ECA Piloting Safety
European Cockpit Association

SECURING A SUSTAINABLE FUTURE FOR AVIATION

THE PILOTS' PERSPECTIVE

EXECUTIVE SUMMARY

1. RECOGNISING THE CHALLENGE

Climate change is one of the biggest challenges of our times. Aviation is a strategic European infrastructure which will continue to play a vital role with regards to ensuring safe mobility in Europe. However, aviation will have to engage on a very ambitious decarbonisation pathway to be part of the 'green' solution. ECA therefore calls on policy makers and all stakeholders in the air transport industry to join forces and act swiftly to maintain a resilient, competitive, and sustainable aviation system in Europe.

2. COMMITMENT TO THE EU GREEN DEAL

European pilots are committed to the goals of the European Green Deal and overall welcome the ambitious 'Fit for 55' package policy initiatives, however subject to a number of observations and suggested improvements.

3. SUSTAINABLE AVIATION FUELS (SAF) – A STRATEGIC RESOURCE

SAF are widely recognised as the most promising avenue to decarbonise aviation in the short to medium-term and as such ReFuelEU is a key pillar of 'Fit for 55' package in introducing a blending mandate. Securing early access to sufficient supply of SAF, at a reasonable price, will be a crucial asset to be among the winners of the green transition, as access to SAF will define who will fly the routes in future. European pilots therefore call upon the EU policymakers and the industry to take the necessary, urgent steps to become a leader in producing truly sustainable SAFs to secure future connectivity, employment and competitiveness of Europe's aviation.

EXECUTIVE SUMMARY

4. PILOTS' CONTRIBUTION

It is ECA's ambition to promote new operational practices and procedures bringing environmental gains. European pilots are ready to contribute concretely, in their own remit, to the collective effort to reduce aviation environmental footprint. It is of utmost importance to ensure that the level of safety shall be maintained or improved when such environmentally driven procedures are introduced.

5. SUSTAINABLE GROWTH

Scientific evidence shows that sustainable growth in aviation is achievable, provided a number of well-chosen, timely and ambitious measures are taken to prevent global warming from going beyond +2 degrees Celsius.

6. ENVIRONMENTAL SUSTAINABILITY MUST GO HAND IN HAND WITH SOCIAL AND ECONOMIC SUSTAINABILITY

It is essential that greening aviation does not come at the expense of social rights, quality employment and decent working conditions. ECA therefore calls upon policymakers to enable a regulatory and policy environment that promotes social sustainability at all stages of the transition towards a decarbonised aviation sector. This also means that the additional costs related to the green transition should not be compensated by cutting costs through the use of precarious atypical forms of employment (such as broker agency and zero-hours contracts, (bogus) self-employment or exploitative Pay-to-Fly schemes). To put airlines in a position to invest green economic sustainability is also important. Securing a regulatory framework ensuring fair competition and a level playing field is therefore paramount.

1. AVIATION – A STRATEGIC INFRASTRUCTURE & PART OF THE 'GREEN' SOLUTION

European infrastructure, providing essential connectivity and promoting socio-economic cohesion and timely supply of goods and services. This infrastructure is a public good, part of the wider economy's backbone, and will continue to play an important role with regards to safely air-connected Europe.

For these reasons, ECA is of the firm opinion that aviation must be part of the 'green' solution and set the basis now for being part of a safe and sustainable future transport system in Europe.

The need for securing a sustainable future for aviation comes against the backdrop of the latest Intergovernmental Panel on Climate Change (IPCC) report[1], released in February 2022, which confirms that climate change is one of the biggest challenges of our times. It stresses that ambitious, accelerated action is required to adapt to climate change, at the same time as making rapid, deep cuts in greenhouse gas emissions. While aviation's emissions represent slightly less than 3% of global CO_2 emissions (pre-pandemic levels) they continue to increase[2]. The estimated long-term annual improvement in fuel efficiency of over 2% per year will therefore not be sufficient to make aviation carbon neutral by 2050. Furthermore, in 2020, the consultancy Roland Berger forecasted that if other industries decarbonise in line with current projections, aviation could account for up to 24% of global emissions by 2050 – unless there is a significant technological shift, concluding the industry needs a revolution[3]. Finally, the energy crisis which arose in 2021, worsened by the war in Ukraine, is expected to last. As a consequence, all industries heavily depending on fossil energy will be severely impacted in the future[4]. Putting aviation on a green path will therefore be essential to make the industry more resilient.

