Annual Report 2025

Agenzia Spaziale Italiana

index


Asi

INTRODUCTION

There is an old saying: "Aim for the Moon: even if you miss, you'll land amongst the stars".

The Italian Space Agency's plans for 2025 might have seemed ambitious; yet, they were not. We have achieved lofty goals, thanks to the great expertise and passion of our people and a unique production system that has literally allowed us to aim for the Moon and achieve success.

We are talking about LuGRE, a navigation and connectivity programme, which kicked off a very exciting year: with the launch and lunar landing of our navigator, a joint mission with NASA that forms part of the preparations for humanity's return to the Moon. LuGRE is, in fact, one of the supporting elements of NASA's ARTEMIS programme. It is a fundamental experiment dedicated to the movements of future lunar explorers, both on the surface and around the Moon, which will soon see new developments and new missions.

It is not easy task to list and summarise all the important milestones celebrated in 2025 through high-profile events, exhibitions, and activities managed by the Agency. Two stand out in particular: ASI's highly popular and admired presence at Expo Osaka 2025, featuring interactive multimedia solutions in a one-of-a-kind installation, and 'Stelle d'estate', the event held at the Rome headquarters to mark the 50th anniversary of the European Space Agency's foundation, attended by our astronauts and future astronauts, Samantha Cristoforetti, Luca Parmitano, Anthea Comellini and Andrea Patassa.

2025 is also the year of the completion of the Space Factory 4.0 project, an integrated system of innovative technologies that will enable the country to tackle the challenges of the Space Economy and establish itself as a centre of excellence at an international level in the satellite constellations sector. This is a major innovative public-private partnership initiative co-funded by the Italian Space Agency through the National Recovery and Resilience Plan (PNRR), that aims at digitise satellite manufacturing processes, reducing production times and costs.

It was also the year of three launches of Earth Observation minisatellites, the IRIDE constellation of constellations, one of the most important European space initiatives in the sector, entirely developed in Italy on the initiative of the Italian Government and aimed not only at scientific research but also at security, environmental monitoring and geopolitical stability.

This position as a leading player in the Earth Observation sector was reaffirmed during 2025, particularly at the ESA Ministerial Council in Bremen: Italy is among the top contributors to the ESA, with a commitment of €3.5 billion for the next three years, representing a 13.5% increase compared to the previous Ministerial Council. Furthermore, following this meeting, our country assumed the presidency until the next Ministerial Council, which Italy will host in 2028.

Italy's space ecosystem has grown significantly in terms of quality, capacity, innovation and competitiveness, whilst consistently adhering to the new paradigms of the Space Economy, which envisage the gradual entry of private entities into all activities pertaining to the various domains of the space sector. This is also evidenced by the approval of the 'Provisions for the Space Economy' Act, which establishes a governance system for space activities, expanding ASI's remit in the aerospace sector. The Agency now acts as a guarantor for regulated, sustainable development aligned with the country's strategic priorities; it is the national authority for the technical regulation of space activities, with powers of authorisation, supervision and sanction.

The current context and the speed at which the space sector is evolving call for deep reflection on the upcoming challenges we are called upon to face. Europe must be able to respond to these challenges and seize the opportunities offered on a global scale. The future is already upon us. New players are emerging in the space sector, whilst economic and diplomatic relations are opening up scenarios for growth and technological evolution. The Italian Space Agency must become increasingly competitive, autonomous and at the cutting edge: a complex but not impossible vision, thanks to the commitment and determination of the people who work together every day to overcome the same challenge.

Teodoro Valente

President

Italian Space Agency

THE ITALIAN SPACE AGENCY

Founded in 1988, the Italian Space Agency (ASI) is responsible for coordinating and funding all national space initiatives, both at the domestic and international levels. Thanks to intense diplomatic activity, Italy has emerged as one of the world's leading players in the space sector, actively collaborating with major global space agencies - foremost among them NASA and ESA. Italy is a founding member of the European Space Agency (ESA) and ranks as its third-largest contributor, closely behind Germany and France. This collaboration has enabled Italy to participate in prestigious missions and programs, while also fostering the development of high-level expertise.

ASI's activities are structured along various strategic lines, each having a significant impact on the country's scientific, technological, diplomatic, and socio-economic development. These areas include space sciences, human spaceflight, exploration, operations, technology, Earth observation, launch vehicles, navigation, and telecommunications.

The Agency promotes the growth of the space economy by reinforcing the Made in Italy space brand, supporting the creation of new companies and highly qualified jobs, investing in research and innovation, and encouraging public-private collaboration. The outlook is promising, with the space economy expanding rapidly.

ASI recognizes the importance of human capital and invests in the advanced training of new generations of scientists and engineers, aiming to secure Italy's leadership in the space sector for decades to come. Thanks to ASI's efforts, today Italy stands at the forefront of space exploration and the creation of a sustainable future for our planet.

ASI in numbers

9 OPERATIONAL SECTORS

Space Sciences, Launchers, Human Spaceflight, Exploration, Operations, Earth Observation, Navigation, Telecommunications, Technologies.

3 INVESTEE COMPANIES

ALTEC

SPACELAB an Avio-ASI company

e-geos AN ASI / TELESPAZIO COMPANY

4 LOCATIONS

Headquarters
Rome, Tor Vergata

ASI Space Centre
Matera

Broglio Space Centre (BSC)
Malindi (Kenya)

Sardinia Deep Space Antenna
San Basilio, Cagliari

466 EMPLOYEES

In 2025, thanks to 34 new hires, ASI's permanent staff reached a total of 466 employees.

Personnel costs account for only 7,89% of the Agency's overall budget.

ASI is also a founding member of the

E. Amaldi Foundation

FONDAZIONE E. AMALDI

THE ESA MINISTERIAL COUNCIL 2025

The year 2025 marked a particularly significant milestone for Italy on the international space stage, with the country assuming three prestigious leadership roles in key and complementary areas of global space governance. These included the Presidency of the ESA Ministerial Council, entrusted to Adolfo Urso, Minister for Enterprise and Made in Italy and Authority responsible for space and aerospace policies; the Chairmanship of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS), entrusted to ASI President Teodoro Valente; and the Presidency of the International Astronautical Federation (IAF), entrusted to Gabriella Arrigo, Director of International Affairs at ASI.

Although distinct in their institutional mandates and objectives, these three appointments collectively underscore Italy's growing influence within the international space community and its increasing role in shaping global space governance, fostering multilateral cooperation, and contributing to the development of international space policies.

A highlight of the year was the ESA Ministerial Council (CM25), held in Bremen, Germany, in November 2025. The meeting concluded with the approval of the largest budget package in ESA's history, securing €22.1 billion for the implementation of European space programmes over the 2026–2028 period. The Ministerial Council brought together the ministers responsible for space affairs from ESA's 23 Member States, representatives of the four Associate Members, ESA Director General Josef Aschbacher, and European Commissioner for Defence and Space Andrius Kubilius.

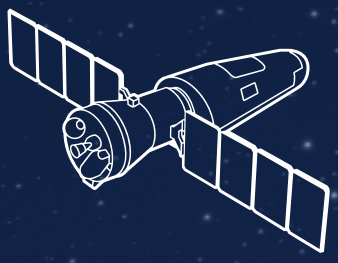
Within this framework, Italy assumed the Presidency of the ESA Ministerial Council for the 2026–2028 period, succeeding Germany. On this occasion, Minister Urso presented Italy's strategic priorities for the space sector, as defined by the Interministerial Committee for Space and Aerospace Policies (COMINT), reaffirming the Government's commitment to strengthening the country's position as a major European and international space actor.

Italy pledged a contribution of €3.5 billion to ESA programmes, representing an increase of more than 13% compared with the €2.8 billion committed at the 2022 ESA Ministerial Council in Paris. This achievement consolidates Italy's position among ESA's three largest contributors, alongside Germany and France, and confirms the country's increasingly central role in defining Europe's future space ambitions.

The resources committed by Italy will support a broad portfolio of strategic programmes spanning autonomous access to space through the Vega and Ariane launch systems, space exploration, Earth observation, satellite navigation, secure telecommunications, space safety and scientific research. More broadly, the outcomes of CM25 strengthen Europe's capacity to compete globally, reinforce the strategic objectives shared by ESA and the European Union, and ensure continuity in long-term investments that are essential to maintaining European leadership in space.

