AIRLINES FOR EUROPE

A4E'S RECOMMENDATIONS
BRUSSELS, MAY 2025

CREATING A LEVEL PLAYING FIELD FOR THE COMPETITIVENESS OF EUROPEAN AIRLINES
A4E's recommendations on policies to mitigate carbon and business leakage

Introduction

European airlines operate in a highly competitive market where unilateral EU climate policies significantly raise the cost of flying to, from, and via the EU. According to the Draghi Report on EU Competitiveness, decarbonising aviation could cost up to €61 billion annually between 2031 and 2050[1].

Many non-EU jurisdictions, including nearby non-EU destinations and hubs, lag behind in their climate actions compared to the EU. In particular, most non-EU countries lack a Sustainable Aviation Fuel (SAF) mandate[2] and a carbon trading system applying to aviation, equivalent to the EU Emissions Trading System (ETS for aviation)[3]. Additionally, non-EU carriers continue to fly over the Russian airspace, avoiding the longer, more fuel-intensive routes required for EU airlines.

High cost differentials coupled with readily available alternatives result in passengers still choosing to fly, but doing so via a non-EU hub, to a non-EU destination, or via an additional layover outside of the EU. This undermines the competitiveness of Europe and causes significant carbon leakage.[4]

To prevent business and carbon leakage, the EU must create a suitable policy environment which restores the level playing field, aligns EU decarbonisation ambitions with industrial realities and reduces costs.

This paper outlines the projected impact of EU climate policies on European airline competitiveness and carbon leakage and presents A4E's recommendations for effective mitigation measures.

1. EU Climate policies and the risk of carbon leakage and competitive distortion

1.1 Cost of compliance with EU climate policies for European airlines

The push for ambitious EU climate policies has increased cost pressures on European carriers.

Compliance with the **ETS** is currently one of the largest drivers, with costs expected to reach **€5 billion for A4E airlines by 2030**, a figure that is double the amount from 2025.

[1] Draghi et al. (2024), The Draghi report: A competitiveness strategy for Europe.
[2] No jurisdiction with a major aviation hub in direct competition with EU - other than the UK and Norway - currently has a legislated SAF mandate for 2030. The USA, Canada and China also lack legislated SAF mandates comparable to ReFuel EU Aviation.
[3] Turkey plans to launch a national carbon trading scheme (TR-ETS) in 2025, but it will exclude the aviation sector. Similarly, the UAE currently does not have a carbon pricing system in place. While discussions are ongoing, no concrete measures have been introduced. Saudi Arabia, the USA and Canada also do not apply a carbon price to aviation.
[4] This refers to the increase in greenhouse gas emissions in one country or region due to measures implemented by another country or region with stricter climate laws.

In addition, the evolution post-2030 of the EU SAF mandate is of significant concern as it increases incrementally in 5-year steps until 2050. Based on the recent Destination 2050 report[5], the **cumulative premium expenditure for SAF and hydrogen over conventional aviation fuel is estimated at €786 billion through to 2050**. By 2050, the annual cost of the EU SAF mandate for A4E member airlines is projected to reach €33 billion.

Regulatory costs for European airlines have been rising four times faster than passenger traffic, with an average annual increase of 11% compared to just 4% annual traffic growth since 2014[6].

1.2 Impact on European competitiveness and carbon leakage

Unilateral EU climate policies undermine the competitiveness of European airlines, tourism and the broader economy, as well as causing carbon leakage - particularly when compared to nearby non-EU destinations and aviation hubs not subject to SAF mandates or carbon pricing. A limited number of such competing non-EU destinations and hubs, where SAF mandates and carbon pricing instruments do not apply, constitute the bulk of the carbon leakage risk in EU aviation. These alternative routes often result in longer flights using more fossil kerosene, significantly reducing the overall climate benefit of EU measures.

This loss of competitiveness is particularly pronounced in passenger aviation and stems from high cost differences, price-sensitive consumers, and readily available alternative routes or destinations. Passengers may reroute through non-EU hubs or choose different, cheaper destinations, continuing to fly but outside Europe.

In general, **hub switching** is most evident **on EU–Asia routes**[7]. EU hubs face significantly higher costs due to ReFuelEU Aviation's SAF mandate, while hubs like Istanbul or Dubai are far less affected. By 2030, with a 6% SAF mandate, flying from Nice to Tokyo via Europe is estimated to be 15% more expensive than flying via Istanbul - doubling the 2024 difference. While the EU is reducing emissions on paper, the reality is that this shifts emissions elsewhere - two-thirds of lost passengers will still fly but through the non-EU hub. This implies that more than a quarter of the emission reductions achieved in the EU[8] are still released into the atmosphere through passengers switching to alternative flights and opting for less efficient hub routes. These impacts are expected to grow as the SAF mandate increases post-2030. Flights between North America and the EU also face significant risks[9].

