

Resolution on
Lifting Europe’s Ambitions for a Green and Sustainable Future,
Access to Space and Space Exploration

(adopted on 6 November 2023)

Council, meeting at ministerial level,

CARRIED BY its determination to follow an ambitious path towards unlocking the full potential of space for the benefit of Europe and its citizens, witnessing the global renaissance of space through the remarkable achievements of governmental and private actors, in times of continued opportunities and challenges that make the exploration and use of outer space more relevant than ever to the future of states and societies,

HAVING REGARD to the Convention for the establishment of a European Space Agency, which entered into force on 30 October 1980, **RECALLING** the purpose of ESA established in Article II thereof; and to the Director General’s Proposal on “Lifting Europe’s Ambitions for a Green and Sustainable Future, Access to Space and Space Exploration” presented to Council in its final form at this meeting,

HAVING REGARD to the series of resolutions and deliberations leading up to this meeting, including the ‘Resolution on Accelerating the Use of Space in Europe’, ESA/C-M/CCCII/Res.1 (Final), adopted on 19 November 2021, the deliberations at the Space Summit held in Toulouse on 16 February 2022 and the ‘Resolution on ESA Accelerating the Use of Space in Europe’, ESA/C-M/CCCXIII/Res.1 (Final), adopted on 23 November 2022,

1 | ESA’s path into the new space age.

An Agency at the heart of Europe’s space ambitions.

1. **CONSIDERS** the new space age as a time of discovery and opportunity, as space becomes ever more available and indispensable for a multitude of actors transforming it at rapid pace into the next global area of influence, with a space economy forecast to grow to above one trillion euros by 2040; **CERTAIN** that Europe must capitalise on these dynamics to generate and secure prosperity, competitive advantage and talent; and that ESA must play its strengths and ambitions, at the service of its Member States, to innovate, develop, enable and increase the potential of space on Earth, in orbit and beyond;

2. DECLARES on the occasion of this meeting, therefore, that it is time for ESA to unlock the full potential of space, lifting Europe's ambitions for a Green and Sustainable Future, Access to Space and Space Exploration; CONVINCED that the Agency is instrumental, central and indispensable to the collective effort of realising and strengthening Europe as a space power that shapes and embraces the transformation of the space sector;
3. IDENTIFIES the recent decisions of Council, meeting at ministerial level in 2022 (CM22), as a strong sign of resolve on this unfolding path; RECALLS that their ongoing implementation across the whole range of space domains, in an effective and efficient manner, remains a priority; and UNDERSCORES the importance of meeting on this present occasion, as part of the European Space Summit 2023, to take Europe's space ambitions forward, also INVITING the Director General to develop an 'ESA 2040' Strategy together with the Member States in preparation of the Council Meeting at Ministerial Level in 2025 (CM25);
4. REITERATES the importance for European actors to work together in a concerted and synergetic manner to realise collectively the benefits of space; NOTING with satisfaction the successes of cooperative flagship programmes while CALLING for a continued spirit of unity and willingness to enable further cooperation; and INVITES the Director General to strengthen the implementation of European partnership by offering effectiveness, certainty and flexibility to all Member States, in full consideration of established roles and responsibilities and of the Resolution on ESA Accelerating the Use of Space in Europe, in particular Article 32 thereof, and through ESA's recognised expertise, capabilities and role as the space system developer efficiently implementing EU programmes;
5. RECOGNISES the Agency's continuing transformation as it capitalises on more than five decades of success in space, able to motivate and pursue new ambitions and to respond to the shifting challenges of this domain, boosting European industry and contributing to European cooperation; and ENCOURAGES further innovation and modernisation to strengthen its role and relevance as leading international organisation at the heart of the European space sector;
6. CONSIDERS the ambition of Europe as a space power, realising autonomous capacities and possibilities in areas of strategic importance and in an international context of cooperation; COMMITTED to ESA continuing to engage in international space cooperation in a changing world, exploring and using outer space peacefully, with respect for the role and rule of law, and for the benefit of citizens and societies;
7. STRESSES the opportunity for the space sector brought about by the transformative power of commercialisation and service-based approaches, which complement the traditional spaceflight portfolio and open up previously unavailable possibilities; and CALLS UPON the Director General to strongly promote these developments, embracing innovation, facilitating a balanced blend of public and private sector participation, ensuring service demand and unlocking

new commercial potential, inter alia by revisiting and refining, together with the Member States, partnership models and procurement methods;