Esa Ministerial Council, Bremen, 26-27 november 2025

2025 timeline



IRIDE
Pathfinder Hawk Launch
January 14

LUGRE launch
Kennedy Space Center
January 15

Africa Middle-East
Rabat
February 5

HALO
Presentation in Turin
February 20

Memorandum with EAU
Roma
February 24

LUGRE Moon landing
March 1

Space Factory
CESI Space – Milan
March 13

HERMES pathfinder launch
Vandenberg
March 15

50 years of ESA in Italy
Rome
July 8

Space Factory
Sitael – Pisa
July 22

ITA New Delhi
Aerospace Roadshow 2025
New Dheli
September 22

European Researchers' Night
Rome
September 26

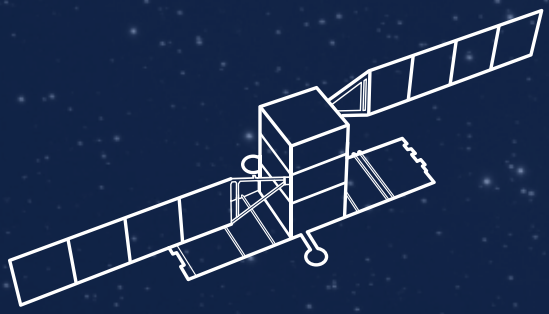
IAC
Sidney
September 29

Bed Rest Test
Capodistria Scientific Research Centre
October 1

Space Factory
Thales Alenia Space
Rome - Italy
October 7

Lo Spazio in Tasca
October 21

missions



launches

Space Factory
Sitael – Mola di Bari
March 31

EVGA
Matera
April 6-11

40° Space Symposium
Colorado Springs
April 7

ASI Exhibit
Expo Osaka
April 13

GEO
Rome
May 5-9

CSES-2 launch
Jiuquan
June 14

Oracle signature
Rome
June 23

IRIDE
HEO launch
June 23

the General Assembly of the Space Economy
RO-MI-TO
October 27-31

Esa Ministerial Council 2025
Bremen
November 26

IRIDE
OHB Eaglet II launch
November 28

ISF
Manila
December 4

Sentinel-1C launch on Vega-C
Kourou
December 5

NSE
Rome
December 10-12

National Space Day
December 16

ASI Advert on RAI channels
December 16

events

THE SPACE ECONOMY

It is a rapidly growing sector that encompasses not only traditional activities, such as satellite launches and space exploration, but also new fields such as space tourism, the extraction of resources from asteroids and the production of materials in orbit. In recent years, the entry of private players has revolutionised the sector by reducing the cost of accessing space and opening up new commercial opportunities. Technologies developed for space also find applications on Earth, improving sectors such as communications, climate monitoring and natural resource management.

The Space Economy has enormous economic potential and represents a genuine revolution for economic growth. Competitive advantages can only be realised through close collaboration between the public and private sectors, European and national institutions, international cooperation with strategic partners, and appropriate regulation of the space sector. It is also essential to ensure cybersecurity, as satellites and other space infrastructure must be protected to safeguard national and EU interests, as well as the security of businesses and citizens. To foster economic growth, it is important to support and internationalise industries, with a particular focus on SMEs and start-ups.

However, the growth of the Space Economy also raises ethical and regulatory issues relating to sustainability and the equitable use of space resources and highlights the need for greater regulation of space activities at all levels: national, global and European. In the current context of the so-called Space Economy, the public sector has the task of encouraging innovative entrepreneurship in the space sector and facilitating private investment in this economic sector, by reducing the technological and financial barriers to entry these markets.

With this in mind, the Italian Space Agency carries out various activities in support of start-ups and SMEs, such as the network of national incubators dedicated to Italian space start-ups (ESA BIC Italy Network), which now comprises five nodes spread across the country: Lazio, Turin, Brindisi, Milan and Padua.

Furthermore, in 2025, the Space and Blue Task Force was established within the Agency, with the aim of building an integrated space-sea ecosystem that promotes the competitiveness of the Italian production system, with a particular focus on SMEs, start-ups and technology-intensive academic institutions, through the promotion of cross-industry synergies.

The SPACEFOUNDERS acceleration programme, devoted to the best European space start-ups, continues in collaboration with CNES (the French Space Agency) and UniBW (the University of Munich), for which a contract has been signed with the national operator.

As part of the scientific collaboration between ISTAT and the Italian Space Agency, the first information note on the quantification of the Italian Space Economy was published in 2025. Based on a new national thematic account for 2021, the report reveals that the sector generates an added value of €2 billion.

Finally, worth noting are the calls for proposals dedicated to SMEs and start-ups, such as Innovation for Downstream Preparation (I4DP), a programme featuring periodic calls on various topics for the development of the national downstream sector, or STEP aimed at the development of enabling technologies in various areas of interest, devoted to young innovative enterprises.

Vega-C takes the Biomass satellite into orbit

THE DIRECTORATE GENERAL

Throughout 2025, ASI's Directorate General continued to advance a broad programme of organisational modernisation and capacity-building initiatives aimed at enhancing the Agency's efficiency, responsiveness and ability to address emerging administrative and operational challenges. Particular attention was devoted to the simplification and streamlining of internal procedures, including the optimisation of preliminary authorisation processes, with the objective of fostering a more agile and effective organisational framework.

In this context, the review of internal administrative processes and the update of the Agency's Directives on Administrative Action continued. These initiatives are intended to promote behaviors and management practices aligned with the principles of simplification, accountability, consistency, and results-oriented performance. The Directives serve as an operational reference framework for all personnel, supporting the efficient management of day-to-day activities while strengthening a shared organisational culture based on efficiency, responsibility, and institutional identity. They are also designed to reduce processing times, improve relations with stakeholders, and encourage broader participation of organisational units in decision-making processes.

A further milestone achieved during 2025 was the consolidation of the "Space to Knowledge Management in ASI" initiative, a dedicated framework for the systematic preservation, management and dissemination of the Agency's knowledge assets. The programme is designed to capture and transfer best practices, lessons learned and the extensive expertise accumulated by ASI personnel throughout their professional careers. By making this knowledge accessible to all employees—particularly new recruits—through structured training activities and dedicated knowledge-sharing initiatives, including contributions from retired staff members, the programme helps safeguard the Agency's intellectual capital and supports the development of a shared organisational culture capable of fostering innovation and enhancing internal expertise.

Another significant development in 2025 was the work carried out by the Space and Blue Task Force, a cross-functional structure established to strengthen internal coordination and support the Agency's engagement with national and international institutions. The Task Force operates with the objective of promoting an integrated "space–sea" ecosystem, enhancing the competitiveness of the Italian industrial and research landscape through the development of cross-sectoral synergies. Particular attention is devoted to supporting small and medium-sized enterprises, start-ups and research-intensive academic institutions operating in high-technology fields.

Among the first major achievements of the Task Force was the signing of the ASI–MIMIT Agreement by ASI Director General Luca Vincenzo Maria Salamone, on behalf of the Board of Directors, and by Paolo Casalino, Director General for Industrial Policy, Innovation, SMEs and Made in Italy. The Agreement launched the "SPACE and BLUE" initiative, centered on a multi-thematic call for proposals aimed at supporting the development, testing and advanced prototyping of innovative technologies capable of creating new connections between the space and maritime sectors. At the same time, the Task Force continued to broaden its activities, providing integrated support across a growing number of strategic areas and contributing to the adoption of a comprehensive and systemic approach to sector development.

Overall, the activities undertaken by the Directorate General throughout 2025 reflect a continued commitment to building an Agency that is increasingly efficient, accessible, innovative, and capable of effectively fulfilling its institutional mission. Through these initiatives, the Directorate General reaffirms its dedication to a modern public administration that serves the national interest and is fully prepared to address future challenges with competence, transparency and strategic vision.

ASI DIRECTORATES

Human Resources

Administration and Finance

Security, IT Systems and Digitalisation

International Affairs

Institutional Communication and External Relations

Engineering and Technologies

Science and Innovation

THE ITALIAN SPACE AGENCY CENTRES

ASI SPACE CENTRE IN MATERA

The 'Giuseppe Colombo' Space Centre in Matera plays a key role both in projects aimed at the development of space systems and infrastructure, and as a point of reference and liaison between academic research and industrial developments, in a geographical area where the Agency also plays a leading role in promoting space culture and training.

