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Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on ensuring a level playing field for sustainable air transport

(Text with EEA relevance)

{SEC(2021) 561 final} - {SWD(2021) 633 final} - {SWD(2021) 634 final}

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

• Reasons for and objectives of the proposal

A well-functioning and competitive aviation internal market is essential for the mobility of European citizens and for the European economy as a whole. In 2018, the aviation and aeronautical industries employed an estimated 0.4 million people directly in the EU¹ and contributed to the EU's GDP by an estimated 2.1%² in 2017. Aviation is a strong driver for social and regional cohesion that boosts tourism, stimulates business and connects people. In 2018³, over 1.2 billion passengers flew to and from more than 500 airports in Europe. The EU aviation sector contributes to European integration and reinforces the EU's position as a geopolitical leader.

Air connectivity is an essential driver of mobility for EU citizens, of development for EU regions and of growth for the economy as a whole. High levels of air connectivity within the EU, as well as to and from the EU, are best ensured when the EU air transport market functions as a level playing field, where all market actors can operate based on equal opportunities. When occurring, market distortions risk putting aircraft operators or airports at disadvantage towards competitors. In turn, this can result in a loss of competitiveness of the industry, and a loss of air connectivity for citizens and businesses.

In particular, it is essential to ensure a level playing field across the EU air transport market, when it comes to the use of aviation fuel. Indeed, aviation fuel accounts for a substantial share of aircraft operators' costs, i.e. up to 25% of operational costs. Variations in the price of aviation fuel can have important impacts on aircraft operators' economic performance. Furthermore, differences in the price of aviation fuel between geographic locations, as is currently the case between EU airports or between EU and non-EU airports, can lead aircraft operators to adapt their refuelling strategies for economic reasons.

Practices such as 'fuel tankering' occur when aircraft operators uplift more aviation fuel than necessary at a given airport, with the aim to avoid refuelling partially or fully at a destination airport where aviation fuel is more expensive. Fuel tankering leads to higher fuel burn than necessary, hence higher emissions, and undermines fair competition in the Union air transport market. Besides being contrary to the Union's efforts to decarbonise aviation, fuel tankering is also detrimental to healthy competition between aviation market players. With the introduction and the ramp-up of sustainable aviation fuels at Union airports, practices of fuel tankering may be exacerbated as a result of increased aviation fuel costs. In respect to fuel tankering, the present Regulation therefore aims restore and preserve a level playing field in the air transport sector, while at the same time avoiding any adverse environmental effect.

¹ Eurostat (Ifsa_egan22d).

² Source: SWD(2017) 207 final.

³ Source: Eurostat; Indirect job generated from air transport can be as high as three times the direct ones (European Commission, 2015).

The Commission adopted in December 2020 the Sustainable and Smart Mobility Strategy⁴. This strategy sets out the objective to boost the uptake of sustainable aviation fuels. Sustainable aviation fuels have the potential to deliver a major contribution to achieving the increased EU climate target for 2030 and the EU's climate neutrality objective. For the purpose of this initiative, sustainable aviation fuels means liquid drop-in fuels substitutable to conventional aviation fuel. In order to decrease significantly its emissions, the aviation sector needs to reduce its current exclusive reliance on fossil jet fuel and accelerate its transition to innovative and sustainable types of fuels and technologies. While alternative propulsion technologies for aircraft such as powered by electricity or hydrogen are making promising advances, their introduction to commercial use will take a considerable effort and time to prepare. Because air transport needs to address its carbon footprint on all flight ranges already by 2030, the role of sustainable aviation liquid fuels will be essential. For this reason, measures are also needed to increase the supply and use of sustainable aviation fuels at Union airports.

While several sustainable aviation fuels pathways are certified to be used in aviation, their use is currently negligible, for lack of production at affordable cost. A blending mandate specifically targeting the aviation sector is necessary, in order to spur the market uptake of the most innovative and sustainable fuel technologies. This would allow to scale up production capacity and lower production costs over time. Given that sustainable aviation fuels should account for at least 5% of aviation fuels by 2030 and 63% by 2050, it is essential that the fuel technologies supported under this Regulation have the highest potential in terms of innovation, decarbonisation and availability. This is a sine qua non condition in order to meet future aviation demand and contribute to achieving the decarbonisation objectives. This should cover notably advanced biofuels and synthetic aviation fuels. In particular, synthetic aviation fuels have the potential to achieve emission savings as high as 85% or more compared to fossil aviation fuel. When produced from renewable electricity and carbon captured directly from the air, the potential emission savings compared to fossil aviation fuel can reach 100%. As such, synthetic aviation fuels have the highest potential for decarbonisation of all fuels considered under this initiative. Their production process is also particularly resource efficient, notably as regards the use of water, compared to the production of other sustainable aviation fuels pathways. While synthetic aviation fuels could contribute significantly to decarbonise the sector, its emergence on the market in sizeable volumes by 2030 is unlikely in the absence of dedicated policy support. Indeed, the production costs of synthetic aviation fuels are currently estimated at 3 to 6 times the current market price of fossil aviation fuel. As synthetic aviation fuels are expected to play a role in the decarbonisation of the sector already by 2030, and should contribute to at least 28% of the aviation fuel mix by 2050, it is therefore necessary for this Regulation to set out dedicated sub-obligation, pushing their introduction on the market. This is expected to partly de-risk investments in synthetic aviation fuels production capacity and allow the production capacity to scale-up.

⁴ Source: https://ec.europa.eu/transport/themes/mobilitystrategy_en

For sustainability reasons, first generation biofuels such as crop-based biofuels ~~[OBJ]~~Feed~~[OBJ]~~, and food and crop-based biofuels, which have limited scalability potential and raise sustainability concerns, should not be supported. Indirect land-use change occurs when the cultivation of crops for biofuels displaces traditional production of crops for food and feed purposes. Such additional demand increases the pressure on land and can lead to the extension of agricultural land into areas with high-carbon stock, such as forests, wetlands and peatland, causing additional greenhouse gas emissions. Research has shown that the scale of the effect depends on a variety of factors, including the type of feedstock used for fuel production, the level of additional demand for feedstock triggered by the use of biofuels and the extent to which land with high-carbon stock is protected worldwide. The highest risks of indirect land-use change have been identified for biofuels produced from feedstock for which a significant expansion of the production area into land with high-carbon stock is observed. In addition to the greenhouse gas emissions linked to indirect land-use change – which is capable of negating some or all greenhouse gas emissions savings of individual biofuels, indirect land-use change poses risks also to biodiversity. This risk is particularly serious in connection with a potentially large expansion of production determined by a significant increase in demand. Accordingly, feed and food crop-based fuels should not be promoted. This approach is in line with the relevant Union policy framework, which tends to limit or even phase out the use of crop-based biofuels, for environmental reasons. This is notably the case in the Renewable Energy Directive, which caps the use of crop-based biofuels because of their limited environmental benefits, limited greenhouse gas savings potential, and the fact that such biofuels are in direct competition with the food and feed sectors for access to feedstock. The non-inclusion of crop-based biofuels should also aim to avoid the risk biofuel displacement from the road sector towards air transport, as this could slow down the decarbonisation of road transport, which currently remains by far the most polluting transport mode. The aviation sector has currently insignificant levels of demand for food and feed crops-based biofuels, since over 99% of currently used aviation fuels are of fossil origin. It is therefore appropriate to avoid the creation of a potentially large demand of food and feed crops-based biofuels by promoting their use under this Regulation.

Technologies that are the most industrially mature and at the same time present high levels of sustainability potential, such as sustainable aviation fuels produced from waste lipids (feedstock listed in Annex IX Part B of RED II), should be eligible in order to launch the market and allow for emissions reductions already in the short term. Whereas such a measure is expected to reduce substantially emissions from the transport sector as a whole, at present, the large majority of liquid biofuels are produced for the road sector. Therefore, a shift of feedstock for production of biofuels in the road sector to production for the aviation sector may occur, but would be limited. Indeed, it estimate that the potential displacement for biofuels produced from Annex IX Part B of RED II would be around 3.2% by 2030 ⁵.

