

May 2017

Limitations of scope for aviation activities in the EU ETS

Impact Assessment ([SWD\(2017\) 31 final](#), [SWD\(2017\) 30 final](#) (summary)) of a Commission proposal for a regulation of the European Parliament and of the Council amending Directive 2003/87/EC to continue current limitations of scope for aviation activities and to prepare to implement a global market-based measure from 2021 ([COM\(2017\) 54 final](#))

Background

This note seeks to provide an initial analysis of the strengths and weaknesses of the European Commission's Impact Assessment (IA) accompanying the above proposal, adopted on 3 February 2017 and referred to Parliament's Committee on Environment, Public Health and Food Safety.¹ The proposal intends to prolong the current limitations of scope for aviation activities introduced by [Regulation \(EU\) No 421/2014](#),² which amended [Directive 2003/87/EC](#).³ This directive established the European Union emissions trading system⁴ (EU ETS), a scheme for greenhouse gas⁵ (GHG) emissions allowance trading within the Community, but it did not include emissions from aviation activities in its scope.

However, in 2006, the Commission decided to propose the integration of aviation into the EU ETS, covering emissions from flights to and from all EU Member States, after the 2004 session of the International Civil Aviation Organization (ICAO) Assembly [agreed](#) not to develop a global market-based measure (GMBM) (IA, Annex 8, p. 96).⁶ According to the explanatory memorandum of the proposal (p. 2), the Commission decision was also taken to allow aviation to contribute to the EU commitment to reduce its GHG emissions to at least 20 % below 1990 levels by 2020, as outlined in [COM\(2007\) 2 final](#),⁷ and followed the [2785th Council meeting's conclusions](#) on climate change (pp. 6-10). As a result, in 2008 the EU adopted [Directive 2008/101/EC](#), which included CO₂ emissions from aviation in the EU ETS. The integration of aviation into the EU ETS involved including, as of 1 January 2012, flights between aerodromes within the European Economic Area (EEA), hereafter 'intra-EEA flights', and flights between aerodromes in the EEA and aerodromes in third countries, hereafter 'extra-EEA flights'. However, the entry into force of the directive led to diplomatic objections from a number of countries (IA, Annex 8, p. 96), with some

¹ For an 'EU Legislation in progress' briefing regarding this proposal, see G. Erbach (2017), [CO₂ emissions from aviation](#), EPRS.

² Regulation (EU) No 421/2014 of 16 April 2014 amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in view of the implementation by 2020 of an international agreement applying a single global market-based measure to international aviation emissions.

³ Directive 2003/87/EC of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

⁴ For an illustration of the key features of the EU ETS, see the IA (Annex 9, pp. 98-99). For a quick overview of the EU ETS, see: [The EU emissions trading system](#) (2016), European Commission, DG Climate Action. For a detailed description of the EU ETS, see: [EU ETS Handbook](#) (2015), European Commission, DG Climate Action. For an implementation appraisal of the EU ETS, see: G. Malmersjö (2015), [Climate Action-Greenhouse Gas Emissions and the EU Emissions Trading System](#), EPRS.

⁵ For the purposes of this directive, greenhouses gases mean the gases listed in its Annex II, namely: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆).

⁶ The Commission's decision is linked to the ICAO's decision because, according to Article 2.2 of the [Kyoto Protocol](#), developed countries are called upon to pursue the limitation or reduction of greenhouse gases from *international aviation* working through the ICAO, whereas *domestic aviation* emissions are included in *national targets* for developed countries.

⁷ Communication of 10 January 2007 on Limiting Global Climate Change to 2 degrees Celsius. The way ahead for 2020 and beyond.

airline associations challenging its validity before the European Court of Justice (Case C-366/10).⁸ In the light of the international reactions, and considering the ongoing developments within the ICAO regarding a GMBM,⁹ the EU adopted the 'stop-the-clock' [Decision No 377/2013/EU](#)¹⁰ to facilitate this progress and provide momentum for the 38th session of the ICAO Assembly to agree on a GMBM (see recitals 5 and 6). This decision temporarily deferred enforcement of the EU ETS compliance obligations for 2012 regarding extra-EEA flights (unless airlines chose to remain within the full scope), while maintaining application of the EU ETS for all airlines regarding intra-EEA flights. Monitoring and reporting obligations were also deferred for one year.

