

PRISMA Program

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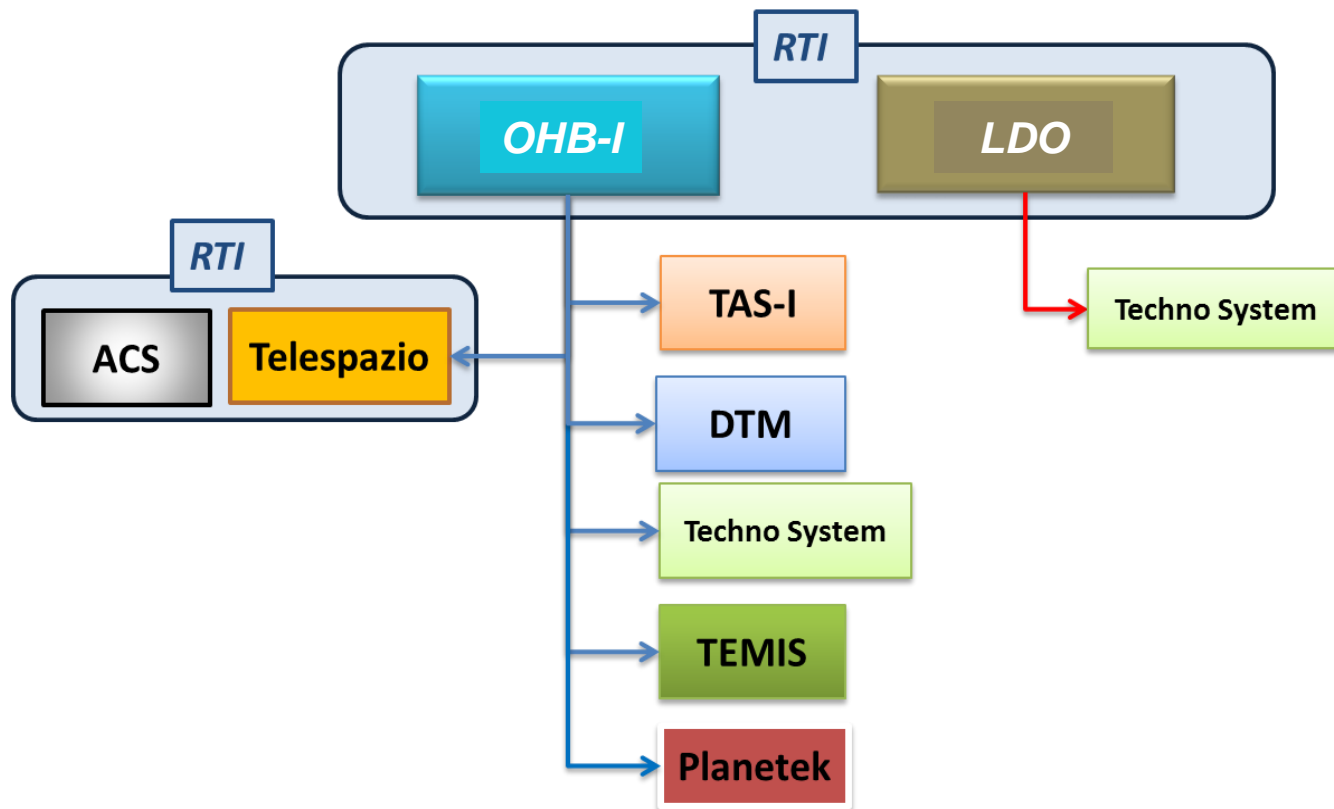
PRISMA = PRecursores IperSpettrale della Missione Applicativa

■ Mission Objectives:

- Pre-operational and technology demonstrator
- Focus on
 - Space qualification of PAN/HYP payload
 - Development and production of PAN/HYP products up to Level 2d

■ Program Highlights:

- National program
- B2/C/D/E1 contract fully funded by ASI (14 Agency's employees permanently involved)
- Mission includes a complete System, interacting with Target and Users
- Delta S-CDR on-going (but some Elements well beyond this maturity level)
- Launch in 2018 – launch services contract formalization with VEGA on-going → launch window opening on May 30, 2018



Primary Mission modes: User driven

Coverage: Worldwide

- ❑ Primary Area of interest (P-Aol)
 - Longitude: 180°W ÷ 180°E
 - Latitude: 70°S ÷ 70°N

System Capacity:

- ❑ Swath: 30 km, GSD: 30 m HYP, 5 m PAN
- ❑ Acquired data volume:
 - Daily > 200.000 km² on 15/15 orbits/day
- ❑ Daily products generation:
 - Capacity to daily process 200 hyperspectral scenes (30 km x 30 km) up to level 2d

System Latencies (inside Aol):

