



Making Space Matter Summit: geopolitics, big data, innovation, governance and cooperation

06
06

Photo credits: Shutterstock / KK.KICKIN

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Co-funded by the
European Union

Co-organised with



Co-funded by the
European Union

Introduction

This report reflects statements and questions made during a one-day summit hosted by Friends of Europe in Brussels on 6 June 2023. Debates focused on Europe's presence in the solar system and usage of space-based technologies in the lead up to the 2024 European elections and the new EU mandate.

The summit opened with a look at Europe's values and objectives in space, before moving on to consider artificial intelligence (AI) and machine learning in relation to satellite data and climate change tracking. The final session of the day considered Africa, the world's fastest growing digital market, which is now at a historical turning point in the development of a space sector.

Speakers and participants considered questions including:

- Is space a winner-takes-all field, in which regulation and governance has limited capacity, and money and profit are the drivers of change?
- Can we apply the EU's fundamental principles to space policy?
- How should the EU effectively promote reflective and sustainable practices in relation to deep-space exploration?
- Can satellite data combined with AI and machine learning technologies provide both Europe and the rest of the world with more accurate information to guide climate policy?
- As inequalities continue to grow and geopolitical tensions deepen, how can we turn attention to innovative space technologies developed by both the public and private sectors?
- How can the development of African space infrastructure inform how challenges, including economic development, are addressed on the African continent?

The event was the second Friends of Europe Making Space Matter Summit, within the broader framework of its Digital & Data Governance area of expertise. The summit took place the day following Friends of Europe's panel on space, security and defence at the NATO Youth Summit, where it was argued that space needs more regulation and laws at both the national and international levels and that building partnerships and intersectionality are key to the future of space and increasing its use in tackling security and humanitarian challenges.

Recommendations

Participants suggested priorities including:

- Design a campaign around EU achievements in space to counter euroscepticism.
- Consider the creation of a space initiative for a new EU commissioner to own.
- Promote deeper integration between the green transition and digital transition when it comes to climate change and space policy.
- Invest in training and capacity-building around strong EU models to showcase what can be done in space.
- Raise awareness of space policy at the local level through meetings with mayors.
- Work with humanitarian organisations and use space data to monitor climate-driven population displacement.
- Encourage the development and use of open-source tools in favour of proprietary earth-system data collection.
- Identify ways in which space data can support other EU policies, such as low-emission transport, agriculture and smart cities.
- Develop local capabilities through space data in non-EU countries, for instance, around resource management.
- Ensure representation of women and young people in space policy decisions.
- Communicate links between space and security, including how data can be used to help civil protection services, such as police, fire and defence.
- Leverage EU power as a standard setter to promote EU values in space.

Event summary

Space for climate change

“Everything starts with a vision,” said **Roya Ayazi**, Secretary General of Network of European Regions Using Space Technologies (NEREUS).

The summit heard several participants argue that climate change should be a central

part of the space policy vision, particularly when it comes to showing citizens why space matters matter.

Responses to climate change and extreme weather are already often dealt with close to citizens at a local or regional level. “We are in the front row,” said Ayazi. “We see the impact of climate change dramatically in everyday life.”

There is a need to see how satellite data can be better used to provide early warning and climate mitigation services at the citizen level. On the ground, **Pauline Warnotte**, Senior Legal Advisor at the International Committee of the Red Cross (ICRC), noted that humanitarian organisations witness “the cumulative impact of climate change on people” and may use phone satellites to build links between displaced families and communities.

Frederic Nordlund, Head of the External Relations Department at the European Space Agency (ESA), said many of the main concerns of member states and citizens today are linked with extreme weather events, such as heatwaves and forest fires. EU-ESA cooperation has shown “a lot about how we can deliver something that makes a difference to citizens” when it comes to space and climate policy, he suggested.

Similarly, decisions about space policy often fall to local authorities. In Belgium, for instance, responsibility for space policy and investment falls to the regional level. The topic struggles, however, to hold attention among local authorities.

The link between tackling climate change and investing in space technologies could help address this attention deficit. Raising awareness of space matters with local mayors becomes less of a challenge when talks consider mitigating extreme weather and other climate disasters. A climate change focus means space policy is presented as saving lives, rather than as a niche subject.

“ *Space is not only a tool, but a process* ”

Dharmendra Kanani, Chief Operating Officer and Chief Spokesperson of Friends of Europe

Wietse van der Werf, Founder & CEO of Sea Ranger Service and 2020-2021 European Young Leader (EYL40), developed this idea. He suggested building a ‘space ranger programme’ to attract young people with no or few university qualifications into space exploration and data analysis. Mayors and politicians would then immediately see the social impact of space policy on youth and employment, he explained. This could convince local and national authorities to invest in satellite information security and space infrastructure as part of a climate strategy.

Europe’s leadership position in areas such as carbon neutrality should be reflected in space, and space technologies will be crucial to identifying and mitigating climate-driven weather patterns. For instance, Copernicus, the Earth observation component of the EU Space Programme, should continue to play an important role in monitoring climate change.

Tackling climate change means understanding our planet, as **Apostolia Karamali**, Head of the Director General’s Cabinet at ESA, explained. “It’s all about understanding where we are heading.”

Space policy is, therefore, highly relevant for monitoring climate change, speakers agreed. Digitalisation and AI are huge enablers, providing simulations to forecast and understand trends.

When it comes to climate change, “space is not only a tool, but a process,” as event moderator **Dharmendra Kanani**, Chief Operating Officer and Chief Spokesperson of Friends of Europe, put it.

