



Task 3: Coordination Meeting

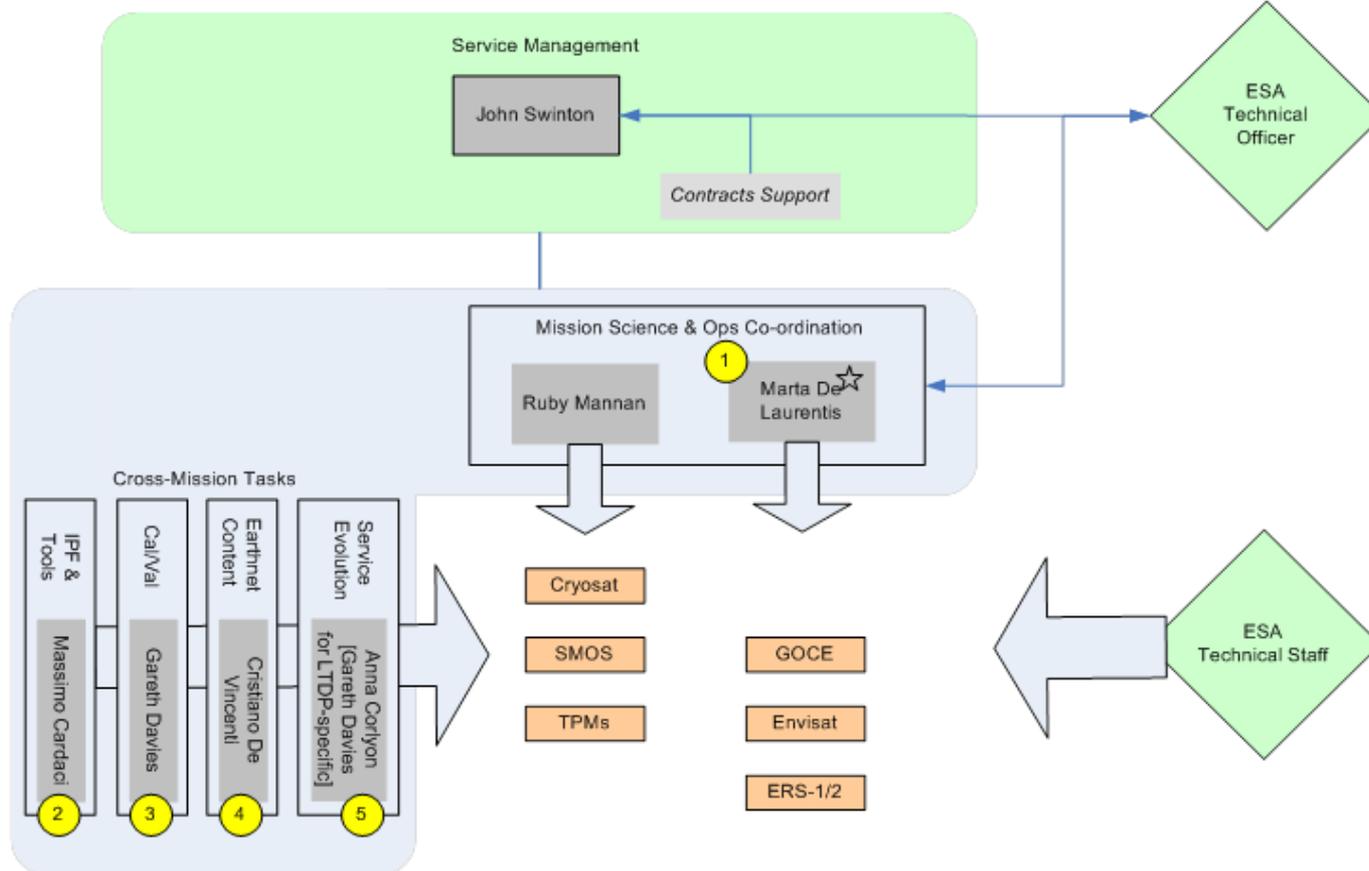
5 and 6 July 2016
ESRIN

Objectives



- Assess the status of Task 3 activities, this being the end of Phase 1, and consider the planning for Phase 2
- Continue discussions from previous meetings on the approaches to:
 - Calibration;
 - Level 1 processing;
 - Traceability;
 - Characterisation and Uncertainty estimates;
 - Ground based measurements.
- Continuing the familiarization with the Task 3 scope and activities, and extending this to the wider ESRIN community
- Look for and identify synergies between activities, and agree on actions to take advantage of the synergies
- Plan for a continuing series of Task 3 meetings throughout Phase 2