Against this background, the aviation industry will have to engage on a very ambitious decarbonisation pathway, and scientific evidence shows that sustainable growth in aviation is achievable – provided bold measures are taken soon enough and by all relevant players concerned.

ECA therefore calls on policy makers and all stakeholders in the air transport industry to join forces and act swiftly to preserve a resilient, competitive, safe and environmentally sustainable aviation system in Europe, and to contribute to the plan and goals of the Paris climate agreement.

Europe's pilot community is committed to play its part in this transformation and to positively engage and actively work with policymakers and stakeholders to reach Net Zero CO_2 emissions by 2050 while continuously ensuring the highest levels of aviation safety.

At the same time, environmental sustainability goes hand in hand with social and economic sustainability. It is essential that greening aviation does not come at the expense of social rights, quality employment and decent working conditions. All efforts towards decarbonisation must foster socially responsible connectivity in Europe, ensuring that social and employment standards enshrined in EU and national legislation are applied and enforced effectively for all aviation workers. It is more crucial than ever that a sound social dialogue is carried out at all stages to ensure a just and socially sustainable transition. To put airlines in a position to invest green economic sustainability is also important. Securing a regulatory framework ensuring fair competition and a level playing field is therefore paramount.

2. THE PILOTS' PERSPECTIVE ON THE FF55 PACKAGE PROPOSALS

For EU Member States, the path towards aviation's decarbonisation takes place within a regulatory framework, based on the EU Sustainable and Smart Mobility Strategy (Dec. 2020), the European Green Deal roadmap, and the European Climate law. The latter sets a binding objective of climate neutrality (i.e., net-zero emissions in the EU) by 2050, in line with the long-term temperature goal set out in the Paris Agreement and provides for an intermediary target of net GHG emissions reductions of 55% by 2030 (compared to 1990 levels). Non-EU member states such as UK are not part of this regulatory framework and will be responsible for developing their own regulation such as the Jet Zero strategy expected to be announced in the UK in July 2022[5]. While some policy differences are inevitable, the ECA expects and encourages non-EU Member States to develop regulations that are similarly ambitious as the Fit for 55 package and, importantly, broadly compatible with it to ensure a level playing field across Europe.

Translating the EU Green Deal's goals into concrete on-the-ground steps, in July 2021, the European Commission put forward a set of ambitious policy initiatives known as 'Fit for 55 Package'. European pilots overall welcome the directions and policy orientations set by the European Commission, subject to a number of observations and suggested improvements.

ReFuelEU Aviation – A strategic resource: Sustainable Aviation Fuels

Sustainable Aviation Fuels (SAF) are widely recognised as the most promising avenue to decarbonise aviation in the short-term to medium-term. It is estimated that SAF represent around a third of the efforts towards a carbon neutral aviation by 2050, which is considerable. Availability of and access to SAF is therefore a key, strategic resource for the industry. Those airlines and regions that secure early access to sufficient supply of SAF, at a reasonable price, will be among the winners of the green transition, as access to SAF will define who will fly the routes in future.

Pilots therefore call upon the EU to take the necessary steps to become an early leader in producing truly sustainable SAFs and at an industrial scale, in order to untap their full environmental potential and to secure future connectivity, employment and competitiveness of Europe's aviation.

To ensure this, European pilots consider that a number of key principles must guide the growth of a European SAF industry. Together with airlines and environmental groups, ECA issued a consensus statement (March 2021), urging decision-makers to go for a sustainable, future-proof framework for SAF.