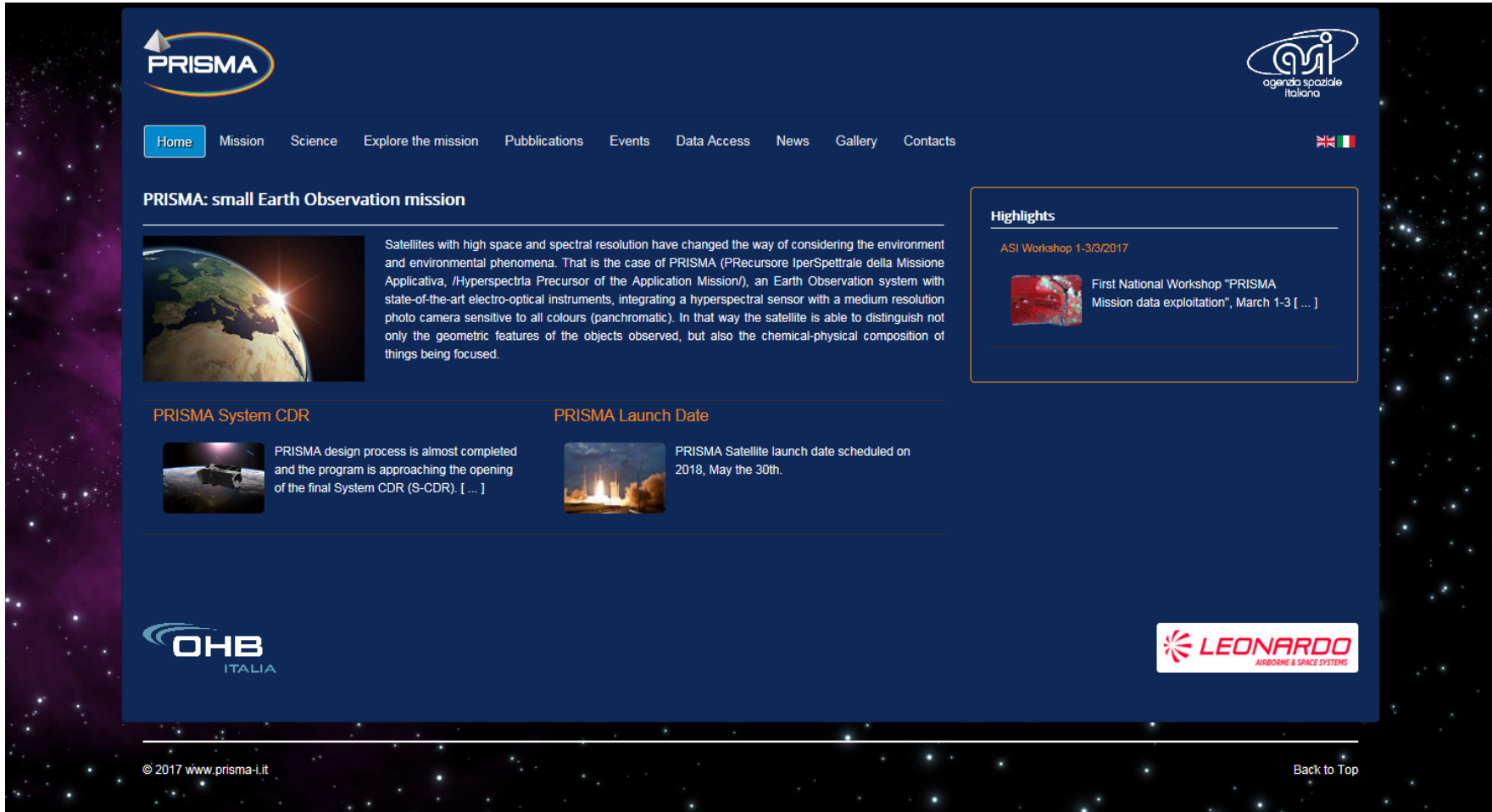
- ❑ Re-look time: < 7 days
- ❑ Response time: < 14 days
 - Data Acquisition Latency: < 9,5 d
 - Data Processing Latency to level 2d < 4.5 days

Orbit and lifetime:

- ❑ LEO SSO, 620km, 10.30 LTDN
- ❑ 5 years lifetime

System elements:

- ❑ 1 Satellite
 - Platform
 - Push-broom Pan/Hyp Payload,
 - PDHT
- ❑ Ground Segment
 - MCC/SCC: Fucino
 - IDHS (Image Data Handling Segment): Matera
 - IDHS - Image Data Handling Segment including:
 - Centro Nazionale Multimissione (CNM)
 - L0/L1/L2 Processing
 - Hyper-spectral Image Simulator (HSIS)
- ❑ Launch Segment
 - VEGA



The screenshot shows the PRISMA website interface. At the top left is the ASI logo and the PRISMA logo. A navigation menu includes Home, Mission, Science, Explore the mission, Publications, Events, Data Access, News, Gallery, and Contacts. The main content area features a section titled "PRISMA: small Earth Observation mission" with a description of the satellite's capabilities and a "Highlights" box listing an ASI Workshop. Below this are sections for "PRISMA System CDR" and "PRISMA Launch Date". The footer contains the OHB ITALIA and LEONARDO logos, along with copyright information and a "Back to Top" link.

PRISMA
agenzia spaziale italiana

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PRISMA: small Earth Observation mission

Satellites with high space and spectral resolution have changed the way of considering the environment and environmental phenomena. That is the case of PRISMA (PRecursores IperSpettrale della Missione Applicativa, /Hyperspectria Precursor of the Application Mission/), an Earth Observation system with state-of-the-art electro-optical instruments, integrating a hyperspectral sensor with a medium resolution photo camera sensitive to all colours (panchromatic). In that way the satellite is able to distinguish not only the geometric features of the objects observed, but also the chemical-physical composition of things being focused.

PRISMA System CDR
PRISMA design process is almost completed and the program is approaching the opening of the final System CDR (S-CDR). [...]

PRISMA Launch Date
PRISMA Satellite launch date scheduled on 2018, May the 30th.

Highlights
ASI Workshop 1-3/3/2017
First National Workshop "PRISMA Mission data exploitation", March 1-3 [...]

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Program: PRISMA
Event: -
Topic: PRISMA Program
Date: Rome, 1, 2 & 3 March 2017