

Committee on the Peaceful Uses of Outer Space

Sixty-sixth session - Vienna, 31 May-10 June 2023

Statement of Italy on item 6. Report of the STSC

Mr. Chair, distinguished delegates,

During the last session of the Scientific and Technical Sub-Committee, Italy made statements on several items of national interest. Allow me to briefly recall some information.

Concerning the use of space technology in support of a sustainable socioeconomic development, Italy presented some recent activities launched by the Italian Space Agency, in particular a series of programs to develop new technologies and specific space missions to increase the level of innovation and broaden the access to space activities for a larger set of space players. We mentioned the new ASI call for proposals that looks for ideas for new developments, starting from low technology readiness levels, as well the ALCOR program, dedicated to the selection, development, launch and operation of a broad range of nanosatellite missions, encouraging the participation of universities, research centers and small and medium enterprises, thus allowing a broader national community to be capable of having a primary role in space.

During the STSC, Italy highlighted the importance of the satellite **remote sensing** technology for the monitoring of the territory and the management and mitigation of the effects of natural disasters. We also highlighted the importance of international collaborations in this field. Indeed, yet another severe meteorological phenomenon hit Italy two weeks ago, with floods and landslides that damaged a relevant part of the territory of the Italian region of Emilia-Romagna, causing the death of some people and forcing hundreds of others to leave their homes. Our national satellite radar constellation COSMO-SkyMed was immediately activated. Once again, I take advantage of this opportunity to thank very much the Argentinian space agency CONAE and

the Japan Aerospace Exploration Agency JAXA for their prompt support with their SAOCOM and ALOS-2 data.

During the last STSC session, Italy also presented the PRISMA SCIENZA programme, which intends to support and promote the scientific use of hyperspectral data of the Italian PRISMA mission by the national scientific and industrial communities. We believe that PRISMA allows the development of new skills in the frontier sector of hyperspectral data processing and in testing products that can provide a unique and significant added value to Earth observation applications, including through integration with other remote sensing data.

Regarding **satellite navigation**, we recalled that Italy is fully involved, since the beginning, in the development and operation of the European Union GNSS system Galileo, which is currently showing state of art performance and is offering unique services, like the very recently announced High Accuracy Service. In the framework of the European Space Agency, Italy has guaranteed the largest participation in the optional programme dedicated to navigation and to its new navigation scientific mission GENESIS, which will contribute to the enhancement of the International Earth Reference Frame, offering benefits not only to the navigation, but also in the field of geodesy. In the short term, Italy intends to pursue the development of enhanced integrated applications based on satellite navigation, satellite communications and earth observation data exploitation, as well as the extension of satellite navigation technologies to the field of planetary exploration, starting with the Moon.

Italy remains highly concerned about the threat that **space weather** may pose to space systems, human space flight and ground- and space-based infrastructures. It has taken an active part in the past Space Weather Expert Group and it is currently supporting several initiatives, with the aim to improve international scientific collaboration and coordination and contribute to enhance global resiliency. Allow me to just recall the development of a prototype of a national scientific Space Weather data centre for a comprehensive study of space weather; the participation in the international consortium PECASUS (Partnership for Excellence in Civil Aviation Space weather User Services); as well as in the Antarctic Geospace and ATmosphere reseArch (AGATA); the collaboration between Italy, Canada and Finland for the realization of a common Pan-Arctic GNSS INfrastructure for Atmospheric science and space weather (PAGINA project); that with the Kenya Space

Agency for the realization of a new Ionospheric observatory at the Broglio Space Center (NORISK project); and the Italian contribution to the European Space Agency Safety Program for the continuation of the pre-operation Space Weather Service Network and its further development (SWESNET project).

Finally, Italy demonstrated once more its high attention to the Near-Earth Objects topic, by presenting the results of the contribution of its deep-space satellite LICIACube to the NASA mission DART, which was the first Planetary Defense real-scale test ever conducted by humanity. It also presented the status of the simulation exercise concerning a hypothetical, albeit realistic threat of an impact of an asteroid on Earth that the Italian Space Agency and the Politecnico of Milano are carrying out in collaboration with the European Space Agency within the framework of the Space Mission Planning Advisory Group (SMPAG), and which is now in its second phase, focusing on discussing how the coordination among different SMPAG delegations can be organized.

To conclude, allow me to recall that, during the STSC, Italy continued to express its support to the topic of the protection of Dark and Quiet Skies and continued to contribute to the activities of the new Working Group on the long-term sustainability, by attending its meetings and presenting the report of the activities carried out at national level, as well as in cooperation with other countries, to implement the LTS guidelines. It also supported the CRP.31 proposed by Canada, which represents the national position on the topics of the possible adoption of new guidelines.

Thank you for your kind attention.