In October 2013 the 38th ICAO Assembly agreed on a [resolution](#) to develop, by 2016, a GMBM to limit CO₂ emissions from international aviation, in order to deliver carbon-neutral growth from 2020 (CNG2020). To take account of this outcome, the EU adopted Regulation (EU) No 421/2014 (known as 'stop-the-clock II'), amending Directive 2003/87/EC. On 7 October 2016, the 39th ICAO Assembly adopted a resolution¹¹ (IA, Annex 6, pp. 88-94) to implement a GMBM in the form of a carbon offsetting and reduction scheme for international aviation ([CORSIA](#)). This scheme aims to monitor, report, and offset, from 2021, any annual increase in total CO₂ emissions from *international* civil aviation (i.e. civil aviation flights that depart in one country and arrive in a different country) above the 2020 levels, to keep global net CO₂ emissions from international aviation at 2020 levels. However, the day before the ICAO resolution was adopted, a European Parliament [resolution](#)¹² expressed '...deep disappointment with the current proposal being discussed at the ICAO'.

Problem definition

Regulation (EU) No 421/2014 introduced Article 28(a) to Directive 2003/87/EC, providing for a temporary derogation from application of the EU ETS for extra-EEA flights (as well as for intra-EEA flights to outermost regions) between 1 January 2013 and 31 December 2016. It also required the Commission to report to the European Parliament and to the Council on actions to implement an international agreement on a GMBM from 2020, following the outcome of the 39th ICAO Assembly of 2016. In its report, the Commission was asked to consider and, if appropriate, include proposals in reaction to developments in the ICAO on the appropriate scope for coverage of emissions from extra EEA-flights from 2017 onwards. Under the Article 28(a) provisions, the EU ETS will go back by default to its full scope from 2017 onwards should the EU decide not to amend the EU ETS in response to the outcome of the 2016 ICAO Assembly. According to the IA, a return to the full scope of the EU ETS might trigger controversies with third countries, and be interpreted as a signal that the EU does not intend to implement the GMBM. In addition, it might negatively affect the prospects of reaching an agreement on its key features, and the ensuing implementation of the GMBM from 2021 by other stakeholders. On the other hand, the GMBM would address international aviation emissions *at global level* for the first time, and it would take the aviation sector closer to achieving the ICAO CNG 2020 target (pp. 9-10). The IA identifies two problems.

Problem 1: the EU ETS's scope in the (2017-2020) transitional period to address aviation emissions effectively

According to the IA (p. 11), the January 2017-December 2020 period must be considered as a transitional period during which efforts will focus on making GMBM operational, and in particular on finding an agreement on its key features (e.g. accounting and offsetting rules). Any amendments to the EU ETS for aviation should be consistent with EU 2020 climate targets, while incentivising the transition to and implementation of the GMBM from 2021 to maximise the global mitigation impact.

Problem 2: post-2020 implementation of the GMBM and EU action

According to the IA (p. 11), assuming that the GMBM will become operational as from 2021, preparations for its implementation through national legislation should begin soon in order to provide the aviation industry and

⁸ However, in its [judgment of 21 December 2011](#), the Court ruled that the directive did not infringe either the principles of customary international law or the provisions of the [EU-US Air Transport Agreement](#) signed on 25 and 30 April 2007.

⁹ See M. Cames, H. Pulles, [Main options for a GMBM at ICAO during its High-level Meeting in May 2016](#), IPOL.

¹⁰ Decision No 377/2013/EU of 24 April 2013 derogating temporarily from Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community.

¹¹ [ICAO Assembly Resolution A-39-3](#). See also A. Debyser (2016), [ICAO Agreement on CO₂ emissions from aviation](#), EPRS.