Destination switching occurs when passengers opt for cheaper alternatives - either nearby (e.g., Turkey over Greece) or long-haul (e.g., South-East Asia over Europe) – as these routes can be offered at competitive prices owing to the avoidance of increased costs from intra-EU policies like the EU ETS or the proposed revision of Energy Taxation Directive (ETD). This trend, especially among leisure travellers,

[5] NLR SEO (2025), Destination 2050: A roadmap to net zero.
[6] Steer (2025), Assessment of the cost of regulatory compliance of European Airlines.
[7] Deloitte (2025), Creating a level playing field for decarbonisation in aviation.
[8] Total emissions decrease in the EU include all emissions savings from the use of SAF to comply with ReFuelEU Aviation and net demand effects through substitution and demand destruction.
[9] Deloitte (2025), Creating a level playing field for decarbonisation in aviation.

contributes significantly to carbon leakage, potentially reaching levels of up to 74% in 2030[10]. This increase would stem from the compound effect of the EU ETS and the proposed revision of the ETD, if passengers opt to fly further, or with less-fuel efficient airlines offering these routes.

Cargo aviation also faces certain carbon leakage risks – however, the risks here are differently pronounced due to fundamental differences in the way cargo operations are conducted. Many freight operators (both EU and non-EU) regularly fly via non-EU hubs to on- and offload cargo at non-EU airports. Cargo aviation also faces a higher risk of modal shift, e.g. a switch to maritime or road transport to circumvent aviation policies. In cargo aviation, customer relationships are also different, as customers are corporate entities – some of which are integrated with aircraft operators. Finally, cargo can be carried both on dedicated freighter aircraft and in the 'bellies' of passenger planes.

A4E urges the European Commission to **acknowledge the impact of carbon and business leakage on European airlines, and take effective actions to address both hub switching and destination switching.**

In doing so, the Commission should explore and apply measures that take into account the differences that exist between passenger and cargo aviation, focusing initially on passenger aviation and then designing a separate mechanism to address cargo aviation, with an aim of maintaining European competitiveness.

2. Mitigation measures to level the playing field

A4E believes that any future action to address carbon and business leakage taken by EU policymakers should bridge the gap of prices between EU and non-EU operators and improve European airline competitiveness by respecting the **following principles**:

- Bring **no additional cost** to all European operators and avoid a negative impact on the competitiveness of **Europe as a destination for business and leisure**.
- Keep **administrative and regulatory burdens** for all aircraft operators to a **minimum**.
- Seek to **address both hub switching and destination switching** carbon leakage.

Based on these principles, A4E is willing to work with EU Institutions to design a balanced policy mix that considers both climate goals and industry competitiveness within a broader **EU Aviation Strategy**.

2.1 CBAM extension to air services is not a feasible solution to address carbon leakage

Aviation is not covered under Regulation (EU) 2023/956 establishing the Carbon Border Adjustment Mechanism (CBAM), which targets carbon leakage in selected industrial sectors. Under Article 30(2a ii) of the CBAM regulation, the European Commission is mandated to review the scope of the CBAM with a view to potentially including emissions embedded in "transportation services" by the end of 2025.

Legal and technical assessments[11] confirm that CBAM – in its current form- cannot be effectively adapted to the aviation sector. Key barriers to addressing the competitive disadvantage caused by EU climate policies through a CBAM extension to air services include significant differences in geographical scope,

[10] Steer (2022), Carbon leakage risks from scope of aviation policy measures in 'Fit for 55'.

[11] Deloitte (2025), Creating a level playing field for decarbonisation in aviation.

responsible parties, calculation methodologies, taxable events, reporting obligations, applicable exemptions and adjustment rules.

Attempting to retrofit CBAM to serve as a carbon leakage tool for aviation— in response to EU climate policy-related costs—would result in a highly complex and inefficient mechanism, which would be difficult for both economic operators and competent authorities to implement.

A4E concludes that **extending CBAM to aviation services is unfeasible** and would not effectively address carbon leakage linked to EU Climate policies. Other mechanisms are needed to tackle the issue.

2.2 A policy mix to strengthen global cooperation and level costs on EU and extra-EU routes

There is no silver bullet to level the playing field. EU policymakers should adopt a combination of complementary policies that balances:

a) Costs on EU routes by incentivising SAF uptake and bringing down the costs of SAF

SAF is 56% of aviation's decarbonisation pathway[12]. Immediate support and action from the EU and national governments are needed **to incentivise SAF uptake and lower SAF costs to ensure the sector remains competitive.**

Extending and increasing the volume of the existing SAF Allowances will drive greater investment in SAF production, boost supply and potentially lower the cost of SAF.