Meaningful relationships

The launch of the African Space Agency makes 2023 “pivotal” for EU-Africa space relations, said moderator **Holy Ranaivozanany**, Head of Outreach, Advocacy and Partnerships at the Africa-Europe Foundation. Climate resilience is an area where the EU and Africa can work together, with a clear focus on putting nature and people at the centre of business decisions.

In Africa, there is a need to raise awareness around what space projects can bring to people, highlighted **Sékou Ouedraogo**, Founding President of the African Aeronautics & Space Organisation (AASO).

Climate change and Africa is, however, only one example of how space is likely to forge new, sustainable relationships between regions and across divides. The shape of the EU itself and how the 27-member state union is perceived by citizens amidst rising support for populist parties could be affected by how Europe handles the emergence of a global space sector.

There were calls for space to feature strongly in a new EU mandate, with new MEPs and a new College of Commissioners due to take office in 2024. Europe now has an opportunity to mirror EU values in space, differentiating itself from US, Chinese and other major economies in the space race. First and foremost, this means agreeing on a set of EU values to underpin an EU space sector.

The drive for unity, self-determination and collective prosperity seen in Africa reflects the values that underpin the creation and expansion of the EU, offering opportunities for the two markets to work closely together.

The African Framework for Research Innovation, Communities and Applications in Earth Observation (EO AFRICA) and the Global Monitoring for Environment and Security and Africa (GMES & Africa) are examples of existing EU-Africa programmes that support a common space agenda. There is, however, a need to identify new opportunities for the two continents to share capacity and develop resources together for future space policy.

Partnership in this area is likely to bring benefits for both EU and African countries. ESA’s Tiger Project, for instance, which used Earth-observation technology to improve water-monitoring resources in Africa, is now being rolled out in southern Spain. Meanwhile, Africa, a region in which 200mn people have no internet access, can learn from EU 2030 connectivity ambitions, said **Ruvimbo Samanga**, Space and Spectrum Policy Analyst at Access Partnership.

As Africa works to build an African Space Agency, said **Rania Toukebri**, Regional Coordinator for Africa at the Space Generation Advisory Council, “we are seeing things Europe saw years ago and can avoid making the same mistakes.”

Out-of-this-world values

An EU space programme can indeed be used to share EU values across member states and internationally. EU plans for the Green Deal and a digital transition will, for instance, rely on satellite technologies to develop smart cities and the Internet of Things. Space data, more generally, helps in the planning of sustainable agriculture and cities.

“Space will not solve all our problems, but space already helps us solve a lot of problems,” said **Rodrigo da Costa**, Executive Director at the European Union Agency for the Space Programme (EUSPA).

Europe, however, remains too modest when it comes to talking about achievements in space policy. EU citizens are still more likely to talk about GPS than Galileo. Copernicus, meanwhile, has shown Europe how open, free data is a value to society but needs to be developed as a springboard to bring global benefits.

“Space will not solve all our problems, but space already helps us solve a lot of problems”

Rodrigo da Costa, Executive Director at the European Union Agency for the Space Programme (EUSPA)

Improving the image of EU space policy and its achievements will require bold and inclusive new relationships to be developed with young people and women, for instance.

A lot will depend on the people involved in decision-making around space policy – including scientists. **Clémence Poirier**, Research Fellow at the European Space Policy Institute (ESPI), said scientists should be involved in decisions at an earlier stage and encouraged to make research documents more accessible.

There is an urgent need to consider how to apply space funding to benefit the global community, not just Europe. Questions were raised about how to ensure that understanding of earth systems is not proprietary to one continent.

Audience questions around ownership also led to debate around the problem of space debris – not only when it comes to the rules regarding armed conflict in space, but also whether end to single use satellites would create a proliferation of military assets, further complicating ownership and responsibility, for instance.

An inconvenient truth

Public and private investment in the space sector outside Europe are at a historic high, the summit heard. This means international competition is unprecedented, as markets including the United States, China and India are likely to be spending more on space matters than the EU and its neighbouring European countries.

Europe, therefore, has to develop a private space sector and encourage space start-ups, as well as lend more attention to industry best practices and the development of industry-led norms. In Africa, private sector leaders are already helping at the regional and national government levels.

“ How do we increase investment in space to keep up with the others?

Frank Monteny, Director-General Research and Space at the Belgian Federal Science Policy Office (BELSPO)

Speakers reminded participants that the EU should not blame non-European private companies for differences in spending nor assume that EU or member state policymakers have little room to change things. Public investment in science, particularly R&D, is still very much needed in Europe.

This also means maintaining the EU's trust and interest in science. Gaia, the ESA astronomical observatory mission, is often called “the Google Earth of our galaxy”, but this does not mean the EU can congratulate itself and slow down space investments. There are too many examples of EU member states developing a lead in technology and data, only to have their technology and services acquired by other companies, typically from the US.

“We have to defend European values in space,” **Frank Monteny**, Director-General Research and Space at the Belgian Federal Science Policy Office (BELSPO), reminded the audience. “The challenge is: how do we increase investment in space to keep up with the others?”

Sectors dependent on digitalisation must be guarded to the optimal level in Europe, meaning the public sector needs to provide conditions for the private sector to build on.

The overall message of the summit was to keep reaching for the stars and build a better life on Earth because, as **Giuseppe Ottavianelli**, Head of the Earth Observation Applications Section at ESA, said: “Space is not about space. It's about providing solutions.”



Friends of Europe

Connect. Debate. Change.

+32 2 893 98 23

info@friendsofeurope.org

friendsofeurope.org

Friends of Europe is a leading think-tank that connects people, stimulates debate and triggers change to create a more inclusive, sustainable and forward-looking Europe.