¹² European Parliament resolution of 6 October 2016 on the implementation of the Paris Agreement and the 2016 UN Climate Change Conference in Marrakesh, Morocco (COP22) (2016/2814(RSP)).

national authorities with legal certainty. In addition, and in the light of the EU's commitment under the [Paris Agreement](#)¹³ and the implementation of the [2030 climate and energy framework for the EU](#), the contribution by the aviation sector to the EU's emission reduction targets needs to be determined. In view of the future implementation of the GMBM, it is essential to assess the various potential impacts of interaction between the GMBM and the EU measure for aviation in the period post-2020. Finally, the implications this may have on the relationship with ICAO and international partners should also be considered.

Objectives of the legislative proposal

The IA presents three *general* objectives (p. 17):

- to ensure the aviation sector makes a sufficient contribution to reducing the impact of climate change;
- to ensure that the action chosen has no negative economic impact on the EU, in particular on its aviation sector;
- to ensure that the action does not harm the relationship with the ICAO.

It also presents three *specific* objectives for the 2017-2020 period (p. 17):

- *an environmental objective*: to address emissions from aviation activities, pending the implementation of a GMBM in 2021, and to achieve the EU's 2020 climate targets;
- *an economic objective*: to maintain competitiveness levels in the aviation sector and a level playing field in the internal market for aviation, including by providing operators with legal certainty and keeping the administrative costs associated with the measures low;
- *an objective relating to the relationship with the ICAO*: to work on development, transition and readiness for the implementation of the GMBM from 2021, and political and international acceptability of the EU measure.

The IA also presents three *specific* objectives for the post-2020 period (pp. 17-18):

- *an environmental objective*:
 - to ensure that aviation emissions from intra- and extra-EEA flights continue to be addressed effectively post 2020, so as to maintain at least the EU's current, domestic level of environmental ambition and relevant aviation contribution, in line with its domestic 2030 climate commitment;
 - to facilitate implementation of the GMBM from 2021, to maximise the global mitigation impact, to meet the minimum 2 degrees Celsius target, and to pursue efforts to limit global temperature increase to 1.5 degrees Celsius under the Paris Agreement and meet the ICAO's target of 'carbon neutral growth' at 2020 levels (CNG 2020);
- *an economic objective*: to maintain competitiveness levels in the aviation sector and a level playing field in the internal market for aviation, by providing operators with legal certainty, keeping the administrative costs associated with the measures low, and avoiding any duplication of regulation;
- *an objective regarding the relationship with the ICAO*: implementation of the GMBM by the EU and third countries, and political and international acceptability of the EU measure.

Overall, most of the objectives seem to be relevant, sufficiently measurable, and achievable, though not always specific or time-bound. This is the case, for instance, of the objective referring to the relationship with the ICAO, which is rather vague and not time-bound. Concerning the environmental objectives, measurable targets (referring to the EU's 2020 climate targets and to the EU domestic 2030 climate commitments) are sometimes missing from the description, though they are provided for in other sections of the IA (e.g., pp. 5, 15) and in the explanatory memorandum (p. 2). Furthermore, some of the specific objectives are almost identical for the 2017-2020 and post-2020 periods, but this makes sense. The IA sets the *operational* objectives after having identified the preferred options, under section 7 (pp. 63-64), in line with the Commission's [better regulation toolbox](#), which indicates that they are option-specific (tool no 13, pp. 80-81).

Range of options considered

The IA clarifies that the options considered have been developed taking into account the modifications brought about by Regulation (EU) No 421/2014, and the outcome of the 2016 ICAO Assembly, i.e. a temporary derogation

¹³ On this issue, see G. Erbach (2016), [The Paris Agreement: A new framework for global climate action](#), EPRS.

for extra-EEA flights from the application of the EU ETS for the 1 January 2013 to 31 December 2016 period, and implementation of a GMBM from 2021, respectively (p. 19). As such, they can be distinguished between those available for the 2017-2020 period, and options available for the post-2020 period (when the GMBM is expected to be operational), with the preferred option for the 2017-2020 period marked in bold, namely:

