

## 'Fit for 55' legislative package: ReFuel EU Aviation

Impact assessment (SWD(2021) 633, SWD(2021) 634 (summary)) accompanying a Commission 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.

This briefing provides an initial analysis of the strengths and weaknesses of the European Commission's impact assessment (IA) accompanying the above-mentioned [proposal](#), submitted on 14 July 2021 and referred to the European Parliament's Committee on Transport and Tourism (TRAN). The proposal<sup>1</sup> aims to increase the use of sustainable aviation fuels and maintain a level playing field in the air transport market. It is part of the 'fit for 55' package, which seeks to contribute to achieving the EU objectives set in the [European Climate Law](#), namely: reducing greenhouse emissions by at least 55 % by 2030 compared to 1990 and reaching a climate-neutral EU economy by 2050.

### Problem definition

The IA explains that 'aviation has been one of the fastest growing sectors in terms of CO<sub>2</sub> emissions over the past decades' (IA, p. 3). Total passenger air traffic in Europe has doubled since 1990, and consequently, CO<sub>2</sub> emissions in the EU-27 increased by 7.6 % in 2005-2015 and are expected to see an even greater increase – by 21 % – in 2015-2050. According to the [Green Deal communication](#), a 90 % reduction in transport emissions would be needed by 2050 in order to achieve a climate-neutral economy. The IA refers to the communication on the [2030 climate target plan](#), which states that the production and use of sustainable alternative fuels in the aviation sector should be increased in order to reach the European Climate Law targets. It also refers to the [sustainable and smart mobility strategy 2020](#), which lays out a roadmap with concrete milestones for the transport sector. The IA explains that the EU already has instruments to address aviation emissions – which need to be further intensified – in relation to market-based measures (the [EU emissions trading system \(EU ETS\)](#), [CORSA](#)), air traffic management operations ([Single European Sky](#), [SESAR](#)), and research on aircraft design and technology ([CO<sub>2</sub> standards](#), [Clean Sky Joint Undertaking](#)). However, the IA stresses that measures are needed to decrease the use of fossil jet fuel and increase the use of sustainable aviation fuels (SAF). The IA refers to the 'exclusive' reliance on fossil energy in the aviation sector and mentions that, according to Eurostat, over 99 % of the jet fuel used in the EU in 2018 was fossil kerosene, and that the production and the use of SAF was less than 0.05 % of the total jet fuel use in 2020. The IA explains the reliance on fossil jet fuel by its lower price, which is due to its availability, competition among producers and suppliers, established demand and supply chain infrastructures, and an advantageous fiscal framework (tax exemptions).

The IA refers to a [study](#) according to which SAF would be a viable solution to replace fossil jet fuel, as they are drop-in liquid fuels that can be blended with conventional kerosene, and, being compatible with the existing aircraft engines, would not therefore require any technological changes. On the other hand, the development of zero-emission aircraft technologies, such as electric or hydrogen-powered ones, would require decades before they could play an important role in commercial aviation. (IA, pp. 3-11)

The IA states that there are 'limited options to decarbonise' the aviation sector, and considers that 'sustainable alternative fuels (SAF) could contribute significantly [to decarbonising the sector], but are not available yet.' (IA, p. 11) The IA identifies **two problems**:

**1. 'Limited production and supply at reasonable cost' (P1).** The IA points out that although Europe is globally a major transport biofuel producer, the biofuel production facilities focus almost entirely on road biofuels. For example, around 99 % of biofuels were consumed in road transport (80 % biodiesel, 19 % bioethanol) in 2018. For the time being, as there are no plants in the EU which would produce SAF on a commercial scale, production costs, such as capital and operation costs, are 1.5 to 6 times higher than those of fossil jet fuel. (IA, pp. 11-12)

