THE EU "FIT FOR 55" INITIATIVE

THE IMPACT ON THE AVIATION SECTOR AND THE CHALLENGES OF SUSTAINABLE AVIATION FUEL (SAF)

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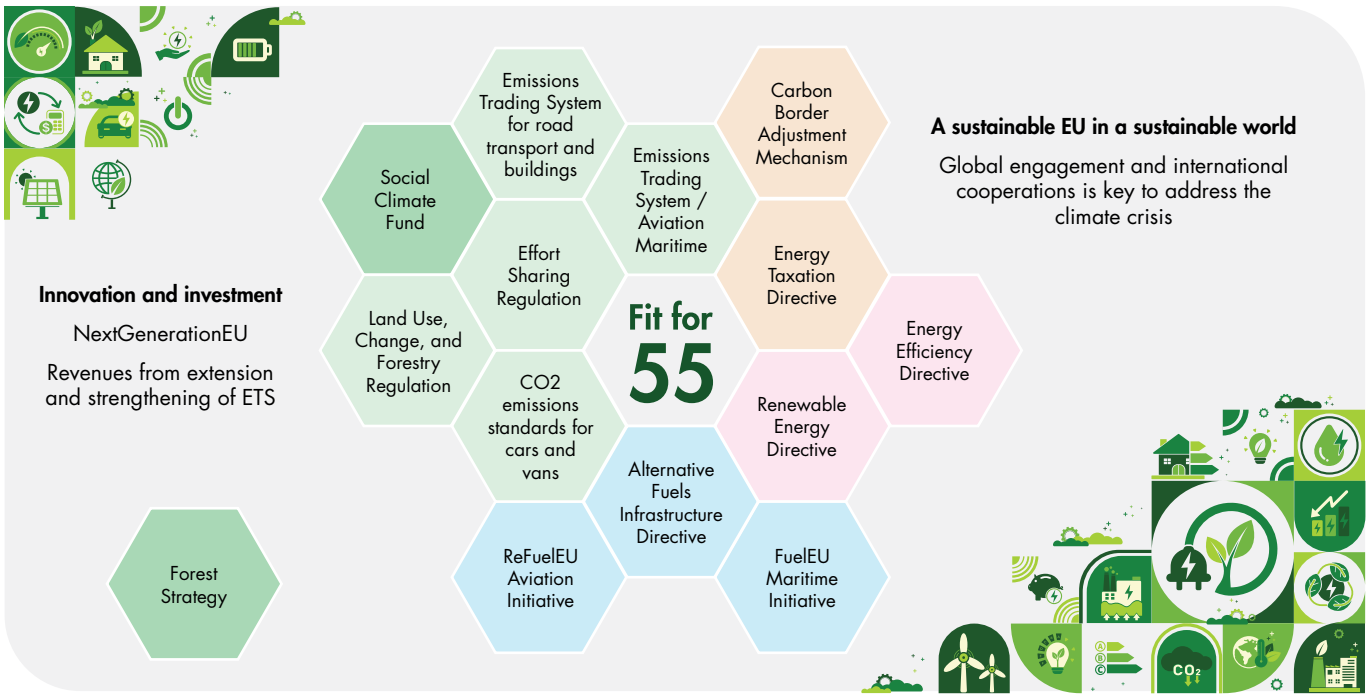
UNDERSTANDING THE "FIT FOR 55" INITIATIVE

The European Union's "Fit for 55" initiative is a comprehensive package of policy proposals aimed at reducing the EU's greenhouse gas emissions by 55% by 2030, compared to 1990 levels. It is a key component of the European Green Deal, which seeks to make Europe the first climate-neutral continent by 2050. This initiative spans various sectors, including energy, transport, and agriculture. Key measures include reforming the EU Emissions Trading System (ETS), increasing renewable energy use, improving energy efficiency, and introducing carbon pricing for maritime and aviation sectors.[1]

The European Union's "Fit for 55" initiative is a commendable and necessary response to the pressing challenges of climate change. Recognising the need for increased attention to our environment, the EU has once again positioned itself as a frontrunner in global efforts to reduce greenhouse gas emissions. The initiative builds upon the EU's long history of leadership in environmental policy, aiming to make Europe the first climate-neutral continent by 2050.