2017-2020 (NO GMBM)		Post -2020 (GMBM)
Option 0	▪ Baseline (full scope of application of the EU ETS)	▪ Baseline (full scope of application of the EU ETS)
Option 1	▪ Intra-EEA flights covered by the EU ETS scope of application	▪ Intra-EEA flights covered by the scope of application of the EU ETS ▪ Extra-EEA flights covered by the GMBM
Option 2	▪ Intra-EEA flights + flights departing to third countries covered by the EU ETS scope of application	▪ Intra-EEA flights emissions above the EU ETS cap to be offset by European Allowances (EUA) ▪ Extra-EEA flights covered by the GMBM
Option 2.1		▪ Intra-EEA and extra-EEA flights covered by the GMBM ▪ intra-EEA flights <i>additionally</i> covered by the scope of application of the EU ETS to address emissions between the cap and 2020 levels
Option 3		▪ Intra-EEA and extra-EEA flights covered by the GMBM while maintaining the legal base for EU action

(Source: author's reworking of IA text)

The options considered for the 2017-2020 period maintain the EU ETS to regulate aviation emissions, but have different geographical scope. The IA mentions that some stakeholders supported Option 0, while the aviation industry, Member States, and public authorities supported Option 1 (p. 20). However, nothing is said about Option 2. As pointed out in the stakeholder consultation section, the options considered in the IA were not included as examples for a possible answer to the questionnaire submitted. As such, it is not clear whether any of the stakeholders suggested it as a possibility, or whether this option was added simply in order to avoid having just one alternative to the baseline. Two other options, very likely referring to the 2017-2020 period, are briefly mentioned and quickly discarded (p. 25):

- 50-50 option: intra-EEA flights + 50 % of flights arriving from third countries + 50 % of flights departing to third countries covered by the scope of application of the EU ETS;
- airspace approach option:¹⁴ intra + extra-EEA flights covered by the scope of application of the EU ETS with emissions from extra-EEA flights cut back in proportion to the distance travelled within the EEA.

The IA clarifies that the first option was not assessed further as it was expected to deliver similar results to the departing flights option; no further explanations are provided, though the text refers to a previous impact assessment ([SWD\(2013\) 430 final](#)). The second option (airspace approach) was the preferred one under the Commission proposal [COM\(2013\) 722 final](#), but was not considered as it was not adopted by the co-legislators in this form (p. 25). These being the explanations provided, it is not clear why the airspace approach option was considered in the first place, as it had already been rejected by the co-legislators. As regards the 50-50 option, it would probably have been useful to provide additional elements to understand the difference with respect to Option 2, despite it bringing *similar* results. In addition, the IA states that some options mentioned in the public consultation (e.g. taxation-related options) were discarded given the difficulties to implement them (p. 25). Once again, for a better understanding, it would have been useful to have more detail on the options proposed by stakeholders. All post-2020 options, excluding the baseline, assume the implementation of the GMBM from 2021 onwards, and its coverage of extra-EEA flight emissions; different possibilities are considered with regard to intra-EEA flights emissions (pp. 20-25). The key features of Options 0, 1, 2, and 3 are illustrated in Tables 4-1 (p. 21), 4-2 (p. 22), 4-3 (p. 23), and 4-6 (p. 25) respectively. Option 2.1 is a hybrid between Options 2 and 3 because airlines would have the same obligation as under Option 2, but could offset their emission growth after 2020 with international credits rather than EU ETS allowances. This could lead to lower emission reductions within the EU compared with Options 1 and 2, and would mean that the contribution of intra-EEA aviation would decrease at a time where all other sectors of the EU economy would be required to intensify their efforts to meet the EU 2030 climate target (p. 60). The analysis carried out in the IA concludes by selecting Option 1 as the preferred option

¹⁴ This approach was dubbed a *hybrid option* in SWD(2013) 430 final (p. 18); this Commission staff working document explains that *this is not an airspace approach*, which has been recognised as impracticable by ICAO, but an approximated scale-down of the EU ETS coverage which corresponds to the distance travelled within the EEA on routes to non-EEA countries (p. 19).