During 2025 the following activities were carried out:

- a framework cooperation agreement was signed with the Basilicata Region, paving the way for the expansion of the base to ensure it can accommodate new activities;
- continuity was ensured for space geodesy operations with the publication of an open tender for the award of space geodesy operational activities;
- with the establishment of a branch of the National Institute of Metrological Research (INRIM) at the Space Centre, work began on setting up a laboratory for metrological research and on installing three atomic clocks, which will then be linked to the time systems already in place at the base;
- the construction of a new Very Long Baseline Interferometry (VLBI) station to VGOS (VLBI Global Observing System) standards has been completed; from the second half of 2026, it will become operational in parallel with the station currently active in the field of space geodesy;

"Giuseppe Colombo" Space Centre in Matera

- the new Satellite Laser Ranging (SLR) station has been installed to carry out routine satellite laser telemetry activities for space geodesy, thereby reducing the workload on the Matera Laser Ranging Observatory (MLRO) system currently in operation;
- the technological upgrade of the MLRO system for Satellite and Lunar Laser Ranging (SLR/LLR) has been completed;
- with the completion of the infrastructure to house the Flyeye/NEO telescope developed by ESA, and with the installation of the telescope, commissioning and scientific validation activities are now underway;
- as part of an agreement between ASI and the Municipality of Matera for the implementation of a project at the Centre for Space Geodesy, entitled 'Parco della Storia dell'Uomo – Città dello Spazio' (Park of Human History – City of Space), work has begun on fitting out the exhibition area, which is expected to open in autumn 2026.

LUIGI BROGLIO SPACE CENTRE IN MALINDI

The 'Luigi Broglio' Space Centre (BSC) in Malindi, Kenya, is situated on the Indian Ocean coast, just 2.9 degrees South of the Equator, enjoying an ideal geographical location for satellite monitoring and access to space.

Cooperation between Italy and Kenya is governed by an intergovernmental agreement renewed in 2020, which promotes the peaceful use of space through five implementing agreements: Earth Observation, access to scientific data, training, support for the Kenya Space Agency, and telemedicine.

The beating heart of the base is the ground segment dedicated to TT&C services, which makes the centre an important hub in the network of cooperation with other countries and space agencies, as well as commercial operators such as SpaceX. Thanks to its equatorial location, the centre performs critical functions:

- launch support (monitoring of Vega, Ariane and Falcon 9 launchers) and LEOP (management of the initial phases of missions to ensure correct insertion into orbit);
- reception of data streams from international missions for the study of the universe and for Earth Observation (EO).

In 2025, ASI began transforming the Malindi base into a state-of-the-art educational and technological hub, structured as follows::

1. the Regional EO Centre was established, with two nodes in Malindi (BSC) and Nairobi (Kenya Space Agency). Thanks to a dedicated antenna and an advanced platform for the acquisition,

Luigi Broglio Space Centre - Malindi

storage, cataloguing and processing of satellite data, the centre can provide value-added products to monitor agriculture, water resources and natural disasters, offering strategic support to local authorities;

2. through dedicated links, the centre ensures access to Prisma and COSMO-SkyMed data relating to Kenyan territory, whilst also integrating data from the Copernicus (ESA) and Landsat (NASA) constellations, as well as MODIS data acquired directly from the antenna;
3. ASI has launched a project to upgrade the infrastructure and technology at the BSC with the creation of a multi-purpose centre, due for completion in 2028, which will house:
   - international School of Space Training: inaugurated in 2023 by President Mattarella at the BSC, aimed at training the next generation of engineers and scientists, not only from Kenya but from across Africa, with classrooms for around 200 students, laboratories and an auditorium;
   - CubeSat Development Laboratory: completed with infrastructure for the development, integration and testing of CubeSats. This will enable local universities and start-ups to develop low-cost space hardware, democratising access to space;
   - Luigi Broglio exhibition itinerary: to honor the memory of the father of Italian astronautics and founder of the BSC, a permanent exhibition will be established to trace the history of the "San Marco Project".

SARDINIA DEEP SPACE ANTENNA

The Sardinia Deep Space Antenna is a strategic ASI facility, designed to support robotic and human space exploration missions, both in lunar orbit and in deep space. The system will operate in synergy with the international networks of NASA (Deep Space Network) and ESA (ESTRACK), enabling Italy to play an autonomous and distinctive role in the field of interplanetary space communications, as well as generating opportunities for collaboration with research bodies and universities.

The SDSA is implemented through a distributed architecture integrating multiple centres across the region:

- the SDSA operational site at SRT (SDSA@SRT) in San Basilio;
- the SDSA Research Centre in Selargius;
- and the future SDSA Main Complex, whose site, located near SDSA@SRT, will ensure autonomous two-way communications for lunar and interplanetary missions.

The SDSA development programme is divided into two phases:

- Phase 1, currently underway, aims to enhance the reception capacity of SDSA@SRT and to launch the SDSA Research Centre, the Agency's third site. The centre, together with the Cagliari Astronomical Observatory, forms part of the Selargius Campus of Science, Technology and the Environment, with the aim of becoming a cultural hub for scientific outreach and education, also hosting permanent and thematic exhibitions on ASI's space activities;
- Phase 2 involves the construction of the SDSA Main Complex, a space centre equipped with a large-diameter antenna capable of transmitting and receiving signals to and from lunar and interplanetary missions. This infrastructure will operate autonomously or in an integrated (arraying) mode with the antenna at the SDSA@SRT centre, forming a key element in achieving the SDSA's Full Operational Capability (FOC).

By 2025, Phase 1 has almost completed the design phase, marking significant progress in terms of infrastructure as well: the SDSA Research Centre has been acquired on a loan-for-use basis from the Municipality of Selargius, whilst the site for the future SDSA Main Complex has been identified and is already the subject of preliminary geological surveys.

The entire distributed architecture of the SDSA represents a strategic infrastructure for Sardinia, capable of strengthening the regional scientific system, attracting investment and generating economic and employment benefits for the region.


Sardinia Deep Space Antenna - San Basilio (CA)

SCIENCE AND INNOVATION

Advances in scientific research are based on knowledge acquired across a wide range of disciplines, and space research – which is inherently interdisciplinary – exemplifies this principle, thanks in part to the support of strong national and international collaborations.

The challenges we face today are extremely ambitious and require the integration of scientific and technological expertise applicable across numerous fields of research: from astrophysics to cosmology, from the study of the solar system to biology, via exploration, engineering and fundamental physics. The interconnection between disciplines and research methodologies enables the expertise of the Italian scientific and industrial community to be showcased on the international stage.

ASI's Science and Innovation Directorate actively promotes interdisciplinarity and fosters dialogue between the scientific community, academia and industry, leveraging European funding instruments and investing in culture through major higher education initiatives.

The country's growth, in fact, must necessarily be based on nurturing the next generation, by promoting the awarding of scholarships, PhDs and undergraduate prizes in STEM disciplines, and ensuring support for university students and young researchers, allowing the continuity of expertise in the space sector, helping to boost Italy's competitiveness and generating public value.

The Science and Innovation Directorate works in close collaboration with the relevant communities, both nationally and internationally, and develops thematic roadmaps with a twofold objective:

a. to identify the main areas of interest, analysing the current state of the art and the potential for future development;

b. to highlight any scientific or technological gaps in order to define appropriate strategic actions.

With this in mind, the Science and Innovation Directorate organises workshops aimed at understanding, mapping and engaging national communities and centres of excellence in the priority areas.

In 2025, ASI defined the first phase of the roadmap for astrophysics, identifying scientific and technological priorities. Sybil mission was launched for advanced space simulations. Missions such as PLATO, Comet Interceptor and ARIEL are continuing, with the development of instruments and testing.

Studies are progressing on the ISS, insulation and the Moon, alongside infrastructure such as ALTEC, lunar habitation modules and the ORACLE project for in-situ resources. New events dedicated to the thematic roadmaps for astrophysics and the study of the solar system are planned for 2026.

ISRU - IN SITU RESOURCE UTILIZATION

That of on-site resource extraction and utilisation is one of the most frequently discussed topics in the planning of future human exploration missions. Transporting vital resources, such as water and oxygen, is too costly and, at times, incompatible with the limitations of currently conceivable transport systems. Therefore, the identification, extraction, and use of resources on site becomes central to ensuring the feasibility of long-duration missions. ASI is developing a prototype demonstrator to extract oxygen from the lunar soil, using the regolith present on the surface.

MPH (MULTI PURPOSE HABITATION MODULE)

As regards the MPH habitation module for Artemis, the progress made during 2025 is highlighted. MPH will be the first Italian habitation module to operate on the lunar surface: it will provide a safe and comfortable habitat for astronauts on missions to the lunar South Pole, host scientific experiments, enable astronauts to interact with external elements (landers, rovers, etc.), and can be managed autonomously from Earth.