**2. 'In spite of strong interest in SAF by airlines, actual demand is low in the current market conditions where fossil jet fuel is inexpensive' (P2).** Although the [aviation sector](#) has outlined emission reduction scenarios that rely increasingly on the use of SAF, the IA mentions that current demand for SAF is very limited due to the significant price gap between fossil jet fuel and SAF (while the price of jet fuel is around €0.5/litre, the minimum price of SAF is 1.5 to 6 times higher). The price aspect is particularly relevant, since fuel costs account for between 17 % and 25 % of aircraft operators' operational costs. The IA also stresses that global competition between airlines and differences in fuel prices can lead to harmful fuel tankering practices (airlines uplift more jet fuel than necessary at airports where fuel is cheaper). These cause additional emissions as carrying more fuel increases the aircraft's weight and fuel consumption, and puts some airports and airlines at a competitive disadvantage. The IA refers to a [study](#) by Eurocontrol (referenced but not linked in the IA), which found that approximately 20 % of the flights could perform fuel tankering. (IA, pp. 11-13, 52)

The IA defines **three problem drivers**: 1) 'SAF are at very early stage of commercial development and face various constraints ([feedstock](#) availability, sustainability, costs, certification)' (linked to P1); 2) 'scaling up SAF production means high-risk investments with significant uncertainty for producers and investors' (P1-P2); and 3) 'there is a SAF market failure that policies have not yet [been] enabled to address successfully' (P1-P2). (IA, pp. 13-20) The IA expects these problem drivers to persist and describes the situation as a 'chicken-or-egg' situation, where the absence of effective demand for SAF means that biofuel producers do not produce SAF. This set-up maintains high SAF production costs and non-attractiveness of SAF on the market compared to fossil jet fuel. The IA also considers that the existing regulatory framework is not effective enough to support SAF deployment in the aviation sector. For example, the [Renewable Energy Directive](#) (RED II) and the [Fuel Quality Directive](#) do not contain mandatory targets for the aviation sector, and the incentives offered by the EU Emissions Trading System (ETS) have not been sufficient to boost SAF uptake. (IA, pp. 20-22) Overall, it would have benefited the problem definition if the description of the identified problems had been more detailed and, in particular, if the scale of P2 had been quantified. For example, under P2 the 'low' demand for SAF and at the same time the 'strong interest' (although the IA refers to 'some airlines') in them could have been illustrated further.

## Subsidiarity / proportionality

The legal basis of the proposal is Article 100(2) of the Treaty on the Functioning of the European Union (TFEU). The IA provides justification for EU action: it states, for example, that the cross-border dimension is inherent to the issue of the CO<sub>2</sub> emissions of the aviation sector, and that national measures would not suffice to address the objectives in relation to CO<sub>2</sub> emissions reduction and increase in the uptake of sustainable fuels. The IA also points out that national initiatives could create different rules, which might have negative effects on the aviation market. Clear EU-level rules would enhance a level playing field for market players in the internal market, and EU action could have spill-over effects on a global level in terms of SAF uptake and emissions reduction. (IA, pp. 22- 24) The IA does not provide a dedicated subsidiarity grid, contrary to what is recommended by the [Task Force on subsidiarity, proportionality and 'doing less more efficiently'](#). Proportionality is one of the key criteria used in the comparison of policy options, as required in the [Better Regulation](#)

[Guidelines](#). The Irish Houses of Oireachtas submitted a [reasoned opinion](#) by the deadline of 5 November 2021 for the subsidiarity check by [national parliaments](#).

## Objectives of the initiative

The **general objective** of the initiative is to 'reduce aviation CO<sub>2</sub> emissions in line with the 2030 and 2050 climate objectives of the EU, by transitioning away from fossil jet fuel and tap into the high decarbonisation potential of sustainable aviation fuels by establishing a competitive SAF market while at the same time ensuring a level playing field on the aviation market'. The IA identifies two **specific objectives**: 1) 'to achieve large-scale production and supply of SAF in the EU with high decarbonisation potential, at competitive costs'; and 2) 'to ensure a level playing field in the aviation market and achieve a gradual and continuous uptake of SAF with high decarbonisation potential at competitive prices'. (IA, pp. 24-25) Contrary to the recommendation in the Better Regulation Guidelines, the IA does not identify any operational objectives for the preferred option. Given that the defined objectives should be specific, measurable, achievable, relevant and time-bound (the 'SMART criteria'), the second specific objective could have been specified further as it partially overlaps with the general objective. In addition, the absence of operational objectives can weaken the measurement of the achievement of the defined objectives.