for the 2017-2020 period, as it ensures a smooth transition towards the post-2020 period, it maintains the current level of environmental ambition, it requires the least administrative effort, and it has registered a compliance rate of above 99 % from *all airlines* operating within the EEA (p. 60). However, for the post-2020 period, the IA concludes by not selecting any of the options considered, the reasons being, for instance, the current lack of knowledge regarding some of the elements of the GMBM needed for a proper analysis (e.g. rules on the eligibility of units), or the high environmental cost of some of the options (pp. 60-62). However, in order to facilitate the process of making the GMBM operational, it is suggested that the baseline should be discarded and the intra-EEA scope of the EU ETS set as the default option. The IA also concludes by committing to a future report and review under the EU ETS Directive once the rules and actions undertaken by the ICAO and third countries to implement the GMBM are known.

Scope of the impact assessment

The IA provides an in depth assessment of the environmental, economic, and social impacts of the chosen options, analysing them separately for the 2017-2020 and post-2020 periods (pp. 27-50). Consideration is also given to the impact on the level playing field (pp. 37-41), on Member States' budget (pp. 41-42), and on outermost regions (pp. 47-49). Crosscutting issues regarding small emitters (pp. 49-50), legal aspects and the relationship with the ICAO (pp. 50-53) are also considered. The analysis of the impacts is, in general, balanced, clear and comprehensive, also following-up on the Regulatory Scrutiny Board's recommendations, described in another section of this briefing.

Subsidiarity / proportionality

The IA states that the legal basis for Directive 2003/87/EC is the environmental legal basis enshrined in Article 192 of the Treaty on the Functioning of the European Union (p. 14). The explanatory memorandum adds that acting at EU level is more efficient than acting at Member State level, owing to the transboundary effects of climate change and the largely transnational nature of aviation (p. 4), with almost 90 % of GHG emissions from aviation in the EU coming from international aviation (IA, p. 13). By acting at EU level, it will be possible to deliver more effectively on the EU's domestic and international climate targets and ensure the harmonised implementation of the GMBM in the EU. The IA adds that acting at EU level will also prevent the distortion of competition in the internal market, and ensure that the regulation is compatible with meeting the EU's 2030 domestic climate targets (p. 13). The deadline for the submission of reasoned opinions by national parliaments on whether the proposal complies with the principle of subsidiarity was 3 April 2017. At the time of writing, no reasoned opinions had been submitted by national parliaments, though scrutiny had been completed by the parliaments of five Member States, and was in progress in the parliaments of seven Member States. The IA does not contain a specific section on proportionality; the explanatory memorandum states that the proposal complies with the proportionality principle because it does not go beyond what is necessary in order to achieve the objectives of implementing the EU's GHG reduction targets for 2020 and 2030 in a cost-effective manner. At the same time, it ensures the proper functioning of the internal market and facilitates the completion of rules for implementing the GMBM (p. 4).

Budgetary or public finance implications

The explanatory memorandum indicates that the proposal would have no impact on the EU budget (p. 7). However, there will be an impact on Member States' budgets associated with proceeds from the auctions of allowances under the EU ETS for all options envisaging an allocation of allowances. The IA provides an estimation of the auctioning amounts and revenues for the 2017-2020 and post-2020 periods options (pp. 41-42).

SME test / Competitiveness

The IA includes a short paragraph focusing on small emitters, the reason being that almost all SMEs in the aviation sector covered by the EU ETS are small emitters (p. 49). However, it is not entirely clear whether the text, when mentioning small emitters, intends to refer only to those operators (covered by the EU ETS) emitting less than 25 000 tonnes of CO₂ per year (p. 50), or also to aircraft operators operating fewer than 243 flights per period for three consecutive four-month periods (p. 26). This paragraph mentions that the cost of the administrative burden