The purpose behind "Fit for 55" is both vital and commendable. With the pressing need to combat climate change, bold and decisive measures are necessary. The EU's commitment serves as a strong model, inspiring other regions to adopt similar ambitious actions.

Figure: Delivering the European Green Deal [2]



1 https://climate.ec.europa.eu/news-your-voice/news/delivering-european-green-deal-2021-07-14_en
2 https://www.eeas.europa.eu/sites/default/files/documents/2023/Carbon%20Border%20Adjustment%20Mechanism.pdf

THE IMPACT OF "FIT FOR 55" ON THE AVIATION INDUSTRY

One of the critical sectors addressed by "Fit for 55" is transportation, particularly aviation, which is a significant source of emissions. The initiative introduces several measures aimed at reducing the carbon footprint of air travel, with a strong emphasis on the adoption and use of Sustainable Aviation Fuel (SAF).

While the overarching objectives of the initiative are broadly supported and the EU's leadership in this area is recognised, it remains important to ensure that the measures implemented do not disproportionately impact European businesses. As the EU continues to set ambitious environmental standards, consideration must be given to the potential economic repercussions, particularly in industries like aviation, where competition is intense and global. In this context, the members of the Aerospace & Air Travel Committee of EuroCham have raised certain challenges and potential unintended consequences of the "Fit for 55" initiative, particularly concerning regulations related to Sustainable Aviation Fuel (SAF).

SPECIFIC REGULATIONS UNDER ReFuelEU AVIATION[3]

Under the "Fit for 55" framework, the ReFuelEU Aviation initiative mandates increased use of SAF, a biofuel from sustainable sources. This regulation aims to reduce the aviation sector's reliance on fossil fuels and promote a transition to greener alternatives, lowering carbon emissions from air travel.

The specific regulations under ReFuelEU Aviation include:

SAF blending mandates: Airlines operating in the EU will be required to use a minimum percentage of SAF in their fuel mix, starting at a modest level and gradually increasing over the coming years. This mandate is designed to stimulate demand for SAF and drive investment in its production and supply chain.

- **2025**: Airlines will be required to use a minimum of 2% SAF in the total fuel supplied for flights departing from EU airports.
- **2030**: This percentage increases to 5%, with a specific requirement that 0.7% of the total fuel be composed of synthetic aviation fuels, also known as e-fuels, which are produced using renewable energy.
- **2035**: The SAF blending mandate rises to 20%, including a 5% requirement for synthetic fuels.
- **2040**: The SAF blending requirement further increases to 32%, with 8% from synthetic fuels.
- **2045**: The mandate continues to escalate, requiring 38% SAF, with 11% from synthetic fuels.
- **2050**: The final target is set at 63% SAF, with 28% from synthetic fuels.

SAF only for flights departing from the EU: The mandate applies only to the first leg of flights departing from EU airports, meaning that airlines must ensure compliance when fueling in Europe but not necessarily when flying into Europe.

Carbon pricing: The initiative also integrates the aviation sector into the EU Emissions Trading System (ETS), which imposes a cost on carbon emissions. This is intended to incentivise airlines to reduce their carbon footprint and adopt cleaner technologies and fuels.

Collaboration: The successful implementation of ReFuelEU Aviation requires the collaboration of all parties in the supply chain, in particular aviation fuel suppliers, EU airports and airlines. More than 95% of air transport departing from EU airports will be covered by this new Regulation.[4]

- Aviation fuel suppliers at EU airports will gradually increase the share of SAF blended with conventional aviation fuel.
- Aircraft operators departing from EU airports must refuel with the aviation fuel necessary to operate the flight. This avoids the excessive emissions related to extra weight and minimises the risks of carbon leakage caused by so-called 'tankering' practices.
- EU airports must facilitate access to the necessary infrastructure to deliver, store and refuel aircraft with SAF.[5]