## Range of options considered

The IA presents six policy options against the baseline. The policy options consist of 20 measures (M), which relate to eight dimensions: 'SAF obligation' (to fuel suppliers or airlines) (M1-5); 'obligation of jet fuel uplift' (M6); 'target setting: volumes or CO<sub>2</sub> intensity' (M7-8); 'ramp-up of SAF obligation'<sup>2</sup> (M9-10); 'additional incentives for e-fuels' (RFNBOs, synthetic liquid fuels) (M11-12); 'penalties for non-compliance' (M13-15); 'SAF transaction for accounting purposes' (over-supply from 'over-achievers' to 'under-achievers') (M16-17); and 'monitoring, reporting [and] verification' (M18-20). The IA specifies that the eligible SAF under all options are three types of [ASTM](#)-certified drop-in fuels, which comply with the RED II: 1) biofuels (produced from feedstock mentioned in Part B of Annex IX), 2) advanced biofuels (Part A of Annex IX), and 3) renewable fuels of non-biological origin (RFNBOs). (IA, pp. 5-7, 26-38)

**Baseline** (no EU action): While this option builds on the [EU Reference Scenario 2020](#) (a common baseline for the 'fit for 55' package), the IA also considers the national energy and climate plans and the impacts of the coronavirus pandemic. In the baseline projections, for example, the intra- and extra-EU air transport activity relative to 2015 is expected to increase by 43 % by 2030 and by 88 % by 2050; CO<sub>2</sub> emissions would grow by 21 % from 2015 to 2050; and the energy demand in aviation is projected to grow from 40 Mtoe (millions of tonnes of oil equivalent) in 2015 to 50 Mtoe in 2050. Without further EU action, the aviation sector is likely to remain reliant on fossil jet fuel by 2050, as SAF uptake is expected to account for 2.9 % of the total fuel consumption by that date. The IA explains that the baseline scenario does not include other 'fit for 55' initiatives in order to 'ensure a consistent approach with other IAs accompanying the other 'fit for 55' initiatives'. (pp. 26, 96-98)

**Option A1 (SAF obligation on fuel suppliers; volume-based approach)** obliges fuel suppliers to supply only fuel that is blended with a minimum share of SAF across all EU airports from 2025 (M1). Some exceptions, such as remote airports, may be considered. In terms of target-setting, the minimum target is expressed in terms of SAF volumes blended into jet fuel (M7). The minimum share of SAF increases from 2025 to 2050 following the SAF ramp-up obligation (M9). Option A1 also introduces a sub-obligation providing that, as of 2030, a minimum share of RFNBOs has to be used as part of the SAF obligation. (M11) Fuel suppliers are subject to penalties – determined at the EU level and enforced at the national level – in case of non-compliance with the SAF supply obligation (M13). An existing EU agency (e.g. [EASA](#)) would be tasked with compiling the data provided by fuel suppliers and reporting to the Commission (M18).

**Option A2 (SAF obligation on fuel suppliers; CO<sub>2</sub> intensity reduction approach)** includes the same SAF obligation as under Option A1 (M1), but the minimum target is expressed in terms of GHG

intensity reduction of the jet fuel used (M8). As for the ramp-up of the SAF obligation, the required reduction in CO<sub>2</sub> intensity of total jet fuel supplied increases from 2025 to 2050 (M10). Option A2 applies a multiplier to the accounting of RFNBOs towards meeting the SAF obligation (M12). Measures for non-compliance and monitoring, reporting and verification are the same as under Option A1 (M13, M18).

**Option B1 (SAF obligation on airlines – intra and extra-EU scope; volume-based approach)** obliges airlines to use a minimum share of SAF as part of their total fuel consumption on intra- and extra-EU flights on a yearly basis (M4). Option B1 proposes the same measures M7, M9, M11 as Option A1. In case of non-compliance with the SAF obligation, airlines are subject to penalties applied at the national level (M14). For accounting purposes, airlines may request SAF transactions between them (M17). An existing European organisation (e.g. [Eurocontrol](#)) would be required to compile the information that airlines report on their SAF use, and report it to the Commission (M19).

**Option B2 (SAF obligation on airlines – intra-EU scope)** would include the same measures as Option B1, except that the scope would cover only intra-EU flights (M5).

