

INCEPTION IMPACT ASSESSMENT

Inception Impact Assessments aim to inform citizens and stakeholders about the Commission's plans in order to allow them to provide feedback on the intended initiative and to participate effectively in future consultation activities. Citizens and stakeholders are in particular invited to provide views on the Commission's understanding of the problem and possible solutions and to make available any relevant information that they may have, including on possible impacts of the different options.

TITLE OF THE INITIATIVE	European Partnership for Integrated Air Traffic Management
LEAD DG (RESPONSIBLE UNIT)	DG Mobility and Transport, Unit E.3
LIKELY TYPE OF INITIATIVE	Proposal for a Council Regulation for a European Partnership for Integrated Air Traffic Management under Horizon Europe
INDICATIVE PLANNING	Q1 2020
ADDITIONAL INFORMATION	-

The Inception Impact Assessment is provided for information purposes only. It does not prejudice the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described by the Inception impact assessment, including its timing, are subject to change.

A. Context, Problem definition and Subsidiarity Check

Context

The proposal for Horizon Europe, the future EU's future research and innovation (R&I) programme for 2021-2027, outlines the approach (Article 8) and criteria (Annex III) for R&I partnerships under the umbrella term 'European Partnerships'. According to the political agreement between the Council and European Parliament, "European Partnerships shall be established for addressing European or global challenges only in cases where they will more effectively achieve objectives of Horizon Europe than the Union alone and when compared to other forms of support of the Framework programme". The overall financial framework for the upcoming partnerships still has to be agreed by the co-legislators. Different forms of partnerships can be implemented depending on needs and criteria. One such form is institutionalised partnerships set up under Article 185 or Article 187 of the Treaty on the Functioning of the European Union (TFEU). The draft legislation outlines possible areas in which institutionalised partnerships could be set up, including Accelerate competitiveness, safety and environmental performance of EU air traffic, aviation and rail. In the course of the strategic planning, the Commission, in close cooperation with the Member States, has identified 'Integrated Air Traffic Management (ATM)' as a candidate for such a partnership.

ATM ensures the safe separation of aircraft and the efficient flow of air traffic. ATM systems combine technological solutions and human action. Their efficiency is measured by how well they manage air traffic and ensure a seamless and safe flow of traffic in any situation. Current systems are reaching the limits of their ability to manage an ever increasing volume of different types of air traffic. The number of flights in Europe is expected to increase by 50% by 2035 and ATM will become more complex as new types of flying vehicles appear and as the controlled airspace is extended to manage urban air mobility and sub-orbital flights¹. The EU's ambition to reduce greenhouse gas emissions makes these challenges even more urgent. The partnership will therefore help develop European strategic value chains such as those for 'low carbon transition' that were identified by the Strategic Forum for Important Projects of Common European Interest.

Problem the initiative aims to tackle

Over the past decade, ATM in the EU has improved thanks to the Single European Sky policy and, in particular, to the achievements of its technological component, the Single European Sky air traffic management research (SESAR) project. Through SESAR, the Commission and the main aviation stakeholders have set up a comprehensive and innovative system that: (i) optimises flight trajectories; (ii) improves the prediction of events that can hinder traffic flows; and (iii) facilitates the work of air traffic controllers. SESAR has helped ensure zero fatalities caused by ATM failures in the EU in the last 2 years and a 2% reduction in fuel consumption per flight. These achievements are thanks to the unprecedented cooperative effort of aviation stakeholders working together in dedicated partnerships.

The [interim evaluation of the SESAR Joint Undertaking \(SESAR JU\)](#), the EU body that was set up to manage all ATM related research and innovation (R&I) activities in the EU, co-funded by FP7 and Horizon 2020, has shown that the partnership approach has been pivotal to the success of the Single European Sky. SESAR — the SESAR JU in particular — has brought together the manufacturing industry, air navigation service providers, airspace

¹ A sub-orbital flight has a flight path that is less than one complete orbit of the Earth

users, airports, academia and research institutes, professional staff, military and Eurocontrol to deliver innovative technical and operational solutions to modernise the EU ATM system.

The Commission is considering whether to set up a new institutionalised European partnership under Article 187 TFEU building on the experience of the SESAR JU. However, the priorities, composition and governance of any new partnership would need to be reviewed to ensure that it addresses the new ATM challenges for the EU in the coming decades, such as an increase in air traffic volume and the increasing complexity, digitalisation and automation of ATM services.

