

IAF SYMPOSIUM ON INTEGRATED APPLICATIONS (B5)
Satellite Commercial Applications (3)

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THE ITALIAN SPACE AGENCY SATELLITE DATA EXPLOITATION PROGRAMMES IN SUPPORT
OF THE DOWNSTREAM SECTOR

Abstract

Italy is one of the few countries in the world having a complete space industry production chain, comprising both upstream and downstream sectors. In particular, the Italian downstream sector is mainly composed by SMEs (80%) having mixed know-how on different space data exploitation. In this context, the Italian Space Agency, established the Downstream and Integrated Application Unit aiming at supporting and accelerating the economic growth and improving the scientific know-how of the Italian downstream companies. This is carried out through the following activities:

- **Encouraging** the use of Italian, European and partner institutions Space infrastructures
- **Promoting** the use of space-derived products and services among traditional market sectors
- **Addressing** needs from Industrial, Scientific and Public Administration sectors
- **Focusing** on specific thematic areas of interest for the Italian and European systems.

More in particular, ASI started several programmes supporting the development of new commercial products and services from space data. The **Multifrequency SAR Programme** is focused on the exploitation of new methodologies in using multi-frequency and/or multi-mission SAR data, encouraging the use of CosmoSkymed and L-band data. Similarly, the **PRISMA SCIENZA Programme** supported the development of novel services and products derived from hyperspectral data acquired by the PRISMA mission. These programmes supported operative and pre-operative projects implying the use of algorithms and solutions that have demonstrated to be effectively implemented. The proposed projects focused on different thematic areas (agriculture, urban areas, cryosphere, marine, air quality, etc.), and proposed the use of advanced technological solutions for data exploitation. Moreover, most of these projects have been proposed by teams consisting of both Academic and Industrial partners, and this simplified the technology transfer process. While the abovementioned programmes are focused on EO data, the **I4DP Innovation for Downstream Preparation programme**, support the demonstrative development of new technologies, products and services, using one or more types of space data (EO, SATNAV, SATCOM)

and encouraging the use of other edge technologies (A.I., Data analytics, IoT, etc.). I4DP articulates in three different topics based on the type of final users (Commercial, Scientific and Public Administration), and requires a strong involvement of final users. This programme is mainly addressed to SMEs but encourages the participation of startups and scaleups, and aim to promote the development of innovative services and products having high TRL.