8. APPRECIATES that the purpose and roles of ESA as an intergovernmental cooperation mechanism and a space actor make it a unique and flexible tool of the Member States at the dawn of this new space age; and CONSIDERS that its competence and capacities form the basis for it to continue contributing to the practice and development of rules and norms, assisting in space legislation, shaping space standardisation and carrying out its missions in a responsible and sustainable manner for the collective benefit of the international community;

2 | The ambition of realising the full potential of space.

Towards a green, sustainable and safe future.

2.1 | On Earth

9. STRESSES that a green, sustainable and safe, future on Earth - the prime objective of our time and generation - relies on the fundamental contribution of space-based capabilities; and RECOGNISES the pivotal role of space in tackling environmental and societal issues, enabling a better understanding of our climate system, aiding adaptation and mitigation measures in the face of climate crisis and large-scale emergencies and supporting public policies, remaining however at present still underutilised, thus falling short of realising its full strategic, socio-economic and scientific potential;
10. DECLARES, therefore, that Europe must collectively accelerate its ambition to maximise the use of space as an indispensable path to a green, sustainable and safe tomorrow, for the benefit of present and future generations; CALLS UPON the Director General to reinforce, accelerate and innovate ESA's instrumental contribution - with a focus on the Space for a Green Future Accelerator - unlocking this potential in support of a green and digital transition, decarbonisation, climate action and sustainability; and APPLAUDS the political agreement reached on the United Kingdom's participation in Horizon Europe and Copernicus as of January 2024, URGING continued efforts to achieve a timely solution meeting the remaining Copernicus funding needs;
11. APPRECIATES the Agency's portfolio of activities and programmes as being pivotal to that ongoing quest, reinforced and augmented by the Accelerator approach which enables new cross-cutting initiatives, user-driven developments and action-oriented cooperation to realise the full potential of space technology-based solutions; and OBSERVES with satisfaction that the first steps of its implementation are set to yield promising results, INVITING the Director General to emphasise the role of users at the heart of next-generation technology development and solution scale-up;

12. RECOGNISES space as a key enabler for green transition and climate resilience that empowers mitigation and adaptation strategies through satellite-based infrastructure, science, services and solutions, nurturing commercial opportunities, innovation and investment along the way; and WELCOMES the Agency supporting actors, policies and actions beyond the traditional space domain, including those undertaken in multilateral forums such as the Space Climate Observatory, as space becomes progressively and profoundly embedded in green transition and climate agendas;
13. SUPPORTS strengthened Agency efforts towards (a) engaging with Green Transition stakeholders at national, European and international level, ENCOURAGING them to join the Space for a Green Future Accelerator and contribute to its cooperation mechanisms, including the scale-up of Seeds such as the Green Transition Information Factory; and (b) exploiting Earth observation data, including through Digital Twins, and developing novel instruments, missions and initiatives critical to furthering the understanding of Earth systems as well as mitigation and adaptation actions from local to global scale; and SUPPORTS the engagement of stakeholders in decisively acting on crises facing Europe, contributing through the Rapid and Resilient Crisis Response Accelerator and the delivery of a comprehensive gap analysis to Member States;

