

Madame Chair, distinguished Delegates,

Italy has been taking important steps in the field of global navigation satellite systems in recent years. One of the most notable developments is the creation of Italy's first "National GNSS Competence Centre," announced in September 2024. This centre, to be developed and managed by Telespazio as the prime contractor, will be hosted at the company's headquarters in Rome. The project involves collaboration with Italian universities, research centres, and industrial companies, including the National Institute of Metrology Research (INRiM), the Italian Aerospace Research Centre (CIRA), Qascom, and several universities (CNIT). The National GNSS Competence Centre aims to create a laboratory that will utilize resources distributed throughout Italy for the development of new capabilities, solutions, and technologies in satellite navigation. It will focus on developing new software for monitoring GNSS services performance and testing new receivers. This initiative is expected to foster innovation and knowledge sharing in the GNSS field, potentially involving more academic and industrial entities in the future.

Moreover, remarkable developments concern lunar navigation through collaboration with NASA on the Lunar GNSS Receiver Experiment (LuGRE). The project, developed by the Italian Space Agency and implemented by Italian company Qascom, achieved unprecedented success by detecting GNSS signals at distances exceeding 300,000 kilometres from Earth, surpassing previous record. This milestone marks the first-ever reception of Galileo and GPS signals beyond Earth orbit at such a distance, representing a significant advancement in space navigation capabilities. The NASA and Italian control centres continue to analyse the collected data, positioning Italy as a key player in developing future lunar navigation systems, particularly within the ESA Moonlight program. This achievement establishes a foundation for enhanced interplanetary navigation and communication systems that will support future space exploration missions.

Madame Chair,

Italy's industrial sector is actively expanding GNSS applications. Thales Alenia Space secured contracts from the Italian Space Agency for the GREAT and GROOVE projects, using GNSS reflectometry and radio occultation to monitor environmental parameters such as soil moisture, marine conditions, and atmospheric data. These initiatives aim to improve disaster forecasting and climate models, with potential applications in agriculture and civil protection.

At the European level, Italy continues to play a crucial role in the Galileo program and Galileo Second Generation, the EU's global navigation satellite system. Telespazio operates one of the two Galileo Control Centres at its Fucino Space Centre. The company is also involved in the system's operations and integrated logistics through Spaceopal, a joint venture with the DLR - German Space Agency.

Moreover, Italy plays a pivotal role in ESA navigation programs. As one of the largest contributors to the NAVISP - Navigation Innovation and Support Programme, Italy funds R&D for next-gen PNT (Positioning, Navigation, Timing) technologies and FutureNAV programme. The delegation would like to emphasise two examples: the Genesis mission, devoted to establish a precise geodetic reference system from satellite, OHB Italia leads a consortium of 14 entities as the prime contractor for satellite development and operation with a planned launch in 2028; for the LEO-PNT demonstrator mission, Thales Alenia Space Italia serves as the space segment prime contractor in one of two parallel contracts. Both contracts were signed in March 2024, marking Italy's substantial contribution to Europe's advancement in satellite navigation technology through its leading aerospace companies.

Madame Chair,

The Italian Space Agency has recently strengthened the existing National GNSS Frame Network, comprising now 46 stations across Italy. This advanced infrastructure, developed by e-GEOS, will capture signals from major global satellite navigation systems. The network will provide high-precision geodetic data to support scientific research, professional applications, and innovative positioning services. All data will be processed at ASI's Space Centre in Matera, offering valuable resources for applications ranging from precision farming

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to space weather monitoring, geodetic and mapping applications. This achievement reinforces the national geodetic capabilities and the contributions to international reference frameworks.

I thank you very much for the attention.