**Option C1 (SAF obligation on fuel suppliers, transition periods, obligation of jet fuel uplift; volume-based approach) (preferred option)** includes the same SAF obligation (M1) as under Option A1, but introduces transitional periods up to 2035. From 2025 to 2030, fuel suppliers would be obliged to supply a minimum share of SAF over their total jet fuel supply on a yearly basis. All jet fuel supply should contain SAF in the range of 0 %-50 %, which means that fuel suppliers would not be obliged to distribute SAF at all airports, but they would have to meet the overall ramp-up target within one year reporting period (M2). From 2030 to 2035, all jet fuel supply would be required to contain SAF in the range of 2 %-50 %. (M3) In addition, to prevent fuel tankering, Option C1 introduces an obligation of jet uplift, which requires airlines to refuel before departure at every EU airport as of 2025 (M6). Option C1 proposes the same measures (M7, M9, M11) in terms of target-setting, the ramp-up of the SAF obligation, and additional incentives for e-fuels, as other volume-based options (A1, B1 and B2). Option C1 proposes the same non-compliance measure as under Options A1 and A2 (M13), but also introduces penalties in case of non-compliance with the jet fuel uplift obligation (M15). Option C1 allows fuel suppliers to request SAF transactions between them for accounting purposes, but only during the transition time between 2025 and 2035 (M16). Option C1 includes the same monitoring, reporting and verification measures as other options (M18, M19), but also adds a requirement for an existing EU agency or organisation to consolidate the data sent by airlines as part of their compliance with the obligation of jet fuel uplift on a flight basis, and report fuel tankering cases to the Commission (M20).

**Option C2 (SAF obligation on fuel suppliers, transition periods, obligation of jet fuel uplift; CO<sub>2</sub> intensity reduction approach) (preferred option)** includes the same measures as Option C1, except that for target-setting, additional incentives for e-fuels, and ramp-up of SAF, Option C2 proposes the same measures (M8, M10, M12) as Option A2.

As required in the Better Regulation Guidelines, the IA appears to present a sufficiently broad range of policy options. The IA provides a well-informed description of the measures of the policy options, and explains the similarities and differences between the options. According to the IA, stakeholders have been consulted on policy measures; the explanation of the options, however, does not include the stakeholders' views on the different options or measures.

## Assessment of impacts

The IA considers the main environmental, economic and social impacts of the policy options as well as impacts on public health. The analysis is both qualitative and quantitative. In the **environmental** assessment, the IA notes that all options would achieve similar CO<sub>2</sub> savings, for example -60-61 % well-to-wing emissions (WTW) by 2050, except Option B2 which would provide -17 % WTW emissions. The IA explains that energy needs to producing biofuels and advanced biofuels for aviation is low (less than 0.2 % of total energy supply in 2050), but the production of RFNBOs would

increase the renewable electricity needs in the EU under all options (from 0.1 %- 0.4 % in 2030 to 1.8 %-5.5 % in 2050) and would be sourced in the EU. The IA estimates that, by 2050, the environmental costs of aviation would be cut by €30 billion under Option B2 and by €86-87 billion under the other options. As for the **economic** impacts, the IA finds that whilst SAF prices would decrease over time under all options due to the blending obligation, competition for biomass feedstock between the energy and transport sectors would lead to increased feedstock prices (no estimates). The IA affirms that SAF prices will remain higher than fossil jet fuel prices, although the price gap is expected to diminish over time on account of economies of scale and improvements in production processes. The IA estimates that additional SAF supply logistics costs in 2021-2050 would amount to €0.27 billion under Options A1, A2 and B1, €0.09 billion under Option B2, and €0.19 billion under Options C1 and C2. As regards the total aviation costs (until 2050), an increase of 0.2-0.3 % (compared to the baseline) is expected under all options, except under Option B2, which would reduce the costs (-€21 billion). Until 2050, the SAF obligation would raise flight ticket prices by 1.7 % under Option B2, and by 8.1-8.2 % under the other options. This would 'slightly' cut passenger air transport activity, for example by 4.5-4.7 % for intra-EU flights by 2050 (relative to the baseline). Increasing SAF production capacity requires 104-106 new plants by 2050 under all options except under Option B2 (33 new plants); it would also require an investment of about €10.4-10.5 billion between 2021 and 2050 under all options, except under Option B2, which would require an investment of around €3.3 billion. All options would reduce the EU's dependence on the use of fossil jet fuel (oil imports): by 22 % under Option B2 and by 65 % under the other options by 2050. The IA briefly addresses **social** impacts, mentioning positive effects on employment under all options due to job creation in the SAF industry, estimated at 79 700 jobs under Option B2 and 248 100 under all other options, by 2050 (IA, p. 109). Impacts on **public health** are considered in a very limited manner, with the IA solely mentioning that all options would reduce external costs from air pollution (by €1.5 billion from 2020 to 2050). The IA does not specifically discuss impacts on innovation, although it refers to 'innovative technologies' and 'improvements' in the SAF production processes. (IA, pp. 38-54)