2.2 | In orbit and beyond

14. UNDERSCORES that a sustainable and safe space environment is the indispensable condition for continuing humankind's exploration and use of space; against that background, ACKNOWLEDGES that the Director General has followed up on the call of Council for implementing a Zero Debris approach for ESA's missions, through the establishment of a policy and standard of the same name, and for encouraging partners and other actors to pursue similar paths, inter alia through the Protect Accelerator and the introduction of the Zero Debris Charter on the occasion of this Space Summit; and ENCOURAGES the European space sector to draw advantages from a proactive role in promoting safe and sustainable space activities, also capitalising on initiatives at national and international level;
15. CALLS UPON the Director General to (a) advance the protection of critical infrastructure through the Agency's expertise in space safety and its contributions to mitigating adverse effects of space weather, supporting the establishment of operational space weather services in Europe; (b) advance the implementation of ESA's Green Agenda and inspire responsible behaviour among the space sector at large, including the green transition of space activities - OBSERVING with satisfaction the steady growth in signatories of the Joint Statement for Responsible Space Sector -; and (c) explore space responsibly, inter alia by promoting planetary protection; CONVINCED that those ambitions must be reinforced through forward-looking initiatives drawing on ESA's strengths and expertise for the benefit of society on the path towards a green future;

3 | The ambition for European space transportation.

A new vision underpinning Europe's access to space.

16. EMPHASISES that an autonomous, reliable and cost-efficient access to space - building on its own industrial capabilities, service providers, space transportation systems and spaceports - is both a condition and opportunity for Europe to realise its ambitions and reap the rewards of the new space age; CONVINCED that ESA, together with its Member States and industry, is to draw strength and lessons learned from the past, and build on investments made, to restore autonomy, stimulate progress and accelerate innovation for the next generation of European space transportation solutions while stabilising the exploitation of current ESA-developed launchers; and REITERATES that both lines of action are intrinsically and conditionally linked;
17. RECOGNISES space transportation – in addition to its strategic and geopolitical significance – as an important economic domain, with substantial spillover effects underpinning the growth of the European space sector, and STRESSES that Europe's ambitions are to be met through a robust and scalable access to space, enabling the reliable deployment and maintenance of space infrastructure while striving for environmental sustainability and cost-efficiency, possibly through the development of reusable launcher elements, as well as through more competition;
18. OBSERVES with interest the advance of new European commercial space transportation services, inter alia based on micro and mini launchers as well as the establishment of spaceports; and EMPHASISES the need to (a) consolidate European institutional demand from ESA and its Member States, the European Union and other actors; and (b) support the space transportation sector through a portfolio of measures balancing industrial cooperation and competition, including innovative roles for the Agency such as anchor customer and enabler of technological developments through calculated risk-sharing with industry;
19. URGES to prepare the future of European space transportation, in close cooperation with the Member States, together with the European Union and other European institutional users as potential customers of launch services; and thus CALLS UPON the Director General to submit a programme proposal to the Council meeting at ministerial level in 2025 (CM25), for a Challenge among European space transportation solutions attaining pre-defined service objectives with associated technical and financial milestones;
20. REITERATES that, for the decade to come, Europe's independent and autonomous access to space will strongly rely on the Ariane 6 and Vega-C/E launchers; STRESSES the importance of using these launchers for Europe's institutional missions, enabling European autonomy of action in space alongside their exploitation on the commercial market; INVITES, therefore, the Director General, together with all involved actors, to take urgent action and deliver utmost efforts to ensure a successful Ariane 6 inaugural flight and ramp-up as well as a return to flight, ramp-up and increased launch rate of Vega-C;

4 | The ambition of space exploration in orbit and beyond.

Opening a new space exploration chapter for Europe.

