

BREVE DESCRIZIONE MISSIONI SUPPORTATE IN NAZIONALE

1	BISS	The BISS mission will provide a Sat-IoT service, competitive in the international framework and with global coverage (LPGAN), for both monitoring of national critical infrastructures and global commercial services. Moreover, the service will be compatible with both terrestrial and satellite networks.
3	SATURN	The main objective of the SATURN mission is to demonstrate the key technology "Cooperative Multiple-Input-Multiple-Output (MIMO) Swarms of SAR CubeSats" for innovative, low cost and versatile Earth Observation capabilities.
5	EARTHNEXT	Innovative platform, specifically conceived and designed to operate in Very Low Earth Orbit (VLEO). The core enabling technology of the mission is the integration of: an electric propulsion system, that guarantees the total impulse necessary to maintain the orbit, and a multispectral imaging payload for Earth Observation. To minimize transmitted data, artificial intelligence processing capability is hosted on-board with reprogramming functions.
6	CUSP	The CUbesat Solar Polarimeter (CUSP) project has the goal to measure the linear polarization of X rays during solar flares in order to improve the knowledge of physical phenomena responsible for the acceleration of particles originated from the Sun impacting the Earth.
7	FUTURE	The mission aims at flying a set of sensors on a single satellite in LEO, and use the data generated to feed different artificial intelligence algorithms to identify features on the Earth's surface and to elaborate orbital determination. In LEO, the orbital determination precision will be validated against the GNSS time position information available to the spacecraft.
8	PICO-IOT	The project objective is the demonstration of a concept of constellation for IoT data retrieval from a distributed network of ground stations. The constellation is conceived in such a way to be rapidly ed effectively deployed and, at the same time, to be in line with the regulation on the non-proliferation of space debris.
9	RODIO	RODiO is a cluster of four CubeSats flying in formation with PLATINO-1 (PLT-1) satellite. Each CubeSat embarks a receiving-only X-band SAR instrument able to collect bistatic echoes exploiting PLT-1 as an opportunity illuminator.
10	TASTE	The New concept Cubesat-in-Cubesat (CiC) mission, composed by a 9U orbiter and a 3U lander, aims to explore the Martian moon Deimos and to achieve several scientific goals, combining both global observations from a close orbit and direct analysis of the surface obtained by the lander.
11	SPEYE	SpEye is a two-satellite technology demonstration mission for the in-flight validation of critical technologies and techniques related to advance on-orbit inspection and formation-flying, applicable to future operational nanosatellites.
12	ANIME	ANIME will explore three near-Earth asteroids (NEAs) of huge interest in terms of both scientific return and planetary protection. With a foreseen launch in late 2026, and a trajectory designed to optimize the scientific return of the mission by encountering our targets during their passages through their orbital nodes, ANIME will fly-by the mentioned NEAs.
13	SEE	SEE deals with the investigation of Gamma and X-ray fluxes and UV solar emission to support studies in Sun-Earth interaction and Space Weather.
14	INNOVATOR	The mission foresees the launch of two CubeSats 6U, to be injected on the same orbit. The two CubeSat will be in touch via radio by the ISL-T measures, which will allow to carry out gravity and high altitude atmospheric profile measurements, to validate the ISL-T itself.

15	BOREALIS	BOREALIS is a scientific mission to evaluate the coupled effects of microgravity and radiation on microbial populations in biofilm and eventual solutions.
16	CHIPS	CHIPS will be the first cryogenic infrared space telescope on a CubeSat, enabling cutting-edge scientific investigations that have been traditionally restricted to larger and substantially more expensive missions.
17	RAMSESS	RAMSESS (RADIATION Measurement Sensor with Enhanced Sensibility for Space exploration) has the objective to in-orbit validate an innovative radiation detector, as well as mitigation techniques on payload and components in the interplanetary environment.
18	E.CUBE	The e.Cube mission aims at contributing to the advancement of technologies and methodologies for space debris mitigation and remediation. Its objectives are: to increase spacecraft autonomy in performing CAMs, to support space debris modelling with in-orbit collected data about non-trackable fragment objects, and to characterize the atmosphere for more accurate re-entry predictions, as well as the thermomechanical loads experienced.
19	SAILS	The project purpose is the development and (In-Orbit) demonstration of an innovative Spaceborne Autonomous Identification and Localization System (SAILS) for a single 12U CubeSat platform in LEO. A very compact instrument design based on the effective combination of Digital Beam Forming and On-board processing approaches will provide the capability of very accurate real-time tracking.
20	EXCITE	EXCITE will test a variety set of technologies covering a different domain of interests for future satellite platforms, on board chemical and electrical propulsion, management of heat flows in a limited volume, high performance COTS graphical processing unit on board computer and steerable microwave antennas.

BREVE DESCRIZIONE MISSIONI SUPPORTATE IN GSTP

1	VULCAIN	VULCAIN will validate a Formation Flying architecture for stereoscopic imaging of the Earth by embarking a specifically developed miniaturized IR imager and a VIS camera.
2	HENON	HENON will realize a quantum improvement in our capabilities to predict Space Weather, by proving that a revolutionary extension of the forecasting horizon can be enabled by the use of Distant Retrograde Orbit (DRO), which has never been explored before.
3	SROC	The SROC project has the objective to develop and to demonstrate in-orbit innovative technologies related to GNC (hardware and software), optical visualization systems, docking mechanisms and autonomous operations, also through AI algorithms.
4	M-ARGO	The M-ARGO mission has the objective to demonstrate the CubeSat ability to explore, for the first time worldwide, deep space objects by moving from an Earth orbit up to the rendez-vous with a Near Earth Object (NEO) and the characterization of its physical properties, with particular focus on in-situ resources.
5	LUMIO	The LUMIO mission aims at observing, quantify and characterize meteoroids impacts on the lunar far-side by detecting flashes due to impacts.

6	E-INSPECTOR	The E.INSPECTOR mission has the goal to gather images of a space debris at close distance in order to rebuild its dynamics and shape, and eventually use such information for the verification and validation of the guidance and relative navigation chain.
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