

A4E RECOMMENDATIONS FOR DG MOVE'S SUSTAINABLE TRANSPORT INVESTMENT PLAN (STIP)

Europe's aviation sector stands at a crossroads. With global competitiveness, sustainability, and strategic autonomy all at stake, the EU must act now and it must act decisively. The European Commission must use the Sustainable Transport Investment Plan (STIP) to align Europe's decarbonisation ambitions with industry realities—unlocking investments in SAF and hydrogen, enabling SAF offtake agreements while keeping air travel accessible to all and European carriers and destinations competitive.

A4E asks that the following principles are applied while drafting the STIP:

- **STIP must be the starting point of a comprehensive EU Aviation Strategy.** STIP must reinforce European airlines' competitiveness and help manage the cost of European aviation's transition to net zero both for airlines and their passengers.
- **STIP must also work for the demand side,** i.e. incentivise airlines to purchase SAF and lower the SAF prices for airlines.
- **STIP must be an industrial policy tool.** It should deliver a level playing field not only for EU fuel producers but also for aircraft operators and must prevent business leakage to non-EU competitors.
- **Urgent action is needed to scale up SAF production and uptake.** SAF is 56% of aviation's decarbonisation pathway (Destination 2050). STIP must provide funding, prioritise feedstock access, and support all SAF technologies equally (HEFA, advanced biofuels, eSAF).
- **All EU ETS revenues must be earmarked and recycled into SAF.** SAF allowances must be extended beyond 2030, with more allowances made available that cover a bigger part of the cost of SAF; SAF must be prioritised in the upcoming revision of the ETS Innovation Fund to ensure that SAF projects stand a fair chance.
- **Public-private investment is key.** The EU must earmark grants from its own financing instruments to SAF (and eSAF in particular) projects, as well as combine them with Member States own finances and capital from the EIB and private banks.
- **Market mechanisms.** A Market Intermediary/Contracts for Difference mechanism, backed by ETS revenues, and a Book & Claim system are needed to reduce investment risk and expand access to global SAF supply.

A4E remains fully committed to decarbonising aviation, cutting emissions, and reaching Net Zero by 2050. Without immediate support and action from national governments and the European Commission, the SAF mandates set for 2030 will have to be delayed.

Technical details on the instruments and mechanisms that STIP should address are contained in the Annex hereto. This technical content remains a living document that A4E will continue to build on over the next few months, as part of our contribution to the European Commission discussions on STIP.

Annex

A4E Priorities for DG Move's Sustainable Transport Investment Plan

The EU's **focus on economic growth and the competitiveness** of its businesses is essential for long-term prosperity. Airlines play a crucial role in this by enabling travel and connectivity, which directly contribute to economic expansion—data shows that a 10% increase in connectivity boosts GDP by 0.5%. However, to maximise this potential, **regulatory costs and burdens must be reduced to lower the cost of doing business**, ensuring that **aviation remains a driver of growth rather and competitive enabler**.

To prevent business diversion to non-EU competitors and to mitigate carbon leakage, policies must be designed to **reestablish a level playing field**. This includes refining the approach to **achieving Net Zero emissions**—an objective the aviation industry fully supports. However, achieving this target efficiently requires a smarter regulatory framework that balances sustainability goals with economic and competitive realities. The current design of the Fit for 55 package for aviation falls short of its objectives, as it drives up demand for Sustainable Aviation Fuels (SAF) without ensuring sufficient supply. To meet the SAF needs of airlines, the EU must facilitate easier access to the global SAF market, including through mechanisms such as a Book & Claim system, while maintaining the integrity of the EU ETS, alongside an ambitious plan to boost SAF production. This is where the DG MOVE Sustainable Transport Investment Plan becomes a critical instrument in aligning regulatory measures with both environmental ambitions and the sector's long-term competitiveness.