Furthermore, after the EU Commission published its ReFuelEU Aviation proposal, pilots joined the 'Fuelling Flight Initiative' (incl. e.g. Air France-KLM, easyJet and Ryanair and non-governmental organisations such as Transport & Environment) in providing future-proof guidance. While commending the European Commission for its exclusion of food and feed crop-based biofuels, the coalition has urged the EU's legislators to strengthen the proposal by adding:

- Earlier and more ambitious sub-targets for e-kerosene if sufficient green hydrogen and renewable electricity becomes available. This will contribute to certainty for investors and producers to scale-up production
- Financial support to enable new biofuel feedstocks, under strict sustainability criteria
- The creation of a European SAF industrial alliance to ensure that SAFs will actually be available on time, at sufficient volume and at a reasonable price
- A comprehensive SAF registry applying to fuel suppliers which will permit a book & claim system to be established and will therefore incentivise financial contributions from airlines and others, such as customers, to use additional SAF beyond the level of the mandate

ECA's more detailed position on ReFuelEU Aviation can be found in Annex 1.

EU Emission Trading Scheme (ETS) Aviation

It is estimated that the consolidation of the cap on aviation emission allowances and the increased auctioning of aviation allowances could bring up to 12% reductions in the aviation sector. From this perspective, ECA welcomes the proposed revision of the EU ETS (aviation). The pilots' community has, however, a number of considerations to share.

» ECA supports the principle of a gradual reduction of emission allowances allocated for free to airlines. With regards to the speed and intensity of the transition, we strongly stress that the European air transport sector should stay competitive internally and externally. The potential risk of 'carbon leakage' must therefore be carefully evaluated and mitigated.

» The shift from free allocation of emission allowances to auctioning will generate additional revenues. We believe that 100% of these revenues should be earmarked for the promotion and development of SAF, and more specifically the electro-fuels (this could be done for example through subsidies to reduce the price of SAF). In this context, it is disappointing that according to the Commission's proposal only 50% of the revenues generated from auctioning should be used to reduce GHG emissions. All such revenues should be used to tackle climate change at the European level, especially to support aviation decarbonisation.

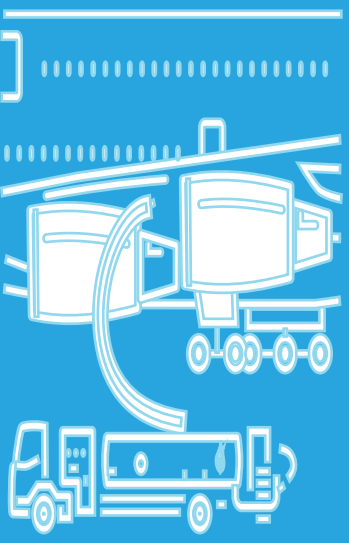
» Ideally, EU ETS should be transposed into the global ICAO CORSIA, in order to prevent market distortion and extend the geographical range of these economic measures to reduce and offset carbon emissions. The ICAO CORSIA long-term and intermediate goals should in that case be adapted to reflect the EU's climate ambitions. European pilots call upon the EU policymakers to pay high attention to maintain a level playing field for European airlines.

Taxing jet fuel – the Energy Taxation Directive (ETD)

The aim of Energy Taxation Directive recast Commission's proposal is to align the taxation of energy products with EU energy and climate policies, to promote clean technologies and to remove outdated exemptions and reduced rates that currently encourage the use of fossil fuels. For aviation, this means taxing jet fuels.

European pilots agree that tax on jet fuels might send a clear pricing signal to airlines and consumers. However, the potential advantages that the revision and the proposed discontinuation of the tax exemption of jet fuels would only materialise if certain conditions are met:

» The discontinuation of jet fuels exemption from the ETD will generate



additional revenues. We strongly endorse that these revenues be ring-fenced to subsidise research, development and implementation of SAF in a transparent and accountable manner, in view of accelerating aviation decarbonisation which is estimated to require massive investments.