In 2025, the module successfully passed the 'Element Initiation' review, which is the formal stage through which NASA authorises the continuation of projects deemed of interest under Artemis, judging the Italian pressurised module to be a valuable element for the Artemis architecture. The development logic of

Multi Purpose Habitation Modules on lunar ground (rendering by Thales Alenia Space)

the MPH module fits perfectly with the long-term Moon to Mars (M2M) strategy, aimed at enabling a sustainable human presence on the Moon, paving the way for future Mars exploration scenarios and once again confirming Italy's position among the world's leading nations in the field of human and robotic space exploration.

ISS ON BOARD EXPERIMENTS

Experimental activities continued on board the International Space Station, with the conduct of three experiments focusing on navigation and communication (NAVCOM), radiation (IRIS) and the effects of microgravity on the cardiovascular system (Drain Brain 2.0). The NAVCOM system uses a GNSS receiver to precisely determine the position of orbital stations, opening up new frontiers in space navigation, laying the foundations to support future applications, such as the Lunar Gateway, and paving the way for potential applications for exploration on Mars. As part of the Drain Brain 2.0 project, a portable and user-friendly system was developed and tested in orbit for the non-invasive monitoring of parameters essential to the cardiovascular health of astronauts. The IRIS project led to the development and testing in orbit of innovative, wearable, ultra-lightweight ionising radiation detectors, capable of transmitting in real time the radiation dose absorbed by each crew member, enabling an immediate alarm to be triggered in the event of overexposure.

+ 290
articles, of which:
• 44% journal articles
• 56% conference proceedings

4
calls for tenders/ tenders

57
articles in peer-reviewed journals

1
insulation/ containment workshop in collaboration with ESA

SPACE IT UP!
It is a project funded by ASI and MUR, with a total investment of €79.5 million and a duration of 42 months

8
PhD candidates in the 41st intake

+ 20
agreements/contracts/ negotiation procedures

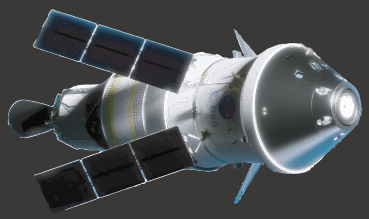
140
researchers at ASI under the 2025 recruitment drive

Italy's role in Human and Robotic

Mars ROCC
Rover Operations Control Center on Mars

LMSCC
Lunar Mission Simulation and Control Center
ASI

Lunar Ground Station - Italia
Sardinia Deep Space Antenna (SDSA) - ASI



ESM - European Service Module
ESA

Moonlight
Provide new interoperable Moon Comunications and Navigation Services
ESA

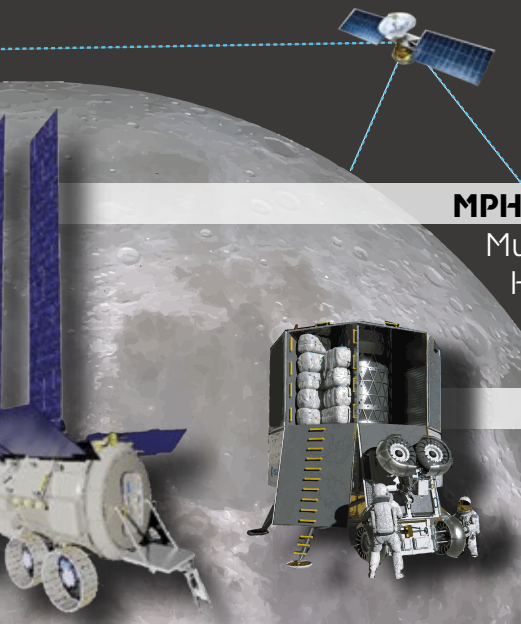
ARTEMIS

Robotic mission on the Moon surface - ASI

EMM (Earth, Moon, Mars)
Lunar science platform - ASI

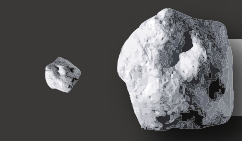
Agenzia Spaziale Italiana

Exploration of the Moon, Mars and beyond



MPH
Multi Purpose
Habitation Module
ASI - NASA

Argonaut/LDE
(Luna Descent Element)
European lunar surface lander
ESA

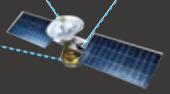


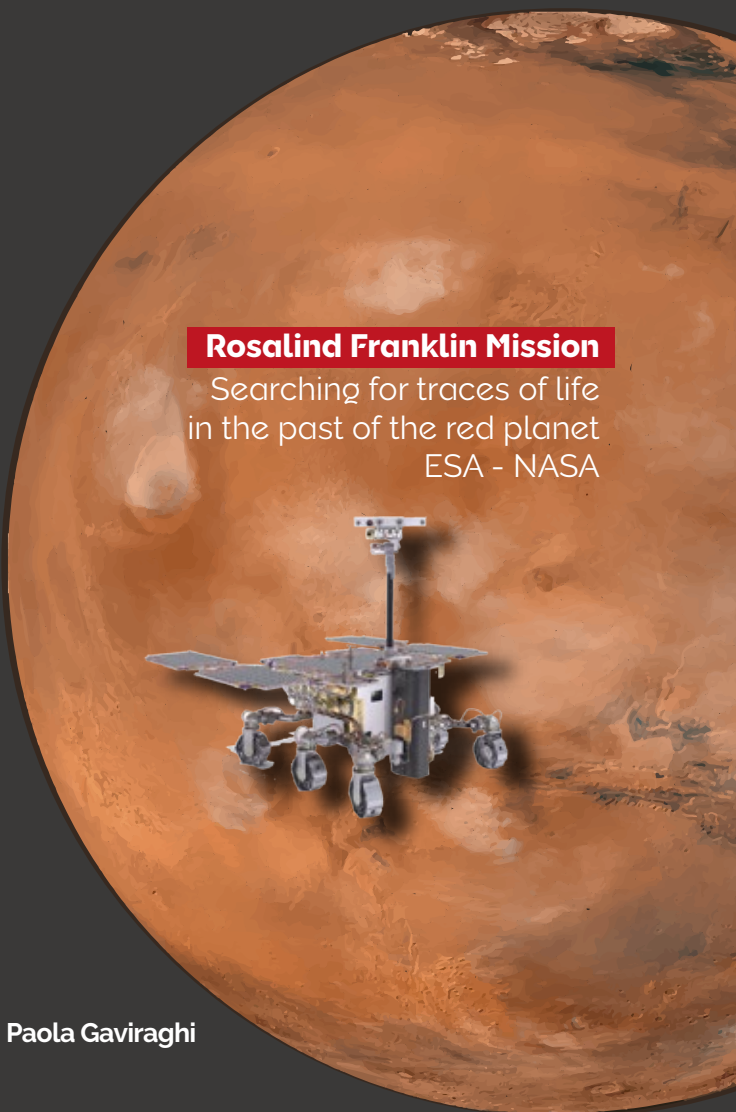
NEAR EARTH OBJECT ROBOTIC MISSIONS
Resources prospecting
and extraction,
Planetary Defense
ASI

LUGRE
Lunar GNSS Receiver
Experiment, on board
of a commercial lander
ASI - NASA

ORACLE - ISRU
Oxygen extraction
demonstrator
ASI

PROSPECT
Drill and minilab
to access and evaluate
resources in the
lunar subsurface
ESA





Rosalind Franklin Mission
Searching for traces of life
in the past of the red planet
ESA - NASA

Infographic by Manuela Proietti and Raffaele Mugnuolo. Design by Paola Gaviraghi

ENGINEERING AND TECHNOLOGIES

The Engineering and Technologies Directorate manages and coordinates activities in Earth Observation, Telecommunications and Navigation, Access to Space and In-orbit Services. It also manages and coordinates cross-cutting activities, such as technological development and space design, special programmes (PNRR, Complementary Fund), and programmes of strategic interest to the Agency.

Fundamental in this context is therefore the coordination of the scientific, industrial and application communities, whose strategic and competitive positioning it also supports at national and international level, whilst ensuring the safeguarding of key competences by representing ASI on national and international boards.

The Directorate also defines, develops and manages national and international missions for Earth Observation, radiofrequency, optical and quantum communications, satellite navigation, space transport programmes and Space Traffic Management, including In-Orbit Servicing. It develops and implements the Italian Space Agency's technology roadmaps, ensuring technical, programmatic and financial oversight of special programmes.

