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| **Impact assessment on the European partnership on integrated air traffic management** |
| **A. Need for action** |
| **What is the problem and why is it a problem at EU level?** |
| Despite the significant progress that has been made in the past decade on modernising air traffic management (ATM) infrastructure, up to 10% of CO2 emissions generated by flights are caused by a fragmented ATM infrastructure that does not take full advantage of digitalisation and automation; these emissions could be avoided. In addition, the COVID-19 crisis has had a significant impact on air transport and exposed the weaknesses of current ATM systems. Never before has there been such pressure on the ATM infrastructure to become more cost‑efficient, resilient and scalable to fluctuations in traffic, and to accommodate new types of air vehicle.  The innovation cycle in ATM should also be shortened, allowing industrial players in the sector to remain competitive and support a wide range of applications in transport (e.g. passengers, cargo, drones and urban air mobility), defence and security (civil-military cooperation in airspace management).  Addressing these multiple problems in a rapidly evolving and complex context requires a substantial collective effort to boost cooperation and investment in innovations that cannot be addressed by any single stakeholder or Member State acting alone. Aviation is by nature international and requires common, coordinated action. |
| **What should be achieved?** |
| The objective is three-fold:  1) bring European ATM into the digital age to make it more resilient and scalable to fluctuations in traffic;  2) strengthen the competitiveness of manned and unmanned air transport in the EU, to support economic growth and recovery in a post‑COVID context;  3) establish the ‘single European sky’ as the most efficient and environment‑friendly airspace in the world. |
| **What is the value added of action at the EU level?** |
| EU intervention (funding and coordination) is needed to ensure that efforts to achieve the above objectives are accelerated and better focused[[1]](#footnote-1). In practice, this means bringing together all relevant stakeholders in the sector, from manufacturers to air navigation service providers, airlines, airports, research institutes and the military, to develop transformative and interoperable technologies that respond to the above challenges. If the problems are not addressed through strong EU coordinated intervention, it is likely that national programmes will emerge on an *ad hoc* basis, especially in a post‑COVID world, resolving local issues but increasing fragmentation of the European ATM network. |
| **B. Solutions** |
| **What are the various options to achieve the objectives?** **Is there a preferred option or not? If not, why?** |
| Policy options (POs) differ by the degree of flexibility and additionality/directionality:  **PO0:** Horizon Europe calls – strategic research agenda set and confirmed by the Commission, with input from the industry;  **PO1:** co-programmed European partnership – R&I agenda is agreed and coordinated with the partnership and used by the Commission for implementation in the work programme;  **PO2:** institutionalised European partnership under Article 187 TFEU – the partnership members will have a high degree of influence in developing the strategic research agenda, annual work programmes and call topics, through a transparent and accessible process, adopted by the governing board of the partnership, on which both the EU and the partners are represented.  **PO1** offers somewhat lower cost and greater flexibility than **PO2**, thanks to an organic, evolving membership structure and the scope for adapting the R&I agenda.  **PO2** is the preferred option, as it establishes the most efficient platform, able to accelerate the delivery of the greatest benefits (see below). As compared with **PO1**, it also has greater directionality and stronger commitment from stakeholders, including inter-governmental organisations such as Eurocontrol, the EU Aviation Safety Agency (EASA) and the European Space Agency (ESA).  **PO2** is marginally the most expensive option, but with over 60% of the costs covered by private partners and the greatest ability to deliver the expected impacts, it delivers the best value for the Union budget. |
| **What are different stakeholders’ views? Who supports which option?** |
| Overall, there is a high level of agreement between stakeholders on the problems, objectives and preferred option for the future. Over 70% of answers in the public consultation supported the re-establishment of the institutional partnership under Article 187 TFEU, pointing out that the sector needs strong EU intervention to steer a single European R&I programme that continuously involves stakeholders along the whole value chain to deliver interoperable solutions that, once deployed, improve the performance and safety of ATM systems in the EU.  Other main views:   * The partnership should have better links between R&I and industrialisation; * It should support market uptake and deployment; * Administrative procedures should be simplified; * There should be closer engagement with EASA and national authorities, better synergies with R&I partnerships and national initiatives, and better links with academia. |
| **C. Impacts of the preferred option** |
| **What are the benefits** **of the preferred option (if any, otherwise of main ones)?** |
| **Scientific impacts:** strengthen the EU’s scientific capabilities and knowledge in ATM; widen the competences of the next generation of aviation professionals;  **Economic/technological impacts:** increased scalability and safety of ATM systems; new opportunities for the drones market to grow; strengthen global leadership role of the European aerospace and aviation industry;  **Social impacts:** reduced aviation noise and gas emissions by a margin equal to the CO2 emissions of a large EU metro area (e.g. Madrid); improved passenger experience (reduced travel time, delays and costs, and better connectivity). |
| **What are the costs of the preferred option (if any, otherwise of main ones)?** |
| The main additional costs compared with **PO0** are the preparation and running costs of the back office of the partnership. However, when taking account of the financial leverage (co-financing rates) and the total budget available for each policy option, assuming a similar Union contribution, the cost of the preferred policy option exceeds that of the most efficient one by 1‑2 percentage points only. In addition, experience has shown that other partners, including institutional ones, are willing to cover over 60% of the administrative costs of the joint undertaking. |
| **What are the impacts on SMEs and competitiveness?** |
| SMEs are likely to play an important role in the partnership, as they are well represented in digital technologies and data and drone activities. Having an open partnership structure and open calls will make it easier for SMEs to participate than in the past. |
| **Will there be significant impacts** **on national budgets and administrations?** |
| No impact on national budgets and administrations is expected, thanks to the alignment of strategies. The active involvement of Member States in the partnership would strengthen their commitment to the resulting technologies and increase their uptake and synchronised deployment across the EU. |
| **Will there be other significant impacts?** |
| The proposed partnership will be instrumental in providing the relevant scientific and technological evidence in aviation to help policymakers and regulators adopt the best regulatory measures to address the challenges of climate change and digitalisation. |
| **Proportionality?** |
| In PO1, partners have flexibility to join or leave the partnership. The R&I agenda can also be easily adapted as the technology or other requirements evolve.  PO2 demands a stronger (financial) commitment, which is justified by the increased effectiveness and ability to accelerate the much‑needed digital transformation of ATM. |
| **D. Follow up** |
| **When will the policy be reviewed?** |
| The Commission will review the mode of implementation 3 years after creation of the partnership. |

1. In line with recent ECA recommendations, SR 18/2018, SR 11/2019. [↑](#footnote-ref-1)