in relation to monitoring, reporting and verification (MRV) obligations, as calculated in a supporting study,¹⁵ may be up to four times higher when compared with the EU ETS revenues raised from small emitters (p. 50). A figure, averaging between €800 and €1 000, is provided as an estimation of verifications costs (p. 44). However, the IA does not explain how this figure was obtained; in addition, it is not clear whether this figure refers to the costs incurred by all actors involved in a single verification or to costs incurred by a single aviation operator only. Finally, nothing is said about whether, and to what extent, this burden could be affected by the different options considered for the 2017-2020 and post-2020 periods. Paragraph 5.2 clarifies that the IA focuses on cost/price competitiveness (p. 34). The overall analysis is quite lengthy, and in at least one case not very clear, when it describes the impact of an increase in fuel prices (p. 34). The analysis does not distinguish between large aircraft operators, with annual emissions higher than 25 000 tonnes of CO₂ per year, and small emitters, though the PricewaterhouseCoopers study revealed that the EU ETS covers about 300 large aircraft operators responsible for approximately 99 % of emissions (p. 49). The IA includes specific sections dealing with competition between direct city-pair routes (p. 38), between one-stop services (p. 38), and between tourist destinations (pp. 39-41).

Simplification and other regulatory implications

The proposal, though not part of the [REFIT agenda](#), complements the broader reform of the EU ETS for the 2021-2030 period proposed by the Commission on 15 July 2015, and set out in [COM\(2015\) 337 final/2](#)¹⁶ following the guidance set by the 23-24 October 2014 European Council in its [Conclusions on 2030 Climate and Energy policy framework](#). It is also in line with the 2030 climate and energy policy framework for the EU agreed on 23 October 2014 by the European Council, endorsing a *binding* EU target of a minimum 40 % domestic reduction in GHG emissions by 2030 compared with 1990 levels. Finally, it is consistent with the Commission aviation strategy [COM\(2015\) 598 final](#),¹⁷ and with the Commission strategy on low-emissions mobility [COM\(2016\) 501 final](#).¹⁸

Quality of data, research and analysis

The analysis carried out in the IA is not entirely new, as it is partially based on the impact assessment (SWD(2013) 430 final) accompanying the Commission proposal (COM(2013) 722), and on the study on small emitters. In addition, an evaluation of the existing EU ETS Directive for the 2021-2030 period was part of the IA work and fed into the current assessment of the policy options (explanatory memorandum, p. 5, IA, p. 11). The explanatory memorandum (p. 6) adds that for global GHG emissions, the IA used the [6th Emissions Gap Report](#) prepared by the United Nations Environmental Programme (UNEP), and the [5th Assessment Report](#) prepared by the Intergovernmental Panel on Climate Change (IPCC). In relation to overall EU GHG emissions projections, the IA used reports from the European Environmental Agency (EEA), and ICAO environmental reports (p. 6); CO₂ emissions projections are provided in Annex 5 of the IA (pp. 85-87). Consistently with the scope of Directive 2008/101/EC, the IA considers only CO₂ impact from aviation emissions, though it acknowledges that non-CO₂ impacts have been estimated to have several times the impact of aviation's CO₂ emissions¹⁹ (p. 85). However, the inclusion of some analysis assessing the impact of non-CO₂ emissions from aircrafts would have been useful, also in light of the findings of the public consultation. Most civil society organisations, in fact, considered it necessary to address the impact of aviation emissions of nitrogen oxides (NO_x), or water vapour (H₂O) condensing at high altitudes (p. 69). The quantitative assessment of the impacts of the different policy options is based on the aviation

¹⁵ PricewaterhouseCoopers (2014), ETS aviation small emitters. Cost assessment of applying EU ETS on aviation small emitters and analysis of improvement potential by simplifications, alternative thresholds and alternative means of regulation, [Report](#) prepared for the European Commission, Directorate-General for Climate Action.

¹⁶ This proposal, in fact, did not address issues relating to the coverage of aviation in the EU ETS as it was considered inappropriate to do so in advance of the 39th ICAO Assembly of October 2016 (explanatory memorandum, p. 3). An initial appraisal of the IA accompanying it has been made by S. Dossi (2015), [EU Emissions Trading System \(EU-ETS\): cost-effective emission reductions and low-carbon investments](#), EPRS. The co-legislators are currently examining the proposal: see G. Erbach (2017), [Towards a stronger EU emissions trading system](#), and G. Erbach (2017), [Post-2020 reform of the EU Emissions Trading System](#), EPRS.