3 https://transport.ec.europa.eu/transport-modes/air/environment/refueleu-aviation_en
4 https://transport.ec.europa.eu/transport-modes/air/environment/refueleu-aviation_en
5 https://transport.ec.europa.eu/transport-modes/air/environment/refueleu-aviation_en

Definition of SAF[6]

- Synthetic aviation fuels from renewable hydrogen and captured carbon (in the meaning of Article 2(36) of Renewable Energy Directive (RED) and limited to liquid drop-in fuels only);
- Advanced biofuels from waste and residues notably (produced from feedstock listed in Part A of Annex IX, in the meaning of Article 2(34) of RED);
- Biofuels produced from oils and fats notably (such as from feedstock listed in Part B of Annex IX, in the meaning of Article 2(33) of RED);
- Recycled carbon aviation fuels in the meaning of Article 2(33) of RED.

Definition of eSAF[7]

- Electro-SAF (eSAF) is produced through the synthesis of renewable electricity, hydrogen, and captured carbon dioxide (CO_2). Unlike biofuels, eSAF relies on renewable energy rather than biological feedstocks, providing an additional pathway to reduce carbon emissions in aviation. Like SAF, eSAF must meet strict lifecycle emissions savings thresholds but offers a scalable, energy-based solution for decarbonising aviation.

Aviation fuel suppliers may also decide to comply with the minimum shares by using:

- Renewable hydrogen for aviation as defined in Article 3(16) of ReFuelEU Aviation;
- Synthetic low-carbon aviation fuels and low-carbon hydrogen produced from non-fossil sources, and meeting a lifecycle emissions savings threshold of 70%.

CHALLENGES AND CONCERNS IN THE AVIATION INDUSTRY

While the "Fit for 55" initiative is widely supported, it is equally important to ensure that the measures do not place an undue burden on European businesses. It is also crucial to consider the potential economic impacts on industries such as aviation, where competition is both intense and global.

1. **Infrastructure and Supply Chain**

   - **Insufficient SAF production capacity**: A key challenge is the limited production capacity for SAF. The aviation industry requires a consistent, large-scale fuel supply, but the current SAF infrastructure cannot meet the demands outlined by the "Fit for 55" initiative. This shortfall may lead to supply shortages, increased costs, and challenges for airlines in meeting mandated percentages.

   - **Supply chain complexity**: The logistics of distributing SAF to various EU airports present significant hurdles. Integrating SAF into the existing fuel supply chain demands considerable investment in infrastructure, such as blending facilities, storage, and transportation networks. These complexities and costs may impede the rapid adoption of SAF, especially for smaller or regional airports.

2. **Market Distortions**

   - **Competitive disadvantage**: SAF mandates apply only to flights departing from EU airports, resulting in higher operational costs for EU airlines, which must use SAF, currently pricier than conventional jet fuel. In contrast, non-EU airlines, benefiting from less stringent environmental regulations, may offer lower fares, thereby increasing their market share and undermining the competitiveness of European carriers.

   - **Impact on long-Haul flights**: Long-haul flights, being more fuel-intensive, may be particularly affected by SAF mandates. The increased costs of compliance could render these routes less economically viable for EU airlines, potentially leading to reduced services or a shift in operations to non-EU carriers.

3. **Counterproductive Outcomes**

   - **Increased stopovers**: Airlines may opt to make additional stopovers outside the EU for refueling, avoiding compliance with SAF mandates. This could result in longer flight times, increased fuel consumption, and ultimately increased carbon emissions, undermining the initiative's environmental goals.

   - **Carbon leakage**: Carbon leakage occurs when policies designed to reduce GHG emissions in one region inadvertently lead to increased emissions elsewhere. This happens when businesses relocate to areas with less strict environmental regulations to escape higher compliance costs. In aviation, if passengers or freight operators choose non-EU airlines or airports for lower travel costs, the emissions intended for reduction in the EU may simply shift to other regions, effectively "leaking" emissions outside the EU.