The gradual introduction of sustainable aviation fuels on the air transport market is expected to result in increased aviation fuel costs for airlines. This may accentuate pre-existing

⁵ Impact Assessment on a proposal for a Regulation on ensuring a level playing field for sustainable air transport.

distortive practices by aircraft operators, such as fuel tankering. The present proposal for a Regulation therefore aims to gear the EU aviation market with robust rules to ensure that gradually increasing shares of sustainable aviation fuels can be introduced at EU airports without detrimental effects on the competitiveness of the EU aviation internal market.

An essential factor to ensure that the obligation to supply sustainable aviation fuels does not harm the level playing field of the air transport market, is to impose a clear and uniform obligation for all aviation fuel suppliers on the EU internal market. Due to the inherent cross-border and global dimension of air transport, a harmonised aviation-specific Regulation is preferred, over a framework requiring transposition at national level, as the latter could result in a patchwork of national measures with differing requirements and targets. For a clear and effective policy design, obligations on aviation fuel suppliers as regards sustainable aviation fuels should be set out exclusively in this Regulation, which constitutes a *lex specialis* of the Renewable Energy Directive. As the Regulation sets minimum shares of sustainable aviation fuel, it does not prevent airlines or fuel suppliers from pursuing more ambitious environmental objectives or seeking other economic/financial advantages related to SAF through uplifting or supplying higher shares of sustainable aviation fuels. To this end, airlines should be able to seek to ensure adequate arrangements with aviation fuel suppliers to increase their uptake of sustainable aviation fuels. The Regulation does not include tradability of sustainable aviation fuel use (so-called ‘book and claim’ system). If trading were introduced at any point in the future, it should be governed by robust rules ensuring the environmental integrity of the system.

This Regulation should be accompanied with intensified efforts of the EU and its Member States at ICAO to establish binding targets for the use of sustainable aviation fuels in international aviation, with an EU strategic alliance to strengthen value chain of sustainable aviation fuels production in the EU notably for the most innovative technologies such as advanced biofuels and synthetic aviation fuels, including notably funding mechanisms such as contracts for differences and measures to facilitate the certification of innovative sustainable aviation fuels technologies.

- **Consistency with existing policy provisions in the policy area**

The present proposal for a Regulation is consistent with the EU’s air transport policy, and in particular with the relevant rules forming the framework of the EU aviation internal market. It pursues the same objectives as Regulation (EC) No 1008/2008 of the European Parliament and of the Council of 24 September 2008 on common rules for the operation of air services in the Community, namely to ensure that airlines operating in the EU can compete on the basis of equal opportunity. The proposed Regulation is also in line with Regulation (EU) 2019/712 of the European Parliament and of the Council of 17 April 2019 on safeguarding competition in air transport, which aims to ensure that all air carriers operating to and from the EU can benefit of a level playing field.

The present proposal for a Regulation is consistent with Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency (EASA), and in particular with Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down

technical requirements and administrative procedures related to air operations. The proposed Regulation requires EASA to receive and process reports from airlines, notably on their aviation fuel uplifts. The aviation fuel uplift obligation established under the proposed Regulation should be consistent with the rules on aviation fuel safety as set out under Regulation (EU) No 965/2012.

The proposed Regulation is consistent with the Renewable Energy Directive⁶ (RED II), as it is expected to result in an increased use of renewable energy in air transport. The proposed Regulation relies on components of the RED II rules, notably its sustainability framework. RED II is a cross-sector framework that sets targets for overarching sectors. It has been insufficient to boost the uptake of sustainable aviation fuels due to the specificities of the aviation sector, in particular the strong EU-wide and global competitive cost pressure of the sector, as well as the highly integrated and competitive EU aviation internal market and its global dimension. The proposed Regulation lays down fully harmonised requirements to ensure a level playing field between airlines and the avoidance of competitive disadvantage between EU airports.

The proposed Regulation is coherent with the EU Emissions Trading Scheme (ETS)⁷, which applies to aviation. It is expected to interact smoothly with the EU ETS, which contains an incentive for aircraft operators to use of sustainable aviation fuels, i.e. airlines are not required to surrender allowances when reporting the use of SAF. The effect of the EU ETS is expected to be strengthened in the context of its upcoming revision. The proposed Regulation relies on the EU ETS by making a cross reference to the processes required for the verification of reports by airlines (articles 14 and 15 of the EU ETS).

The proposed Regulation is coherent with the Alternative Fuels Infrastructure Directive (AFID), but is expected to have limited interaction with it. The directive creates a common framework of measures for the deployment of alternative fuels infrastructure in the EU. As sustainable aviation fuels are fungible with conventional jet fuel, the needs for additional infrastructure at airports are limited, but it is nevertheless important to ensure that the infrastructure provided is fit for purpose.

- **Consistency with other Union policies**

The objectives of the proposed Regulation are also in line with the objectives of the European Green Deal, namely to achieve 55% of emission reductions at EU level by 2030 and to reach a carbon neutral economy by 2050. It aims to ensure a level playing field among actors of the aviation single market, and gear the sector with robust rules ensuring its competitiveness while it introduces increasing shares of sustainable aviation fuels. This is in line with the EU's policy objectives of a swift recovery of the hardest hit sectors from the COVID-19 crisis, a strong EU Single Market, conducive to high levels of growth and jobs. Finally, the proposed Regulation is in line with the objectives of transitioning away from fossil energy, towards

⁶ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources

⁷ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community

renewable sources of energy, and to improve the EU's energy security by reducing our dependencies on third-country sourced energy products.

2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY

- **Legal basis**

The proposed Regulation aims to ensure a level playing field among actors of the aviation single market, and gear the sector with robust rules ensuring its competitiveness, while stepping up its sustainability. The legal text will include detailed aviation-specific provisions to cater for the complexities of the sector.

Article 100(2) empowers the Union to lay down appropriate provisions in air transport.

- **Subsidiarity (for non-exclusive competence)**

Air transport is a matter of high EU relevance, since it is a highly integrated market operating in a network dimension across the whole of the EU and beyond. The cross-border dimension is inherent to air transport, which makes any fragmented regulatory framework a significant hurdle for air transport economic actors.

An intervention at EU level is necessary, as the competitiveness of the EU aviation internal market as a whole cannot be addressed adequately at national level. An EU-level intervention is necessary in particular to avoid a patchwork of national measures with possible unintended effects. Whereas the objective of the proposed Regulation is to restore a level playing field in the air transport market, different levels of obligations per Member State could have the opposite effect and distort further the aviation market, encouraging adverse practices by aircraft operators such as fuel tankering.

Finally, when it comes to imposing an obligation on the supply of sustainable aviation fuels, EU-level action with harmonised aviation-specific rules applying directly to market actors is expected to be more effective than national measures setting different requirements and targets.

- **Proportionality**

EU-level action is expected to set a clear policy direction for market players from both the aviation and fuels industries. One clear set of EU rules at EU level means that airlines can operate based on equal opportunities across the EU, restoring a level playing field for airlines and airports. It will also give clear signals to the aviation fuels industry on the level of fuel supply and the fuel technologies to invest in. A single set of rules also means reduced compliance costs for market players.

EU-level action on SAF would contribute to achieving the increased EU's climate ambition as set out in the European Climate Law. The 2030 Climate Target Plan establishes that SAF have a major role to play to reduce emissions from aviation by 2030 and 2050 and attain EU climate goals. Therefore, establishing EU rules on SAF production and use allows taking a "tailored" approach towards meeting the targets. Relying on national measures only with likely different targets (if any) would incur the risk that the aggregated level of ambition is not

sufficient. The current initiative can also support the forthcoming review of the Renewable Energy Directive by reinforcing the share of renewable energy in the transport sector.

