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Making Space Matter Summit

EVENT REPORT



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Event report

This report reflects statements and questions made during a summit hosted by Friends of Europe on 22 June 2022 to promote dialogue on space matters and making space matter.

Space exploration, capacity, competition, infrastructure and its role as a new market and security domain will prove to be defining issues for our planet over the next decade and beyond. Space has the potential to reap huge rewards for social good, progress in terms of our common digital future and the ability to mitigate and manage the impact of climate change. Every aspect of our lives – and every policy – has the potential to be impacted by the way Europe and its partners approach the new questions of space. The wider role of space as a new frontier of intelligence and real time situational awareness and satellites, in particular, will increasingly be an important facet of current crises and future conflicts.

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Josef Aschbacher, Director General European Space Agency (ESA)

Opening the event in Brussels, **Josef Aschbacher**, Director General European Space Agency (ESA), explained that "space has become part of every person's life." From finding the best route to work, to watching football or monitoring climate change, space is an everyday reality and we have a responsibility to make sure it is developed sustainably and peacefully.

Speakers and participants met in Brussels to consider topics including:

- entrepreneurs and ideas in space;
- satellite communications security;
- European security in space; and
- building new bridges between Africa and Europe for space exploration.

Recommendations

- Build on 74 actions in seven EU-NATO cooperation areas to develop a shared EU-NATO approach to space
- Learn from the lessons of tackling climate change to address problems in space at an early stage
- Seek private sector company engagement with the EU to build safe and sustainable space markets

- Boost connectivity across Europe and bridge the digital divide through direct EU and national support for satellite operators
- Encourage small start-ups and entrepreneurs to stay in Europe by fostering bottomup and regional dialogue
- Offer incentives such as cheaper insurance or a market-based sustainability rating for companies signing up to a net-zero space debris policy
- Draw on the assets and capabilities of satellite operators to improve digital connectivity
- Improve awareness and use of existing mechanisms and regulations to keep space safe

Event summary

ALL TOGETHER NOW

How to understand, manage and regulate the infinity of space matters was a recurring them throughout the summit. The EU was felt to have a major role to play but was repeatedly urged to work with other regions and institutions, as well as engaging with private sector companies of all sizes, potentially helping to forge new partnerships in the 21st century space race.

"Europe often tends to piggyback on NATO and NASA" when it comes to international cooperation, said **Paul Taylor**, Senior Fellow at Friends of Europe. "It's time Europe took a leadership position." This could, for instance, include steering talks on safety and cyber-vulnerability or helping to create a new "international body that takes up the task of cleaning up objects in orbit."

Presenting his Friends of Europe study, 'Running out of space: European security in space', Taylor said that NATO was in a strange position, with regards to space matters, having no space assets of its own and needing data. "There is a clear opportunity for coordination between the EU and NATO in the space area," he said.

There is also a need for greater awareness of existing international rules, said **Tanja Masson-Zwaan**, Assistant Professor and Deputy Director of the International Institute of Air and Space Law at Leiden University. Contrary to popular opinion, she explained, "space is not unregulated. There is a set of rules and regulations that have kept space safe for over 60 years."

For example, a UN Committee on the Peaceful Uses of Outer Space was founded in 1959 and provides a mechanism under international law for peaceful consultation. More recently, the 1987 International Space University has given students from around the world the chance to collaborate and learn about outer space and its applications for peaceful purposes.

Masson-Zwaan agreed that private sector interest means space exploration and opportunities are now very different from 60 years ago. Incentives such as cheaper insurance could be offered to get industry to sign up to a potential net-zero space initiative, she suggested.

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Paul Taylor, Senior Fellow at Friends of Europe

It has never been clearer than now how important space is to humanity, said **Aarti Holla-Maini**, Secretary-General of the Global Satellite Operator's Association (GSOA), agreeing with many other experts at the debate. People are calling for solutions to the challenges created by reliance on space and satellite technology for many everyday activities. "Europe would be doing a disservice to European industry if it did not try to create situations for this," she said. There are huge opportunities for international collaboration through space policy to address environmental problems, she said. "When we see how many countries intend to launch new systems, it's clear the penny has dropped."

"Innovation cannot happen in silos," agreed **Alfredo Muñoz**, Founder and CEO of ABIBOO Studio and 2019 European Young Leader (EYL40). He called for collaboration across all fields with an interest in space policy, including the public and private sectors, but also between different countries, agencies and organisations of various sizes. Through this "power of cross-pollination", space can be used to solve problems on earth, such as climate change and social mobility, Muñoz said.

LEARNING FROM THE CLIMATE CRISIS

"Juxtaposing the climate crisis with the space debris menace is quite appropriate," said **Susmita Mohanty**. The Director General of Spaceport SARABHAI was reflecting on how to handle the "mega constellation" of satellites and manmade waste from space travel and space exploration that is currently orbiting the Earth before, like a heating planet, the debris problem crosses the tipping point. Existing codes of conduct for space companies are not enough, she said, because "we cannot run with just altruistic principles. We need a legal framework." A market-based space sustainability rating could also be "creatively used to create financial incentives for companies who use best practices," Mohanty said.