During 2025, its activities included: the preparation to the launch of COSMO-Skymed Second Generation – FM3 satellite, and that of the CSES-02 mission, as part of the ASI-CNSA cooperation, on 14 June, to study the Earth's geophysical properties from space using non-image-based remote sensing methods; the gradual development of the IRIDE constellation of constellations, of which ASI will become the owner from July 2026, which saw the launch of 8 HEO/Argotec satellites (Pathfinder) on 14 January and 16 Eaglet-2/OHB satellites on 28 November 2025 and 30 March 2026; the completion of Phase B of the national In-Orbit Servicing mission and the conduct of various tests on the new national 'green' propulsion engine for space logistics; the consolidation of the return to flight of the Vega C launcher.

In the area of downstreaming and integrated applications, scientific and operational activities relating to the LUCE mission continued, developed under the agreement between ASI and the National Institute of Nuclear Physics (INFN); so where the activities linked to the LIMADOU programme and the new 'Limadou EXPO' initiative, in collaboration with INFN, the National Research Council (CNR) and other Italian research bodies, with the aim of strengthening capabilities for analysing ionospheric and atmospheric phenomena.

EARTH OBSERVATION

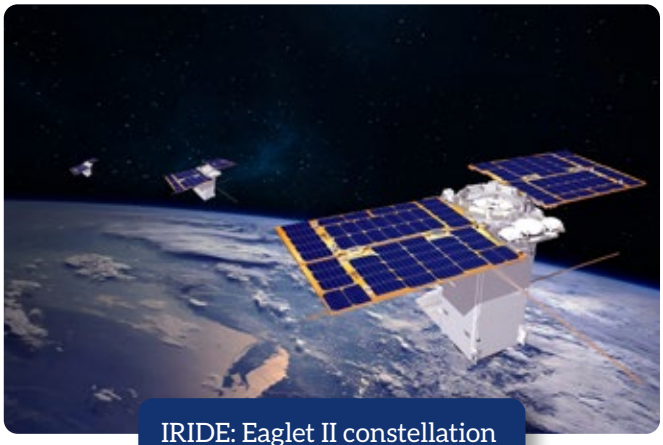
To provide Italy with environmental monitoring and emergency management services, several OT missions continued in 2025. In particular:

- the second-generation COSMO-SkyMed satellites (X-band), which operate 24 hours a day in all weather conditions
- the PLATINO programme, involving the development of compact payloads and two key missions: the launch of PLT-1, scheduled for December 2026; and the PLT-2/MAIA mission, a collaboration with JPL/NASA
- the GESOSAR mission, currently in Phase B, which aims to revolutionise Earth observation by combining radar technology (SAR) with the advantages of geosynchronous/geostationary (GEO) orbit
- within the micro- and nanosatellite programmes, the BISS (Internet of Things) mission is at an advanced stage of design and is scheduled for satellite delivery by the end of 2026, with a launch planned for Q2 2027; the PiCo-IoT mission is in the contracting phase and is also scheduled for launch by Q2 2027. The EO SATURN mission (distributed MIMO synthetic aperture radar) – comprising three satellites in formation – and EarthNext mission (multispectral optical in Very Low Earth Orbit) are also in the process of being contracted for phases C/D/E.

TELECOMMUNICATIONS AND NAVIGATION

ASI carried out the following key activities in 2025:

- In September, activities began under the contract for the development of an Optical Ground Station (OGS) dedicated to securing



IRIDE: Eaglet II constellation

quantum communications and classical optical telecommunications. The initiative is part of the broader international Quantum Cyber Security framework, within which several major programmes are currently under development, including ESA's Eagle-1 and SAGA initiatives, as well as the European Union's EuroQCI programme. Through the implementation of the Optical Ground Station, ASI will acquire a strategic asset to support in-orbit validation activities for future Quantum Key Distribution (QKD) missions at both national and European level. The OGS will enable high-data-rate classical optical communications and quantum key exchange services and will be designed as a transportable and relocatable infrastructure, adaptable to the operational requirements of the aforementioned programmes.

- At European level, ASI provided its national contribution to the Service Review activities of the IRIS^2 programme, oversaw the monitoring and approval of ARTES projects, and participated in the ESA Joint Communication Board (JCB).
- ASI finalised a contract with the European Commission for the provision of ATHENA-FIDUS satellite capacity within the GOVSATCOM Common Union Pool framework. The GOVSATCOM component of the European Union Space Programme, established under Regulation (EU) 2021/696, aims to provide secure satellite telecommunications services to European governmental users through a pooling and sharing mechanism involving connectivity resources made available by participating Member States and accredited economic operators.

In 2025, national activities in the field of Satellite Navigation focused on the five contracts awarded under the Satellite Infrastructure Call for Tenders, leading to the successful completion of the Critical Design Review (CDR) phase for the following projects:

- GREAT: project to develop an airborne reflectometry receiver
- GROOVE: project to develop an airborne radio occultation receiver
- RAN: national multimodal augmentation network for autonomous and automated transport
- RADIOBEACON: terrestrial pseudolite system to enhance GNSS accuracy in urban areas
- CNCG: National Centre of Excellence for GNSS, providing a shared laboratory and development environment for the development and testing of GNSS receivers and algorithms.

Italy also achieved a further significant milestone in lunar navigation through the LuGRE (Lunar GNSS Receiver Experiment) mission. The Italian receiver, flown aboard the Firefly Aerospace Blue Ghost 1 lunar lander on behalf of NASA, successfully demonstrated the feasibility of using Earth-based GNSS signals at unprecedented distances from Earth.

In the lunar domain, a Phase A study was carried out in 2025 for the development of a surface Lunar Beacon, conceived as a complementary element to orbital infrastructures and a potential component of the future ARTEMIS architecture.

At European level, ASI contributed to the Critical Design Review (CDR) activities for the second-generation Galileo system, oversaw the monitoring and approval of NAVISP projects, and participated in the ESA Navigation Programme Board (PB-NAV).

SPACE TRANSPORT & IN-ORBIT SERVICES

In 2025, Phase B2 activities continued for the development of the national in-orbit servicing mission under the resources allocated through the PNRR-FC programme. These activities focused on defining the preliminary mission architecture and consolidating the enabling technologies required for future in-orbit proximity operations, inspection, docking, refuelling, assembly and de-orbiting services based on autonomous robotic systems.

Within the framework of the PNRR-FC measures dedicated to the in-orbit economy, several hot-fire tests were successfully conducted on the new national 'green' propulsion engine intended for space logistics and in-orbit servicing applications. In parallel, a dedicated study was launched to develop national capabilities in the fields of Space Situational Awareness (SSA) and Space Traffic Management (STM) from space, in cooperation with the relevant national stakeholders.

The year 2025 also marked the consolidation of the Vega-C launcher's return to flight, with the successful completion of three missions: the launch of the BIOMASS satellite in April, the deployment of the four CO3D satellites together with the MicroCarb mission in July, and the launch of the KOMPSAT-7 satellite in December.

With regard to technological development activities, research and innovation efforts continued on next-generation avionics, composite tank technologies, and non-detonative separation systems. Development activities also progressed within the oxygen-methane propulsion roadmap, including the design and development of the MR10 engines for the Vega-E upper stage and the MR60 engine.

Concerning the Space Rider programme, Phase D activities continued throughout 2025, including the first Guidance, Navigation and Control (GNC) tests performed on the landing gear system of the re-entry vehicle at the PISQ test range in Sardinia.

ITALY LEADING Earth Observation

By ***Giuseppe Nucera***
Coordinated by ***Manuela Proietti***, head of Digital Communication - ASI

Agenzia Spaziale Italiana

Mission Status
- Operational
- To be launched
- Retired

- Instrument with Italian participation
- Mission objective

Italian National Earth Observation Programs

IRIDE
Italian Government program (funded through PNRR and PND funds), coordinated by **ESA** with **ASI** participation

MULTI-TECHNOLOGY: SAR, Optical, Multispectral Optical, Hyperspectral Optical

Provides the public sector with geospatial data for environmental and climate monitoring, resource management, civil protection and national security.

Constellation of constellations (under completion)

A total of 68 satellites (deployment 2025–2028)

31 satellites currently operational all of which belong to multispectral optical constellations

The six IRIDE constellations

NIMBUS SAR
X-band SAR

NOX SAR
X-band SAR

NIMBUS VHR
Optical

HYP PLATiNO
Hyperspectral Optical

HAWK for Earth Observation
Multispectral Optical

EAGLET II
Multispectral Optical

European Earth Observation Missions with Italian Participation

Sentinel-1
C-band SAR
Monitoring the environment, oceans, ice, ground deformation and natural disasters.

Sentinel-1 Next Generation
C-band SAR
New services related to soil moisture and land cover, crop identification, precision agriculture, maritime surveillance and natural risk monitoring.

Sentinel-3
Radiometer
Systematic measurements of oceans, land and atmosphere, providing near real-time data for oceanographic and meteorological forecasting.

