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**Committee on the Peaceful  
Uses of Outer Space  
Scientific and Technical Subcommittee  
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Vienna, 29 January–9 February 2024  
Item 11 of the provisional agenda\*  
Long-term sustainability of outer space activities**

## **Towards an intergenerational pact for space sustainability**

The present conference room paper contains information received from the Space Generation Advisory Council (SGAC). The information was reproduced in the form it was received.

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\* [A/AC.105/C.1/L.412](#)



# **Towards an intergenerational pact for space sustainability**

## **I. Summary**

1. This paper outlines a proposal from the Space Generation Advisory Council (SGAC) for an “Intergenerational Pact for Space Sustainability” (IPASS) to achieve a safe and sustainable space environment fostering a united global space community.
2. The IPASS proposal is detailed in a dedicated Report outlining the united policy position of SGAC in the area of space sustainability.<sup>1</sup> This paper summarizes that proposal by discussing three aspects: the vision of the space youth, the prioritization of key topics, and potential avenues to promote the long-term sustainability of space activities.
3. In light of the relevance of this work for the upcoming United Nations Summit of the Future, SGAC invites all Member States and observers interested in this topic to join the side event on “Space, Youth, and Future Generations” that will be hosted at 6 p.m. CET in Room M2, in partnership with UNOOSA and the Government of Austria.<sup>2</sup>

## **II. The vision of the space youth**

4. The space youth developed the IPASS proposal to build a safe and sustainable space environment for a unified global space community. We believe that this vision can be realized if IPASS would accomplish the following five key objectives.
5. First, achieve a globally recognized and well-managed space environment, not only in Earth orbit but also beyond, safeguarding both current and future space operations as well as the benefits of space for Earth, including for climate action, disaster management, astronomy, and global connectivity.
6. Second, encourage the implementation of the 2019 Guidelines for Long-Term Sustainability of Outer Space Activities (LTS Guidelines), and consider them as initial building blocks for the development of an international framework on Space Traffic Management.
7. Third, facilitate the implementation of the United Nations “Space2030” Agenda and the use of space applications and technologies for achieving the Sustainable Development Goals.
8. Fourth, establish a collaborative and more inclusive global space community that upholds principles of sustainability, equity, and shared responsibility.
9. Fifth and final, nurture a future generation that is knowledgeable, engaged, and capable of advancing sustainable space exploration and stewardship.

## **III. Priority areas**

10. As discussed in the IPASS Report, achieving space sustainability calls for a holistic approach. However, as is customary in any project, a starting point is essential. At the minimum, the IPASS should address the following five priority areas.

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<sup>1</sup> *Towards an Intergenerational Pact for Space Sustainability*, Report of the Space Generation Advisory Council (SGAC). The report will be made available online at [www.spacegeneration.org](http://www.spacegeneration.org) from February 2024.

<sup>2</sup> More information available on the STSC 2024 Webpage, [www.unoosa.org/oosa/en/ourwork/copuos/stsc/2024/index.html](http://www.unoosa.org/oosa/en/ourwork/copuos/stsc/2024/index.html).

11. Multilateral governance of space issues, inclusivity and youth participation in space. In this area we note the following two objectives:

(i) Increase active participation in a globally inclusive space governance framework that ensures safe and sustainable space activities, also through increased multi-stakeholder participation, e.g. in the work of COPUOS as the central multilateral forum for the further development of space law and policy by expanding institutional mechanisms for participation by civil society and allowing commercial actors to acquire observer status.

(ii) Adopt dedicated institutional measures to ensure the meaningful participation of representatives from recognized youth organizations in the work of international forums, within and beyond the United Nations system.

12. International collaboration and cooperation in the exploration and use of space. In this area we note the following two objectives:

(i) Develop dedicated tools and practices for enhanced information sharing, among others to implement Article XI of the Outer Space Treaty, such as for example a global platform enhancing transparency and cooperative problem-solving.

(ii) Promote capacity-building in space law and policy to ensure that emerging nations can actively participate in the development of key rules for the sustainable use of space and its resources.

13. Space traffic management, including dark and quiet skies. In this area we note the following two objectives:

(i) Regularly exchange and use lessons learned about national, regional, and international tools and practices on the way towards adopting and enforcing shared standards and best practices for space traffic management to ensure safe and sustainable orbital pathways.

(ii) Develop and implement measures to reduce light pollution and radio frequency interference, in collaboration with the International Telecommunication Union (ITU).

14. Space debris. In this area we note the following three objectives:

(i) Develop norms, fix milestones, and support technologies for the incremental removal of all space debris, taking into due consideration related scientific, strategic and legal aspects.