The policy options are compared against the defined objectives and the Better Regulation criteria of effectiveness, efficiency, coherence and proportionality. The assessment against the effectiveness and efficiency criteria are presented only in a comparison table, a format that is not a reader-friendly solution. The IA mentions that 'Options C1 and C2 are considered the most efficient and effective to achieve CO<sub>2</sub> reductions in the aviation sector in line with the EU's climate goals' (IA, p. 62). This, however, does not correspond to the scoring of options in the table. The table does score Options C1 and C2 best for their effectiveness in ensuring that airlines have access to SAF at airports (transition periods, flexibility) and for their anti-fuel-tankering measure, but the best scores in terms of developing sustainable and cost-effective SAF pathways with a technology-neutral approach seem to go to Options A2 and C2. Furthermore, in terms of **efficiency**, from the comparison table it appears that Options C1 and C2 have the same – and not better – scores as Options A1, A2 and B1. As regards **coherence**, the IA does not score the options, but explains that all options except Option B2 would be in line with the EU's high-level objectives to decarbonise the transport sector, and all options would reduce the EU's dependency on oil and promote the use of renewable and low carbon fuels. The IA finds that all options are coherent with the existing EU regulatory framework, and explains how this initiative relates to other proposals in the 'fit for 55' package. The IA does not score the options in terms of **proportionality**, but explains that all options take into account the time and resources needed to implement the obligations, while Options C1 and C2 provide also transition periods up to 2035. (IA, pp. 54-62) The **preferred option is Option C1** (volume-based) **or Option C2** (CO<sub>2</sub> intensity reduction); the IA concludes that both options would have 'very similar impacts' and does not make a choice between them. It is worth noting that, according to the IA, stakeholders are divided in their preferences between these two options, with the Member States preferring Option C1, NGOs preferring Option C2, and stakeholders from the fuel industry and the aviation industry having split views. (IA, pp. 27, 38, 62-65). The IA presents the estimated costs and benefits (both quantified) of the preferred options in Annex 3 (IA, pp. 86-88). Overall, further

clarification and qualitative explanations in regard to the efficiency and effectiveness criteria would have benefited the comparison of options. In regard to the 'acceptability' of Option B1, which is put into question by the IA on the ground that it 'may lead to controversial reactions from non-EU jurisdictions' (IA, p. 62), the matter would have deserved a more detailed explanation, as it raises a question of feasibility of Option B1.

### SMEs / Competitiveness

From the IA it is not clear to what extent the initiative concerns **small and medium-sized enterprises** (SMEs). The IA refers to small and medium-sized fuel producers (pp. 15, 21), when discussing the certification process of new innovative technologies, but the IA does not specifically assess impacts on SMEs. This is not in line with the Better Regulation Guidelines, which state that potential impacts on SMEs should be systematically considered and reported (see also [Tool 22](#)). Given that the IA estimates that the preferred options would entail investment costs for fuel producers, who would play a key role in scaling up SAF production, it would have been useful if the IA had described to which extent SMEs would be concerned. **Competitiveness** is embedded in the problem definition and the objectives of the initiative, and is discussed in the assessment of impacts of the policy options. The IA considers that, under the preferred options, EU and non-EU airlines departing from EU airports would have a level playing field, as they would be obliged to refuel with SAF-blended fuel due to the SAF obligation and anti-tankering measures. However, the IA recognises a risk of a competitive disadvantage – due to the extra fuel costs from the SAF-blended jet fuel and increased ticket prices – for EU airlines compared to non-EU airlines in situations where an EU airline competes on a similar long-haul flight route with a non-EU airline connecting via a non-EU hub airport. The IA estimates that, while this competitiveness risk is low until 2030, it might increase, and therefore a review clause may be needed to consider possible safeguard measures. (IA, pp. 50-54)

