

BUSINESS INNOVATION SYMPOSIUM (E6)

New space individuals, projects, programs, or business units: innovation, entrepreneurship & investment at the microscopic level of analysis (1)

Author: Dr. Andrea Gini
D-Orbit SpA, The Netherlands

Mr. Davide Melone
ASI - Italian Space Agency, Italy

D-ORBIT: NEW SPACE SOLUTIONS FROM ITALY.

Abstract

Our research has as objective the analysis of an Italian space company, D-Orbit, characterized by a high degree of innovation. Furthermore, this company, is included in segment market where Italian companies are underactive.

D-Orbit is a satellite systems company providing commissioning and decommissioning solutions for spacecraft, launch vehicles, and next-generation satellites constellations. Founded in 2011, D-Orbit currently employs approximately 35 people. The firm is based in Milan, Italy with subsidiaries in Washington, DC, and Lisbon, Portugal.

Our business model revolves around products and services that are profitable, create value for the customer, and have a proven social benefit and a positive impact on the environment. To do so, we look for ways to streamline every phase of a satellite mission with components and services that simplify spacecraft design, increase reliability, improve the use of mission resources, reduce operational costs, and extend the revenue-generating phase of a space mission.

Our flagship products are D-Orbit Decommissioning Device (D3) and InOrbit NOW.

D3 is an independent, smart propulsive device specialized in decommissioning maneuvers. With a single propulsive maneuver, D3 is able to remove the hosting satellite from the operational orbit in a quick, direct, and controlled way at the end of the mission or in case of major malfunction.

D3 enables operators to extend a space mission by allowing full use of onboard propellant, while simplifying the complexity of decommissioning operations. It is fully compliant with international space debris regulations, and helps operators of constellations to cleanly remove satellites at the end of life, maintaining their orbits clean from uncontrolled satellites and reducing collision risk.

InOrbit NOW is a launch and deployment service designed to transport CubeSats to space and release them into precise, independent orbital slots thanks to ION, a CubeSat carrier operated by D-Orbit. ION packs a combination of 1U, 2U, 3U, 3U+, 6U, and 12U CubeSats in an environment designed to reduce vibrations and shock levels during launch. Once in space, ION operates as an independent spacecraft, releasing each CubeSat in its independent orbital slot with attitude, pointing, and impulse defined by the client.

InOrbit NOW enables everyone, including smaller operators, to start space missions quickly and in optimal operational conditions.

Our catalog includes add-on services like mission analysis and design, platform engineering, software development, acceptance testing, and transportation to provide additional support to clients without the necessary know-how.