SAFs, with an ambition to create an annual production capacity of 500 million tonnes by 2050

It is only by the relentless pursuit of these aims that sustainable fuels will play their full and crucial part in the sector, accelerating de-carbonisation today, and allowing aviation to continue to provide the economic benefits and societal good that it has hitherto generated, but in an environmentally friendly way. The aims will also be enabled by significant progress on efficiency of next-generation engines and aircraft, continuing the industry's improvement in this area over the last 75 years.

Our Approach

Recognising that aviation operates within a complex framework of international regulatory and safety requirements, a large-scale uptake of SAFs will require a collaborative effort from a broad range of organisations, with each playing a different role from research, to production and logistics, to utilisation.

We will need to work progressively towards the expansion of SAFs globally and regionally, with the intention of maintaining a level playing field. The Global SAF Declaration therefore calls on signatories to take on commitments on the following actions:

Aerospace companies

- Endeavouring to ensure that all new aircraft and engines can use 100% SAF fuel blends from 2030
- Exploring the compatibility of SAFs with existing fleets through dedicated fuel formulations and/or through the evaluation of retrofit modifications for existing aircraft and engines
- Continuing to invest in reducing the fuel consumption of existing and evolutionary new products in order to minimise required SAF volumes
- Conducting research into revolutionary new technologies (e.g., hydrogen, electrical propulsion) to replace current aircraft and engine designs, replacing SAF-burning aircraft where and when technologically feasible, and thereby helping to minimise SAF volumes
- Using SAF for internal operations (e.g., internal logistics, engine tests, etc.)

Fuel companies

- Developing and industrialising SAF production, with a focus on feedstocks and production paths that do not compete with constrained natural resources
- Building production capacities for SAF supply to contribute to sufficient regional/global supply to achieve targets
- Introduce new pathways that allow mobilisation of broader resources for SAF production

Airlines

- Maximising SAF usage across each airline’s network, within the bounds of technical, regulatory, safety, and commercial viability

Airports

- Ensuring airport infrastructure is adapted to accommodate SAFs, and that on-airport fuelling activities can serve airlines requiring varying SAF blends

Research bodies

- Conducting research into SAF types and production techniques that maximise output, minimise cost and eliminate negative environmental effects
- Supporting sustainability criteria and associated methodologies to ensure the sustainability of SAF production processes and feedstocks

Aviation airworthiness and safety bodies

- Facilitating the approval of higher blend percentages and certifying new types of SAF

Corporate members

- Adapting corporate travel policies in favour of airlines using higher SAF blends where no net-zero carbon alternatives exist

The Global SAF Declaration thus brings together many different members and types of organisation. Given the breadth of our membership, both geographically and across the value chain, we acknowledge that each member has unique circumstances, whether environmental, societal, regulatory, legal, commercial, or technical. We

also recognise that specific, actionable objectives, ideally enshrined in company targets, are important to ensure that the actions outlined above are implemented. Thus each member of the SAF Declaration is encouraged to develop specific targets within its individual constraints in order to accelerate the adoption of SAFs.

In parallel, each of us is committed to continue working with existing industry bodies (e.g., ATAG, ICAO and CORSIA, etc.), existing SAF initiatives (e.g., Fuelling Flight Project, Business Aviation Coalition for SAF, WEF Clean Skies for Tomorrow Coalition, etc.) and with governmental initiatives (e.g., the EU Green New Deal, ReFuelEU Aviation, etc.) to make the widespread and rapid adoption of SAFs a reality.

Signatories

AIRBUS



 **SAFRAN**

**SINGAPORE
AIRLINES** 

