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**COMMISSION STAFF WORKING DOCUMENT**  
**EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT**

*Accompanying the*

**Proposal for a Regulation of the European Parliament and of the Council**  
**on ensuring a level playing field for sustainable air transport**

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

## Executive Summary Sheet

Impact assessment on a Proposal for a Regulation on ensuring a level playing field for sustainable air transport

### A. Need for action

#### Why? What is the problem being addressed?

Whereas maintaining a level playing field in air transport is essential, GHG emissions from the aviation sector have increased since the early 1990's at EU and global level and are expected to further grow by 2050. As the EU has adopted ambitious climate targets for 2030 and 2050, aviation must accelerate its decarbonisation. However, the sector has limited options to reduce its carbon footprint, notably due to its reliance on fossil fuels and the lack of mature and price-competitive alternative fuel technologies. As underlined by the Commission's 2030 Climate Target Plan, Sustainable aviation fuels (SAF) have the potential to significantly contribute to the sector's decarbonisation. SAF are technologically viable, and compatible with existing aircraft technology and fuelling infrastructure. However, the SAF market is at a standstill, where (i) production and (ii) demand for SAF are low. This is due to (a) industrial and commercial challenges including high production costs and competing demand for feedstock and renewable electricity, (b) high-risk investments to scale up production, and (c) the regulatory and fiscal framework in place that does not enable the uptake of SAF, all in the context of the highly competitive nature of the air transport market.

#### What is this initiative expected to achieve?

The general objective of this initiative is to ensure a level playing field in the air transport market while reducing aviation CO<sub>2</sub> emissions in line with the EU's climate objectives for 2030 and 2050, by transitioning away from fossil jet fuel and tapping into the high decarbonisation potential of SAF, by establishing a competitive market for SAF, while at the same time ensuring a level playing field in aviation. On the one hand, this means (i) achieving large-scale SAF production and supply at competitive costs; optimising existing production capacity and boosting the development of new SAF plants in the EU; and lowering production costs through economies of scale and learning effects. On the other hand, this means (ii) achieving a gradual and continuous uptake of SAF by airlines; mitigating risks of carbon leakage and ensuring that airlines have access to the SAF market on the basis of a level playing field.

#### What is the value added of action at the EU level?

Aviation is a highly integrated market operating in a network dimension across the whole of the EU. The cross-border dimension is inherent to air transport, which makes any fragmented regulatory framework a significant hurdle for economic operators. A patchwork of national measures could lead to unintended counterproductive effects. The CO<sub>2</sub> emissions from aviation are also of transboundary nature and as such cannot be addressed at national or local level only. The EU's climate objectives are most likely to be effectively achieved if policy is set at EU level. Finally, the objective of achieving large scale-up of SAF production and supply is best addressed at EU level, as the energy sector is considerably integrated with market actors operating largely across the EU.

### B. Solutions

#### What legislative and non-legislative policy options have been considered? Is there a preferred choice or not? Why?

The measures proposed are structured around a regulatory requirement consisting ensuring a competitive level playing field in air transport and a SAF obligation. Policy options provide different ways to design the obligation. A first set of Options (A1 and A2) include an obligation on fuel suppliers to distribute SAF at all EU airports. A second set of Options (B1 and B2) include an obligation on airlines to uptake SAF when flying from EU airports (B1 covers all flights, B2 covers intra-EU flights only). Finally, a third set of Options (C1 and C2) include 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 are designed in SAF volume terms for options A1, B1, B2 and C1, and in jet fuel CO<sub>2</sub> intensity reduction terms for A2 and C2. All options contain incentives to support RFNBOs<sup>1</sup>. All options are accompanied by flanking measures, which are outside the scope of this initiative. These include intensifying European action at ICAO to establish global SAF use targets, steering funding towards SAF deployment, establishing a strategic alliance to support Renewable and Low Carbon Fuels, and facilitating the SAF certification process. Other pieces of EU regulatory framework currently under revision (e.g. EU ETS, ETD and RED<sup>2</sup>) can further support the deployment of SAF. Options C1 and C2 are the preferred options as they allow to scale up significantly SAF production and uptake

<sup>1</sup> Renewable fuels of non-biological origin (RFNBOs) as defined in the recast Renewable Energy Directive (EU) 2018/2001). Commonly referred to as 'e-fuels' or 'Power-to-Liquid fuels'.

<sup>2</sup> EU Emissions Trading System, Energy Taxation Directive and the Renewable Energy Directive.

in line with the climate ambition, with minimal market distortions and carbon leakage, in a cost-effective way.
<b>Who supports which option?</b>
The large majority of stakeholders of the aviation and fuel industries, Member States and NGOs support establishing a SAF obligation as an effective policy mechanism to boost SAF production and uptake and successfully decarbonise the aviation sector. Stakeholders are quite divided on the specific design of the option but a majority of fuel suppliers, Member States, NGOs and some 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 see the need for measures preventing carbon leakage and distortion in the aviation internal market. A majority of stakeholders also support specific incentives to support RFNBOs. All these measures are included in POs C1 and C2.
<b>C. Impacts of the preferred option</b>
<b>What are the benefits of the preferred option?</b>
POs C1 and C2 lead to a significant reduction of well-to-wing CO <sub>2</sub> 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 CO <sub>2</sub> 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, whose 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 POs C1 and C2, 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. POs C1 and C2 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).
<b>What are the costs of the preferred option?</b>
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.
<b>How will businesses, SMEs and micro-enterprises be affected?</b>
The impact of this initiative on businesses, SMEs and micro-enterprises is likely to be marginal and is difficult to predict. No detailed assessment.
<b>Will there be significant impacts on national budgets and administrations?</b>
Whereas this initiative relies to a large extent on existing administrative and enforcement processes already in place under other EU regulatory frameworks, authorities incur an increase in administrative costs of €0.27 billion (C1 and C2). This corresponds to higher costs for Member States, i.e. €264 million and for EU authorities €2.7 million.
<b>Will there be other significant impacts?</b>
No other significant impacts are expected.
<b>D. Follow up</b>
<b>When will the policy be reviewed?</b>
The policy will be evaluated allowing for an adequate period of time after the proposal's adoption, for measures to be effective and to have generated impacts. Unless implementation issues occur this will not be less than five years after the legislation comes into force.