EU-level action may have positive effects at international level. As EU intervention would have effects on the entire aviation and SAF EU market, it is expected to have higher prominence towards third countries than isolated national initiatives. Spill-over effects are also likely to occur more easily, whereby third countries may consider adopting similar measures. In turn, this could accelerate the ongoing work at ICAO level on the use of SAF. In short, EU action could spur further developments on the production and uptake of SAF outside of the EU, which could help create a level playing field at global level, as well as reduce air transport emissions at a wider scope.

- **Choice of the instrument**

The present initiative must be rolled out swiftly and efficiently, as a key deliverable of the European Green Deal and the Sustainable and Smart Mobility Strategy, and as a necessary building block towards reaching EU's climate goals by 2030 and 2050 by ensuring that the aviation sectors speed up its own decarbonisation without jeopardising the well-demonstrated benefits of a highly integrated aviation internal market. As explained in section 1.4 and Annex 11, this can be achieved most successfully by directly regulating economic actors at EU level through an internal market Regulation. Indeed, common rules applying directly and uniformly to aviation and fuel market actors across the EU will provide clarity and uniformity. As the aviation single market is inherently integrated at EU level, it functions best when rules are applied to all airlines in the same way. Imposing the same requirements to all market players reduces the risks of distortion of competition and sends clear signals to non-EU aviation market actors, when flying in the EU. A uniform set of rules across the EU, as established under a Regulation, will allow to send loud and clear signals to the market. As the transition to SAF requires significant investments, it is indispensable that the regulatory framework provides a single, long-term and robust set of rules to all investors EU-wide. In particular, it is crucial to avoid the creation of a patchwork of differing measures at national level, as would be the case if implemented under a cross-sectoral directive. While this can function with transport modes like road or rail, it cannot be successful for transport modes that are so cross-border and global as aviation. The market scale of most airlines is EU-wide or even global. A patchwork of national transpositions could reduce the effectiveness of the policy and put in jeopardy the effective decarbonisation of air transport. It could also be conducive to different economic behaviours in the aviation and fuel industries from one Member State to another. This could lead to practices of cost avoidance (e.g. via fuel tankering) that would undermine the functioning of the Single Market. The present initiative will have an important impact on air transport actors and the aviation internal market as a whole. It is essential that obligations set on all airlines apply to all airlines uniformly, as can be ensured via a regulation. It is equally important for the effectiveness of this initiative that the fuel supply obligation be implemented and enforced in a uniform way. Differing fuel supply obligations in different areas of the EU (e.g. different targets, varying sustainability standards, etc.) would set differences of treatments between airlines and could induce competitive distortions between EU airports or put EU aviation actors at disadvantage with non-EU competitors. The present

initiative should be implemented in a standalone regulation in order to cater for the specificities and complexities of the aviation single market.

3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS

- **Ex-post evaluations/fitness checks of existing legislation**

This is a new initiative. Therefore, there has not been any ex-post evaluation and fitness check.

- **Stakeholder consultations**

This proposal for a Regulation follows a comprehensive consultation that took place over the course of 2020. The Commission carried out a public consultation in March and April 2020 on the inception impact assessment. A total of 121 feedback were received from public authorities, aeronautics and fuels industries, not-for-profit organisations, academics and citizens. In general, the feedback expressed support for EU-level regulatory action to boost the uptake of sustainable aviation fuels. The Commission organised two roundtables (in March and November 2020), each time with sessions dedicated to discussions with stakeholders and Member States, and sessions dedicated to discussions with Member States only. The roundtables allowed to get direct views and exchange with the participants on the need for regulatory action at EU level on sustainable aviation fuels. The first roundtable allowed to gain valuable insights on the problem definition, while the second roundtable focused on the policy options, enabling participants to give their views on their preferred option, and suggesting adjustments in the design of the proposed options. An open public consultation of 12 weeks ran from August to October 2020. A total of 156 replies were collected from public authorities, aeronautics and fuels industries, non-governmental organisations, academics and citizens. In general, the replies expressed support for EU-level regulatory action to boost the uptake of sustainable aviation fuels in the form of a SAF blending mandate. Valuable information was collected on the preference of respondents towards specific designs of this measure. Finally, in the course of the supporting study performed by an external contractor, a targeted consultation was performed, to obtain specific and detailed insights on the functioning of the aviation market, the state of the aviation fuels market, the production of sustainable aviation fuels and the various existing or upcoming policies supporting the use of sustainable aviation fuels. This targeted consultation focused on actors of the aeronautics industry, the aviation fuels industry, Member States, not-for-profit organisations and international aviation organisations.

Throughout this comprehensive consultation strategy, the large majority of stakeholders of the aviation (airlines, airports, aircraft manufacturers) and fuel industries, Member States and NGOs supported establishing a SAF obligation as an effective policy mechanism to boost SAF production and uptake and successfully decarbonise the aviation sector. Stakeholders were quite divided on the specific design of the option but a majority of fuel suppliers, Member States, NGOs, airports and part of the airlines support a supply-side SAF obligation with flexibility in the fuel distribution, and covering jet fuel supplied for all flights departing

from EU airports. At the same time, the majority of stakeholders saw the need for measures preventing carbon leakage and distortion in the aviation internal market. A majority of stakeholders (airlines, airports, fuel industry, NGOs, Member States) also support specific incentives to support RFNBOs. All these measures were included in the preferred policy option.

- **Collection and use of expertise**

A study was conducted by an external contractor to support the impact assessment underpinning the present proposal. This study started in July 2020 and was concluded early 2021. The study provided valuable insights to the Commission services notably to design the policy options, assess their environmental, economic and social impacts, and collect the views of the directly impacted stakeholders.

- **Impact assessment**

The policy options proposed were structured around a regulatory requirement consisting of a SAF obligation. This requirement allows for restoring a level playing field in the air transport sector as regards the uplift of aviation fuel and keeping it while increasing the use of SAF in aviation. Policy options provided different ways to design the obligation. A first set of Options included an obligation on fuel suppliers to distribute SAF at all EU airports. A second set of options included an obligation on airlines to uptake SAF when flying from EU airports (one sub-option covered all flights, the other sub-option covered intra-EU flights only). Finally, a third set of options included obligations on the fuel suppliers to distribute SAF with some flexibility at the start, and on airlines to uptake jet fuel before departing from EU airports. Targets were designed in SAF volume terms for options, and in jet fuel CO₂ intensity reduction terms for the others. All options contained incentives to support renewable fuels of non-biological origin (RFNBOs). The preferred option was to impose a SAF blending mandate on the fuel suppliers and a jet fuel uplift obligation on airlines, including a sub-mandate on RFNBOs. This option was preferred as it allows to ensure a level playing field in the air transport market while scaling up significantly SAF production and uptake.

The preferred policy options allows to maintain the competitiveness of the air transport industry and leads to a significant reduction of well-to-wing CO₂ emissions in the aviation sector, i.e. by around 60-61% by 2050, compared to the baseline scenario. Air pollutant emissions decrease by around 9% by 2050 relative to the baseline. Overall, environmental costs of aviation (related to CO₂ emissions and air pollutants emissions) are reduced by around €87-88 billion compared to the baseline, expressed as present value over 2021-2050 period. SAF production capacity increases by an additional 25.5-25.6Mt by 2050. SAF emergence on the market leads to a large reduction of aviation's reliance on fossil jet fuel, which consumption reduces by 65% by 2050 compared to the baseline. The energy security of the EU improves as imports of fossil energy from third countries decrease and feedstock and renewable electricity for SAF production are sourced in the EU (EU-produced SAF represents 92% of total SAF use in 2050). Under the preferred policy options, SAF technologies with the highest decarbonisation potential emerge on the market in significant quantities earlier than without policy action. SAF prices decrease compared to current estimates, which contributes

to reducing the price gap with fossil jet fuel over time. The preferred policy options lead to net job creation in the EU, i.e. around 202,100 additional jobs compared to the baseline. Finally, the reduction in air pollution has positive effects on public health (i.e. external costs from air pollution decrease by about €1.5 billion over the period 2021 to 2050, compared to the baseline).

