

Perspectives on ESA Agenda 2025

1. ESA sets its vision for 2025: the first step towards a common European space ambition

On March 1, 2021, Josef Aschbacher succeeded Jan Wörner as ESA Director General. Since last fall, he has worked with Member States to define new priorities and goals for the Agency. On April 7, 2021, he released ESA Agenda 2025, in which he laid out five top priorities for the next four years:

- Strengthening ESA-EU relations,
- Boosting space commercialisation for a green and digital Europe,
- Developing space for safety and security,
- Addressing critical programme challenges,
- Completing the internal transformation of ESA.

The strategic agenda shows a sense of urgency, with an unusual and pressing tone. The document starts with a call to the European space community at large "to get its act together" and "up its game". The document recalls that Europe has missed some strategic turning points in the past such as the Internet, Big Tech and Artificial Intelligence. It goes on stressing that a common European space ambition needs to be defined with determined actions and bold responses to the serious challenges ahead of Europe. In particular, the document underlines that inaction to adapt to changes stemming from New Space could "threaten the European space economy" and further increase the gap between Europe and other space powers.

ESA Agenda 2025 is a short-term roadmap with long-term implications, which outlines the urgent priorities to be addressed by the Agency. ESA Agenda 2025 does not announce new ground-breaking programmes as it is only the first step towards a new European ambition for space. It will be complemented at a later stage by programmatic documents such as the Voyage2050 strategic plan for science, the update of the technology strategy and three R&D initiatives on innovative propulsion, in-orbit servicing and manufacturing, and quantum technologies to be submitted to the approval of Member States.

2. Strengthening ties with the European Union: the first priority

The first priority of ESA Agenda 2025 is to strengthen relations with the EU. The joint letter sent to Member States by EU Commissioner Thierry Breton and ESA DG Josef Aschbacher in March 2021 underlines the clear and shared political willingness from both parties to rethink and reinforce their relations.

The most pressing issue is to finalize the negotiation of the Financial Framework Partnership Agreement (FFPA). Since the first Framework Agreement in 2004, which drew the legal basis for cooperation between the EU and ESA, the FFPA has laid out the principles for the financial and administrative cooperation between the two institutions. It specifies the responsibilities and the sharing of costs for EU flagship programmes. The new FFPA is currently in negotiation as part of the new Multiannual Financial Framework (MFF). It will clarify the role of EUSPA, streamline the various agreements and working arrangements with GSA or Horizon Europe, and provide coordination and control mechanisms to avoid duplication. Both parties seek to get the FFPA approved by mid-year.

Agenda 2025 outlines a clear roadmap centred around two priorities: establishing a high-level political dialogue and developing a concrete proposal to strengthen the current cooperation model. ESA first plans to engage with its Member States, the European Commission, and the industry to define

Europe's space ambition. Then, ESA plans to draft an in-depth assessment on its experience working with the EU in order to make recommendations regarding the future of Copernicus and Galileo and to identify new potential flagship programmes and partnerships. The Agency also plans to establish an independent ad-hoc group to draft recommendations for this long-term vision, including on the evolution of the current governance and new flagship programmes. Throughout this process, the EU–ESA Space Council, the ESA Council and the EU Competitiveness Council will be key facilitating entities. This process will lead to a Space Summit to be organized in Spring 2022 by ESA and the EU, ideally at the Head of State/Head of Government level, to propose a long-term space ambition for Europe and potentially announce new flagship programmes such as a multi-orbit secured connectivity system and a Space Traffic Management initiative. This Summit will be followed by the ESA Council Ministerial Meeting in Autumn 2022. The evolution of the European space governance will also be considered, giving way to a proposal to be formalised in a follow-up summit, tentatively in 2023.

3. Developing the safety and security pillar: adapting to new threats on Earth and in space

As new threats arise on Earth and in space, ESA plans to increase its activities in the safety and security pillar. Historically, this pillar was mostly centred on space safety in space, focused on space weather, debris mitigation and planetary defence. In this domain, ESA will continue to expand its activities by launching an Active Debris Removal (ADR) service, which will further support the establishment of a commercially viable market for ADR and in-orbit servicing.

With regards to security (space for security on Earth), ESA has always been cautious in addressing these issues due to their dual nature and a lack of consensus among its Member States. In this context, ESA plans to position the Agency more prominently on security matters by involving motivated Member States. It will conduct an analysis on Member States and EU priorities in this domain to see which gaps could be filled in by the Agency. A conference on space for safety and security gathering motivated Member States and national security stakeholders is planned to be organised at the end of the year, which is meant to lead to the proposal of optional programmes.

4. Space commercialisation: adapting to New Space and a changing international competition

The Agenda takes stock of the changes brought by New Space to the sector and of the threats they pose to the European space economy. In this respect, ESA DG seeks to stimulate a "more vibrant and dynamic commercial space ecosystem in Europe", in particular to support green and digital transformations. To boost space commercialisation, ESA identifies three key elements to be addressed: talent, access to capital and fast innovation. With this end in mind, ESA is notably willing to become a first buyer, user or anchor customer on behalf of its Member States and the EU to boost public demand and foster access to capital for space companies and commercial projects. In addition, ESA plans to provide technical expertise in cooperative schemes with venture capital funds and private investors, which is envisioned as a "radical shift" in ESA Agenda 2025.

ESA's plan to foster space commercialisation in Europe is broad and includes concrete objectives such as the reduction of the average time-to-contract, the increase in development and adoption of innovative technologies by 30% as well as the doubling of its spending on game-changing technologies. Among other things, ESA plans to pool laboratories and testing facilities, open access to its technical facilities and thus adopt an "innovate and apply under-one-roof" approach.

ESA Agenda also stresses that a common industrial policy is needed to implement the future European vision for space. However, the EU and ESA have different approaches to procurement. Additionally, diverging opinions are not uncommon between Member States on issues such as the commercial relevance of a European constellation, the technical features of Ariane 6 or the adequacy of geographical returns for commercial procurement. Therefore, it remains to be seen how the strengthening of EU-ESA relations will enable the two entities to overcome their diverging views to establish a common industrial strategy for space.

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