Sentinel-3 Next Generation
Radiometer
By integrating multiple radar altimeters, it will ensure greater continuity compared to first-generation satellite observations.

COPERNICUS

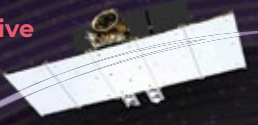
COPERNICUS

ESA

NGGM (Goce Next Generation)
Gravitational Gradiometer
It will provide time-variable gravity field measurements with enhanced spatial and temporal resolution, as well as optimized performance and response times.

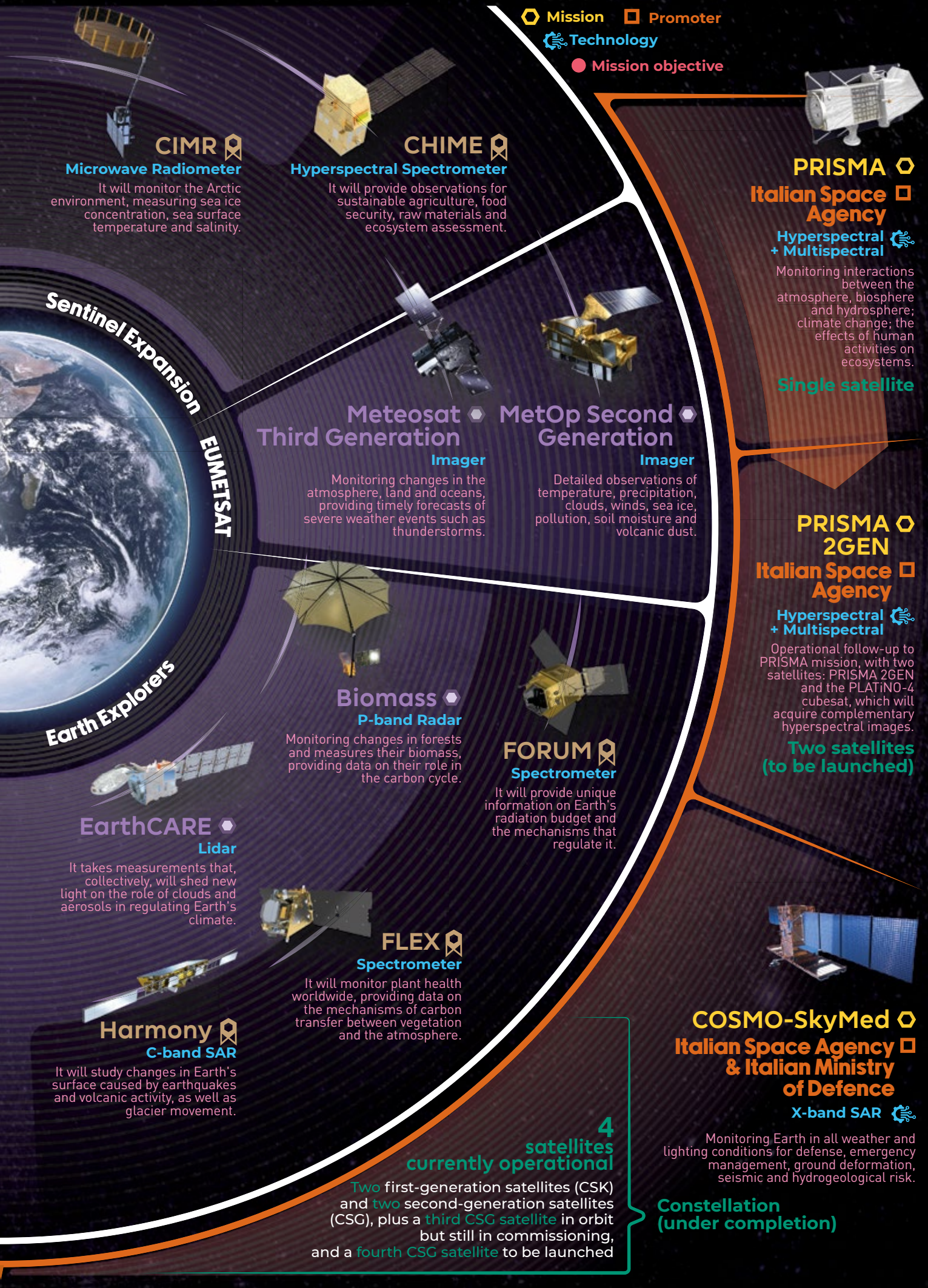
GOCE
Gravitational Gradiometer
The first Earth Explorer mission, no longer operational, which collected three-dimensional gravity data from around the globe for 24 months.

Aeolus
Lidar
The first satellite mission to measure global wind profiles, improving weather forecasts and climate models.



ROSE-L
L-band SAR
It will monitor forest cover to support biomass estimation, soil moisture, vegetation, and land ice.

Mission
Promoter
Technology
Mission objective



CIMR
Microwave Radiometer

It will monitor the Arctic environment, measuring sea ice concentration, sea surface temperature and salinity.

CHIME
Hyperspectral Spectrometer

It will provide observations for sustainable agriculture, food security, raw materials and ecosystem assessment.

PRISMA
Italian Space Agency

Hyperspectral + Multispectral

Monitoring interactions between the atmosphere, biosphere and hydrosphere; climate change; the effects of human activities on ecosystems.

Single satellite

Meteosat Third Generation
Imager

Monitoring changes in the atmosphere, land and oceans, providing timely forecasts of severe weather events such as thunderstorms.

MetOp Second Generation
Imager

Detailed observations of temperature, precipitation, clouds, winds, sea ice, pollution, soil moisture and volcanic dust.

PRISMA 2GEN
Italian Space Agency

Hyperspectral + Multispectral

Operational follow-up to PRISMA mission, with two satellites: PRISMA 2GEN and the PLATiNO-4 cubesat, which will acquire complementary hyperspectral images.

Two satellites (to be launched)

Biomass
P-band Radar

Monitoring changes in forests and measures their biomass, providing data on their role in the carbon cycle.

FORUM
Spectrometer

It will provide unique information on Earth's radiation budget and the mechanisms that regulate it.

EarthCARE
Lidar

It takes measurements that, collectively, will shed new light on the role of clouds and aerosols in regulating Earth's climate.

FLEX
Spectrometer

It will monitor plant health worldwide, providing data on the mechanisms of carbon transfer between vegetation and the atmosphere.

Harmony
C-band SAR

It will study changes in Earth's surface caused by earthquakes and volcanic activity, as well as glacier movement.

COSMO-SkyMed
Italian Space Agency & Italian Ministry of Defence

X-band SAR

Monitoring Earth in all weather and lighting conditions for defense, emergency management, ground deformation, seismic and hydrogeological risk.

Constellation (under completion)

4 satellites currently operational

Two first-generation satellites (CSK) and two second-generation satellites (CSG), plus a third CSG satellite in orbit but still in commissioning, and a fourth CSG satellite to be launched

INTERNATIONAL AFFAIRS

Italy, through ASI, plays a prominent and widely recognised role within the international space community, both in the European context-through the European Union and ESA-and on the broader global stage. Over the years, ASI has established a strong network of bilateral and multilateral partnerships with space agencies across all continents, engaging with developed, emerging and developing space-faring nations alike.

The management of ASI's international activities is entrusted to the Directorate for International Affairs, which is responsible for coordinating international relations and cooperation in close consultation with the Ministry of Foreign Affairs and International Cooperation (MAECI) and other relevant national authorities. Within its mandate, the Directorate represents ASI—and, when required, Italy—in national and international fora, ensuring the effective promotion of national interests in the space sector.

The Directorate maintains regular institutional relations with counterpart space agencies worldwide and develops initiatives aimed at strengthening space diplomacy. It fosters cooperation with Italian diplomatic missions abroad and foreign diplomatic representations in Italy, through continuous coordination with MAECI. The Directorate also coordinates and supports Italy's participation in ESA activities and contributes to the country's engagement in the various space-related bodies and initiatives of the European Union.

The Third Meeting of Italy–Africa Space Leaders. Credits: Kenya Space Agency.

In cooperation with the Agency's technical and programmatic Directorates, the Directorate for International Affairs defines the content of international cooperation agreements, manages related negotiations, and prepares the annual report on ASI's international relations and cooperation activities for submission to COMINT. It also promotes studies and research on international space policy, collaborating with leading research centres and academic institutions in Europe and beyond.

Furthermore, the Directorate supports the internationalisation of the Italian space sector, promoting opportunities for national industry in foreign markets and coordinating, together with other national authorities, the participation of the Italian Space System in major international space initiatives and missions.