Overall POs C1 and C2 lead to an increase of the costs of €20.3 billion (C1) and €14.6 billion (C2) relative to the baseline over the period 2021 to 2050. These costs are largely driven by an increase in jet fuel cost relative to the baseline, i.e. €103.5 billion (C1) and €88.2 billion (C2), expressed as present value over 2021-2050. The increase in fuel costs is reflected on air fares, which are estimated to increase by around 8.1-8.2% by 2050. Higher air fares lead to a slight reduction in total passenger air transport activity relative to the baseline, despite still growing by 77% by 2050 relative to 2015. This triggers lower capital and operational costs for air transport relative to the baseline, i.e. by €84 billion (C1) and €74.5 billion (C2). Additional logistics costs amount to €0.19 billion (C1 and C2). Airlines also incur an increase in reporting costs of €0.34 billion (C1 and C2) relative to the baseline, expressed as present value over 2021-2050. For the SAF producers, the investment needs over the period 2021 to 2050 are estimated at around €10.4-10.5 billion. Indeed, 104 to 106 additional SAF plants need to be built in the EU by 2050 to cater for the necessary SAF production capacity.

- **Regulatory fitness and simplification**

The proposed Regulation avoids imposing undue burden on economic operators by reducing compliance costs. In particular in the first five years of its application, it provides some flexibility in the way aviation fuel suppliers can fulfil the sustainable aviation fuel supply obligation. This is expected to reduce logistics costs and avoid an increase of sustainable aviation fuels costs. As aviation fuel represent a sizeable share of aircraft operators operational costs, this is expected to have a positive impact on their competitiveness.

- **Fundamental rights**

This proposal has no implications on fundamental rights.

4. BUDGETARY IMPLICATIONS

The budgetary implications are related notably to the review of reports and assessment of compliance of the economic operators subject to obligations, as well as to yearly reporting by EASA to the Commission. These are assessed in detail in the Legislative Financial Statement. IT development and procurement choices will be subject to pre-approval by the European Commission Information Technology and Cybersecurity Board.

5. OTHER ELEMENTS

- **Implementation plans and monitoring, evaluation and reporting arrangements**

The proposed Regulation includes monitoring, reporting and verification systems that allow to ensure that it is implemented correctly. In particular, aircraft operators and fuel suppliers will be required to report on a yearly basis. Such reports will be verified by independent bodies and assessment of compliance of aircraft operators and fuel suppliers will be undertaken to

determine whether they have fulfilled their respective obligations. Further, on a yearly basis, EASA will report to the Commission notably on the compliance of economic operators and on the status of the aviation and sustainable aviation fuels markets. Finally, the Commission will report to the European Parliament and the Council, at least every five years after the date of application of this Regulation, the evolution of the aviation fuels market and its impact on the aviation internal market of the Union, including regarding the possible extension of the scope of this Regulation to other energy sources, and on possible need to adjust specific features of the proposed Regulation.

- **Detailed explanation of the specific provisions of the proposal**

Article 1 of the proposal describes the subject matter of the proposed Regulation, which lays down harmonised rules aiming to maintain a competitive level playing field on the Union aviation internal market while increasing the uptake of sustainable aviation fuels by aircraft operators and the distribution of sustainable aviation fuels at Union airports. Article 2 specifies the scope of the Regulation. Article 3 provides several definitions of importance to the Regulation. Article 4 establishes the obligation for aviation fuel suppliers to ensure that all aviation fuel made available to aircraft operators at Union airports contains a minimum share of sustainable aviation fuel, including a minimum share of synthetic fuel. Article 5 establishes the obligation for aircraft operators to ensure that the yearly quantity of aviation fuel uplifted at a given Union airport is of at least 90% of the yearly aviation fuel required. Article 6 defines the obligations for Union Airports to provide the infrastructure necessary to facilitate the access of aircraft operators to aviation fuels containing shares of sustainable aviation fuels. Article 7 specifies the reporting obligations for aircraft operators. Article 8 sets out rules on the claiming of use of sustainable aviation fuels that concern more than one greenhouse gas scheme. Article 9 specifies the reporting obligations for aviation fuel suppliers. Article 10 defines the rules on competent authorities to be designated by the Member States to ensure enforcing of this Regulation. Article 11 sets out rules on administrative fines. Article 12 establishes an obligation for EASA to publish a yearly technical report on the basis of the yearly reports submitted by aircraft operators and fuel suppliers. Article 13 creates a transition period of 5 years in which aviation fuel suppliers may supply the minimum share of sustainable aviation fuel as an average over all the aviation fuel they supplied across Union airports for that reporting period. Article 14 defines an obligation for the Commission to the European Parliament and the Council to report on several aspects of the application of this Regulation, at least every five years. Article 15 provides for the date of entry into force of the Regulation. Annex I defines the minimum shares of sustainable aviation fuel, including the minimum shares of synthetic fuel, of the aviation fuel to be supplied, and Annex II provides a template for the reporting obligation of aircraft operators.

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REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on ensuring a level playing field for sustainable air transport

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 100(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee⁸,

Having regard to the opinion of the Committee of the Regions⁹,

Acting in accordance with the ordinary legislative procedure,

Whereas:

- (1) Over the past decades, air transport has played a crucial role in the Union's economy and in the everyday lives of Union citizens, as one of the best performing and most dynamic sectors of the Union economy. It has been a strong driver for economic growth, jobs, trade and tourism, as well as for connectivity and mobility for businesses and citizens alike, particularly within the Union aviation internal market. Growth in air transport services has significantly contributed to improving connectivity within the Union and with third countries, and has been a significant enabler of the Union economy.
- (2) From 2020, air transport has been one of the hardest hit sector by the COVID-19 crisis. With the perspective of an end to the pandemic in sight, it is expected that air traffic will gradually resume in the coming years and recover to its pre-crisis levels. At the same time, emissions from the sector have been increasing since 1990 and the trend of increasing emissions could return as we overcome the pandemic. Therefore, it is necessary to prepare for the future and make the necessary adjustments ensuring a well-functioning air transport market that contributes to achieving the Union's climate goals, with high levels of connectivity, safety and security.
- (3) The functioning of the Union air transport sector is determined by its cross-border nature across the Union, and by its global dimension. The aviation internal market is one of the most integrated sectors in the Union, governed by uniform rules on market access and operating conditions. The air transport external policy is governed by rules established at global level at the International Civil Aviation Organisation (ICAO), as

⁸ OJ C , , p. .

⁹ OJ C , , p. .

well as by comprehensive multilateral or bilateral agreements between the Union or its Member States, and third countries.

- (4) The air transport market is subject to strong competition between economic actors across the Union, for which a level playing field is indispensable. The stability and prosperity of the air transport market and its economic actors relies on a clear and harmonised policy framework where aircraft operators, airports and other aviation actors can operate on the basis of equal opportunities. Where market distortions occur, they risk putting aircraft operators or airports at a disadvantage with internal or external competitors. In turn, this can result in a loss of competitiveness of the air transport industry, and a loss of air connectivity for citizens and businesses.
- (5) In particular, it is essential to ensure a level playing field across the Union air transport market regarding aviation fuel, which account for a substantial share of aircraft operators' costs. Variations in fuel prices can affect significantly aircraft operators' economic performance and negatively impact competition on the market. Where differences in aviation fuel prices exist between Union airports or between Union and non-Union airports, this can lead aircraft operators to adapt their refuelling strategies for economic reasons. Fuel tankering increases aircraft's fuel consumption and results in unnecessary greenhouse gas emissions. Fuel tankering by aircraft operators accordingly undermines of the Union's efforts towards environmental protection. Some aircraft operators are able to use favourable aviation fuel prices at their home base as a competitive advantage towards other airlines operating similar routes. This can have detrimental effects on the competitiveness of the sector and be harmful to air connectivity. This Regulation should set up measures to prevent such practices in order to avoid unnecessary environmental damage as well as to restore and preserve the conditions for fair competition on the air transport market.
- (6) A key objective of the common transport policy is sustainable development. This requires an integrated approach aimed at ensuring both the effective functioning of Union transport systems and protection of the environment. Sustainable development of air transport requires the introduction of measures aimed at reducing the carbon emissions from aircraft flying from Union airports. Such measures should contribute to meeting the Union's climate objectives by 2030 and 2050.
- (7) The Communication on a Sustainable and Smart Mobility Strategy¹⁰ adopted by the Commission in December 2020 sets a course of action for the EU transport system to achieve its green and digital transformation and become more resilient. The decarbonisation of the air transport sector is a necessary and challenging process, especially in the short term. Technological advancements, pursued in European and national research and innovation aviation programmes have contributed to important emission reductions in the past decades. However, the global growth of air traffic has outpaced the sector's emissions reductions. Whereas new technologies are expected to help reducing short-haul aviation's reliance on fossil energy in the next decades, sustainable aviation fuels offer the only solution for significant decarbonisation of all flight ranges, already in the short term. However, this potential is currently largely untapped.

