

UN Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee Fifty-ninth Session
Vienna, 07 - 18 February 2022

Statement of the Delegation of Romania

Agenda item 4: General exchange of views and introduction of reports submitted on national activities

Distinguished delegates,

Mister Chairman, Juan Francisco Facetti of Paraguay, let me express on behalf of the Delegation of Romania our satisfaction for seeing you in the main chair of this Subcommittee and to transmit to you the support of my delegation for a successful accomplishment of your mandate.

We would also express our appreciation to the former chair, Mrs. Nathalia Archinard, for her contribution to the achievements of this subcommittee, to the director of the Office, Mrs. Simonetta Di Pippo and to the staff of the secretariat, in particular in those challenging circumstances.

Under the Chairship of Romania, the UN General Assembly adopted, on October 25th 2021, the resolution on Space 2030 Agenda: space as a driver of sustainable development, that enjoyed a wide support from the UN Member states, having a number of 62 sponsors. We also welcome the adoption by the General Assembly of the omnibus resolution 76/76, on December 9, 2021.

Mr. Chairman, since the last session of the Subcommittee space activities extended as volume and areas of coverage. Scientific and exploration missions followed the current pace. However, space developments with direct impact to our planet and civilisation had an unprecedented growing evolution. And I can mention here the services oriented to Earth which are providing secure and safe telecommunications, timing, positioning and navigation, Earth surface, atmosphere and interior monitoring, most of them critical for the achieving of the SDGs. Space systems are actually major assets needed for the protection of our planet and civilization, for the safety of the citizen to national and global security.

The substantial development of space applications which evolved due to the economic and societal needs is pushed by more and more countries and private investors and generated new legal and political circumstances. The global turnover of space activities is going close to 400 B\$ per year and more than 51 countries established their national space agencies or equivalent.

In such circumstances, the global aspect of space activities was given not only by the geographical coverage of the satellites but in the extension and generalisation of space capabilities, not only as user but also as developer, at the level of a growing number of space-faring countries.

Space systems became critical infrastructure for planet Earth. Some of the major space powers started the process legal recognition of space as an area of for critical infrastructures, process started more than a decade ago by international organisations and some countries, including Romania.

Science is one of the areas which became dependent on space infrastructures. Most of the discoveries regarding fundamental science are given by data and experiments performed by space infrastructures. It is even more important because science is an area with most rapid development in this times of promotion of automation and artificial intelligence.

There are also political rules and regulations which need to be developed or reconsidered. An example is given by the development of the satellite communications by mega-constellations, which started to be individually regulated by some nations.

Within those evolutions, it is crystal clear that the role of COPUOS and its Subcommittees needs to be reconsidered and developed. COPUOS is by far the only global forum where those features of our dynamic evolving civilisation can be considered and brought to global rules and consensus.

In particular, the role of the Scientific and Technical Subcommittee should be reconsidered. presently, the agenda of STSC contains most of the major space global subjects needing consideration. Sessions of STSC need probably more extended time coverage and further recognition within the Member States and the UN.

Romania joins the statement of the European Union.

Romania as a European Union (EU) country and a European Space Agency (ESA) member state is participating to their programmes and applications. Romania is also a country having its own space agency - ROSA - and is developing its own space programme according to the national strategy and in concordance and complementarity with other international programs.

Presently, the national strategy of Romania is built around the concept of 3S (Three S's): the first S means Science and technology (including exploration), the second S is represented by Services (including access to space) and the third S comes from Security.

Space activities are carried by a variety of organisations, public and private, as institutes, universities, industry, SME's, other organisations, a number of 170 contractors being recorded by the national space program. I would like to mention the concentration of some activities in Centres of competence, in areas like: micro-spacecrafts integration and testing, space robotics, artificial intelligence and quantum communications, radiative environments and radiation hardening by power lasers, space-assisted agriculture, human spaceflight training, small launchers.

Mister Chairman, I will mention a few activities developed by Romania since the last session of the Sub-Committee.

Romania is participating in the European Space Agency's all major programs on Science and Exploration, Human Spaceflight, Safety and Security, Earth Observation, Telecommunications and Integrated Applications, Navigation, Space transportation.

Romania continued the participation to space science missions as Euclid and Juice. Romanian scientists are involved in the important LISA collaboration on gravitational waves in preparation of a large space gravitational observatory.

As a participant in the ESA Human Spaceflight and Exploration programme, Romania is included in the agreement between NASA and ESA regarding the next Lunar exploration Programme, Artemis.

Romania continued support in developing tools for the monitoring and protection of our planet. I will mention the participation to the ESA mission ALTIUS which will measure both stratospheric ozone and other atmospheric trace gases such as nitrogen dioxide and aerosols that affect air quality. Another important participation is the ESA - UK mission TRUTHS which will improve the capability to estimate radiative imbalance underlying climate change. The ground and airborne lidar instruments operational in Bucharest are measuring the aerosols content in the atmosphere. ROSA is member of the Space Climate Observatory agreement since its establishment.

As concerning Space debris, I would like to mention the continuing participation of Romanian entities in the development of collision avoidance tools and the commitment to the ESA programme developing In-orbit servicing and active debris removal missions.

Romania is an active participant in the ESA safety and security programme. The Romanian Space Agency is participating in the European SST consortium, offering operational optical information and soon radar capacity necessary for space traffic management and space debris measurements.

Contributions to space weather monitoring are given by geo-magnetic data from a sensitive observatory near Surlari, Bucharest, coupled with satellite data to monitor space weather events. Periodic Solar Weather Bulletins are released by the Bucharest group in the last two years. Romania announced the participation to the ESA L5 space-weather mission.

In the area of Near-Earth Objects, I would also mention the relevant participation of Romanian scientists and engineers in the definition and development phase of the ESA mission called HERA devoted to asteroids survey. I can also mention the technical progress in building the Solar coronagraph for the PROBA-3 ESA mission. My delegation is participating with experts in the SMPAG.

The Romanian Space Agency, in cooperation with the International Academy of Astronautics (IAA) organized so far a series of ten Conferences on Space Systems as Critical Infrastructures, the most recent one took place on 5-6 August 2021 in a hybrid format in the Denube Delta. The advancements of this topics and the skills developed in Romania conducted to the establishment of a ROSA Centre on Space Critical Infrastructures and Security, which is also supporting the UN-SPIDER regional support centre in Bucharest for disaster management.

Also, Romania is supporting the actions that the International Astronomical Union is undertaking for the protection of the dark and quiet sky for science and society.

Mister Chairman, my delegation welcomes the establishment of the working group under the agenda item on the long-term sustainability of outer space activities, we are

glad that under the able Chairship of India the term of reference, method of work and workplan are almost finalized.

Regarding the future role of the Committee, as my delegations mentioned in most of its statements, the role of the Committee should be compliant with the global space developments in all areas including security. The Committee should regain its adequate role in a world where space became a distinct and solid area of human activity.

Thank you, distinguished delegates, for your attention.