### Simplification and other regulatory implications

The IA explains the interaction of this ReFuelEU Aviation initiative with other proposals in the 'fit for 55' package, such as the revision of the RED II and the EU ETS. The IA finds that this initiative, which would fill a gap in the EU regulatory framework by providing an aviation-specific SAF obligation, would be complementary and in line with the other emissions reduction proposals. The IA argues that the initiative's implementation through a standalone regulation – instead of through cross-sectoral instruments – would enable it to achieve its objectives more effectively (uniform application) and to be adopted more quickly (IA, pp. 7-8, 58-60, 123-128).

### Monitoring and evaluation

The IA explains that the supply of SAF by fuel suppliers would be monitored within the existing monitoring, reporting and verification framework of the RED II, and the SAF uptake by airlines through the framework of the EU ETS. The fuel uplift obligation would be monitored through a new reporting system, whereby airlines would report to an existing EU agency or European organisation. As the REDII and the EU ETS are currently under revision, it would have been useful if the IA had provided a more complete presentation and explanation of monitoring indicators (the IA only gives some examples). Moreover, as the operational objectives are not mentioned and the IA does not explain evaluation plans, it is to some extent unclear how the success of this initiative will be measured and evaluated. (IA, pp. 65, 120-122) The proposal, however, does contain provisions requiring the Commission to report by 1 January 2028 and every five years thereafter, on the evolution of the aviation fuels market, including on the need for a possible revision of the regulation.

### Stakeholder consultation

As required by the Better Regulation Guidelines, the IA provides in its Annex 2 a description of the broad range of stakeholder consultation activities conducted (IA, pp. 71-83). The feedback to the [inception impact assessment](#) (IIA) comprised 117 replies. The [open public consultation](#) received 160 replies between 5 August 2020 and 28 October 2020, meeting the 12-week requirement of the

Better Regulation Guidelines. Targeted consultations were conducted through interviews (21 participants); a survey (73 replies) covering amongst other things the problem definition, objectives and measures; as well as two workshops on policy options (66 participants) and their follow-up survey (42 replies). The IA included 'key' stakeholders in the consultations, in particular: Member State authorities; civil aviation authorities; air transport service providers; fuel and feedstock producers, suppliers and retailers; NGOs; airports; and aircraft manufacturers (SMEs not mentioned). It appears that a majority of stakeholders support the SAF obligation, whilst the views on some of the other policy measures are more divided, for example, in regard to target-setting (volume-based or CO<sub>2</sub>-based) and the obligated party (airlines or fuel suppliers). The description in Annex 2 focuses on reporting of stakeholders' views on specific measures rather than on the policy options; moreover, the references to stakeholders' views are at times quite vague, with the Annex not always indicating which stakeholders gave which views (e.g. '61 of 73 respondents', 'several stakeholders').

## Supporting data and analytical methods used

The IAs accompanying several of the legislative proposals included in the 'fit for 55' package,<sup>3</sup> including the IA accompanying the ReFuelEU Aviation proposal, rely on a common analytical framework that aims to ensure consistency of the analysis across all initiatives. This framework is embedded in several modelling tools with a proven track record in supporting EU policy-making, which are used to produce a common baseline ([the EU Reference Scenario 2020](#)) and a set of core scenarios (REG, MIX, MIX-CP), complemented by specific variants developed for the individual 'fit for 55' initiatives. These modelling tools are publicly available in the European Commission's [modelling inventory and knowledge management system](#) (MIDAS), including the main models used in the ReFuelEU Aviation IA: PRIMES and PRIMES-TREMOVE. The modelling work is based on socio-economic and technology assumptions regarding the evolution of the European population, GDP growth, international energy prices, and the development of technologies in terms of performance and costs. (IA, Annex 4, pp.89-109) An external supporting study (Ricardo et al., 2021) was commissioned to support the IA. The IA provides a reference to the study but not a link, and it is not clear at the time of writing whether the study is publicly accessible. The analysis also draws, amongst others, on stakeholder consultations, independent research and reports by stakeholders in the policy field. The IA, which provides both a qualitative and a quantitative assessment, acknowledges uncertainties in the analysis in terms of the evolution of the price difference between SAF and fossil jet fuel (the latter is linked to international oil prices with a risk of volatility). The IA also considers the uncertainties related to the evolution of the coronavirus pandemic and its long-term effects on the aviation sector, and discusses the difficulties in estimating SAF production costs due to novel conversion processes and the expected evolution of production volumes. (IA, pp. 3, 8-9, 16-17, 44, 52, 70)