¹⁷ For an overview of the strategy, see A. Debyser (2017), [An aviation strategy for Europe](#), EPRS.

¹⁸ The action plan for low-emission mobility is provided in [Annex 1](#) to the communication. A briefing on the EU strategy for low-emission mobility has been prepared by M. Pape (2017), [Towards low-emission EU mobility](#), EPRS.

¹⁹ On non-CO₂ emissions contributing to climate change, see C. Needham (2011), [Non-CO₂ climate-changing emissions](#), Library of the European Parliament.

emissions and evaluations of reduction options modelling system (AERO-MS). The IA claims that the data used by the model were updated to the base year 2010, with forecasts for the years 2020, 2030 and 2040 (p. 27). However, the SAVE project report,²⁰ mentioned in the IA, clarifies that the project was initiated to provide an update of all relevant input data used by AERO-MS up to the 2006 base year, with forecasts for the years 2016, 2026, and 2036. In addition, even though the IA explains the reasons for selecting the AERO-MS for the analysis (p. 27), the model is not among those approved by the ICAO Committee on Aviation Environmental Protection (CAEP). This seems to be quite relevant, as the models listed in [Table 1](#) of the ICAO website are those selected as being sufficiently *robust, rigorous, transparent, and appropriate for different analyses* (e.g. market-based measure). The SAVE project concluded that AERO-MS was able to take *broadly* on board the latest scenarios developed within CAEP. However, it also acknowledged that the percentage growth in the number of flights in the AERO-MS was higher when compared with other models' forecasts. Because of the higher growth in the number of movements, the growth in fuel burn and related CO₂ emissions were also higher according to the AERO-MS (pp. IX-X). The IA also mentions that AERO-MS used growth rates in emissions for (intra- and extra-EEA) departing flights derived from CAEP's forecasts, and that a sensitivity analysis was performed in order to take account of the significantly lower increase in aviation emissions experienced in the last few years (p. 27). However, it is open to question whether the choice of carrying out the sensitivity analysis by using aviation emissions projections derived from another model that is *not aviation specific* (the PRIMES energy model) was methodologically robust, in light of the reasons provided in the IA (p. 27).

Stakeholder consultation

The Commission consulted a broad range of stakeholders and gathered their views through a public online, 12-week, consultation running from 7 March until 30 May 2016, whose results are described extensively in Annex 2 of the IA (pp. 67-79). Annex 3 describes how the stakeholders identified are affected (pp. 80-81). The questionnaire submitted was made up of eight open-ended questions, while one field was left open for comments. Two questions asked which options should be considered for the EU ETS for the periods 2017 to 2020, and beyond 2020. The options considered in the IA were not however included as examples. Two questions referred to the forthcoming 2016 ICAO Assembly; but while one was very focused, the other could perhaps have been phrased in a more precise way. The Commission received [108 formal replies](#), classified by stakeholder category in Table II-1 (p. 67), which illustrates the number and percentages of responses received by each category. It should be noted that 50 % of the replies received came from individuals and civil society organisations, while private enterprises and professional organisations accounted for only 29 % of the replies. The Commission received 24 replies (22 %) from airlines or aviation associations, while no responses were submitted by the aircraft manufacturing industry, technology suppliers or airports (p. 67). Based on the analysis of individual replies carried out by the Commission, it seems that the IA did not take into sufficient consideration the expectations and remarks expressed by civil society organisations and individuals, e.g. regarding the options to consider for the EU ETS in the 2017 to 2020 and beyond 2020 periods, and for the efforts of international aviation and its development over time.