¹⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Sustainable and Smart Mobility Strategy – putting European transport on track for the future (COM/2020/789 final), 9.12.2020.

- (8) Sustainable aviation fuels are liquid, drop-in fuels, fully fungible with conventional aviation fuel and compatible with existing aircraft engines. Several production pathways of sustainable aviation fuels have been certified at global level for use in civil or military aviation. Sustainable aviation fuels are technologically ready to play an important role in reducing emissions from air transport already in the very short term. They are expected to account for a major part of the aviation fuel mix in the medium and long term. Further, with the support of appropriate international fuel standards, sustainable aviation fuels might contribute to lowering the aromatic content of the final fuel used by an operator, thus helping to reduce other non-CO₂ emissions. Other alternatives to power aircraft, such as electricity or liquid hydrogen are expected to progressively contribute to the decarbonisation of air transport, beginning with short-haul flights.
- (9) The gradual introduction of sustainable aviation fuels on the air transport market will represent an additional fuel cost for airlines, as such fuel technologies are currently more expensive to produce than conventional aviation fuel. This is expected to exacerbate the pre-existing issues of level playing field on the air transport market as regards aviation fuel, and to cause further distortions among aircraft operators and airports. This regulation should take measures to prevent that the introduction of sustainable aviation fuels affects negatively the competitiveness of the aviation sector by defining harmonised requirements across the Union.
- (10) At global level, sustainable aviation fuels are regulated at ICAO. In particular, ICAO establishes detailed requirements on the sustainability, traceability and accounting of sustainable aviation fuels for use on flights covered by the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). While incentives are set in CORSIA and sustainable aviation fuels are considered an integral pillar of the work on the feasibility of a Long-Term Aspiration Goal for international aviation, there is currently no mandatory scheme on the use of sustainable aviation fuels for international flights. Comprehensive multilateral or bilateral air transport agreements between the EU or its Member States, and third countries generally include provisions on environmental protection. However, for the time being, such provisions do not impose on contracting parties any binding requirements on the use of sustainable aviation fuels.
- (11) At EU level, general rules on renewable energy for the transport sector are set out in Directive (EU) 2018/2001 of the European Parliament and of the Council¹¹. In the past, such horizontal cross-sectoral regulatory frameworks have not proven effective to operate a transition from fossil fuels to sustainable aviation fuel in air transport. Directive (EU) 2018/2001 and its predecessor set out overarching targets across all transport modes to be supplied with renewable fuels. As aviation is a small fuels market for which renewable fuels are more costly to produce while a fully integrated European transport market, in comparison to other transport modes, such regulatory frameworks should be complemented with aviation-specific measures to effectively boost the deployment of sustainable aviation fuels. Further, national transpositions of Directive (EU) 2018/2001 risks creating significant fragmentation in the air transport market, where national rules on sustainable aviation fuels would set out widely differing targets. This would be expected to further exacerbate the issues of level playing field in air transport.

¹¹ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

- (12) Therefore, uniform rules need to be laid down for the aviation internal market to complement Directive (EU) 2018/2001 and to deliver on its overall objectives by addressing the specific needs and requirements arising from the EU aviation internal market. In particular, the present Regulation aims to avoid a fragmentation of the aviation market, prevent possible competitive distortions between economic actors, or unfair practices of cost avoidance as regards the refuelling of aircraft operators.
- (13) This regulation aims in the first instance to set out a framework restoring and preserving a level playing field on the air transport market as regards the use of aviation fuels. Such a framework should prevent divergent requirements across the Union that would exacerbate refuelling practices distorting competition between aircraft operators or putting some airports at competitive disadvantage with others. In a second instance, it aims to gear the EU aviation market with robust rules to ensure that gradually increasing shares of sustainable aviation fuels can be introduced at EU airports without detrimental effects on the competitiveness of the EU aviation internal market.
- (14) It is essential to set harmonised rules across the EU internal market, applying directly and in a uniform way to aviation market actors on the one hand, and aviation fuels market actors on the other hand. The overarching framework set out by Directive (EU) 2018/2001 should be complemented with a *lex specialis* applying to air transport. It should include gradually increasing targets for the supply of sustainable aviation fuels. Such targets should be carefully defined, taking into account the objectives of a well-functioning air transport market, the need to decarbonise the aviation sector and the current status of the sustainable aviation fuels industry.
- (15) The present Regulation should apply to aircraft engaged in civil aviation, carrying out commercial air transport flights. It should not apply to aircraft such as military aircraft and aircraft engaged in operations for humanitarian, search, rescue, disaster relief or medical purposes, as well as customs, police and fire-fighting operations. Indeed, flights operated in such circumstances are of exceptional nature and as such cannot always be planned in the same way as regular flights. Due to the nature of their operations, they may not always be in a position to fulfil obligations under this Regulation, as it may represent unnecessary burden. In order to cater for a level playing field across the EU aviation single market, this regulation should cover the largest possible share of commercial air traffic operated from airports located on EU territory. At the same time, in order to safeguard air connectivity for the benefits of EU citizens, businesses and regions, it is important to avoid imposing undue burden on air transport operations at small airports. A threshold of yearly passenger air traffic and freight traffic should be defined, below which airports would not be covered by this Regulation; however, the scope of the Regulation should cover at least 95% of total traffic departing from airports in the Union. For the same reasons, a threshold should be defined to exempt aircraft operators accountable for a very low number of departures from airports located on EU territory.
- (16) Development and deployment of sustainable aviation fuels with a high potential for sustainability, commercial maturity and a high potential for innovation and growth to meet future needs should be promoted. This should support creating innovative and competitive fuels markets and ensure sufficient supply of sustainable aviation fuels for aviation in short and long term to contribute to Union transport decarbonisation ambitions, while strengthening Union's efforts towards a high level of environmental protection. For this purpose, sustainable aviation fuels produced from feedstock listed in Parts A and B of Annex IX of Directive (EU) 2018/2001, as well as synthetic

aviation fuels should be eligible. In particular, sustainable aviation fuels produced from feedstock listed in Part B of Annex IX of Directive (EU) 2018/2001 are essential, as currently the most commercially mature technology to decarbonise air transport already in the short term.