## Follow-up to the opinion of the Commission Regulatory Scrutiny Board

The Regulatory Scrutiny Board (RSB) adopted a [negative opinion](#) on a draft version of the IA report on 22 January 2021, citing significant shortcomings. The [second opinion](#), of 3 March 2021, was positive, but the RSB recommended a better explanation of the CO<sub>2</sub> emissions reduction targets of the transport sector, a better description of the interaction of the proposal with other initiatives affecting aviation emissions (including monitoring and evaluation), and a more in-depth discussion on the competition for feedstock. Moreover, it recommended greater transparency about the uncertainties in the analysis, for example, in relation to the evolution of SAF prices and competitiveness. Annex I to the IA explains how these points have been addressed (IA, pp. 66-70). It appears that most of the RSB's concerns have been addressed, though the IA could have explained the monitoring and evaluation arrangements better (see Section on 'Monitoring and evaluation' above).

## Coherence between the Commission's legislative proposal and the IA

The legislative proposal appears to mostly follow the IA's preferred option C1 (volume-based approach), except that in regard to the SAF obligation the proposal provides a five-year transition period compared to the longer period envisaged in Option C1 (2025 to 2035).

The IA provides a qualitative and quantitative analysis that relies on sound and recent data and can generally be considered as capable of supporting the decision-making process. It builds on the analytical framework of the climate target plan and uses modelling tools with a proven track record in supporting EU policy-making. The IA provides clearly described policy options and openly explains uncertainties in the analysis. However, it would have strengthened the problem definition if the scale of the problem concerning the low demand for SAF had been better explained and quantified. Moreover, from the IA it is not clear to what extent the initiative would affect SMEs. The IA does not assess the impacts on SMEs as recommended in the Better Regulation Guidelines. In the comparison of the options, the assessment in terms of effectiveness and efficiency criteria – presented only in a table format – would have benefited from further clarification and qualitative explanations. The description of stakeholder views appears at times to be quite vague, not always indicating which stakeholders gave which views and focusing on their views on specific measures rather than on fully fledged options. Finally, the IA explains the monitoring framework to be adopted, but does not clearly present monitoring indicators and operational objectives, nor mention evaluation plans.

- <sup>1</sup> See also Jaan Soone, ReFuelEU Aviation 'fit for 55 package', Legislative briefing, EPRS (forthcoming).
- <sup>2</sup> In the volume-based policy options, the minimum share of SAF in the jet fuel mix would be: 2 % in 2025 (2 % biofuels, 0 % RFNBOs); 5 % in 2030 (4.3 % biofuels and 0.7 % RFNBOs); 20 % in 2035 (15 % biofuels and 5 % RFNBOs); 32 % in 2040 (24 % biofuels and 8 % RFNBOs); 38 % in 2045 (27 % biofuels and 11 % RFNBOs); and 63 % in 2050 (35 % biofuels and 28 % RFNBOs). In the CO<sub>2</sub> intensity reduction policy options, CO<sub>2</sub> intensity would be reduced by 5 % in 2030, by 29 % in 2040 and by 59 % in 2050. (IA, pp. 33-36)
- <sup>3</sup> The proposals for revision concern the following areas: Emissions Trading System, Effort Sharing Regulation, land use, land-use change and forestry (LULUCF), CO<sub>2</sub> emissions standards for cars and vans, energy efficiency and renewable energy.

This briefing, prepared for the Committee on Transport and Tourism (TRAN), analyses whether the principal criteria laid down in the Commission's own Better Regulation Guidelines, as well as additional factors identified by the Parliament in its Impact Assessment Handbook, appear to be met by the IA. It does not attempt to deal with the substance of the proposal.

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