» The introduction of an EU-wide tax on jet fuels is aimed at adjusting the consumers' behaviour. However, in case such a tax is imposed, it is crucial that this does not have negative social impacts on pilots and our fellow aviation workers. To prevent such social consequences – and in line with the 'polluter pays' principle – the costs of such a tax should be carried by air travelers and this in a transparent manner visible on the flight ticket. This would not only provide transparency to travelers on their tax contribution to the environment, but more importantly it will reduce the risk of airlines passing on the tax cost to their employees, e.g. by reducing terms and conditions or by engaging in socially harmful practices such as precarious atypical employment forms.

» In the context of fair competition among the different modes of transport, ECA strongly advocates for aviation-specific measures to complement the Renewable Energy Directive (RED) which would enable an effective transition from fossil fuels to SAF in air transport. A preferential tax rate for SAF under the ETD revision proposal might prove to be a sensible tool to incentivise a broader SAF uptake across the EU. However, this can only be achieved if operators have access to sufficient volumes of SAF. A level playing field among the different modes of transport must be ensured for biofuels, and electro-fuels should be prioritised for aviation.

3. WHAT PILOTS CAN DO? OPERATIONAL MEASURES

European pilots are committed to the goals of the European Green Deal and as such are ready to contribute concretely, in their own remit, to the collective effort towards aviation decarbonisation, while such endeavour has been integral part of pilots' behaviour in the past. Pilots are expert about the day to day reality of operations as they actually happen; where they are wasteful, efficient or could just be done differently or better; where broader proposed policies might change behaviours, have more or less effect, or have unintended consequences in the reality of airlines' functioning. Together with other stakeholders, European pilots are therefore prepared to work specifically on more environmentally friendly ways of flying and operating. At the same time, ECA stresses that it is essential to ensure that the level of safety shall be maintained or improved whenever environmentally driven procedures are introduced, and that the Commander must always prioritise safety over other considerations, incl. environmental ones, where such choice is necessary due to the operational circumstances.

On short-term it is estimated a set of operational improvements can effectively reduce emissions without having an impact on pilots, airlines or passengers. It is therefore ECA's ambition to promote, including within its membership, new practices and procedures bringing environmental gains and to support their large-scale deployment.

Some operational measures have already been successfully applied by airlines to reduce fuel consumption and brake wear, for instance approaches with minimum flap setting or landing with idle reverse thrust. However, such measures might have adverse safety implications (e.g. use of minimum landing flaps at some smaller airports and in poor weather conditions) and therefore must always be submitted to the operational discretion of flight crew on each sector.

Some of the other areas where we see a possibility of flight efficiency improvements are:

Balancing fuel burn against time constraints

Airline operators should be encouraged to use lower cost indexes (prioritizing lower fuel burn over speed)/ maximum range cruise speeds[6] where possible to minimise the resultant carbon emissions for each flight. ATC networks should do all they can to facilitate operation at lower/more economical speeds.

Practice of 'tankering'

A clear distinction should be made between 'tankering' – which is the carriage of extra fuel for economic or commercial/operational reasons (usually requested by an airlines operations department), and is to be avoided if detrimental to the environment, and extra fuel uplift – which is at the crew's discretion due to factors such as weather or anticipated holding at destination, and should not be regulated for safety reasons.

On-the-ground gains

Airport operators have a significant role in providing gate facilities at airports which will allow more economical and sustainable aircraft turnaround procedures. These could include:
a) Provision of ground based electrical power and air-conditioning - this is commonly available at gate stands, but not widely available at remote stands.
b) Use of zero-emission vehicles for aircraft servicing.
c) Use of electric push back trucks, which could possibly also tow aircraft to an engine start point closer to the runway. Aircraft generally needs a 3-5 minute engine warm-up time before take-off.
Single engine taxi could be maximised in line with the IFALPA recommendations[7], i.e. by the provision of timely and accurate information to pilots about their expected take-off time, this would allow them to start engines at the optimum time before take-off. During fog/winter weather conditions this may not be possible due to crew workload/safety conditions.

Optimum slot scheduling

Today's slot scheduling should be improved towards a more holistic approach. Slot allocation should minimize propagated delays and improve airport slot adherence (e.g. hard arrival slot times driving the departure slots) while taking the whole flight into consideration. Better communication and planning across different ATC (air traffic control) sectors and pilots should be arranged to manage in-flight delays, for example by reducing speed during cruise to adjust for new ETA (estimated time of arrival) also known as linear holding.

