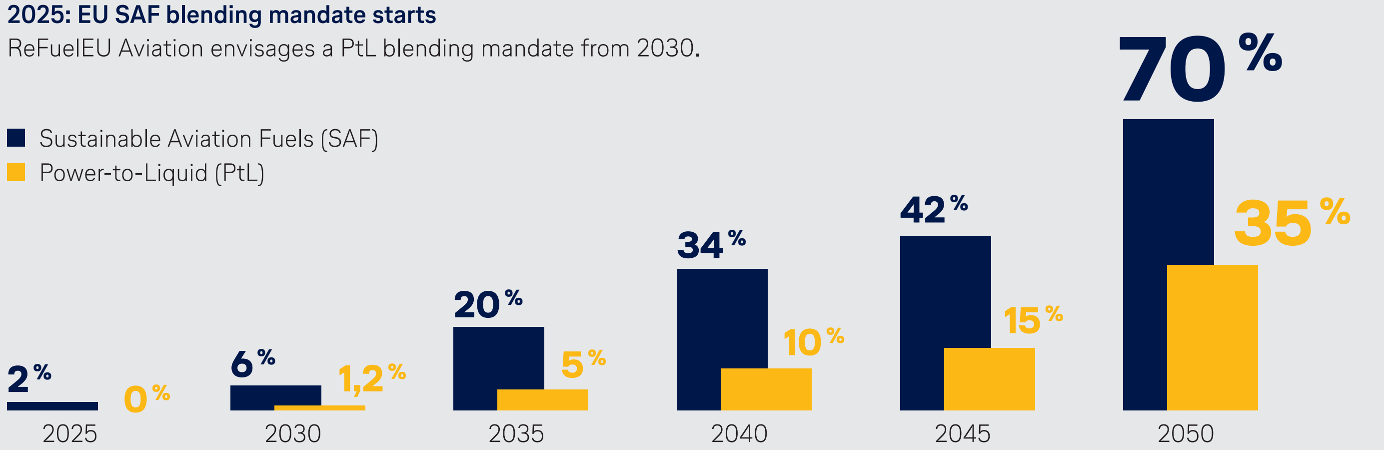
Sustainable aviation fuels

BLENDING MANDATES ALONE ARE NOT ENOUGH

It is increasingly fashionable to set new, precisely quantified political targets. However, the reality is often at odds with their implementation. This also applies to the targets for sustainable fuels in aviation. There is a wide gap between aspiration and reality.

2025: EU SAF blending mandate starts
ReFuelEU Aviation envisages a PtL blending mandate from 2030.



In its "Green Deal", the European Union has adopted comprehensive measures to decarbonize the aviation sector while maintaining competitiveness. It is now clear that this was wishful thinking. The regulations weaken EU airlines and hubs in international competition because they make transferring in Europe more expensive. Furthermore, a strong industrial policy to support the expensive climate protection measures is lacking.

Lack of supply, high prices

The best example of this is the blending mandate for sustainable aviation fuels (SAF). From January 2025, all kerosene used at EU airports must contain two percent SAF. By 2050, this proportion is to increase to 70 percent. However, there is a significant supply and price problem: biogenic SAF is only available in small quantities and is three to five times more expensive than fossil kerosene. In 2023, only around 0.2 percent of the fuel needed worldwide could be covered by SAF. The Lufthansa Group airlines could only fly for a few weeks on the total global supply of SAF. Due to the limited supply, prices will remain high for the foreseeable future.

The situation is even more problematic for power-based fuels (Power-to-Liquid, PtL). According to EU regulations, 1.2 percent PtL must be added from 2030, and by 2050 it should be 35 percent. However, there is currently not a single PtL production plant in the whole of Europe. In fact, some projects that have already been launched are being put on hold. Germany is adding to the pressure by stipulating that 0.5 percent PtL must be available at local airports for refueling from 2026. It has long been clear that this blending mandate cannot be met due to a lack of availability.

**Electricity-based kerosene:
H2Global tender for PtL has failed**

The market ramp-up for electricity-based kerosene (Power-to-Liquid, PtL) has so far failed to get off the ground. High costs, legal uncertainties and bureaucratic requirements are deterring potential investors. This summer, for example, the German Federal Ministry for Economic Affairs and Climate Action attempt to conclude supply contracts with producers via a call for tenders conducted by the "H2Global" foundation failed. No bidders were found, partly because the contract value and duration were underestimated in view of the investment volume and the development time required to construct a PtL plant.

Planned SAF blending mandates distort competition

There is a lack of effective innovation and investment incentives for the production and use of sustainable aviation fuels, in both Germany and Europe. The current German coalition government has reduced funding for PtL production plants and research to 17 million euros, virtually eliminating it, and instead significantly increased the aviation tax.

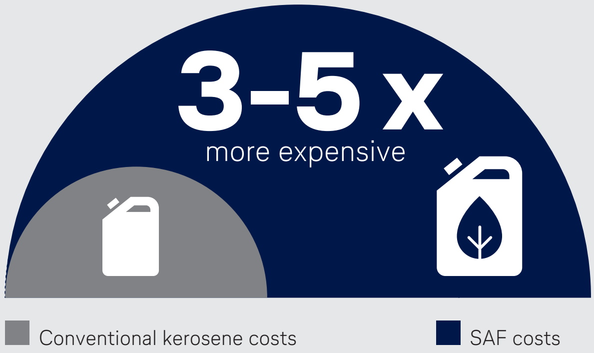
Blending mandates alone are not enough to create a self-sustaining SAF market. The current regulatory framework does not succeed to eliminate the large price difference between conventional kerosene and SAF. Therefore, the regulatory framework in place represents a significant competitive disadvantage for EU carriers in relation to their competitors from the Gulf, Bosporus and China. The SAF requirement of 2 percent in 2025 alone means an additional three-digit million euro amount for the Lufthansa Group.

Clean Industrial Deal to combine climate protection and economic growth

The "Clean Industrial Deal" announced by EU Commission President Ursula von der Leyen raises hopes that climate protection and economic growth will go hand in hand in the future.

Cost burden is massive

The SAF target of 2 percent in 2025 means additional costs of around 300 million euros for the Lufthansa Group alone.



For aviation, this means:

- **Creating fair competition:** If long-haul flights via hubs in Turkey or Dubai, for example, are cheaper due to EU regulations, this will lead to a shift in traffic and emissions to the outskirts of the EU ("carbon leakage") – without any environmental benefit, but at the expense of European value creation, jobs and connectivity.
- **Design a competition-neutral SAF blending mandate:** A fair solution for financing the SAF blending mandate would be a European climate protection levy for all airlines, depending on the destination. Another way to ensure a level playing field is to introduce a carbon border adjustment mechanism (CBAM) for airlines that evade the EU blending mandate.
- **Promote SAF market ramp-up:** To ensure that Europe has sufficient sustainable aviation fuels at competitive prices in the future, it needs targeted import and funding strategies for biogenic SAF and PtL. In Germany, the revenues from the aviation tax should be used to promote SAF, as envisaged in the coalition agreement.
- **Abolish national PtL blending mandates:** The German government must abandon its solo endeavor and take account of the EU harmonization of PtL blending mandates. Otherwise, airlines and their customers will end up paying absurd penalties for not using a fuel that does not even exist.

National PtL blending mandate

Contrary to the EU requirements, PtL will be used for refueling in Germany from 2026.