

Public Engagement with the European Space Sector

POLICY BRIEFING

The European space sector has an impact in the daily, contemporary life of European citizens and is supported with public money. All citizens should therefore be given the opportunity to understand, appreciate and co-develop the European Space programme. The development of a dedicated public engagement strategy within the European space sector is important for shaping public perceptions, generating enthusiasm and support for the space programme, and to achieve greater social inclusion. We point to elements that must be addressed, including infrastructure accessibility needs, such as education costs, locations for engagement activities, and other aspects, such as programmes for open and transparent communication.



KEY RECOMMENDATIONS:

Create a dedicated focal point for public engagement in the European space policy.

Go beyond one-way communication and give European citizens opportunities to engage with the space sector and to shape the policy and strategy.

Use public engagement with the space sector to equip citizens with the critical thinking and digital skills necessary in modern society.

Society is an important stakeholder in the European space sector. The space sector is a key field that helps to create a better future for European citizens and contributes to major aspects of our cultural discourse. The role of citizens in fostering innovation is highlighted in different sections of Horizon Europe. Public engagement provides insight into specific opportunities and barriers for emerging innovation environments for the space sector.

01.

Public support is vital to the space sector

Public engagement with the European space sector informs and enthuses citizens about European space projects and gains support for them. Public engagement is critical to the future of the space sector: Europe has a strong space sector that is mostly built on public support¹, establishing trust, understanding and communicating transparently and effectively.

02.

Showing space technologies that have relevance to daily lives

Citizens need information, resources and opportunities to actively participate in shaping the space sector that is relevant to their daily lives. Cross-integration between the space sector and the public early on can feed societal values and concerns into the development of technologies leading to higher societal acceptance².

03.

Promoting critical thinking and logical reasoning

Public engagement with research allows the space sector to counteract misleading information while promoting critical thinking and the capability for citizens to search and analyse information.

04.

Increasing innovation by opening up the space sector

Collaboration with civil society, artists and designers increases the creative capacity of the space sector. The catalytic ability of these groups and desire to align with societal needs have extensive potential for the space sector and its applications.

1 Reference: eib.org/attachments/thematic/future_of_european_space_sector_en.pdf

2 Reference: op.europa.eu/en/publication-detail/-/publication/5be04f7f-ff55-11e8-a96d-01aa75ed71a1/language-en/format-PDF/source-108286972

The challenge

Public engagement is necessary to attract young people to space careers, and science and technology in general, as well as to show the relevance of the space sector to Europe's international position.

Although the general public in Europe shows enormous interest and enthusiasm towards space, European citizens are not unanimously confident in their understanding of space science.

Public opinion about Space Science statistics³ in Europe:

95%

thinks space science is exciting

38%

reports to be (somewhat) unable to understand space science

42%

agrees that space science should be a priority

These statistics are from a September 2019 public consultation conducted for ESA³.

Despite the interest in space, the public remains uniformed about the workings of the space sector and agencies, and the budget dedicated to space⁴. The innovations resulting from space exploration, research, and development are taken for granted. This can be mitigated with high quality public engagement.

Representatives from governance in science and technology institutes and organisations in Europe and Africa were convened through a workshop on 7 October 2017, conducted by the Space Awareness project (space-awareness.org). Conclusions were reached that (i) Space outreach can stimulate the interest of African youth in science and technology in general and space careers in particular; and (ii) Space outreach to the general public is important to showcase African involvement and investment in Space. Considering recent European-wide public consultations in the last five years (2014 and 2019), we suggest that similar conclusions can be drawn for the European context. Indeed, dialogue with citizens are consistently noted as important to share information, develop communication and market current actions that will shape the large and inspirational missions that involve the public.

³ Statistics are reported by the Cosmic Visions public consultation (N=10,936 respondents) in 22 ESA member states from Sep 2019. This research was conducted by Institute for Methods Innovation (methodsinnovation.org) commissioned by the European Space Agency for its programme for the period of to 2050. Reference: <https://sci.esa.int/web/discovering-our-universe>

⁴ Harris & Russo (2014). The Influence of Social Movements on Space Astronomy Policy. Space Policy journal. Reference: <https://arxiv.org/pdf/1408.4987.pdf>

What can we do?

Immediate and ongoing [1-2 years]

- Create a dedicated focal point for public engagement in the space policy to promote coherence, resources and strong leadership.
- Procure public support by communicating with teachers, parents, and young people to demonstrate the often under-appreciated benefits that space innovations bring to their everyday lives and to celebrate the accomplishments of European space science.
- Encourage public engagement activities in places where the audience already is, collaborating with venues and institutions outside the space sector itself, and during all phases of a space mission.

Short and midterm [3-5 years]

- Allow European citizens to shape technologies and services from the space sector and their uses in order to reflect societal needs.
- Promote citizen science opportunities in the European space sector for the general public to have agency and a real influence on the space programme.
- Use the know-how from science centres, museums and other spaces of public engagement with science to organise mutual learning events involving researchers, industry, and citizens who are potential users to help to speed development times to market time.
- Exploit the mission-based approach to direct space sciences to meet global challenges by involving public, private, third sector and civil society organisations. A strong element of public engagement is crucial to ensure the longevity of missions, to avoid alienation from the public and gain widespread support and enthusiasm.
- Establish an integrated and standalone funding stream in the European space policy that allows space-related organisations to develop innovative practices and promote excellence in science engagement (at least 0.5% of the total Space framework programme).
- Engage European citizens with new technologies to equip them with digital skills and critical thinking skills necessary to analyse information and uncover false news, and to prepare them to be active in democratic decisions. Promote the processes and values of science, including rational inquiry, the scientific method and global citizenship.
- Collaborate with educators and science communicators in public events and projects, so that scientists and engineers from the space sector acquire valuable soft skills and amplify the impact of their projects.

Long term [10 years]

- Public engagement with space science should be an indispensable part of the research and innovation processes and cultures in the European space sector.
- Support transdisciplinary approaches, funding projects that bring together institutions and individuals from outside the space field, including the arts, humanities and popular culture.
- Enhance innovation uptake by having the general public involved in research and innovation in the space sector.

About spaceEU



spaceEU is a European-funded project that fosters a young, creative and inclusive European space community. It implements an exciting space outreach and education programme to spark the interest of young people in STEAM (Science, Technology, Engineering, Arts and Maths), and to encourage them to consider space – related careers. The project inspires and broadens young minds, develops a sense of European and global citizenship, and through our shared human relationship with space, fosters long-term partnerships between people from different countries and cultural backgrounds.

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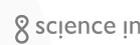


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