Standardized RNAV (area navigation) approaches including CDO (continuous descent operations)

Various large-scale projects to improve ATM (air traffic management) efficiency for economic and environmental benefits have been launched. Before these projects bring the desired results, some improvements in the approach procedures can be achieved already now.

Within the constraints of the existing STAR (Standard Terminal Arrival) approach and by using the current technology, streamlining of operational patterns can potentially have major positive effects both environmentally and economically. For any such shift a good pilot to air traffic controller communication is essential and must provide the following information:

- Provide the controllers with distance to TOD (top of descent)
- Plan for idle descend
- Standardised approach speeds
- Traffic sequencing should be achieved by small speed adjustments as early as possible. Preferably during cruise or early phases of descent, thereby minimizing sequencing maneuvers at lower altitudes.
- Direct to IAF as early as possible
- Provide pilots with information on distance-to-go, e.g., distance to the runway threshold.

The list of the above-mentioned areas of possible flight efficiency improvements is not exhaustive8. At the same time, such improvements always have to be considered within a systemic approach taking into account all the other factors which may negatively affect air operations in terms of environmental gains (e.g. airport and airspace congestion, avoidance of conflict zones, etc.). A certain level of "inefficiency or contingency" is in fact necessary (separation minima, adverse weather, avoidance of 'Danger Areas') per system design.

This will also have implications for pilots' training. The corresponding training syllabus and practices will have to be updated accordingly.

In case environmentally-driven procedures are introduced in the ATM system, these must take into consideration the increased complexity for the front-end users, namely controllers and pilots, especially the related human factor and HMI (Human-Machine Interface) issues. This complexity must be managed at the appropriate, strategic level, never at tactical stage. A trade-off between environment and capacity must be considered as part of this management of complexity, as safety is paramount. Any environmentally driven procedure shall not expose the ATCOs and pilots to undue liability issues.

Moreover, pilots are eager to actively participate in R&D / R&T activities (e.g. in the context of Clean Aviation & SESAR programmes) and to contribute to trials such as recent MUAC-led contrails prevention trial aiming at further establishing data and knowledge on the non-CO_2 effects of aviation and assessing relevant course of actions to increase aviation environmental performance. In this regard, the improvement of information management systems (including meteorological and operational information) may help pilots in taking the most appropriate decision.

A list of relevant IFALPA papers and ICAO reference documentation related to operational measures can be found in Annex 2.

4. SUSTAINABLE GROWTH – A CHALLENGE, BUT FEASIBLE

Being a strategic infrastructure and essential part of the wider economy's backbone and Europe's society at large, and notwithstanding the environmental need for a certain optimisation of travel distribution among the different modes of transport within countries and within the European region, aviation is an industry that will be vital to the European economy also in future.

That this can be done in a sustainable manner is supported by scientific evidence, such as the 'Shift project' and the recent ICAO LTAG findings. According to the Shift project, the evidence shows that that sustainable growth in aviation is achievable, provided a number of well-chosen and ambitious measures are taken – and are taken soon enough – to prevent global warming from going beyond +2 degrees Celsius. Scientists predict that in order to stay within the corresponding carbon budget, there would have to be an annual geometric reduction rate of 3.39% in aviation. However, under certain strict conditions – such as the swift introduction of aircraft technology improvements, systematic fleet renewal in the coming years, and 100% access to SAF – a positive annual growth rate of +2.52% is foreseeable.

5. SUSTAINABILITY IS THREEFOLD: ENVIRONMENTAL, ECONOMIC AND SOCIAL

The Covid-19 pandemic has been a stress test of enormous proportions for our societies and economies – and hit aviation and its employees particularly hard. While climate change had become a growing challenge for aviation over the past years, with new expectations from younger generations, this unprecedented crisis has basically brought the sector to its knees. At the same time, it also represents an opportunity – with "building back better" having become the new motto for the post-crisis era. It is European pilots' firm belief that aviation must seize this opportunity to 'reinvent' itself to become, again, a sustainable, robust and resilient 3.0 industry – a pre-requisite for any further growth perspective in the long-term.