More specifically, and in line with the EU's 'smart mobility' ambitions, air transport must become better connected to other modes of transport to serve businesses and the general public more efficiently and to reduce aviation's environmental footprint.

Digitalisation and increased automation can provide solutions, but also entail specific challenges such as cyber threats, handling 'big data' and maintaining a central role for human actors. The future ATM system must be able to accommodate airspace capacity demand from anywhere in the network at all times. It must simultaneously reduce the cost of ATM services, ensure the highest possible level of passenger safety and respond to an ever-growing concern about aviation's increasing environmental impact. In addition, lengthy industrialisation processes (standardisation, production and safety certification) significantly delay the deployment of new technologies and are a major obstacle to modernising the EU ATM system.

The R&I challenge that the EU seeks to address by setting up an ATM research partnership is the need to accelerate the pace of development, validation and industrialisation of these highly automated components, while striking a balance between machines' and people's level of autonomy.

Basis for EU intervention (legal basis and subsidiarity check)

The legal basis for EU intervention is the Horizon Europe programme (based on Article 182 TFEU). In implementing the programme, the EU may make provisions for participation in research and development undertaken by several Member States or in programmes run jointly by several Member States (in accordance with Article 185 TFEU), or may set up joint undertakings (in accordance with Article 187 TFEU).

Due to the international, cross-border nature of air traffic flows in Europe, the technologies installed on board aircraft and in airports and control towers and used for ATM services (e.g. surveillance, navigation and communication) need to be compatible and interoperable. The effort needed to define and develop these technologies goes beyond the capacity of individual Member States or stakeholders in terms of financial commitment, technical capacity and ability to coordinate large-scale innovation projects.

EU action to modernise the ATM infrastructure at network level has so far been more economically efficient than fragmented, local initiatives. With SESAR, the benefits of EU action have been proven, while respecting the subsidiarity principle as set out in Article 5 of the Treaty on the European Union. In addition, in accordance with the proportionality principle, the proposed measures will not go beyond what is strictly necessary to achieve the objectives.

B. Objectives and mapping of policy options

The objective of the proposed European partnership is to develop an interoperable and harmonised EU ATM system that provides interoperable technological and operational solutions to create sustainable air transport and connectivity within the EU and globally. These solutions must be quickly deployable and must allow an efficient and secure exchange of data between airlines, airports, air navigation service providers and the network manager.

This objective would be achieved more effectively with a collective effort, such as a European partnership that provides a long-term framework for innovation driven by EU policy priorities and under EU oversight. Partnerships are a proven way of pooling and aligning expertise, scientific resources, validation platforms and investments and creating economies of scale.

Because of the strong link with the Single European Sky policy, the future European partnership for integrated ATM should provide the Commission with independent technical support to help it: (i) formulate policies for the future; (ii) adapt the regulatory framework; (iii) monitor progress; and (iv) include innovation and assistance in its international activities (e.g. ICAO) to promote EU standards at global level.

The relevance of the priority and continuation of support under the Framework programme, including the form of support, will be subject to evaluations and assessments in line with the criteria set out in the Regulation of Horizon Europe.

Option 0: Baseline scenario

With the baseline option, ATM research and development priorities would be advanced through regular calls under Horizon Europe. This would ensure a loose coordination with Member States through the Programme Committee. The Single European Sky objectives would still be the basis for setting priorities and performance targets for improving ATM throughout the network. However, each Member State would develop its own infrastructure. The coordination of R&I projects and investments and the definition of a common R&I roadmap would only be at the initiative of stakeholders.

Option 1: A co-programmed European partnership on ATM research & innovation

A co-programmed European partnership would involve the European Commission and all the relevant industry stakeholders. It would be set up on the basis of memoranda of understanding and/or contractual arrangements between the Commission and the partners. The partnership's objectives, the partners' financial commitments (including in-kind contributions), key performance and impact indicators, and expected outputs would be clearly specified in the contract. A strategic R&I agenda would be developed by the industrial partners, with jointly agreed R&I priorities fully reflected in Horizon Europe work programmes and related calls for proposals. Industry partners would be responsible for providing their contributions and commitments and for ensuring market uptake of results.

