

PRISMA Mission Data Exploitation

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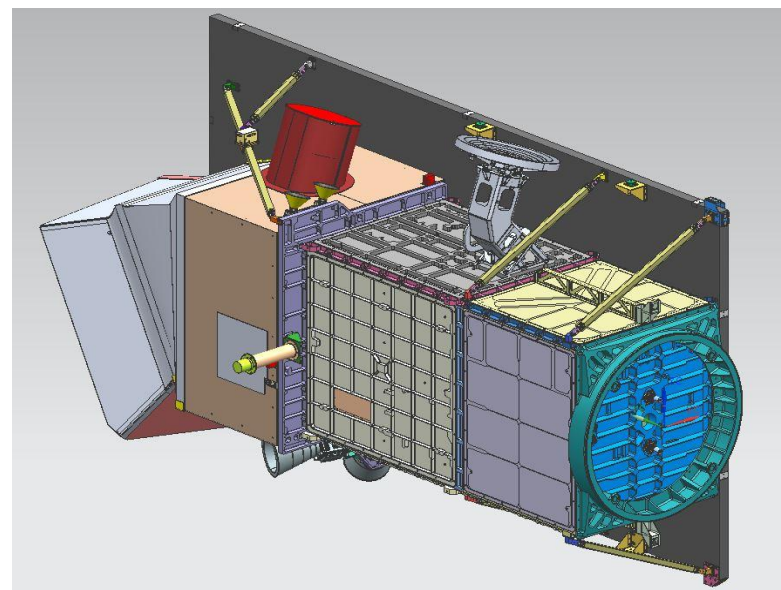
PRISMA (PRecursore IperSpettrale della Missione Applicativa
National program fully funded by Italian Space Agency (ASI) including

- Phase B2 - Preliminary Definition (completed)
- **Phase C – Detailed Definition (now in progress)**
- Phase D – Production/Ground Qualification testing and on-ground calibration
- Phase E1 – Flight Qualification / Commissioning and Pre-operative phase

Launch scheduled in 2018 (VE GA launcher)



- ❑ In orbit demonstration and qualification of an Italian state-of-the-art hyperspectral imager
- ❑ Implementation of a pre-operative mission
- ❑ Validation of end-to-end data processing to be able to develop new application.



The aim is the **optimal** use of the Mission on-board and on ground resources for the exploitation of the PRISMA hyperspectral data and value added information, to support:

- The improvement of the remote sensing applications
- The improvement of the understanding of the Earth System
- The good Social and Economic Return for the mission investments
- The International and Strategic visibility for the Italian Community (industry and researchers)
- The improvement of the know how in the hyperspectral remote sensing

and the lesson learning for future missions.





**Data
Exploitation**



Institutional EO services

- Data Access Support
- Mission Exploitation Platform (MEP)
- Innovative Products
- Technological Transfer
- Service development
- ...

Commercial Activities

- EO Business
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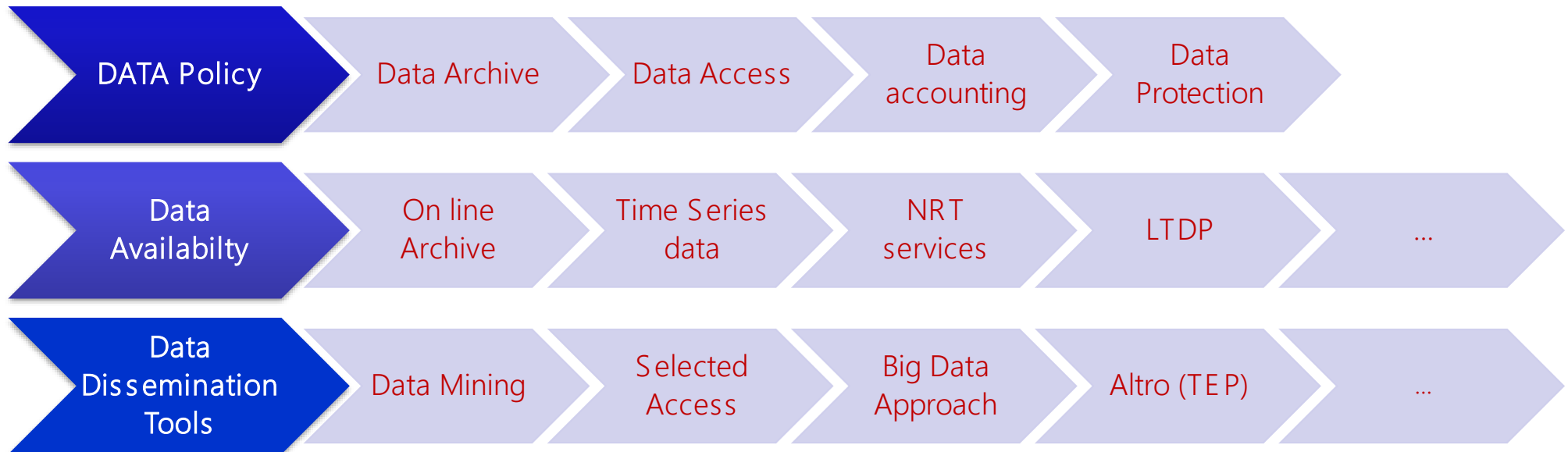
□ Research