Sustainability must therefore be the cornerstone of any aviation rebuilding. However, the green transition cannot and must not come at the expense of aviation workers and social standards, but instead be integral part of the 'sustainability triangle', involving environmental, economic and social sustainability.

European pilots therefore welcome the recent Toulouse Declaration on the future sustainability and decarbonisation of aviation. Signed in Feb. 2022 by all European countries (EU and ECAC) and all relevant aviation stakeholders, this Declaration emphasises 'the importance of fostering the social sustainability of air transport and of addressing it at the same time as environmental and economic sustainability of air transport' and acknowledges 'the social dimension of the transition towards sustainable aviation and the importance of fostering social sustainability and just transition, including through adequate social dialogue conducted at all stages, as well as reskilling and upskilling of workers'.

Making sure that all efforts towards decarbonisation foster socially responsible connectivity in Europe, means inter alia that the additional costs related to the green transition should not be compensated by e.g. airlines cutting costs through the use of precarious atypical forms of employment, such as broker agency and zero-hours contracts, (bogus) self-employment or exploitative Pay-to-Fly schemes. Generally, it means that environmental measures are systematically assessed about their social impact, in order to identify and implement policy options that have no or minimal negative social effects for aviation workers. An example would be the way a jet fuel tax might be introduced in future: if borne by the passenger (and visible on the flight ticket), airlines will be less tempted to pass on the tax' cost to their employees by reducing pay and conditions.

Moreover, genuine social dialogue must be carried out at company level, during all stages of an airline's green transition, to ensure that such a transition is just, socially sustainable, and accompanied by adequate training and re-skilling.

Fostering social sustainability and responsibility is also crucial to attract and retain talented, highly-qualified and motivated people in the aviation sector, especially at times where the younger generation's professionals may feel less attracted to aviation unless and until it has managed its green transition. Hence, social sustainability is and will be a key factor of resilience and stability, and an asset for an industry which is to face multiple challenges and threats over the next decades.

Finally, fostering social sustainability and responsibility will increasingly be a pre-condition for airlines to attract and keep financial investments. Already today, Environmental, Social & Governance (ESG) standards are shaping investor's decisions. This trend is expected to continue and increasingly link progress on the environmental side with progress on the social side, with the latter ensuring access to highly skilled human resources and social peace during a green transition that can be expected to be disruptive at times.

On behalf of Europe's pilot community, ECA therefore calls upon EU and national policymakers to enable a regulatory and policy environment that promotes social sustainability at all stages of the transition towards a decarbonised aviation sector. ECA also calls upon aviation stakeholders, and in particular airline managements, to do the same at company level and to consider their pilots as a partner and resource during the green transition.

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Footnotes:

1. IPCC Working Group II report, Climate Change 2022: Impacts, Adaptation and Vulnerability
2. Since COP3 in 1997, CO_2 emissions from aviation have almost doubled and currently match the total emissions of the 129 lowest emitting countries. Source
3. Hydrogen – A future fuel for aviation, Roland Berger
4. It is estimated that fuel accounted for around 23.5% of airline operating expenses in 2018 and 2019
5. GOV.UK, Department for Transport, 14 July 2021, 'Jet zero: our strategy for net zero aviation'
6. Aeromagazine: Fuel Conservation Strategies Cost Index Explained, Boeing
7. For more information, see the IFALPA Position 16POS11 'All Engine-Out Taxi (AEOT)', 6 December 2016
8. Or a more comprehensive overview of operational measures, see for example the ICAO Document 10013 'Operational opportunities to reduce fuel burn and emissions', 2014
9. 'Pouvoir voler en 2050: Quelle aviation dans un monde contraint ?' Rapport by the Shift Project
10. Déclaration de Toulouse sur le développement durable et la décarbonation de l'aviation

ABOUT ECA

The European Cockpit Association represents the collective interests of professional pilots at European level, striving for the highest levels of aviation safety and fostering social rights and quality employment.

www.eurocockpit.be

Annex 1 – ECA's views on ReFuelEU Aviation Commission's proposal

ECA believe that the introduction of a SAF blending mandate will help to drive a significant scaling-up of SAF production and the ReFuelEU Aviation legislative proposal put forward by the European Commission in July 2021 is therefore welcome.