The allocation of just 20 million SAF Allowances to be distributed from 1 January 2024 until 31 December 2030[13] offers only short-term relief at best. Additionally, the proposed price calculation method, based on neat SAF prices, does not reflect the actual costs airlines pay, which also includes supplier margins, blending fees, logistics, and more. The current text treats FEETs as an incentive for suppliers, although this should be an incentive for airlines. This is particularly important as the SAF mandate will triple in 2030 (2% to 6%), and a sub-mandate of 1.2% for e-fuels will kick in.

The high price of SAF[14] remains a major competitive disadvantage for European airlines and thus an incentive for carbon leakage, which expanded SAF allowances could mitigate.

SAF Climate Clubs[15] – in the form of multilateral agreements between countries – are also a valuable instrument to agree on common criteria and standards for SAF as well as on monitoring requirements.

[12] NLR SEO (2025), Destination 2050: A roadmap to net zero.
[13] EU ETS Directive 2003/87/EC, art. 3c(6).
[14] EASA Briefing Note February 2025. According to EASA estimates published in February 2025, biological SAF remains at an average price of 2,085 EUR/t compared to 734 EUR/t for kerosene, whereas production prices for synthetic prices averaged 7,695 EUR/t.
[15] The concept of climate clubs was popularised by Nordhaus53 in 2015, who proposed it to overcome free-riding dynamics in international climate policy.

b) Costs on EU routes by bringing down the costs of ETS and enhancing international cooperation through stronger CORSIA

To level the playing field, the **price of carbon emissions should be equal for all carriers**, both EU and non-EU, regardless of the type of flight or countries of departure and arrival[16].

To create a level the playing field, **ETS costs – currently at least three times higher than CORSIA[17] – should be reduced**. This would ensure an equal price of carbon emissions for all carriers.

A stronger, fairly implemented **CORSIA** has the potential to reduce distortions in competition while its impact on climate will be significantly more than a patchwork of local systems. This can be achieved through progressive amendments of the thresholds and baseline, development of strong sustainability criteria for off-sets (including carbon capture and removals - CCS), having mandatory enforcement of CORSIA commitments by all countries, and by extending CORSIA beyond 2035. The use of SAF could also be more directly targeted by CORSIA.

A4E and its members urge policymakers to **address aviation's climate impact globally and strengthen CORSIA to ensure equal carbon pricing across all carriers and reduce distortion of competition.**

c) Balancing costs on extra-EU routes not covered by the SAF mandate

While CBAM cannot be considered a viable option for the aviation sector, its principles can be transposed into a separate mechanism designed to address the carbon leakage impacts of ReFuelEU Aviation. This mechanism, referred to as a **SAF Border Adjustment Mechanism (SAF-BAM),** would apply to passenger aviation. Its functioning is explained in detail in paragraph 2.2.1.[18]

A4E believes that a **SAF-BAM provides a strong foundation**—when combined with other policies—to **initiate discussions with EU institutions and Member States** on establishing a mechanism with similar objectives to CBAM. **Such a mechanism would primarily aim to mitigate carbon leakage and competitive distortion arising from ReFuelEU Aviation's SAF mandate. However, it would also support increased cooperation between the EU and other countries on SAF policy and faster global adoption of SAF by airlines.**

While further adjustments may be necessary to address legal, operational, and political challenges, a SAF-BAM could represent a significant step toward ensuring a level playing field and contributing to the decarbonisation of the aviation sector on a global scale.

[16] The EU ETS allowance prices averaged €66.38 per t/CO2 in 2024 and are estimated to grow to €137.50 per t/CO2 by 2030 (+107%). By 2050, the price is projected to reach €315 per t/CO2 (+377%). The cost of CORSIA carbon credits varies depending on the type of project. Prices in 2024 are estimated at €17-48 per t/CO2, and will range from €27-82 per t/CO2 in 2030.

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[18] The design of a SAF-BAM is described and modelled by Deloitte (2025) Creating a level playing field for decarbonisation in aviation, pg. 30-38.

A4E remains committed to working with the European Commission and the co-legislators to design an appropriate combination of measures addressing both carbon and business leakage, and to ensure their fair implementation.

A SAF levy on passenger flight journeys is one of the measures under consideration by policymakers to mitigate carbon leakage and competitive disadvantages for European airlines. When exploring the possibility of such levy, its scope must be limited to the non-EU transfer legs of flight, in line with a SAF-BAM design. This approach would avoid placing additional burdens on intra-EU flights and passengers, which are already covered by ReFuelEU Aviation. Furthermore, the mechanism should ensure that revenues are reinvested in SAF development and fairly redistributed among airlines.