21. RECOGNISES human and robotic space exploration to be the very epitome of the space age, pursued by an increasing number of States and private actors, with past and present achievements in Earth orbit, on the Moon and on Mars having transcended into collective history to form part of the global human heritage; CONVINCED that the ambition for Europe is to strive for the necessary autonomy within cooperation in space exploration, based on scientific, economic and political rationales;
22. APPLAUDS the International Space Station (ISS) cooperation as a decades-long cornerstone and a shining example of cooperative multilateral efforts that has revolutionised human long-term presence in low Earth orbit; AFFIRMING the decisions taken at CM22 that provide for an extended European participation in the ISS up to 2030, to enable the continued generation of scientific, economic, societal and inspirational benefits, preparing the grounds for humans to venture ever farther and longer into space;
23. RECOGNISES, in view of the Station's planned end of life, the potential of developing a promising post-ISS economy in low Earth orbit, inter alia by capitalising on the Station's pioneering role and by fostering commercial opportunities and partnerships; INSPIRED by the prospect of realising a future of orbital destinations, services and infrastructures alongside the expansion of human presence beyond Earth orbit, through the Artemis partnership in particular;
24. APPRECIATES the delivery of the 'Revolution Space' report by the High-Level Advisory Group on Human Spaceflight and Exploration and its call to "act visionary, act differently and act now"; REMINDS that the next step in space exploration will build on past and present European achievements in human and robotic exploration, scientific research and technology development, enabled by the European Exploration Envelope Programme for all three exploration destinations, oftentimes as part of international efforts that are reflective of the significant resources required to successfully master associated challenges; and LOOKS FORWARD to expanding this role within a holistic space exploration strategy, cognisant of the fact that until today Europe's exploration ambitions cannot rely on an autonomous capacity to transport humans into outer space;
25. DECLARES, therefore, that it is time for Europe, enabled through ESA, to take an ambitious step in space exploration capitalising on unique European contributions and international partnership opportunities; consequently, INVITES the Director General to:

- (i) review and update, as a contribution to the 'ESA 2040' strategy, the ambitions laid down in the European Space Exploration Strategy¹, in consultation with the Member States and in time for the Council meeting in March 2024;
 - (ii) pave the way for Europe's technological, scientific and commercial participation in a post-ISS orbital economy, through:
 - a. the competitive development of a low Earth orbit cargo return service, to be in a first step implemented within ongoing programmes, approved funding and Agency rules, contributing as one of the possible solutions to the parallel preparation towards a potential future crew vehicle and further destinations; and
 - b. the submission of a programme proposal for Member States' decision at CM25, embedded in the updated European Space Exploration Strategy and building on the progress achieved under a.;
26. CALLS UPON the Director General to implement this new chapter of exploration through lean management and tailored procurement approaches maximising flexibility, competition, growth and innovation as detailed in the Director General's Proposal; inspired by the new dynamics of Space and using this opportunity as a transformative way of working within ESA and with industry, within the Agency's rules and safeguarding transparency and accountability;
27. ACKNOWLEDGES that participation in present and future human and robotic space exploration efforts is embedded in a wider context of international space governance frameworks, standards, policies and accords which ESA or Member States are part of, or to which they contribute; and ENCOURAGES the Agency in this respect to support its Member States as appropriate in a coordinated implementation of such frameworks and their further development;

5 | Conclusion: Lifting Europe's space ambitions.

The next milestone for shaping the new space age.

28. WELCOMES with appreciation, based on the affirmations expressed in this Resolution, the Director General's Proposal on "Lifting Europe's Ambitions for a Green and Sustainable Future, Access to Space and Space Exploration", and ENCOURAGES the Director General to implement the path laid out in this Proposal, in close coordination with the Member States, together with the European Union and together with other actors; CONSCIOUS of the purpose, role and contribution of ESA as an international partner and eminent space actor;

¹ Resolution on Europe's Space Exploration Strategy, adopted by Council meeting at ministerial level on 2 December 2014 (ESA/C-M/CCXLVII/Res.2(Final)) and supplemented by the Terrae Novae 2030+ Strategy Roadmap (ESA/C(2022)108)

29. CONSIDERS this Resolution in the context of the European Space Summit 2023, UNDERSCORING the resolve to collectively advance space as a strategic agenda by recognising prospects and opportunities; REITERATES its call to continue capitalising on the benefits of joint meetings between ESA and the European Union in the format of Space Councils; and CONCLUDES this Resolution by emphasising its determination for ESA to follow an ambitious path towards unlocking the full potential of space for the benefit of Europe and its citizens, IDENTIFYING the present meeting as a further important step along the way towards the Council meeting at ministerial level to be held in 2025 and USING the announced high-level meeting to be organised during the Belgian Presidency of the EU Council in the first half of 2024 to further maximize the potential of space for Europe.
