PRISMA Program

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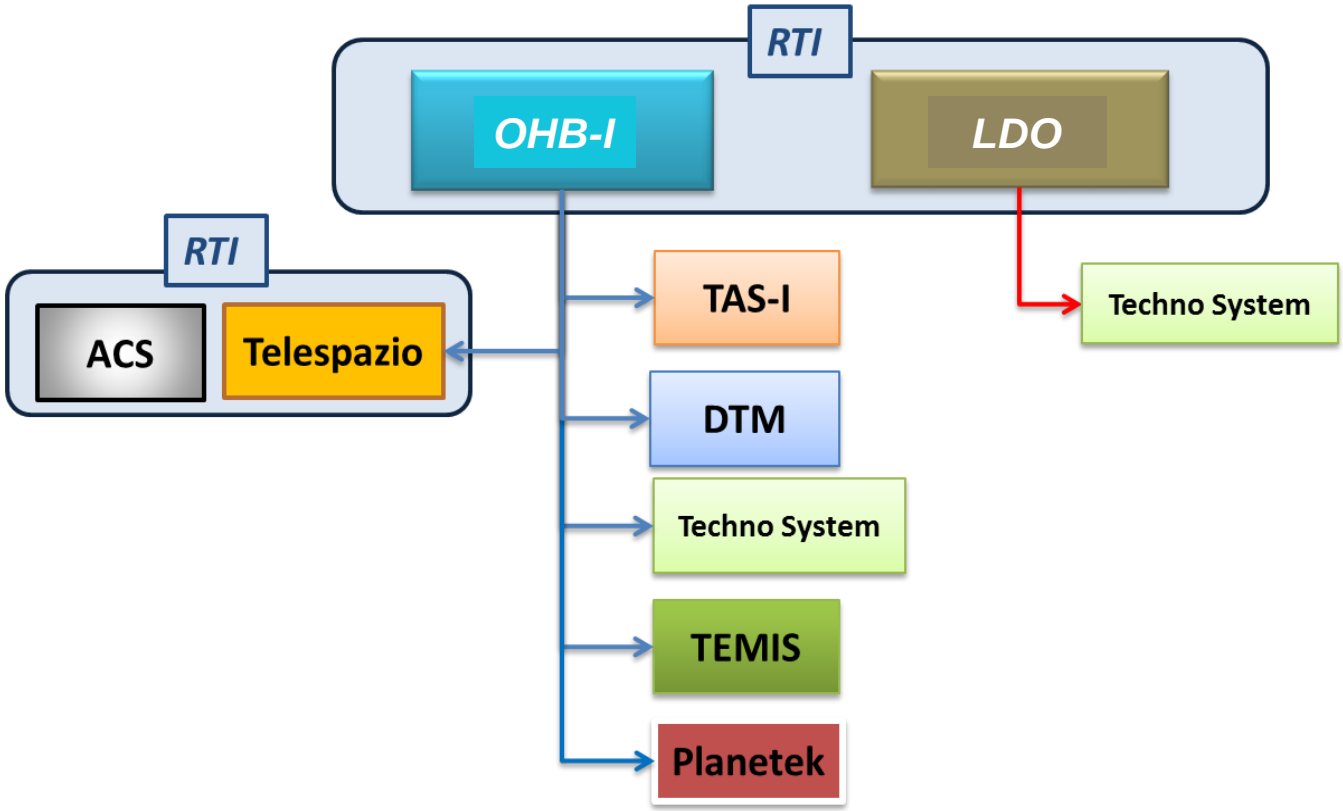
Programme overview

PRISMA = PRecursore 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

Industrial Organization



Mission highlights

Primary Mission modes: User driven

Coverage: Worldwide

- Primary Area of interest (P-AoI)
  - 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 km^2 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 AoI):

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

System Architecture at a glance

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

PRISMA web site: www.prisma-i.it