# WICSIS 2024 - PRISMA 2nd Generation

PRISMA Second Generation is the future Hyperspectral Italian Mission.

- Entirely Funded by the Italian Space Agency
- High-performance satellite ensuring Hyperspectral data continuity currently available from the PRISMA mission and providing enhanced performances with respect to PLT4

- SWATH and SNR: on demand techniques of SWATH enlargement and SNR enhancement on a single pass using the platform agility.
- Revisit time (72 h with a maximum off-nadir angle of ± 30° )

- Acquisition modes: **STRIPMAP** and **SPOTLIGHT**.
  - STRIPMAP image: VNIR/SWIR GSD ≤ 30 m and PAN GSD ≤5 m, swath ≥30 km and indefinite length with a Daily STRIPMAP Imaging Capacity (acquire, downlink and archive) more than 1.000.000 km2.
  - SPOTLIGHT image (on-demand): VNIR/SWIR GSD ≤10 m and PAN GSD ≤5 m, swath ≥30 km and length up to 210 km with a Daily SPOTLIGHT Imaging Capacity (acquire, downlink and archive) more than 100.000 km2.

# WICSIS 2024 - PRISMA 2nd Generation

Agenzia Spaziale Italiana

PRISMA Second Generation is the future Hyperspectral Italian Mission.

- Long lead items for payload already in procurement
- The payload will be based on one telescope and two spectrometers with separated PAN cameras
- The design will exploit the compact hyperspectral payload of IRIDE
  - The mission will support the operations of the IRIDE hyperspectral constellation
  - The mission will cover the needs of high SNR and lower spatial resolution
    - No similar mission in the hyperspectral panorama
  - Foreground mission – Italy and Europe hyperspectral mapping with GSD<10 m
  - On demand mission giving several options for users varying: GMC, binning, orientation
  - Background mission to image worldwide targets
  - Smart mission: on board computation of cloudy pixels to improve the quality of images to be downloaded

- Long negotiation phase, contracts for phases B/C/D/E1 are starting
- Launch date: end of 2029