- (17) For sustainability reasons, feed and food crop-based fuels should not be eligible. In particular, indirect land-use change occurs when the cultivation of crops for biofuels displaces traditional production of crops for food and feed purposes. Such additional demand increases the pressure on land and can lead to the extension of agricultural land into areas with high-carbon stock, such as forests, wetlands and peatland, causing additional greenhouse gas emissions and loss of biodiversity concerns. Research has shown that the scale of the effect depends on a variety of factors, including the type of feedstock used for fuel production, the level of additional demand for feedstock triggered by the use of biofuels and the extent to which land with high-carbon stock is protected worldwide. The highest risks of indirect land-use change have been identified for biofuels, fuels produced from feedstock for which a significant expansion of the production area into land with high-carbon stock is observed. Accordingly, feed and food crop-based fuels should not be promoted. This approach is in line Union policy and in particular with Directive (EU) 2018/2001 which limits and sets a cap on the use of such biofuels in road and rail transport, considering their lower environmental benefits, lower performance in terms of greenhouse reduction potential and broader sustainability concerns. In addition to the greenhouse gas emissions linked to indirect land-use change – which is capable of negating some or all greenhouse gas emissions savings of individual biofuels – indirect land-use change poses risks also to biodiversity. This risk is particularly serious in connection with a potentially large expansion of production determined by a significant increase in demand. The aviation sector has currently insignificant levels of demand for food and feed crops-based biofuels, since over 99% of currently used aviation fuels are of fossil origin. It is therefore appropriate to avoid the creation of a potentially large demand of food and feed crops-based biofuels by promoting their use under this Regulation. The non-eligibility of crop-based biofuels under this Regulation also minimises any risk to slow down the decarbonisation of road transport, which could otherwise result from a shift of crop-based biofuels from the road to the aviation sector. It is essential to minimise such a shift, as road transport currently remains by far the most polluting transport sector.
- (18) A single, clear and robust sustainability framework is necessary to provide certainty for the aviation and fuels industries actors, on the eligibility of sustainable aviation fuels under this Regulation. To ensure consistency with other related EU policies, the eligibility of sustainable aviation fuels should be determined according to compliance with the sustainability criteria established in Article 29 of Directive 2018/2001¹².
- (19) The present Regulation should aim to ensure that aircraft operators can compete on the basis of equal opportunities as regards the access to sustainable aviation fuels. To avoid any distortions on the air services market, all Union airports covered by this Regulation should be supplied with uniform minimum shares of sustainable aviation fuels. Whereas the market is free to supply and use larger quantities of sustainable fuel, this Regulation should ensure that the mandatory minimum shares of sustainable aviation fuels are the same across all the covered airports. It supersedes any

¹² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L2001&from=fr>

requirements established directly or indirectly at national or regional level requiring aircraft operators or aviation fuel suppliers to uptake or supply sustainable aviation fuels with different targets than the ones prescribed under this Regulation. In order to create a clear and predictable legal framework and in doing so encourage the market development and deployment of the most sustainable and innovative with growth potential to meet future needs fuel technologies, this Regulation should set out gradually increasing minimum shares of synthetic aviation fuels over time. Setting out a dedicated sub-obligation on synthetic aviation fuels is necessary in view of the significant decarbonisation potential of such fuels, and in view of their current estimated production costs. When produced from renewable electricity and carbon captured directly from the air, synthetic aviation fuels can achieve as high as 100% emissions savings compared to conventional aviation fuel. They also have notable advantages compared to other types of sustainable aviation fuels with regards to resource efficiency (in particular for water needs) of the production process. However, synthetic aviation fuels' production costs are currently estimated at 3 to 6 times higher than the market price of conventional aviation fuel. Therefore, this Regulation should establish a dedicated sub-obligation for this technology. Other types of synthetic fuels, such as low carbon synthetic fuels achieving high greenhouse gas reductions, could be considered for inclusion in the scope of this Regulation in the course of future revisions, where such fuels become defined under the Renewable Energy Directive.

- (20) It is essential to ensure that the minimum shares of sustainable aviation fuels can be successfully supplied to the aviation market without supply shortages. For this purpose, sufficient lead-time should be planned to allow the renewable fuels industry to develop production capacity accordingly. The supply of sustainable aviation fuels should become mandatory starting in 2025. Similarly, in order to provide legal certainty and predictability to the market and drive investments durably towards sustainable aviation fuels production capacity, the terms of this Regulation should be stable over a long period of time.
- (21) With the introduction and ramp-up of sustainable aviation fuels at Union airports, practices of fuel tankering may be exacerbated as a consequence of aviation fuel costs increases. Tankering practices are unsustainable and should be avoided as they undermine the Union's efforts to reduce environmental impacts from transport. Those would be contrary to the aviation decarbonisation objectives as increased aircraft weight would increase fuel consumption and related emissions on a given flight. Tankering practices also put at risk the level playing field in the Union between aircraft operators, and also between airports. This Regulation should therefore require aircraft operators to refuel prior to departure from a given Union airport. The amount of fuel uplifted prior to departures from a given Union airport should be commensurate with the amount of fuel necessary to operate the flights departing from that airport, taking into account the necessary compliance with fuel safety rules. The requirement ensures that equal conditions for operations in the Union applying equally to Union and foreign operators, while ensuring high level of environmental protection. As the Regulation does not define a maximum share of sustainable aviation fuels in all aviation fuels, airlines and fuel suppliers may pursue more ambitious environmental policies with higher sustainable aviation fuels uptake and supply in their overall network of operations, while avoiding fuel tankering.
- (22) Airports covered by this Regulation should ensure that all the necessary infrastructure is provided for delivery, storage and refuelling of sustainable aviation fuel, so as not to constitute an obstacle with respect to the uptake of such sustainable aviation fuel. If

necessary, the Agency should be able to require a Union airport to provide information on the infrastructure available allowing for seamless distribution and refuelling of aircraft operators with sustainable aviation fuels. The role of the Agency should allow airports and airlines to have a common focal point, in the event where technical clarification is necessary on the availability of fuel infrastructure.

- (23) Aircraft operators should be required to report yearly to the Agency on their purchases of sustainable aviation fuel, as well as on the characteristics of this fuel. Information should be provided on the characteristics of the sustainable aviation fuels purchased such as inter alia nature and origin of the feedstock, conversion pathway and lifecycle emissions.
- (24) Aircraft operators should also be required to report yearly on their actual aviation fuel uplift per Union airport, so as to prove that no fuel tankering was performed. Reports should be verified by independent verifiers and transmitted to the Agency for monitoring and assessment of compliance. Verifiers should determine the accuracy of the yearly aviation fuel required reported by the operators using a tool approved by the Commission.
- (25) Aviation fuel suppliers should be required to report yearly in the Union database referred to in Article 28 of Directive (EU) 2018/2001, on their supply of aviation fuel, including sustainable aviation fuels. The Agency should report on a yearly basis to the Commission on the fulfilment by aircraft operators and aviation fuel suppliers of their respective obligations under this Regulation. This is important for the Commission to have clear visibility on the level of compliance to the Regulation.
- (26) It is not possible without additional procedures to determine accurately whether aircraft operators have actually physically uplifted shares of sustainable aviation fuels in their tanks at a specific Union airports. Therefore, aircraft operators should be allowed to report their use of sustainable aviation fuels based on purchasing records. Aircraft operators should be entitled to receive from the aviation fuel supplier the information that is necessary to report the sustainable aviation fuel purchase.
- (27) It is essential that aircraft operators can claim the use of sustainable aviation fuels under greenhouse gas schemes such as the EU Emissions Trading System or CORSIA, depending on the route of their flights. However, it is essential that this regulation should not lead to a double counting of emissions reductions. Aircraft operators should only be allowed to claim benefits for the use of an identical batch of sustainable aviation fuels once. Fuel suppliers should be requested to provide free of charge to aircraft operators any information pertaining to the properties of the sustainable aviation fuel sold to that aircraft operator and that is relevant for reporting purposes by the aircraft operator under this Regulation or greenhouse gas schemes.
- (28) In order to ensure a level playing field of the aviation internal market and the adherence to the climate ambitions of the Union, this Regulation should introduce effective, proportionate and dissuasive penalties on aviation fuel suppliers and aircraft operators in case of non-compliance. The level of the penalties needs to be proportionate to the environmental damage and to the prejudice to the level-playing field of the internal market inflicted by the non-compliance. When imposing administrative fines, the authorities should take into account the evolution of the price of aviation fuel and sustainable aviation fuel in the reporting year;

- (29) The penalties for the suppliers who fail to meet the targets set in this Regulation should be complemented by the obligation to supply the market with the shortfall of meeting the quota in the subsequent year;
- (30) This Regulation should include provisions for periodic reports to the European Parliament and the Council on the evolution of the aviation and fuels markets, the effectiveness of key features of the Regulation such as the minimum shares of sustainable aviation fuels, the level of administrative fines or policy developments on sustainable aviation fuels uptake at international level. Such elements are key to provide a clear state of play of the sustainable aviation fuels market and should be taken into account when considering a revision of the Regulation.
- (31) A transitional period of 5 years should be provided to allow for a reasonable amount of time for aviation fuel suppliers, Union airports and aircraft operators to make the necessary technological and logistical investments. During this phase, aviation fuel containing higher shares of sustainable aviation fuel may be used to compensate for lower shares of sustainable aviation fuels or for the reduced availability of conventional aviation fuel at other airports.
- (32) Since the objective of this Regulation, namely to maintain a level playing field on the Union air transport market while increasing the use of sustainable aviation fuels, cannot be sufficiently achieved by the Member States due to the cross-border nature of aviation, but can rather, by reason of the characteristics of the market and effects of the action, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective.