The pilots' community has, however, a number of considerations and suggestions to share.

ECA supports a balanced SAF mandate with a more ambitious European e-kerosene sub-target

Mandating the use of sustainable advanced fuels is the correct way to speed up the development of these alternative fuels and their use by the sector. Sustainability and resource availability are key factors in promoting a specific type of SAF in order not to repeat the mistakes of the past with the use of unsustainable biofuels. Advanced biofuels will undoubtedly play a fundamental role in the SAF mandate, bearing in mind that setting unrealistically high targets on the wrong type of SAF can have disastrous consequences.

Next to the development of advanced biofuels in Europe, early and strong support for e-kerosene is a key pathway to scale up the supply of SAFs. Multiple initiatives in Europe are developing plans to build synthetic kerosene facilities in the second half of the decade. Having a mandate starting 'only' in 2030 (see the Commission's SAF mandate table) will unnecessarily delay these developments. The ReFuelEU initiative should send a clear market signal for e-kerosene from green hydrogen through a binding mandate for the use of such fuel commencing already in 2027 at 0.5% to 1% delivered to the EU market. The mandate could potentially rise to 2.5% in 2030, as long as the sustainability of such a target can be assured. This percentage should be reviewed based on developments in fuel demand, readiness for imports of hydrogen as well as intermediates and end products, and developments of electrolyser capacity in Europe.
Next to policy support for the use of CO2 from advanced biogenic sources, policy support for direct air capture (DAC) must commence this decade, to enable large-scale e-kerosene production and reduce the risk of dependency on potentially unsustainable biogenic CO2, fossil point-source CO2 and long-distance CO2 transport.

Feed and crop-based fuels will not be eligible to qualify as biofuels which we welcome (see our key demands under the SAF Consensus Statement initiative, which is aligned with the UN Sustainable Development Goals principles)

The European Commission is opening the door for other types of e-fuels (not produced from renewable electricity and DAC) to be considered for inclusion in the scope of the Regulation. We think that such endeavour might be beneficial for the environment if such fuels do not provide a continued business case for fossil fuel use and a full Life Cycle Assessment is undertaken to ensure that the fuel generates real GHG reductions relative to the fossil baseline (see the excerpt from the Consensus Statement below):

"Liquid fuels of non-biological origin, for example those generated from industrial waste gases, can contribute to our climate goals, although it will be important to ensure that they do not provide a continued business case for fossil fuel use and to undertake full Life Cycle Assessment to ensure that the fuel generates real GHG reductions relative to the fossil baseline. Including indirect effects within the analysis is necessary to ensure that waste gas diversion or the additional electricity needed for electrofuels doesn't generate additional fossil fuel demand."

We appreciate that the mandates will be mandatory for suppliers. While airlines will be obliged to upload 90% of fuel in the EU (for departures from the EU airports), they will be bound by the mandates only indirectly

However, we see a potential risk in the different deadlines for compliance for suppliers (2025) and airports (2028). Suppliers will have to comply with the mandates by 2025 (as a weighted average across the EU and not per every EU airport until 2029), whereas airports will have time to comply until 2028.

This 3-year gap might create pressure on suppliers if airports do not provide the necessary infrastructure. Also, during this 3-year period additional traffic might be generated around those airports which are ready to offer biofuels since airlines will be growingly under more and more public pressure to go green. Moreover, the Regulation does not envisage any fines for airports. And so, our question is why the regulatory framework is not more ambitious for airports?

» A positive aspect is that money collected through the fines introduced by the Regulation, shall be transferred by the Member States as a contribution to the InvestEU Green Transition Investment Facility. We consider that this money should be 'earmarked' for R&D in the aviation sector to make sure that the system further helps decarbonise air transport in Europe. And more subsidies will still be needed to help SAF investments.