ITALIAN PRESIDENCY OF THE IAF

Seventy-four years after the founding of the International Astronautical Federation (IAF), an Italian, Dr Gabriella Arrigo, Director of International Affairs at the Italian Space Agency (ASI), was elected President of the Federation for the next three years during the IAC 2025 in Sydney. The motto chosen by the new President, "Back to the origins to discover the future", evokes the Federation's history and original mission. The agenda for the next three years promises to be intense and packed with commitments; among the priorities of her term is the reaffirmation of the IAF's statutory nature, which is not that of an intergovernmental organisation with rigid procedures and governance, but rather that of an international association. This character, based on flexibility and inclusivity, allows the Federation to interact and collaborate in contexts where intergovernmental organisations cannot operate.

Esa Ministerial Council, Bremen, 26-27 november 2025

MULTILATERAL PARTICIPATION

- G20 Space Economy Leaders Meeting (SELM, 6th edition), Space as a Catalyst for Inclusive Global Economic Development: Policy, Partnership, and Prosperity (South Africa)
- Artemis Accords: workshop (Abu Dhabi) and the Principals Meeting (Sydney)
- International Space Forum 2025 (Manila) – The Southeast Asian Chapter
- Organisation for Economic Co-operation and Development (OECD): Space Forum
- UN-COPUOS sessions: February - STCS, April - LSC and June 2025 (Vienna)
- International Astronautical Congress 2025 (Sydney)

Prof. Teodoro Valente, President of ASI, will serve as Chair of COPUOS for the years 2026–2027

+50 EU/EUROPEAN MEETINGS

- Relations with 18 European countries (Denmark, Estonia, France, Finland, Germany, Greece, Lithuania, Malta, Norway, Poland, the United Kingdom, the Czech Republic, Romania, Slovakia, Slovenia, Sweden, Switzerland, Spain)
- 50 memoranda (MAECI, PCM, Delegated Authority)
- Memorandum of Understanding signed between ASI and the Innovation Agency of Lithuania

+90 EXTRA-EU BILATERAL MEETINGS

- 6 agreements: Israel, United Arab Emirates (2), South Korea, Turkey, Bahrain
- G2G Space Dialogue: USA, India, Japan
- Relations with 8 extra-EU countries (Canada, South Korea, Gulf States, Latin American countries, Argentina, Egypt, Algeria, Turkey)

in 2025

20 BILATERAL MEETINGS WITH MATTEI PLAN COUNTRIES

- PoC meeting
- 4 ASI commitments and sponsorships (Africa and Middle East Space Conference, Morocco; New Space Africa Conference 2025, Cairo; ASI-EgSA Training Programme for African Member States, Egypt; Inauguration of the African Space Agency, Cairo)

INDUSTRIAL INTERNATIONALISATION

- **5** Missions (India, Japan, Incoming Singapore, Lithuania, Philippines, Czech Republic)
- **+10** Initiatives (Incoming LATAM delegation; Preparation of New ASEAN Project – Second Edition; Space Symposium Colorado Springs; 76th IAC – Sydney; OECD Space Forum; Workshop on ESA Calls for Proposals – EU Global Gateway for Africa; Online catalogue of space companies (282 registered companies); GdLASI – Industrial Associations for Internationalisation; Italian Industry Exhibition Tour at NSE for EC DG DEFIS; Meetings with domestic and foreign industries (IHI, Nanoavionics, etc.)

HUMAN RESOURCES

Human resources are undeniably the true asset of ASI: investing in them is part of a project focused on the well-being, motivation, and participation of individuals, sharing initiatives and information, fostering autonomy, creativity, and knowledge exchange.

To achieve this goals, the activity of the Human Resources Directorate is crucial, as it serves as a point of reference and coordination for every member of the Agency, thanks to its dual role of administration and personnel management on one hand, and reporting to the Directorate General on the other.

The enhancement of resources is achieved through the application of motivational levers based on merit and the incentive system.

Through continuous training, listening to needs and the assignment of tasks and responsibilities, challenging opportunities for professional fulfilment are provided, and career development is encouraged.

The decision to place people at the heart of the organisation also responds to the need to address the new challenges set by the National Recovery and Resilience Plan (PNRR), the space economy and digital transformation, in which human resources, with their high-level professional skills, play a key role. Furthermore, Law No. 89 of 13 June 2025, containing 'Provisions on the space economy' (Space Law), has assigned ASI new 'multidisciplinary' competences concerning space activities, including the relevant authorisation, sanctioning and verification regime.

ASI is effectively continuing its efforts to achieve the objective of expanding its workforce to nearly 600 staff by the end of 2026, to achieve a sufficient scale to cope with the strong growth the Agency is experiencing in terms of the number of activities and the consequent increase in the tasks and responsibilities required to fulfil its institutional mandate.

In 2025, a further 34 staff members were recruited, bringing the number of permanent employees to 466.

The proportion of human resources costs in relation to the overall budget is limited to 7.89%.

SECURITY, INFORMATION SYSTEMS AND DIGITALISATION

Changes in the geopolitical landscape also have significant impacts on the space ecosystem and, in particular, require attention and awareness regarding the security of related activities. Indeed, the dependence of every country's daily life on space infrastructure and applications can make space assets a primary target for adversaries, given their critical importance to society, industry and the economy.

In addition to the intrinsic value linked to the substantial investments required for implementation, commissioning and operational functioning, space systems provide public utility services that are necessary and indispensable for the functioning of critical national infrastructure.

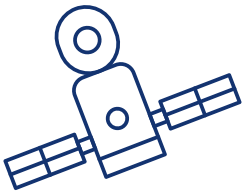
The substantial economic investments and significant strategic implications that characterise space projects – and which may be compromised or undermined by the actions of malicious actors – justify and warrant greater attention to security, in terms of defense against threats, towards greater resilience of infrastructure and information systems, and the implementation of effective recovery plans.

As stated in the Government's Guidelines on Space and Aerospace (2025), *"the current geopolitical landscape, marked by an intensification of risks and deliberate threats, necessitates the adoption of a structured approach to the development of the space sector. This entails the adoption of a security strategy that provides for the implementation of protective measures throughout the entire lifecycle of space programmes, paying particular attention to critical national assets and ensuring an adequate level of protection for know-how, through the safeguarding of classified and sensitive information developed by the national industrial and technological base, also with a view to strengthening the competitiveness of the national economy"*.

In this context, where the space sector is becoming increasingly interconnected, competitive and subject to rapidly evolving threats, security is not merely an ancillary element, but an essential prerequisite for the reliability, resilience and continuity of space activities: in this regard, the Agency has defined and adopted an effective and dedicated Strategic Security Plan (SSP) that includes security governance and a structured set of policies, procedures and processes for the missions, projects and processes of the Italian Space Agency, mindful of the cross-cutting nature of the space and cyber domains.

To address these new challenges, the Agency has:

1. established the Cyber Security Operations Centre (C-SOC);
2. approved the design and establishment of a laboratory dedicated to space cybersecurity activities (Space Cyber Security Lab – SCSL);
3. entered into agreements with the relevant national institutions (PCM-DIS, ACN, CNAIPIC);
4. commenced the development of a secure private cloud for data management for Space Traffic Management (STM);
5. carried out awareness-raising activities on security and cybersecurity.



INSTITUTIONAL COMMUNICATIONS AND EXTERNAL RELATIONS

INSTITUTIONAL COMMUNICATION

New media, new formats, new target audiences: these are the key trends that have shaped the Italian Space Agency's strengthened communication strategy, with the aim of boosting its profile and visibility as a champion of the international value of Italian space technology. This is borne out by the second edition of an annual survey, which revealed an increase, compared with 2024, in the awareness ratings of ASI and some of its communication tools. Among the new initiatives promoted in 2025: the institutional advert produced in collaboration with the Department for Information and Publishing of the Prime Minister's Office, the educational video series "Lo Spazio in Tasca" available on ASITV, and the creation of the ASI mascot.

ASI IN INTERNATIONAL EVENTS AND EXHIBITIONS

Through its stands and communication and outreach activities, ASI has amplified its international reputation by participating in the following important sector trade fairs, and with a special focus on certain countries involved in the Mattei Plan for Africa: 17th European Space Conference (Brussels, Belgium), New Space Africa Conference (Cairo, Egypt), 3rd Space Meetings Veneto (Venice), 55th Salon International de l'Aéronautique et de l'Espace (Le Bourget, Paris), 76th International Astronautical Congress, IAC 2025 (Sydney, Australia), Dubai Airshow (Dubai, UAE) and New Space Economy (Rome).