Major fuel suppliers are increasingly pulling out of the renewable fuels market and redirecting their investments toward fossil fuels. **The EU must act now** to counter this alarming trend. STIP must be the turning point - **the EU's chance to make or break the success of the ReFuel EU Aviation Regulation**. Without urgent action to build a functioning SAF market, the EU will struggle to ensure the necessary supply to meet its own SAF targets. While the early stages of the ReFuel EU quota—though costly—appear technically achievable, the sharp increase from 6% in 2030 to 20% in 2035 introduces significant risk. It remains unclear whether enough SAF will be available by then, and if so, at what cost. The eSAF submandate is a particular concern as it is produced in extremely limited volumes, at only a few facilities worldwide.

More broadly, it is becoming increasingly evident that **reaching the ReFuel EU targets will place a heavy financial burden on the EU aviation sector**. The Draghi Report on EU Competitiveness estimates that the cost of decarbonising aviation could reach €61 billion annually between 2031 and 2050. This **threatens to erode the global competitiveness of EU airlines** at a time when they are already under pressure.

The Sustainable Transport Investment Plan must mark a new chapter in EU climate policy—one that empowers the aviation sector to succeed in the energy transition rather than placing its future viability at risk.

1. Strategy and financing - SAF Industrial Policy Priorities for STIP

Without **accelerating the availability of affordable SAF**, our sector's important net-zero climate goals for 2050 cannot be achieved. The current EU regulatory framework is insufficient to bridge the still substantial price gap between conventional kerosene and SAF and to ramp up its production. STIP must focus on increasing SAF supply, to **lower costs for airlines as offtakers and ensure the sector remains competitive**.

Ensure Long-Term Bankability and Scale-Up of new SAF Projects

To attract private investment into SAF, **projects must be bankable** with stable, predictable conditions over time, including long-term offtake agreements. **STIP must go beyond early-stage CAPEX support** and ensure operational viability by **addressing ongoing OPEX costs**, helping bridge the green premium gap with conventional jet fuel.

Leveraging EU-level instruments is essential: combining **EIB performance guarantees with InvestEU blending finance** can reduce risk across the SAF value chain. However, **debt-only solutions are insufficient and must** ultimately be repaid, and in a macroeconomic context shaped by volatile interest rates, they are becoming less attractive. A mix of **earmarking EU financing instruments, Member States' own budget funds, non-repayable grants, public guarantees, and innovative financing tools** is needed to unlock the scale of capital required for SAF deployment.

The European Commission must also **prioritise direct investment in new SAF facilities**, following the **successful model of hydrogen infrastructure funding**. Early-stage support, risk-sharing, and public-private partnerships are crucial to accelerate advanced production technologies and maintain Europe's leadership in clean aviation fuels.

Improving EU ETS reinvestment and allocation mechanisms

We acknowledge and support the initiative to provide **20 million SAF allowances** for airlines within the EU ETS, as outlined in the delegated regulation on FEETS. However, the allocation of just 20 million certificates within a limited timeframe can only offer 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**.

- **Extend and increase the allocation of ETS SAF allowances** to provide long-term support beyond the current framework.
- Establish **multi-year SAF allowance auctions**, aligned with long-term SAF purchase agreements, to create **bankable agreements** that increase investment attractiveness.
- Recycle **ETS revenues** into SAF funding, following examples such as Germany's April 2025 coalition agreement plan to **reinvest 50% of ETS revenues in SAF production**.

- Member States must be mobilised to contribute, considering that **currently funds are being diverted to rearmament.**

Revenue from EU ETS should be dedicated to scaling up SAF production. However, any decarbonisation support mechanism must ensure that **benefits are fairly returned to the operators covered by ETS scheme**, in proportion to their financial contributions.

[Revise ETS Innovation Fund criteria to ensure that more SAF projects receive funding](#)

The **ETS Innovation Fund (IF) application process must become more accessible and tailored to the needs of SAF production** – its criteria must be revised to ensure that a greater number of SAF projects can successfully secure funding. Currently, the criteria and application process may not be sufficiently aligned with the specific needs of SAF production.