- Support the mission (CAL/VAL, Processing,...)
- Innovative Algorithms and Products development
- Re-use and improvement of the existing know how (also planetary remote sensing expertise)
- Library, Tools and Data Base development
- New applications investigation

□ Training & Education

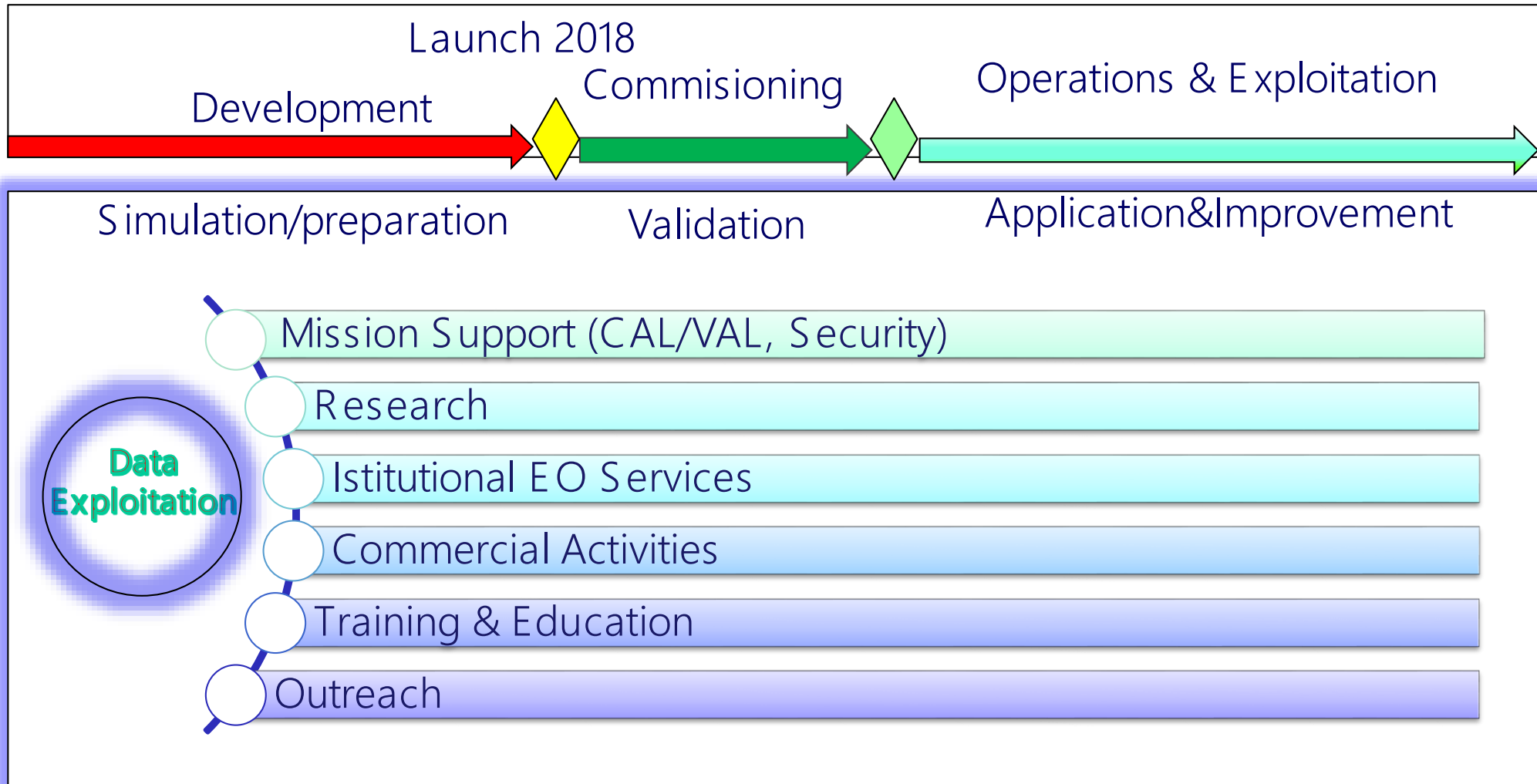
- Know How dissemination
- New experts (Post Doctoral opportunity, Summer School, etc..)
- Mission visibility at national and international level (International cooperation for student and young researcher)

The Data Exploitation Principles impacts the acquisition, processing, archiving and dissemination of mission data and products.





Data Exploitation Timeline



To support:

- High quality mission data distribution
- Innovative science Research&Developments
- New products and Services pre-development for institutional and commercial activities
- Mission High Level Operation Plan definition
- Synergy with others missions (FLEX, SHALOM)

Opportunities for:

- Science (AO...)
- Data Management Tools new development (User Access, Processing, Archiving,..)
- PMIs involvement
- Simulated Data Availability
- Young Researcher and Students (Fellowship, Post Doc, International cooperation, ...)
- Preparatory pre-lunch campaigns
 - airborne data acquisitions and mining (for algorithms)
 - extensive in situ measurements (CAL/VAL)