HAVE ADOPTED THIS REGULATION:

Article 1

Subject matter

This Regulation lays down harmonised rules on the uptake and supply of sustainable aviation fuels.

Article 2

Scope

This Regulation shall apply to aircraft operators, Union airports, and to aviation fuel suppliers.

Article 3

Definitions

For the purposes of this Regulation, the following definitions apply:

- ‘Union airport’ means an airport as defined in Article 2(2) of Directive 2009/12/EC of the European Parliament and of the Council¹³, where passenger traffic was higher than 1 million passengers or where the freight traffic was higher than 100000 tons in the reporting period, and is not situated in an outermost region, as listed in Article 349 of the Treaty on the Functioning of the European Union;
- ‘aircraft operator’ means a person that operated at least 729 commercial air transport flights departing from Union airports in the reporting period or, where that person may not be identified, the owner of the aircraft;
- ‘commercial air transport flight’ means a flight operated for the purposes of transport of passengers, cargo or mail for remuneration or hire, or business aviation flights;
- ‘aviation fuel’ means the fuel manufactured for direct use by aircraft;
- ‘sustainable aviation fuels’ (‘SAF’) means drop-in aviation fuels that are either synthetic aviation fuels, advanced biofuels as defined in Article 2, second paragraph, point 34 of Directive (EU) 2018/2001, or biofuels produced from the feedstock listed in Part B of Annex IX to that Directive, which comply with the sustainability and greenhouse gas emissions criteria laid down in Article 29(2) to (7) of that Directive and are certified in accordance with Article 30 of this Directive;
- ‘batch’ means a quantity of sustainable aviation fuels that can be identified with a number and can be traced;
- ‘lifecycle emissions’ means carbon dioxide equivalent emissions of sustainable aviation fuels that take into account carbon dioxide equivalent emissions of energy production, transport, distribution and use on-board, including during combustion, calculated in accordance with Article 31 of Directive (EU) 2018/2001;
- ‘synthetic aviation fuels’ means fuels that are renewable fuels of non-biological origin, as defined in Article 2, second paragraph, point 36 of Directive (EU) 2018/2001, used in aviation;
- ‘conventional aviation fuels’ means fuels produced from fossil non-renewable sources of hydrocarbon fuels, used in aviation;
- ‘aviation fuel supplier’ means a fuel supplier as defined in Article 2, second paragraph, point 38 of Directive (EU) 2018/2001, supplying aviation fuel at a Union airport;
- ‘reporting year’ means a period of one year in which the reports referred to in Articles 7 and 9 are to be submitted starting 1 January and ending 31 December;
- ‘reporting period’ means a period from 1 January until 31 December of the year preceding the reporting year;
- ‘yearly aviation fuel required’ means the amount of aviation fuel necessary to operate the totality of commercial air transport flights operated by an aircraft operator, departing from a given Union airport, over the course of a reporting period;
- ‘yearly non-tanked quantity’ means the difference between the yearly aviation fuel required and the actual fuel uplifted by an aircraft operator prior to flights departing from a given Union airport, over the course of a reporting period;

¹³ Directive 2009/12/EC of the European Parliament and of the Council of 11 March 2009 on airport charges

- ‘total yearly non-tanked quantity’ means the sum of the yearly non-tanked quantities by an aircraft operator at all Union airports over the course of a reporting period;
- ‘greenhouse gas scheme’ means a scheme granting benefits to aircraft operators for the use of sustainable aviation fuels.

Article 4

Share of sustainable aviation fuel available at Union airports

Aviation fuel suppliers shall ensure that all aviation fuel made available to aircraft operators at each Union airport contains a minimum share of sustainable aviation fuel, including a minimum share of synthetic aviation fuel in accordance with the values and dates of application set out in Annex I.

Without prejudice to the application of Article 11(3) and (4), where an aviation fuel supplier fails to supply the minimum shares set out in Annex I for a given reporting period, it shall at least complement that shortfall in the subsequent reporting period.

Article 5

Refuelling obligation for aircraft operators

The yearly quantity of aviation fuel uplifted by a given aircraft operator at a given Union airport shall be at least 90% of the yearly aviation fuel required.

Article 6

Obligations of Union airports to provide the infrastructure

Union airports shall take necessary measures to facilitate the access of aircraft operators to aviation fuels containing shares of sustainable aviation fuels in accordance with Annex I and, shall provide the infrastructure necessary for the delivery, storage and uplifting of such fuels.

Where aircraft operators report difficulties to the European Union Aviation Safety Agency (‘the Agency’) in accessing aviation fuels containing sustainable aviation fuels at a given Union airport for lack of adequate airport infrastructure, the Agency may request the Union airport to provide the information necessary to prove compliance with paragraph 1. The Union airport concerned shall provide the information without undue delay.

The Agency shall assess the information received and inform the Commission if such information allows to conclude that the Union airport does not fulfil its obligations. Union airports shall take the necessary measures to identify and address the lack of adequate airport infrastructure in 5 years after the entry into force of the Regulation or after the year when they exceed one of the thresholds in Article 3(a).

Article 7

Reporting Obligations for Aircraft Operators

By 31 March of each reporting year, aircraft operators shall report the following information to the Agency:

- (a) The total amount of aviation fuel uplifted at each Union airport, expressed in tonnes;
- (b) The yearly aviation fuel required, per Union airport, expressed in tonnes;

- (c) The yearly non-tanked quantity, per Union airport. If the yearly non-tanked quantity is negative or if it is lower than 10% of the yearly aviation fuel required, the reported yearly non-tanked quantity shall be reported as 0;
- (d) The total amount of sustainable aviation fuel purchased from aviation fuel suppliers, for the purpose of operating their flights departing from Union airports, expressed in tonnes.
- (e) For each purchase of sustainable aviation fuel, the name of the aviation fuel supplier, the amount purchased expressed in tonnes, the conversion technology, the characteristics and origin of the feedstock used for production, and the lifecycle emissions of the sustainable aviation fuel. Where one purchase includes sustainable aviation fuels with differing characteristics, the report shall provide this information for each type of sustainable aviation fuel.

The report shall be presented in accordance with the template laid down in Annex II.

The report shall be verified by an independent verifier in compliance with the requirements set out in Articles 14 and 15 of Directive 2003/87/EC of the European Parliament and of the Council¹⁴, and in Commission Implementing Regulation (EU) 2018/2067¹⁵

Article 8

Aircraft operator claiming of use of sustainable aviation fuels

Aircraft operators shall not claim benefits for the use of an identical batch of sustainable aviation fuels under more than one greenhouse gas scheme. Together with the report referred to in Article 7, aircraft operators shall provide the Agency with:

- (a) A declaration of greenhouse gas schemes they participate in and in which the use of sustainable aviation fuels may be reported;
- (b) A declaration that they have not reported identical batches of sustainable aviation fuels under more than one scheme.

For the purpose of reporting sustainable aviation fuels use under the provisions of Article 7 of this Regulation, or under a greenhouse gas scheme, aviation fuel suppliers shall provide aircraft operators with the relevant information free of charge.