To enhance accessibility and effectiveness, the Commission should adapt the eligibility framework to better reflect the capital-intensive and long-term nature of SAF production. This includes **refining evaluation metrics to prioritise lifecycle emissions reductions, scalability potential, and alignment with EU climate goals.** Additionally, the application process should be streamlined to reduce administrative complexity and encourage broader participation from SAF developers.

A dedicated **SAF funding window within the IF** and **added points for projects** that can produce SAF at or close to price of kerosene and projects on **production of advanced biofuels and e-fuels** are needed. Earmarking EU funds from instruments such as IF, Horizon Europe, InvestEU for SAF production can further accelerate SAF deployment at scale as **EIB guarantees will not suffice for the cause.**

2. Measures for accelerating the SAF production and uptake in the EU

[Ensuring feedstock access for aviation](#)

As a **hard-to-abate sector with limited decarbonisation alternatives, aviation must be prioritised** in the allocation of sustainable feedstocks under STIP. Ensuring adequate access to key resources—particularly biogenic and renewable inputs—is essential to scale up the EU SAF production.

1. Access to competitively priced renewable electricity

Electricity is a critical input to produce eSAF. However, the high cost of renewable electricity in the EU—particularly compared to other regions—continues to act as a major barrier to scaling up. STIP must guarantee access to affordable, long-term renewable electricity contracts for SAF producers, particularly for hydrogen electrolysis and CO₂ capture. Without intervention, Europe risks falling behind in developing an eSAF industry that is both globally competitive and that would provide new jobs in the EU.

2. Prioritisation of biogenic waste for SAF

STIP must support the prioritisation of biogenic waste feedstocks for SAF rather than diverting them to lower-value uses such as incineration. These feedstocks are finite and so establishing clear prioritisation rules across sectors—backed by life-cycle emission data—can help direct waste materials toward the most effective decarbonisation use cases, with aviation at the top of the list.

3. Clarity and stability for re-used fossil CO₂

Regulatory clarity and certainty are needed for SAF projects planning to use re-used fossil CO₂. The eligibility of these feedstocks—currently time-limited under RED III until 2041—should be extended to ensure investor confidence and unlock early-stage financing for projects that reach final investment decision (FID) and begin operations well before 2041. This would offer investors the long-term confidence needed to back SAF projects that rely on these inputs and help avoid bottlenecks in future supply chains.

A technology-neutral approach: biofuels, advanced biofuels and eSAF

Europe's SAF strategy must **avoid a narrow focus on any single technology**. While eSAF is essential for long-term decarbonisation, mature and deployable solutions like HEFA biofuels and promising innovations like methanol-to-jet must be supported in parallel.

1. HEFA: Today's only scalable SAF

While eSAF is expected to play a key role in the long-term decarbonisation of aviation, it is essential that STIP does not focus only on them, at the expense of more mature solutions. **Biofuels, such as HEFA, remain the most commercially viable SAF pathway available today.** Biofuels are deployable now and provide a crucial stepping stone to a broader SAF market. STIP must therefore ensure that its investment strategy includes dedicated support for biofuels development and uptake.

This includes ensuring that the **FEETS mechanism explicitly covers biofuels**. A narrow focus on eSAF risks undermining investment in near-term solutions and weakening the sector's ability to meet short- and medium-term decarbonisation targets.

Policy must send a strong and visible message that **HEFA fuels deserve continued support**. Airlines cannot scale up their SAF usage without parallel efforts to bring down production costs. The green premium attached to SAF makes it difficult to finance the transition without sustained EU and national public intervention. The goal must be to gradually reduce these costs and STIP must support these efforts through **public-private partnerships** and **innovation funding coming from the EU budget** (Invest EU, Horizon Europe, European Innovation Council, ETS Innovation Fund).

2. Advanced biofuels: unlocking innovation and commercialisation

Advanced biofuels derived from **Annex IX Part A feedstocks under the Renewable Energy Directive (RED III)** offer a critical opportunity for long-term aviation decarbonisation. These fuels can leverage sustainable

and widely available waste and residue streams—such as agricultural residues, woody biomass, municipal solid waste, and even industrial off-gases—but face steep hurdles to commercial deployment. High capital expenditure (CAPEX), operational complexity, and exposure to volatile markets have so far limited their scale-up in the EU. To bridge this gap, the STIP must move beyond demonstration and actively support full-scale deployment.