2.2.1 A SAF-Border Adjustment Mechanism for passenger aviation

Under a SAF-BAM, airlines carrying **passengers on subsequent-leg flights of journeys that originate in the EU and which connect through non-EU hubs would be required to purchase certificates reflecting the SAF obligations avoided by not complying with ReFuelEU Aviation SAF mandates**.

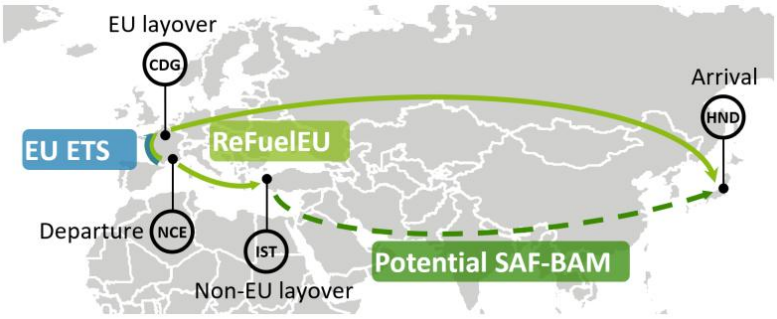

Figure 1: Policy scope of a SAF-BAM. Source: Deloitte report

The number of certificates would equal the difference between the SAF that would have been used if the entire journey had fallen under ReFuelEU Aviation and the SAF actually used on the first-leg flights within the EU, flights from EU airports to non-EU hubs, and any further legs covered by similar SAF schemes.

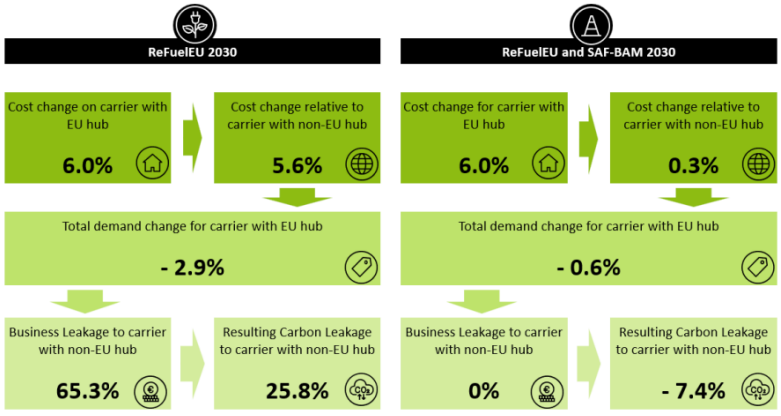

Figure 2: Impact on passenger journey from Nice to Tokyo comparing effects of ReFuel EU in 2030 with a SAF-BAM applying. Source: Deloitte modelling

However, SAF-BAM would not apply to all cases of carbon leakage, such as hub-switching where the EU is only a transit point between two non-EU airports, or destination switching.

A SAF-BAM mechanism would be compatible with EU law, similar to the FuelEU Maritime Regulation for the maritime transport sector that establishes environmental requirements for shipping routes between non-EU ports on journeys to and from the EU[19].Further

[19] Regulation (EU) 2023/1805 on the use of renewable and low-carbon fuels in maritime transport, and amending Directive 2009/16/EC

analysis shows that SAF-BAM is legally feasible, [20] provided it is structured to align with the principles of international trade, including compliance with the ICAO's Chicago Convention, the General Agreement on Trade in Services (GATS) of the Word Trade Organisation (WTO) and with the WTO's Technical Barriers to Trade (TBT) agreements.

Studies also suggest that SAF-BAM can offset cost disparities from ReFuelEU Aviation, helping prevent passenger shifts and, in some cases, even reducing overall emissions through negative carbon leakage (Figure 2).

Conclusion

European aviation operates within a global industry. Ideally, climate policy instruments of similar ambition would be adopted worldwide. However, in the current context, the EU's push for increasingly ambitious climate policies poses a competitiveness challenge for its aircraft operators and generates a shift, rather than a reduction, of emissions. This will remain the case at least until global mechanisms are strengthened and widely adopted.

To better align climate goals with competitiveness, and consequently avoid carbon leakage from aviation in Europe, the EU must adjust its policy mix and reduce costs for European airlines. Policymakers should pursue a combination of measures that reduce aviation emissions while minimising the risk of carbon leakage, while also safeguarding the competitiveness of Europe's aviation sector. While further adjustments may be necessary to address legal, operational, and political challenges, a SAF-BAM for passenger aviation could form part of a broader strategy to address these challenges.

Levelling costs on EU and extra EU routes is required to achieve these policy objectives.

A4E stands ready to work with the EU Institutions to design a policy mix accounting for competitiveness and climate implications as part of a comprehensive EU Aviation strategy.

[20] Deloitte (2025), Creating a level playing field for decarbonisation in aviation.