(ii) Take steps towards ensuring that all space activities, particularly those carried out by commercial entities, are conducted keeping in mind the space environment, with a view towards the long-term sustainability of our orbital resources.

(iii) Ensure swift implementation of the 2019 Guidelines on the Long-Term Sustainability of Outer Space Activities for a circular approach based on reusability and interoperability.

15. Sustainability beyond Earth orbit. In this area we note the following three objectives:

(i) Ensure the long-term sustainability of activities beyond Earth orbit, e.g. lunar activities, by proactively and regularly evaluating their impact on the outer space environment, including the need for appropriate mitigation measures.

(ii) Commit to always limit in time and size all territorial-based uses of the Moon and other celestial bodies, and develop an evolving list of sites and resources internationally recognized as scarce.

(iii) Pledge to extract and use space resources with due regard to the corresponding interests of all others, with special consideration to the needs of developing countries and future generations. Special diligence is required, since all exploration activities influence the natural surroundings of celestial bodies and thus may deprive science of the opportunity to investigate their original conditions.

## IV. Potential avenues to achieve the pact's objectives

16. SGAC is convinced that there is not a singular path to realize the aforementioned goals. Currently, the international community employs a combined approach of both national and international instruments, both binding and non-binding, to address critical space sustainability challenges. Our approach aims to be equally adaptable. Thus, the Pact contemplates three primary avenues to achieve its objectives.

17. Creating binding agreements. Develop and sign effective international agreements that are legally binding, ensuring commitment and compliance from all stakeholders, particularly to ensure peaceful, sustainable, and safe space activities for the benefit of all.

18. Promoting technological advancements. In this area we note the following three avenues:

(i) Encourage investment in and adoption of innovative technologies for improved space operations, environmental protection, and disaster risk reduction, bridging the digital divide and economic growth.

(ii) Coordinate a digital governance framework to guide global, regional, and national approaches around shared principles, priorities, and objectives to ensure that technological advancements contribute to more sustainable space activities as well as the use of space technology and data for the benefit of the Sustainable Development Goals (see: Space2030 Agenda).

(iii) Organize a multi-stakeholder dialogue and cooperation for this purpose, such as the proposed annual Digital Cooperation Forum.

19. Global educational and advocacy programmes. In this area we note the following two avenues:

(i) Support and participate in educational initiatives and advocacy campaigns aimed at raising awareness and fostering a culture of sustainability in space.

(ii) Expand and strengthen diverse and inclusive youth participation in national, international, and United Nations-led decision-making processes through dedicated avenues for including the viewpoint of the youth, a standing United Nations Youth Town Hall, as well as through intergenerational dialogues.

## V. Conclusion

20. This paper condenses the results of almost a year of intense work specifically focused on the long-term sustainability of space activities. Throughout this period, SGAC engaged with stakeholders globally to study space sustainability and explore the necessary actions to achieve it. We also extensively analysed applicable legal frameworks, providing a robust foundation for our understanding and recommendations, and reflected on the impact of various initiatives addressing general and specific challenges posed by space activities to achieve their long-term sustainability.

21. In developing our proposal we pursued three primary objectives: first, to formulate concrete recommendations on how SGAC should approach, address, and advocate for space sustainability; second, to gain a nuanced understanding of the space sector's position on this issue, encompassing perspectives from academia, private industry, civil societies, space agencies, governments and military; and third, to capture and represent the viewpoints of the youth, advocating their perspectives on a broader scale.

22. SGAC is committed to ensuring that these recommendations not only resonate within our community but also contribute to the broader discourse on space sustainability. It is our view that these efforts will contribute significantly to shaping a more sustainable future in space exploration and utilization.

23. SGAC firmly believes that while there is no singular path toward space sustainability, there is one community. Space sustainability can only be achieved by fostering synergy among stakeholders and acting collectively, guided by a shared vision. This vision, adaptable at various levels – international or national, binding or non-binding, general or specific – allows us to work together towards a common goal. After all, space is not the problem of a few but the responsibility of all.

24. All Member States and Permanent Observers wishing to know more about SGAC’s efforts for space sustainability, also in connection with the United Nations Summit of the Future, are warmly invited to attend a side event on “Space, Youth, and Future Generations” that will be hosted at 6 p.m. CET in Room M2, in partnership with UNOOSA and the Government of Austria. For any questions or feedback please email the SGAC Chairs and Executive Director at [un@spacegeneration.org](mailto:un@spacegeneration.org).

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