6 https://transport.ec.europa.eu/transport-modes/air/environment/refueleu-aviation_en
7 https://www.bp.com/en/global/air-bp/news-and-views/views/what-is-esaf.html

RECOMMENDATIONS TO ENHANCE THE CURRENT SAF LANDSCAPE

To scale SAF to the levels required by Fit for 55, attract the necessary investment of billions of euros for new SAF capacity projects, and achieve competitive pricing to minimise market distortions, the following recommendations are proposed:

PROMOTE A GLOBAL APPROACH

- Collaborate with International Bodies (ICAO & UN): The EU can advocate for the enhancement of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) by pushing for more ambitious emissions reduction targets, including the integration of SAF mandates and stronger offsetting requirements. This approach would promote a consistent strategy for SAF usage among airlines worldwide, levelling the playing field between EU and non-EU carriers. By harmonising carbon accounting standards for aviation across borders, the EU and ICAO can ensure that emissions reductions in the EU are not offset by increases elsewhere.

- Bilateral and Multilateral Agreements: The EU could negotiate bilateral or multilateral agreements with key aviation partners, such as the U.S., Asia, and other major global hubs to align policies on SAF and carbon reductions. This effort could encourage other regions to adopt SAF mandates, including mutual recognition of SAF production, facilitating the development of sustainable global supply chains. Additionally, the EU could work with these countries to establish common SAF quality standards, ensuring that all regions utilise the same methodologies for emissions reduction comparability.

- Implement Carbon Border Adjustment Mechanisms (CBAM) for Aviation: the EU could collaborate with partner countries to implement reciprocal CBAM agreements for all flights between the regions. This would impose equivalent costs on non-EU airlines that do not meet similar SAF mandates or emissions reduction targets when operating in the EU.

- Promote Transparency and Accountability: A global framework must incorporate robust transparency and accountability mechanisms to ensure that all airlines, whether EU or non-EU, adhere to the same standards, including Global Carbon Tracking Systems and independent Third-Party Verification.

- Partner with regional association: Collaborating with regional organisations like the Asia SAF Association (ASAFA) (www.asiasaf.org) could facilitate initiatives between the EU and other regions. ASAFA is an independent non-profit association dedicated to promoting a regional approach to SAF in Asia, uniting the entire SAF ecosystem to focus on regional policies, technologies, expertise, innovations, production, certifications, and financing. This partnership would align well to advance SAF on a global scale.

SUPPORT FINANCING

- Innovate by funding engineering studies: To drive SAF deployment, investors typically require Front-End Engineering and Design (FEED) studies before committing capital, which can cost over 30 million EUR. However, investors are hesitant to fund these studies for technologies not yet proven at scale. Horizon Europe is focussed on earlier stages, and the Innovation Fund does not cover FEED studies. Expanding the Innovation Fund to include FEED financing, or creating a separate fund for this purpose, could help bridge the "valley of death" where projects struggle to secure funding.

- Extend ETS SAF allowances until 2040: Advanced biofuels and synthetic aviation fuels still present too much risk for significant capital investment. The European Investment Bank's loan programme and the Innovation Fund help reduce capital costs, but long-term revenue certainty is key for SAF project financing. The ETS SAF allowances programme supports SAF purchases by reducing costs until the 200 million allowances run out, likely by 2030. Extending this programme to 2040, when the market is expected to mature, would provide the long-term revenue security needed for SAF facility development.

DEVELOP SAF DIVERSITY

- Confirm the eSAF sub-mandate: No final investment decisions (FIDs) have been made for eSAF facilities, which have lead times of over four years. The next two years are critical for ensuring facilities are operational in time for ReFuelEU. Industry concerns persist that the sub-mandate could be removed during the 2027 ReFUelEU revision or that penalties for non-compliance may not be enforced. The confirmation of the eSAF mandate and its enforcement structure beyond 2027 are key to maintain.

- Introduce an advanced biofuels sub-mandate: To meet SAF requirements under ReFuelEU post-2030, advanced biofuels must scale up, as waste oil supply is limited. Currently, advanced biofuels (Annex IX-A) face an uneven playing field compared to relative to Annex IX-B biofuels and eSAF. The introduction of a sub-mandate for advanced biofuels, aligned with the eSAF 2% sub-target under RED II by 2030 should address this imbalance and avoid market distortions.