Article 9

Reporting obligations for fuel suppliers

By 31 March of each reporting year, aviation fuel suppliers shall report in the Union Database referred to in Article 28 of Directive (EU) 2018/2001, the following information relative to the reporting period:

- (a) The volume of aviation fuel supplied at each Union airport;
- (b) The volume of sustainable aviation fuel supplied at each Union airport, and for each type of sustainable aviation fuel, as detailed in point c);

¹⁴ Directive 2003/87/CE du Parlement européen et du Conseil du 13 octobre 2003 établissant un système d'échange de quotas d'émission de gaz à effet de serre dans la Communauté

¹⁵ Commission Implementing Regulation (EU) 2018/2067 of 19 December 2018 on the verification of data and on the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council (OJ L 334, 31.12.2018, p. 94).

- (c) The lifecycle emissions, origin of feedstock and conversion process of each sustainable aviation fuel type supplied at Union airports.

The Agency shall have access to the Union database and shall use the information contained in the Union database, once the information has been verified at Member State level pursuant to Article 28 of Directive (EU) 2018/2001.

Article 10

Competent authority

- (1) Member States shall designate the competent authority or authorities responsible for enforcing the application of this Regulation and for imposing the fines for aircraft operators, Union airports and fuel suppliers. Member States shall inform the Commission thereof.
- (2) The Agency shall send the data received pursuant to Articles 7 and 9 to the competent authorities of the Member States. The Agency shall also send to the competent authorities data aggregated for the aircraft operators and aviation fuels suppliers for which the authorities are competent pursuant to paragraphs 3, 4 and 5.
- (3) The competent authorities in respect of an aircraft operator shall be determined pursuant to Commission Regulation (EC) No 748/2009¹⁶.
- (4) The competent authorities in respect of Union airports shall be determined on the basis of the respective territorial jurisdiction.
- (5) The competent authorities in respect of aviation fuel suppliers shall be determined pursuant to their Member State of establishment.

Article 11

Enforcement

- (1) Member States shall lay down the rules on penalties applicable to infringements of the provisions adopted pursuant to this Regulation and shall take all measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive. Member States shall notify these provisions to the Commission by 31 December 2023 at the latest and shall notify it without delay of any subsequent amendment affecting them.
- (2) Member States shall ensure that any aircraft operator failing to comply with the obligations laid down in Article 5 is liable to an administrative fine. That fine shall be at least twice as high as the multiplication of the yearly average price of aviation fuel per tonne and of the total yearly non-tanked quantity;
- (3) Member States shall ensure that any aviation fuel supplier failing to comply with the obligations laid down in Article 4 relative to the minimum share of sustainable aviation fuels is liable to an administrative fine. That fine shall be at least twice as high as the multiplication of the difference between the yearly average price of conventional aviation fuel and sustainable aviation fuel per tonne and of the quantity

¹⁶ Commission Regulation (EC) No 748/2009 of 5 August 2009 on the list of aircraft operators which performed an aviation activity listed in Annex I to Directive 2003/87/EC

of aviation fuels not complying with the minimum share referred to in Article 4 and Annex I;

- (4) Member States shall ensure that any aviation fuel supplier failing to comply with the obligations laid down in Article 4 relative to the minimum share of synthetic aviation fuels is liable to an administrative fine. That fine shall be at least twice as high as the multiplication of the difference between the yearly average price of synthetic aviation fuel and conventional aviation fuel per tonne and of the quantity of the aviation fuel not complying with the minimum share referred to in Article 4 and Annex I;
- (5) In the decision imposing the administrative fines referred to in paragraphs 3 and 4, the competent authority shall explain the methodology applied for the determination of the price of aviation fuel, sustainable aviation fuel and synthetic aviation fuel on the Union market, based on verifiable and objective criteria;
- (6) Member States shall ensure that any aviation fuel supplier which has accumulated a shortfall from the obligation laid down in Article 4 relative to the minimum share of sustainable aviation fuels or of synthetic fuels in a given reporting period, shall supply the market in the subsequent reporting period with a quantity of that respective fuel equal to that shortfall, additional to their reporting period obligation. Fulfilling this obligation shall not exonerate the fuel supplier from the obligation to pay the penalties laid out in paragraphs 3 and 4 of this Article;
- (7) Member States shall have the necessary legal and administrative framework in place at national level to ensure the fulfilment of the obligations and the collection of the administrative fines. Member States shall transfer the amount collected through those administrative fines as contribution to the InvestEU Green Transition Investment Facility, as a top-up to the EU guarantee.

Article 12

Data collection and publication

The Agency shall publish every year a technical report on the basis of the yearly reports referred to in Articles 7 and 9. That report shall contain at least the following information:

- (a) The amount of sustainable aviation fuel purchased by aircraft operators at Union level in aggregate, for use on flights departing from a Union airport, and by Union airport;
- (b) The amount of sustainable aviation fuel and of synthetic aviation fuel supplied at Union level in aggregate and by Union airport;
- (c) The state of the market, including price information, and trends in sustainable aviation fuel production and use in the Union;
- (d) The status of compliance of airports regarding obligations set out in Article 6;
- (e) The compliance status of each aircraft operator and aviation fuel supplier having an obligation under this Regulation in the reporting period;
- (f) The origin and the characteristics of all sustainable aviation fuels purchased by aircraft operators for use on flights departing from Union airports.

Article 13

Transitional period

By way of derogation from Article 4, from 1 January 2025 until 31 December 2029, for each reporting period, an aviation fuel supplier may supply the minimum share of sustainable aviation fuel defined in Annex I as a weighted average over all the aviation fuel it supplied across Union airports for that reporting period.

Article 14

Reports and Review

By 1 January 2028 and every five years thereafter, the Commission services shall present a report to the European Parliament and the Council, on the evolution of the aviation fuels market and its impact on the aviation internal market of the Union, including regarding the possible extension of the scope of this Regulation to other energy sources, and other types of synthetic fuels defined under the Renewable Energy Directive, the possible revision of the minimum shares in Article 4 and Annex I, and the level of administrative fines. The report shall include information, where available, on development of a potential policy framework for uptake of sustainable aviation fuels at ICAO level. The report shall also inform on technological advancements in the area of research and innovation in the aviation industry which are relevant to sustainable aviation fuels, including with regards to the reduction of non-CO₂ emissions. The report may consider if this Regulation should be amended and, options for amendments, where appropriate, in line with a potential policy framework on sustainable aviation fuels uptake at ICAO level.

Article 15

Entry into force

This Regulation shall enter into force on the day twentieth following that of its publication in the *Official Journal of the European Union*.

It shall apply from 1st January 2023.

However, Article 4 and 5 shall apply from 1 January 2025 and Articles 7 and Article 9 shall apply from 1st April 2024 for the reporting period of the year 2023.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament
The President

For the Council
The President



Brussels, 14.7.2021
COM(2021) 561 final

ANNEXES 1 to 2

ANNEXES

to the

**Proposal for a REGULATION OF THE EUROPEAN PARLIAMANT AND OF THE
COUNCIL**

on ensuring a level playing field for sustainable air transport

{SEC(2021) 561 final} - {SWD(2021) 633 final} - {SWD(2021) 634 final}

Annex I (volume shares)

- (a) From 1 January 2025, a minimum share of 2% of SAF;
- (b) From 1 January 2030, a minimum share of 5% of SAF, of which a minimum share of 0.7% of synthetic aviation fuels;
- (c) From 1 January 2035, a minimum share of 20% of SAF, of which a minimum share of 5% of synthetic aviation fuels;
- (d) From 1 January 2040, a minimum share of 32% of SAF, of which a minimum share of 8% of synthetic aviation fuels;
- (e) From 1 January 2045, a minimum volume share of 38% of SAF, of which a minimum share of 11% of synthetic aviation fuels.
- (f) From 1 January 2050, a minimum volume share of 63% of SAF, of which a minimum share of 28% of synthetic aviation fuels

Annex II – Template for aircraft operator reporting

Union airport	ICAO code of Union airport	Yearly aviation fuel required (tonnes)	Actual aviation fuel uplifted (tonnes)	Yearly non-tanked quantity (tonnes)	Total yearly non-tanked quantity (tonnes)