Innovative pathways like methanol-to-jet (MtJ) and ethanol-to-jet (EtJ) offer high potential for scalable, cost-effective SAF production. These flexible, feedstock-agnostic platforms can process a wide range of sustainable inputs—waste sugars, syngas, biogenic CO₂— even **enabling carbon-negative emissions** when using residues or waste-based ethanol.

However, despite technical maturity, **commercial deployment remains challenging** without support. STIP must introduce EU-level interventions such as revenue certainty mechanisms (e.g., price floors, feed-in premiums, SAF Contracts for Difference) and bankable offtake agreements. Investment in decentralised production hubs and integration into existing refining and airport logistics networks is also crucial.

To **build a strong, resilient value chain**, STIP should support regional feedstock aggregation and encourage the development of transportable intermediates like methanol and ethanol. Improved regulatory signals are needed: the **RED III multiplier advanced SAF energy content in aviation should be adjusted** to better reflect their climate benefits and higher production costs and EU taxonomy and state aid rules must prioritise these fuels. Controlled imports of low-carbon intermediates should be allowed to support early market development.

3. Special focus on eSAF

While **synthetic aviation fuels (eSAF or PtL)** are essential to meeting long-term decarbonisation goals, the current feasibility of meeting the ReFuelEU Aviation submandate for eSAF is uncertain. The reality is that only a handful of PtL production plants are operational today, and the volumes they produce are negligible.

To unlock investment, **PtL producers need clear signals of sustained, large-scale, cross-sectoral demand**. This could catalyse investment and support building PtL production capacity across Europe.

Nonetheless, **aviation must remain the priority as a hard to abate sector**. Mechanisms must be put in place to ensure that increased PtL demand does not divert essential feedstock volumes away from the aviation sector. Prioritisation rules and dedicated quotas for aviation could be necessary to secure supply once broader market uptake is achieved. This balance between market enlargement and sectoral prioritisation will be crucial to ensure that eSAF can scale rapidly and cost-effectively.

In summary, for eSAF to become reality in the EU, STIP must prioritise:

- Visibility over long-term pricing via market intermediaries;
- Access to abundant, competitively priced green hydrogen;
- Support for demonstration and scale-up of PtL plants with flexible feedstock options.

- STIP should also assess whether ringfencing eSAF volumes for aviation to avoid competition from other sectors with lower climate urgency or more viable alternatives.

4. Access to hydrogen for eSAF

Electro-based sustainable aviation fuels (eSAF), like Power-to-Liquid (PtL) jet fuel, depend on green hydrogen. Yet today, limited supply and high costs in Europe are major barriers. To make eSAF commercially viable and competitive, access to reliable, affordable, and transportable green hydrogen must become a priority under STIP.

Key priorities:

- **Scale up renewable hydrogen production** through electrolysis with priority access to renewable electricity, dedicated aviation allocations (e.g., Hydrogen Bank), and fast-tracked permitting for new projects.
- **Develop hydrogen transport and storage infrastructure**, including pipelines and shipping solutions, and promote use of intermediates like methanol or ammonia for easier handling.
- **Create investment certainty** by sending a clear political signal that aviation is a priority sector, establishing long-term hydrogen offtake contracts backed by guarantees.
- **Promote international cooperation**, securing sustainable hydrogen import corridors from trusted partners, aligning sustainability standards with EU rules, and supporting responsible imports to supplement domestic production.

Global SAF Supply: unlocking imports while upholding EU RED III standards

While the EU must continue developing its domestic production capacity, **imports from third countries will also be necessary to meet ReFuelEU mandates** in the near term. The United States, China, and several South American countries are rapidly expanding their SAF production capacities, positioning themselves as potential suppliers to the EU market.