July 8, *Stelle d'Estate* - ASI celebrates 50 years of the European Space Agency

November 19 - ESA astronaut Luca Parmitano takes centre stage at the event "Lunar Exploration and the New Frontiers of Space"

ASI designed and organised an iconic event to mark ESA's 50th anniversary in Italy. It also co-organised the GEO Global Forum 2025 (Rome), the most important annual event of the Group on Earth Observations, which featured a large exhibition area and numerous side events for the approximately 600 participants, including scientists, decision-makers and delegates from around the world.

The exhibit created in the Italian Pavilion at Expo Osaka 2025 made a huge impact: an interactive multimedia installation that reproduced a detailed 3D projection of the COSMO-Skymed, PRISMA and MPH models in a virtual environment. Institutional Communications also set up an expanded version of the "Mediterranea" exhibition at ASI.

EDUCATION AND OUTREACH

Numerous public engagement initiatives were organised at the Agency's Rome headquarters, including:

- the European Researchers' Night;
- Open House Rome;
- guided tours for individuals and school groups at the Italian Space Agency centers;
- activities to celebrate National Space Day 2025;
- the "Spazio Cinema" cinematographic review of space-themed films.

Among the many educational and outreach activities, in line with the Sustainable Development Goals (SDGs) of the UN 2030 Agenda, are: the creation of the first ASI mascot, following a call aimed at the public and schools, with the purpose of gathering ideas for the design of the first ASI mascot; the 'Uno Spazio di Classe' project, that, through lessons, conferences, meetings and webinars for pupils and teachers, explored the space sector and engaged the younger generation by introducing them to science, technology, engineering and mathematics (STEM) subjects.

MEDIA RELATIONS

Media relations activities at national and international level have strengthened ties with the media, institutions, industrial partners and space agencies. Communication activities for the LuGRE and COSMO-SkyMed SG FM3 missions were managed, media relations were coordinated within the framework of the GEO Global Forum 2025, and new editorial partnerships were established to enhance the dissemination of the Agency's activities. In the field of institutional communication, ASI's profile has been raised through the management of media relations, the coordination of interviews, the drafting of press releases and the monitoring of media coverage of the Agency's main initiatives.

COMMUNICATION

ASI's communications activities have expanded its reach among both the general public and specialist audiences, thanks to the production of videos, the magazine 'Spazio 2050', reports, podcasts, and publications produced in-house or in collaboration with specialist publishers.

News, information and space-related updates have been disseminated via the Agency's official website, the online publication 'Global Science', and the Agency's web TV channel. Another newborn product in 2025 was ASI's WhatsApp channel, which now already reaches over 61,000 subscribers.

December 16 - *National Space Day*

In total, the Agency's websites (asi.it, globalscience.it, asitv.it) recorded almost 30,000,000 page views, whilst the number of followers on social media channels has almost reached 500,000. The success of the ASI podcast series was confirmed during the year, with over 15,000 downloads.

SCAN THE QR CODE TO DISCOVER THE "ASI GALAXY"

13 marzo: *CESI Space - Milano*

31 marzo: *SITAEL - Bari*

22 luglio: *SITAEL - Pisa*

7 ottobre: *Thales Alenia Space Italia – Roma*

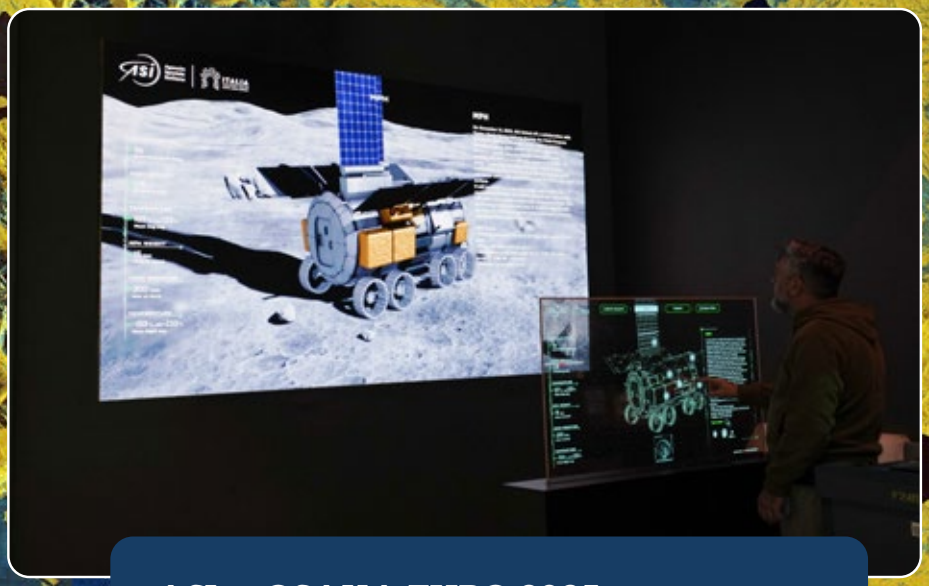
SPACE FACTORY

The Space Factory 4.0 programme, part of the National Recovery and Resilience Plan (PNRR) funded by the European Union and managed by the Italian Space Agency, involves the creation of a network of factories, linked to the production chain, dedicated to the manufacture of small satellites and spread across the whole country.

The unveiling of the Space Factory facilities began with the inauguration of the Argotec SpacePark on 18 October 2024 in Turin. This was followed in 2025 by the opening of the CESI Space division in Milan, dedicated to the production of innovative solar cells; Sitael inaugurated in March 2025 its plant in Mola di Bari and in July the one in Pisa. In October, the Thales Alenia Space Smart Space Factory was inaugurated in the presence of the President of the Republic, Sergio Mattarella.

GEO 2025

Organised by the European Commission and the Italian Space Agency, in collaboration with the Group on Earth Observations (GEO), the Forum, provided an opportunity to discuss the impact of geospatial technologies on climate change monitoring, the sustainable management of natural resources and the response to global crises. From 5 to 9 May 2025, Rome hosted what was the Group on Earth Observations' most important annual event. With around 600 participants, including Ministers, scientists, decision-makers and international delegates, the Forum took place across a vast exhibition area and featured numerous side events.



ASI @ OSAKA EXPO 2025

At Expo Osaka 2025, the Italian Space Agency (ASI) sought to showcase Italian excellence in the space sector within the Italian Pavilion. The aim was to create an immersive exhibit capable of engaging a diverse and international audience, translating the complexity of space research into an intuitive, exciting and accessible experience. The multimedia exhibit was inspired by the idea of a journey: a Digital Immersive Experience that crossed the present and future of Italian space research and technology, illustrating some of its most remarkable achievements in Earth Observation and space exploration for the benefit of humankind.

LUGRE

On 2 March 2025, the first successful private Moon landing took place, achieved by Firefly Aerospace's Blue Ghost lander carrying the ASI/NASA Lugre mission. Built for ASI by Qascom, with scientific support from the Polytechnic University of Turin, Lugre was the first and only satellite receiver designed to operate beyond Low Earth Orbit. During the two-month journey to the Moon, Lugre set a new record by acquiring the most distant GPS and Galileo signals ever recorded, at a distance of approximately 401,000 km from Earth. Following Blue Ghost's lunar landing, on 3 March 2025, Lugre acquired, for the first time from the lunar surface, navigation signals from four Earth-based satellites: two from GPS and two from Galileo. By transmitting its position data back to Earth, Lugre became the first active Italian instrument to operate successfully on the Moon.

THE ADVERT

Produced as part of the Government's institutional communication campaigns, the advert was broadcast from 9 to 16 December 2025 on RAI television and radio channels. The ASI institutional advert "Ah-sì" aimed to explain to the public the value, role and impact of Italian space activities on everyday life. The campaign was launched with a clear objective: to demonstrate how Italian scientific research, technology and space programmes make a tangible contribution to security, sustainability, our understanding of the planet and to the improvement of everyone's quality of life.

LO SPAZIO IN TASCA

"Lo Sp azio in Tasca", the mini-series presented by Teodoro Valente, President of ASI, is dedicated to making the complexities of space easy to understand. Satellites, orbits, missions, everyday technologies and artificial intelligence: five episodes to discover just how much our present (and future) depends on space. Using simple, straightforward language, the mini-series takes the audience on a journey connecting orbits, satellites, missions and artificial intelligence, explaining how space exploration is now an integral part of our daily lives and highlighting the leading role played by Italy in this sector.

Agenzia Spaziale Italiana

Agenzia Spaziale Italiana

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