Monitoring and evaluation

According to the IA, the policy objectives identified will be monitored through operational objectives defined in Table 7-1 (p. 63), and the Commission will periodically assess the implementation and results of the chosen option, as detailed in the IA (pp. 63-64). The EU ETS, already having in place a system for monitoring, reporting and verifying emissions, will facilitate this task, while the GMBM is expected to be not so different from it in terms of key administrative tasks (IA, p. 45). The IA also clarifies that an evaluation of the existing EU ETS Directive was part of the impact assessment work carried out in the context of the review of the EU ETS for phase 4 (2021-2030), and fed into the assessment of the policy options for the current proposal (p. 11). The IA clarifies that a specific retrospective evaluation for the EU ETS for aviation is not considered necessary at this stage, since the EU ETS for aviation has never been applied in its full scope as initially designed (p. 11). In addition, the IA mentions that the [Carbon Market Report 2015](#), covering 2013 and 2014, confirmed the effectiveness of the scheme and the high

²⁰ EASA (2010), Study on Aviation and Economic modelling (SAVE), Research project EASA.2009/OP15, [Final Report](#) 19 November 2010.

level of aviation sector compliance with it (p. 12). The IA does not mention the possibility of carrying out a future evaluation of the proposed amended directive, if adopted.

Commission Regulatory Scrutiny Board

The Commission's Regulatory Scrutiny Board (RSB) adopted a [positive opinion with reservations](#) on a draft version of the IA report of 28 October 2016, recommending the adjustment of six key aspects (pp. 1-2), further detailed under Part (C) of the RSB's opinion (pp. 2-3). The final version of the IA seems to have addressed most of the RSB's recommendations. However, the final version of the IA keeps the full scope of the EU ETS as the baseline, whereas the RSB recommended, as a more realistic baseline, the continuation of the current policy (i.e. Option 1), suggesting that the *current* baseline (i.e. Option 0) should be considered as one option to be discarded at a later stage. Neither does it seem to have completely addressed the RSB's recommendations regarding the impact analysis, as the IA still does not provide sufficient information about EU and ICAO policies on aircraft technologies, operational measures and sustainable alternative fuels. In addition, the explanation regarding how the likely limited impact of the policy options would be able to generate economic incentives to improve the environmental performance of aviation, as recommended by the RSB, does not seem to have been sufficiently developed either.

Coherence between the Commission's legislative proposal and the IA

The legislative proposal is aligned to the recommendations set out in the IA, as represented by Article 1 amending Directive 2003/87/EC, namely by amending its Article 28a, by adding two more articles (28b and 28c), and by modifying its Annex I (pp. 7-8).

Conclusions

The IA defines the problems and objectives of the proposed initiative clearly, and relies on comprehensive, and updated, sources of information. Overall, most of the objectives seem to be relevant, sufficiently measurable, and achievable, though not always specific or time-bound. The selection of policy options regarding the 2017-2020 period is not entirely convincing, especially considering that those included in the initial selection were quickly discarded. The IA assesses, with a considerable level of depth, the environmental, economic, and social impacts of the options retained. The analysis is, in general, balanced, clear and comprehensive, and is supported by two quantitative models (AERO-MS, and PRIMES) previously used by the Commission. However, the choice of these models is not entirely convincing, for reasons highlighted in this briefing. The analysis of the competitiveness of small emitters (SMEs) is sufficiently broad, and includes specific sections dealing with competition between direct city-pair routes, between one-stop services, and between tourist destinations. However, it is not always easy to read and, at least in the case when the IA describes the impact of an increase in fuel prices, is sometimes not very clear. The Commission consulted a broad range of stakeholders, whose views are described and analysed extensively. The IA seems to have addressed most of the RSB's recommendations. However, it keeps the full scope of the EU ETS as the baseline, whereas the RSB recommended the continuation of the current policy as a more realistic choice. In addition, sufficient information about EU and ICAO policies on aircraft technologies, operational measures and sustainable alternative fuels, as recommended by the RSB, still seems to be missing.

This note, prepared by the Ex-Ante Impact Assessment Unit for the European Parliament's Committee on Environment, Public Health and Food Safety (ENVI), 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. It is drafted for informational and background purposes to assist the relevant parliamentary committee(s) and Members more widely in their work.

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Manuscript completed in May 2017. Brussels © European Union, 2017.

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