Option 2: An institutional European partnership on ATM research & innovation (Article 187 initiative)

Establishing an institutional partnership as an EU body would allow the Commission and all relevant public and private partners to participate. The legal status of an EU body confers stability, legal certainty and clarity to the partnership from its inception. As an EU body, it would function under established transparent procedures and be subject to political and budgetary control by EU institutions. The Commission would be part of the governance and the staff of the body would be employed under the EU statutes. The relationship between the Commission and the other partners would be established in the statutes of the body and in other specific contractual arrangements. The EU body would be entrusted with EU budget management tasks.

Other options for partnerships (Article 185 TFEU and co-funded) are not considered suitable because the initiative mainly targets industry.

C. Preliminary Assessment of Expected Impacts

Likely scientific and economic impacts

- Compared to funding through uncoordinated calls, the partnership approach is expected to:
- stimulate and optimise investment in digital technologies (estimated at €30-40 billion) enabling quieter, cleaner aircraft operations;
 - put innovative solutions into operations faster;
 - deliver more scalable ATM capacity to cope with air traffic demand;
 - incrementally introduce (with 5 year milestones) more efficient digital ATM services by 2040;
 - increase EU aviation industry competitiveness with efficient airspace organisation and optimised traffic flows;
 - boost EU industry globally through international agreements and the setting of global standards;
 - improve customer experience and business opportunities by reducing travel time, improving predictability and reducing the cost of ATM services by 30-40% per flight; and
 - ensure that no significant disruption is caused by cyber-security vulnerabilities.

Likely social impacts

- By focusing efforts and investment on jointly agreed priorities, the European partnership will contribute to:
- increasing aviation safety levels for all types of flying vehicles;
 - educating the next generation of aviation professionals and encouraging diversity and inclusion;
 - creating additional jobs in the air transport industries and the EU economy at large;
 - improving passenger experience by reducing travel time, delays and costs; and
 - maintaining the central role of human beings in the future ATM system.

Likely environmental impacts:

- reducing aviation noise and gas emissions (5-10% less CO2 emissions per flight by 2035); and
- taking full advantage of the next generation aircrafts' potential to ensure cleaner and quieter flights.

Likely impacts on fundamental rights

There are no expected impacts in this area.

Likely impacts on simplification and/or administrative burden

A simpler, more strategic and coordinated approach to the setting-up and implementation of European

Partnerships under Horizon Europe will significantly reduce the administrative burden for applicants and beneficiaries. Horizon Europe legal basis requires thorough assessment as to the necessity for establishing institutionalised partnerships, and whether other, more flexible partnership forms could achieve the identified objectives. In addition, it lays down requirements (e.g. related to central management of financial contributions, access to data, and links with the monitoring and evaluation framework of Horizon Europe etc.) that support further simplification, harmonisation and more effective implementation.

D. Evidence Base, Data collection and Better Regulation Instruments

Impact assessment

An impact assessment is being prepared to inform the Commission's decision on whether to propose the establishment of an institutionalised European Partnership and to support the preparation of this initiative. If this decision is positive, the impact assessment is likely to be made available in the first quarter of 2020.

Evidence base and data collection

A full impact assessment is required for all partnerships, which might be institutionalised based on Articles 185 and 187 TFEU. In this context, an external study will provide coordinated input for the preparation of impact assessments, which could lead to and would accompany the proposals for institutionalised partnerships (based on Articles 185 and 187 TFEU). The study will be based on desk research, Commission and stakeholder consultation, quantitative and qualitative data collection and analysis and inputs from panels of experts. It will develop a single common methodology to ensure coordinated inputs to individual impact assessment studies of each envisaged partnership.

Consultation of citizens and stakeholders

In line with the Better Regulation guidelines, the Commission seeks to consult stakeholders as widely as possible. The consultation strategy aims to involve a broad range of stakeholders, including national authorities, the research community across the EU, industry, EU institutions and bodies, and others.

A structured consultation of Member States in the Shadow Strategic Configuration of the Programme Committee Horizon Europe in May-June 2019 will provide early input into the preparatory work.

A single open public consultation from mid-2019 (in English, French and German) will cover all 12 potential institutionalised partnerships based on Articles 185 and 187 TFEU. It will collect input from a broad range of stakeholders, on both the overall approach and the individual candidates for institutionalised partnerships based on Article 185 or Article 187 TFEU. It can be accessed via the Commission's Have Your Say web portal. As the results are expected to inform debate during the 'R&I days' (Brussels, 24-26 September), it might be necessary to shorten slightly the 12 week consultation period.

Once all consultation activities are closed, the Commission will publish a synopsis report (summarising the results) on the consultation page.