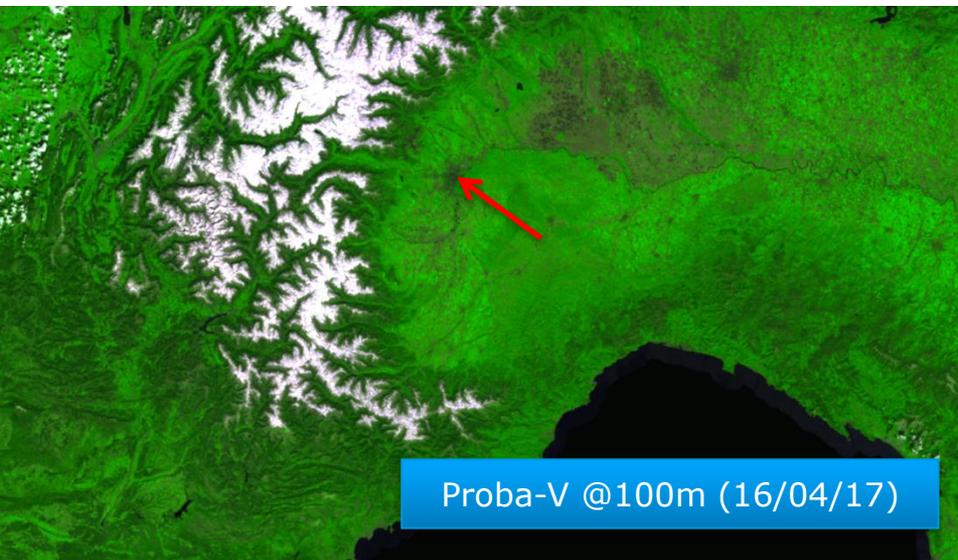**Proba-V QWG#5
Introduction and Logistics**
Fabrizio Niro

Proba-V QWG#5: Welcome

Where we are? Few words about Turin

- First Italian capital, known for cars industry, football, chocolate, wine, mountains …
- Formerly heavily industrialized, lately more IT, despite rigorous street map, dynamic, innovative, animated though understated

S-3 OLCI @300m (20/04/17)

Proba-V @100m (16/04/17)

S-2 MSI @10m (20/04/17)

Proba-V QWG#5: Mission Status (in short)

Where we are? "Mission-wise"

- During May 2017 Proba-V celebrated its **4th anniversary** in-orbit (congrats!!) and the mission will continue to (at least) end of Oct **2019**

- Flight and Ground Segment operations are running very **smoothly** with no major anomalies and no signs of degradation

- Mission **objectives** are met and sensor's performances are exceeding the requirements set in the MRD both for radiometry and geometry

- Reprocessing to **Collection 1** was completed yielding to more consistent radiometry and improved cloud screening

- The Proba-V **MEP** is the first of its kind pushing the Ground Segment concept toward the paradigm shift: "bringing users closer to the data"

- ESA/Copernicus suite of optical sensors is reaching its full potential with S-2A+B and S-3 A (soon B), Proba-V is part of this family: bridging the **gap** to S-3 (for land), filling the interesting niche of **100m**, allowing to densify S-2 time series

European Space Agency

Proba-V QWG#5: Input for Meeting's discussion

How we move forward? Where we focus our attention?

- "Non-conventional" calibration manoeuvre (**yaw**) has proven beneficial for further characterizing detectors pixel responsivity with potential improvements in L1 data quality

- **Extension** of acquisition to "new" land areas is of extreme interest for novel applications as demonstrated by snow cover mapping at high latitude during Boreal winter

- The "paradigm shift" of the **MEP** has only started and full exploitation of its capabilities has yet to come both for science applications and for Cal/Val

- Some algorithmic specifications, mostly inherited from SPOT-VGT legacy, need to be reviewed with the goal to further improving data quality and meeting end-users expectations and requirements: e.g., **A/C, BRDF, uncertainty** at pixel

- Increasing priority is being placed to **Continuity** with the goal of consolidating a potential long-term data record of land products starting from SPOT-VGT series (1998) and reaching S-3, Proba-V is "by definition" crucial for ensuring smooth transition

Proba-V QWG#5: Topics and Agenda (1/2)

Why we are here? Issues to discuss today and tomorrow

- **Mission status:** Proba-V, S-2 and S-3 mission status will be outlined by the relevant mission managers to provide the full picture of the current (outstanding!) ESA/Copernicus EO measurement capacity in the optical domain

- **Flight and Ground Segment status:** Flight and Ground Segment status will be reviewed with focus on mission extension, potential new manoeuvre (yaw + roll) to better characterize edge cameras and user-proposed Antarctica acquisition

- **PDGS/MEP Status**: Review of PDGS status, users statistics and data availability, reply to actions from previous meeting (e.g., increase ICP files frequency), current status of the MEP and planned evolution

- **Calibration**: Review of actual and long-term performances of radiometry and geometry with emphasis on improved calibration coefficients and benefits deriving from yaw manoeuvre data analysis

Proba-V QWG#5: Topics and Agenda (2/2)

Why we are here? Issues to discuss today and tomorrow

- **Consistency:** Latest results on Proba-V-SPOT-VGT consistency analysis after the latest reprocessing campaigns will be reported

- **Continuity:** Report on the status of Sentinel-3 SYN products with focus on the algorithm performances and early validation results

- **Feedback on data quality:** Report from key user (CGLS) on the current data quality status with focus on improvements brought by C1 dataset, Early validation results from PV-LAC project, Recommendations raised during Cloud Detection Round Robin

- **Algorithm Evolution:** Report on the various activities on-going for addressing the known limitations of the operational processor with focus on A/C, BRDF correction, uncertainty estimation, the session will be concluded with an agreed way forward for preparing/shaping the next algorithm baseline (for Collection 2 reprocessing)

Review of action Items (details in Excel Sheet)

- Most of the actions closed with **report** from VITO available on QWG document repository ("Proba-V QWG#4 answer to actions", VITO, 25/4/17), the content of the report will be presented during this meeting

- Few actions from remain open, results will be shown during this meeting:

  - CB to report on Snow CCI and SEOM activity dedicated to high latitude acquisition (in relation to extension to Antarctica)

  - ESTEC to assess impact of Antarctica acquisition and investigate feasibility (on a regular basis) of additional yaw+roll manoeuvre for better characterize edges camera

  - RL to present report on impact of increase SZA acquisition for biophysical parameters retrieval at CGLS with assessment on usability in orbit drifting scenario

Logistics

- Coffee Break (as per schedule) in the Hotel Hall

- Lunch Break (as per schedule) in the Hotel Hall

- Social Dinner at 20:30 in "Taverna dell'Oca" (few blocks away from the Hotel)

- Meeting point at 19:30 in the Hall to do a brief guided tour