Elodie Viau, Director of Telecommunications and Integrated Applications at ESA, also compared the challenge of climate change with that of space regulation. "We are taking care of our planet. We also need to care about what is happening in space." As with

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climate change, space markets in Europe are different than those in other parts of the world but the situation is global. "We all need to develop new markets and solutions."

Viau and **Sékou Ouedraogo**, Founding President of the African Aeronautics & Space Organisation, both argued that space can help manage crises caused by climate change through data, monitoring, connectivity or new emerging technologies, for example. Ouedraogo suggested that space technologies could be used to manage "some of Africa's most pressing challenges", including weather-linked food supply and security problems.

"Earth observation is a valuable tool in the fight against climate change," agreed **Cecilia Donati,** Policy Officer – Research and Innovation for Development at the European Commission Directorate-General for International Partnerships (DG INTPA). EU services such as Galileo could be used to promote smart links between digitalisation and the Green Deal, she said. EU-Africa cooperation in the fight against climate change and to bridge the digital divide is already underway. This means sharing Copernicus data to monitor the environment, crops, water management and climate patterns.

A NEW WORLD ON THE HORIZON

The EU with its international partners is well placed to build a sustainable, inclusive space policy for the benefit of citizens on earth, speakers agreed. The shape of a truly global space infrastructure now has to be formed, leaving no one behind.

"This EU is fit to do something quickly significant," said **Claude-France Arnould**, Advisor on European Affairs to the President of the French Institute of International Relations (IFRI). "We should not wait for the dream world where we have the ideal EU. For the time being, we have the instruments. We have some money. We can do the job."

Rather than creating one single European space agency, she said Europe could handle operational responsibility for space policy with the European Union Agency for the Space Programme, research and development in space matters through the European Space Agency and defence in outer space through the EU European Defence Agency. The benefits of this approach include the larger number of countries involved, such as Switzerland and the United Kingdom, two non-EU members of the ESA.

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Ricardo Conde, President of the Portuguese Space Agency, said the 27 EU member states with 27 national governments and 27 defence programmes would lead to a space policy that is very different to that of the United States or China. Whilst stressing the benefits of European solidarity, trust and collaboration, he asked the EU "to foster commercialisation in data policy. We don't see a push to develop markets." At times

this means institutional and protective actions. "We need to attract millionaires to foster commercialisation."

His frustration was shared by speakers including **Guillem Anglada-Escudé**, astrophysicist and exoplanet discoverer, Ramón y Cajal Research Fellow at the Institute of Space Sciences and 2018 EYL40. Public authorities move too slowly for start-ups and entrepreneurs, he explained. "These are experiments that are relevant now." Rather than making the EU manage everything, he said the private sector and regions should be involved as early as possible. "Seat people around a table. We need a public client. We need incentives."

No one is active along the entire chain. There is a place for public and private services.

Dirk Van Speybroeck

Guillaume Loonis-Quélen, a space law expert, agreed that private companies are playing an increasingly important role in space, but warned that existing legal systems aren't adapted to this. "Space law was adapted for states," he said. This raises questions around foreign investment, litigation and state aid, as well as administrative and technical barriers.

There would still be a need for a coordinated space policy at the highest level, bringing together all the decisions heads of state usually make, said **Meshack Kinyua Ndiritu**, Space Applications Training Officer at the African Union Commission. In 2016, he explained, the African Union heads of state and government adopted the first African Space Policy and Strategy to coordinate space activities. This space agency works to raise awareness of the key role played by space science and technology in Africa's development further develop a space strategy. The agency also has agreements with several EU programmes, for example, using space science for the management of natural resources or coastal areas.

Olayinka Fagbemiro Chief Scientific Officer at the National Space Research & Development Agency of Nigeria (NASRDA) and Founder & National Coordinator of Astronomers Without Borders, said there was "already a market for the space industry", but little or no private sector for space in Nigeria. Work within the agency is trying to equip local Africans, some of them straight out of school, to take on larger space projects. Partnership projects with the UK, US and China are already underway and the agency could now look to collaborate with the EU. "We're trying to get private leaders to come in and invest in space. We have a ready market," she explained. "I think we will have to look outside Africa for that."

The future of space could be seen as an opportunity for everyone to promote safety and sustainability in a new market, suggested **Dirk Van Speybroeck**. There is an entire and complex value chain involved in space exploration, capacity, competition and infrastructure, he said. "No one is active along the entire chain. There is a place for public and private services." This could mean considering what needs can be met through space policy and what solution has to be delivered. "We want to accelerate the transition to a sustainable world."

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