However, importing SAF into the EU presents challenges, primarily due to **stringent sustainability criteria outlined in RED III**. RED III mandates that SAF must not be produced from food or feed crops and must adhere to strict land-use and greenhouse gas emission reduction standards. This effectively excludes many crop-based biofuels, such as those derived from corn or soy, which are prevalent in the US and South America. Additionally, compliance with RED III requires a thorough verification process, including certification and registration in UDB. These requirements can be burdensome for foreign producers, potentially limiting the volume of SAF imports that meet EU standards.

To address these challenges, the EU could consider for example **establishing bilateral agreements** with key exporting countries to harmonise sustainability standards and streamline certification processes. Such collaborations would facilitate the import of compliant SAF, helping to meet the ReFuel EU mandate levels.

Prioritising the demand side and recognising airlines role as offtakers

To ensure a balanced approach, **STIP must not become solely a subsidy mechanism for fuel producers or suppliers and recognise the difference of needs between fuel suppliers and airlines who can both act as offtakers.** Aviation decarbonisation depends equally on stimulating the demand side, particularly through measures that give airlines the visibility and financial predictability needed to plan SAF uptake.

Airlines require long-term clarity and cost control to integrate SAF into their business models. Predictable pricing frameworks are essential. This means that support measures such as **SAF allowances—currently provided under the FEETS mechanism—must not only be extended but also significantly scaled up.** These allowances play a key role in closing the cost gap between SAF and fossil kerosene, the so-called green premium.

Critically, these **allowances should be allocated on a multi-year basis.** Annual allocations create uncertainty and hinder effective fleet and fuel planning. Multi-year planning horizons will give airlines the ability to make strategic procurement decisions and offer greater confidence in the market.

The **green premium should not be passed on fully to airlines.** This would not only undermine competitiveness but also penalise early movers. Instead, the cost differential must be absorbed—at least in part—through targeted policy tools such as allowances and intermediary pricing mechanisms.

Integrating SAF deployment and investment mechanisms into STIP

Scaling up SAF production requires **substantial upfront investment,** and without strong financial support, the industry risks falling short of aviation’s decarbonisation targets and losing its competitiveness. To unlock private capital and reduce consumer costs, risk-sharing mechanisms must be developed to lower the perceived risks of SAF projects and incentivise the development of low-carbon aviation technologies.

A key tool is the **introduction of Contracts for Difference (CfDs),** which can stabilise revenues for SAF producers by guaranteeing a fixed price, even in volatile markets. Successfully used for green hydrogen and carbon capture, **CfDs would provide the long-term certainty needed for investment decisions.** However, to make them effective, **substantial public funding from both the EU and national governments** is needed to bridge the price gap and drive SAF deployment at scale.

Design of an Intermediary Mechanism (drawing inspiration from Project SkyPower)

The Commission is currently in advanced discussions with a group of Member States (DE, NL, DK, CH, LU) regarding the financing of a **market intermediary** for SAF, with less advanced dialogue underway with others (SE, BE, FR, AT, ES). A4E supports a **market intermediary that offers long-term contracts to both eSAF producers and purchasers,** underpinned by **ETS revenue recycling.** This would provide **financial certainty** and encourage project developers to reach FID. Recognising the need for immediate action, A4E also endorses the introduction of **transitional support mechanisms in 2025.** These would provide interim financial support to pioneering projects until the intermediary becomes fully operational.

These ideas of an intermediary and an interim solution mirror the model proposed by Project SkyPower, which offers a promising structure. This must however be **adapted to ensure airlines are not subjected to double auctioning**. A practical approach could be a **blended producer price** offered at a standard discount to offtakers.

Book and Claim mechanism

To ensure an efficient and competitive SAF market, STIP should support the implementation of a **Book & Claim (B&C) mechanism** that allows SAF production to be optimally located in the most cost-effective regions while ensuring emissions reductions are properly accounted for. Book and claim mechanism would need to be aligned with **EU ETS principles**, ensuring that SAF use is correctly credited to operators.

This would:

- Reduce reliance on local production constraints and **encourage investment in high-potential SAF facilities**.
- **Weaken the market dominance of fossil fuel incumbents**, fostering a more competitive and diversified SAF market.