CONCLUSION: A CALL FOR EVOLUTION ACCORDING TO THE GLOBAL MARKET NEEDS

The "Fit for 55" initiative marks a major step toward reducing aviation's environmental impact. However, stakeholder concerns highlight the need for a more global approach that reflects the international nature of the industry.

To address these challenges, the EU should engage in global discussions to harmonise environmental regulations across regions. This would help mitigate competitive disadvantages for EU airlines, create a level playing field, and prevent carbon leakages.

Additionally, substantial financial support is essential, including incentives to drive innovation and investments in SAF production. The EU must ensure ongoing funding beyond 2030 to ensure airlines have access to sufficient and competitively priced SAF.

CORPORATE RESPONSES FROM THE AVIATION INDUSTRY

RESPONSE FROM LUFTHANSA

A competitive & sustainable aviation sector.

The EU must promote the competitiveness of its network airlines and guarantee a level playing field in a global context by making EU climate legislation effective and Carbon Leakage proof.

Lufthansa Group has set itself concrete climate protection goals aligned with the Paris Agreement and the EU's emission reduction targets. By 2050, Lufthansa Group aims to operate CO_2-neutrally, with more fuel-efficient aircraft, the use of Sustainable Aviation Fuel (SAF), the expansion of intermodal transport, and innovative operational measures.

Legislation should support the decarbonisation of aviation in a competition-neutral manner. This is currently not guaranteed. ReFuelEU Aviation in its current design significantly weakens the competitive position of globally operating EU airlines. With its blending mandate for SAF, the Regulation makes traffic via EU-hubs massively more expensive and one-sided. This is because long- and short-haul connections starting within the EU require the use of more expensive SAF. Connections via hubs right behind EU-borders are hardly affected: If passengers change flights outside EU-borders to reach a long-haul destination, only the first shorter transfer flight requires SAF fueling. Especially non-EU airlines with hubs in Istanbul, Doha and Dubai benefit from this situation and can offer significantly lower ticket prices.

The EU must urgently act to restore a global level playing field in aviation. It is therefore crucial that the Regulation's review process is used to rectify this imbalance and ensure comparable treatment of non-EU airlines and their EU counterparts. Only in this way competitiveness and sustainability will go hand in hand.

RESPONSE FROM AIR FRANCE-KLM

The EU network airlines emphasise the necessity of global climate action to maintain a level playing field. The Air France-KLM Group supports the International Civil Aviation Organisation (ICAO) Long Term Aspirational Goal (LTAG) for net-zero carbon emissions by 2050 and advocate for ambitious global decarbonisation efforts, such as a worldwide ICAO Sustainable Aviation Fuel (SAF) blending mandate. We also call for increased ambitions in the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) as global carbon pricing would help to gradually close the gap in climate ambitions between the EU and the rest of the world. However, a unilateral decision to expand the EU Emission Trading System (EU ETS) to non-EU destinations, would pose a serious threat to these global objectives.

Air France-KLM further supports any mechanism that could compensate for the impacts generated by the Fit for 55 Package obligations, as they involved a shift of traffic towards non-EU hubs, thereby causing carbon leakage and distortion of competition. For instance, Air France-KLM considers that transport services (including aviation) could be integrated in the second phase of the Carbon Border Adjustment Mechanism (CBAM) to ensure fair pricing and tackle carbon leakage.

AFKL supports that, should a taxation on kerosene be introduced, it should be at a global level to maintain an international level playing field. Key parameters should consider the amount of SAF production globally available, and accessibility to all players. To make the necessary investments for decarbonisation of aviation available, it is a precondition that all revenues from the global kerosene tax are used to make the sector more sustainable, for example by making sustainable fuels for aviation (SAF) more affordable or to stimulate new technologies.

Third-country airlines operating in the EU should adhere to European social standards and requirements, considering the right for every worker to decent working conditions. This is crucial to ensure a level playing field. As we provide decent pay and labour conditions to our staff, it is only fair that non-EU airlines must also adhere to fundamental social rights, if they have access to the EU market.

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