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Making a difference: Working together towards sustainable Space

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Excellencies, distinguished representatives of the space community, dear colleagues, it is a great pleasure and honour for me to be invited to address this issue of sustainable space in the name of the European Space Policy Institute in such a prestigious framework.

Ensuring sustainability in space means ensuring that space will remain accessible and safe to operate for the next generations because space is an invaluable and irreplaceable resource, increasingly important in our daily lives, for economy, security and sustainable development on Earth.

As a matter of fact, we are just realizing how much space is a fragile environment and far from being an unlimited resource.

Moreover, the situation is deteriorating, and deteriorating at an increasing speed with the on-going evolution of the global space sector:

- New space for instance comes along with new threats with the multiplication of satellites to be launched and operated, of debris potentially generated, but also with the multiplication of actors, institutional or private,
- Spectrum management and Space Situation Awareness will become increasingly important to ensure safety of operations in orbit, which might at a later stage develop into a Space Traffic Management international system, at the image of what was done for maritime or air space management,
- Space weather will also be increasingly critical to ensure continuity of service, and international reflections should now focus on ways to set up an operational system delivering adequate forecast to ALL stakeholders,
- But borders are also getting blurred between military and civil space systems. We could take the example of GPS – a military system extensively used by civilians – or of Galileo – a civil system delivering governmental services – but this is also driven by the strategic approach of many nations to Space in order to get access to a greater autonomy based on civil systems, which are cheaper, or through Public-Private Partnerships for the development and the deployment of such systems. As a consequence, never the trend towards denial of access to space or to space-based services has been so strong.

All of this comes along with challenges regarding the evolution of Space law and global Space governance, and the point is to make sure that we take all appropriate actions so as to ensure that the current approach based on voluntary measures and behavioural modifiers effectively mitigates the risks associated to the new situation we are facing at the moment in the sector.

This is all about the UNOOSA Space Accessibility pillar.

Revive, adapt and adopt a Code of Conduct and promote Transparency and Confidence Building Measures are, without any doubt, the next steps in order to come up with a clear and well identified set of rules applicable to space activities, institutional or private, and to all actors willing to access to space. For that, we will need a forum where to gather all space stakeholders, governmental and private, to discuss, negotiate and agree on such rules and regulations.

Assessing whether such approach based on soft law will be sufficient to face the challenges ahead of us, or whether some kind of international hard law, together with the setting up of dedicated structures for the implementation of global Space governance will be necessary is an upcoming challenge since some member States prefer dealing with international security through national regulations. This is all about UNOOSA Space Diplomacy pillar.

But I believe that the sustainability of space basically relies on additional steps to further promote the peaceful use of space infrastructures and enlarge the basis of those directly benefiting from space-based services (and being aware that they do). This is of course all about the UNOOSA space society pillar.

In this matter, ESPI organized in September its “Autumn Conference” on “Space and Sustainable Development”. It was focused on the concrete use of space in the field for sustainable development in a bottom-up approach, and it produced an interesting outcome in this respect that I would like to share with you.

First, space actors were urged to adopt an end-to-end approach with comprehensive exploratory work on identifying user needs to avoid an inadvertent perpetuation of inequality and prevent pure ‘technology push’ scenarios. To this end, a greater inter-sectorial, inter-institutional (e.g. state and NGOs), and international cooperation shall be sought in a more structured manner to effectively share information related to user needs and how available capacities can meet them.

Second, best practices in the field should also be compiled somewhere. This could serve as a basis for IGOs and NGOs to improve their technology awareness about what space can do, including the development of a platform to showcase possibilities of existing infrastructures and train people getting in the field. Such platform could suggest technical requirements for the next generations of infrastructures. Because if space infrastructures are extensively used to support the implementation of the SDGs, none of those in-the-field user needs serves as an input for the definition and the development of future space systems.

Third, effective access to data is obviously essential so as to achieve an up-to-date archive of, for instance, Earth observation images, ultimately incorporating the capacity for near-real-time map building that do not exist so far and is necessary to actors in the field, involving governmental as well as private data providers. In this respect, I would like to salute the outstanding achievements of the Group on Earth Observation in this domain. Connectivity and access to 4G or 5G for mobile telecommunications, which was not identified as a SDG at the time they were defined, was also pointed out as a key contributor to speed up the dissemination of information and access to knowledge.

Last but not least, while the rise of the private sector in this domain was praised, it is obvious that sustainability of space shall also be ensured from a pure commercial standpoint. In this respect, space needs to be considered fairly and faithfully in its endless competition against terrestrial infrastructures. In this respect, calls for action concerned the development of local markets for space services, open to public and private actors, relying on good governance mechanisms and in particular including a sound and fair tax policy on space related facilities. But most importantly, sustainability of commercial use of space infrastructures requires several basic conditions:

- Demonstrated level of performance,
- Long term commitments to ensure delivery of services on permanent basis,
- Security of infrastructures, which takes us back to the concerns regarding security in space.

This is of course all about the UNOOSA space economy pillar.

And I would like to conclude this intervention by quoting Mr. Vittorio Prodi, former Member of the European Parliament, renowned scientist and long lasting supporter of the space sector, who gave voice to this sentiment, noting that "It is time to consider what we are going to lose if we don't act together."

Thank you for your attention.