» The European Commission acknowledges that RED (Renewable Energy Directive) has not proven effective to operate a transition from fossil fuels to SAF in air transport. In order to guarantee a level-playing field among different modes of transport, the Commission suggests that RED should be complemented with aviation-specific measures to effectively boost the deployment of SAF. We would like to have more concrete promises here. Are alternative fuels going to be mainly directed to aviation given that other sectors have other alternatives to decarbonise?

On that note the industrial pillar which must complement the setting-up of a SAF mandate is completely missing from ECA's point of view. There are multiple existing platforms for discussions and studies on SAF (ICAO, WEF, ATAG), but no mass production has been achieved until now. The Sustainable and Smart Mobility Strategy adopted in December 2020 by the European Commission announced the creation of a European Renewable and Low Carbon Fuels Value Chain Alliance (RLCF) and the recently launched consultation constitutes the first step into this direction.

However, a European Sustainable Aviation Fuels Alliance is, from our perspective, a must to:

» ensure that SAFs will actually be available on time with the volume needed (i.e. building industrial capacities e.g conversion units, plants and infrastructures);

» coordinate all the stakeholders along the entire value chain in compliance with antitrust rules;

» put the adoption of the necessary regulatory framework and incentives at the top of the political agenda, to deliver on concrete projects and possible Important project of Common European Interest (IPCEI) by capturing the attention of political leaders;

» identify the R&D activities still needed to mature the already certified pathways and new ones;

» identify a pipeline of SAF production projects in Europe and mobilize private and public funding.

» In a nutshell such a SAF-specific alliance would be a key instrument (similar to what exists in other fields of the European industrial policy such as batteries, H2, raw materials, etc.…) conducive to SAF massive deployment and consistent with the SAF value chain needs. ECA therefore urges the European Commission to give its full political back-up to a European Sustainable Aviation Fuels Alliance

and to take all measures within its remit to support and ease the setting-up of such an initiative.

It is to be noted that SAF is likely to be a worldwide market at the end of the day and that the Biden Administration has very recently adopted a very ambitious, all-encompassing plan through a whole-of-government effort to advance cleaner aviation, in particular to rapidly scale domestic production of SAFs.

While we appreciate that the Commission's proposal intends to avoid the practice of 'tankering' by obliging the EU operators to tank 90% of their fuel in the EU (Article 4), we also see the potential safety risk related to this obligation. We therefore call on the European Commission to differentiate between economic 'tankering' which is to be avoided, and safety 'tankering' which might under certain conditions be necessary. Captain's authority to uplift fuel should never be interfered with. The free choice by the Captain of suitable alternate airports for a flight may also have an important influence on the total fuel uplift. This choice should always take priority over any tankering considerations.

Given the involvement of EASA in the environment field, especially its leadership role in the labelling project to offer consumers a view about their CO2 emissions when air travelling, it makes sense the Agency is responsible for overseeing the SAF uptake in the EU. However, EASA must be provided with the right resources (be it financial or human) to perform this important additional task. This is a key pre-requisite since the Agency has been subject to significant budget restrictions over the last few years while gaining more and more competencies.

It is our view that the revision of the Regulation's mandates (minimum shares in Article 4 and Annex I) should come sooner than 5 years after the entry into force (1 Jan. 2028). The mandates should be as sensitive as possible to the situation on the market and might therefore need more frequent adjustments.

Annex 2 – List of relevant IFALPA papers and ICAO reference documentation

IFALPA position papers:
- 15POS18 (Vision on Future ATM),
- 16POS03 (engine out taxi)
- 16POS11 (All engine out taxi)
- 18POS08 (Solar panels at airports)

ICAO documentation:
- Doc 10013 – Operational opportunities to reduce fuel burn and emissions (2014)
- Doc 9931 – Continuous Descent Operations (CDO) Manual
- Doc 9993 – Continuous Climb Operations (CCO) Manual
- Doc 10031 – Guidance on Environmental Assessment of Proposed Air Traffic Management Operational Changes