IDEAS+ structure



Key

n Task *n* (1/2/3/4/5) lead

☆ Deputy Service Manager

x Mission Responsibility

History and evolution of Task 3

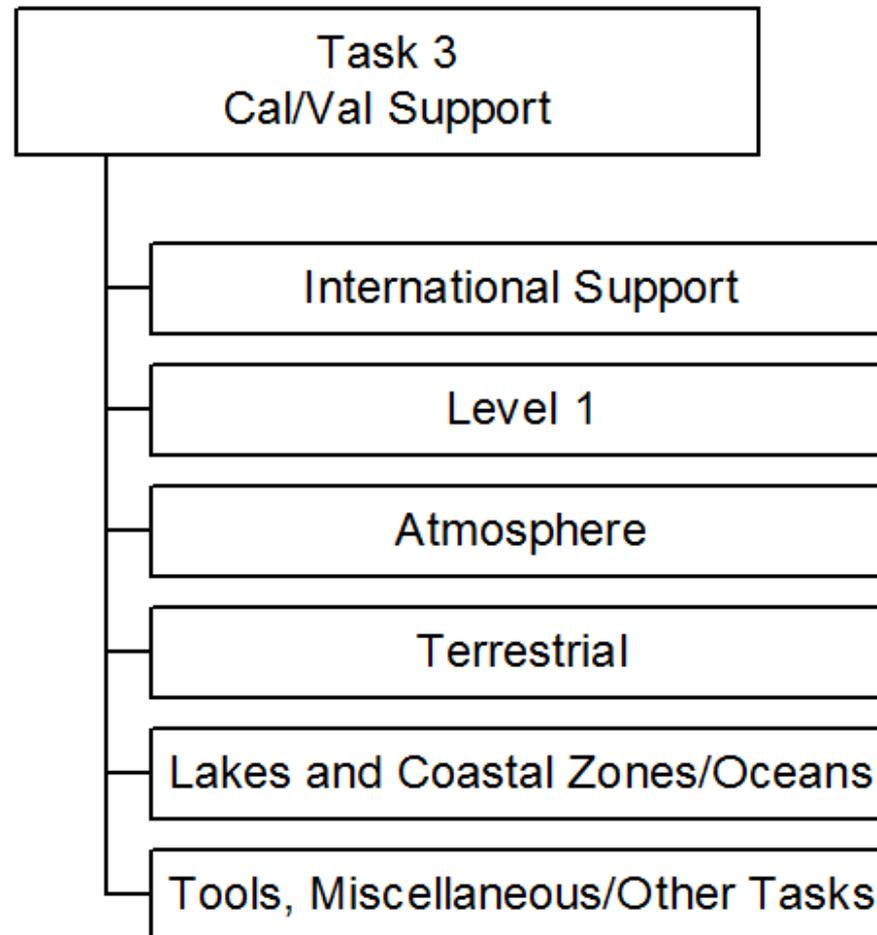


- This originally formed a small part of IDEAS+, but now includes many more activities and projects, linking into and supporting the overall ESA and SPPA cal/val programmes and the activities outside IDEAS+ (e.g. Pandonia, CAWA)
- Evolution of the activities continues in line with the changing needs of SPPA, and in particular with the start of Phase 2 offering an opportunity for a comprehensive review
- Results of the Task 3 projects are being added to the SPPA web portal:
 - <https://earth.esa.int/web/sppa/activities>

Task 3 structure



- The IDEAS+ cal/val programme grouped according to the following structure:



Overview of Task 3 projects



- Summary of the Phase 2 projects in each category, with *italic* showing those being presented at this meeting
- International Support
 - Cal/Val Portal & Database Support
 - Cal/Val Contracts Support
- Level 1
 - *Radiometric Uncertainty Tool (not continuing into Phase 2)*
 - *IMPETuS (Intercomparison of Multi sPECTral data over Test Sites)*
 - *Calibration and Data Quality Toolbox*
- Atmosphere
 - Support for Instruments
 - *H RTP Sensitivity on GOMOS*
 - *OMI Validation Support (including development of improved Pandora tracker)*
 - *Validation Expertise with Atmospheric Chemistry Background – included in supersite presentation*

Overview of Task 3 projects



- Atmosphere
 - *Ground-Based Instrument Calibration – A Pulsed Tuneable Laser System for the Characterisation of Spectrometers (ATLAS)*
 - *Maintenance for ground-based validation instruments calibration laboratory*
 - *Aerosol Remote Sensing – ISTINA*
 - Validation support OMI/MODIS/VIIRS
- Terrestrial
 - *Landsat Sentinel-2 Validation Support*
 - *Proba-V Support*
 - Inter-comparison of Clouds Detection Algorithms for Proba-V
 - *Calibration and Validation of Sentinel-2 and the Landsat 8 Time Series Data for Forest Monitoring*
 - *Landsat 8 Sentinel 2 Fusion (close-out early in Phase 2)*
 - *Landsat 8 validation - MBASSS (continuing to end-2016)*

Overview of Task 3 projects



- Lakes and Coastal Zones / Oceans – not covered in this meeting
 - Bright Pixel Atmospheric Correction
 - Validation MERIS and TPM (close-out early in Phase 2, then continues as a routine Task 1 activity)
 - MERIS support for 4th reprocessing
 - Multi-Platform validations of altimetry for monitoring the variability of coastal fronts
- Tools, Miscellaneous / Other Tasks
 - BEAM, Merci, MERIS/ATSR land/sea mask and Proba-V reader (most activities closed-out in Phase 1)

Previous Task 3 meetings



- Original Level 1 meeting held in June 2013, with objectives to:
 - Integrate the latest findings on level-1 into the upcoming reprocessing campaigns of ERS1/ERS-2/Envisat.
 - Support:
 - Scientific Research
 - The EO Applications and Exploitation community
 - ESA programmes, in particular CCI, SEOM and LTDP
 - Prepare for the Sentinels operations phase (and lessons learned for the future missions)

Previous Task 3 meetings



- Objectives of the Task 3 coordination meeting in March 2015 and the Level 1 meeting in December 2015:
 - Familiarization of with the activities and scope of Task 3 in IDEAS+
 - Look for and identify synergies between activities, and agree on actions to take advantage of the synergies
 - Discuss and review approaches to:
 - Calibration;
 - Level 1 processing;
 - Traceability;
 - Characterisation and Uncertainty estimates
 - Plan for a continuing series of Level 1 and Task 3 meetings

Outcomes of previous Task 3 meetings



- Significant outcomes of the meetings:
 - Recognition of the importance of these underpinning science activities to the quality of ESA's datasets
 - Inputs to SPPA's future planning of cal/val activities, especially for Phase 2
 - Reinforcement of the need for a long-term view for cal/val activities
 - Recognition of the importance of ground-based measurements
 - Identification of complementary activities and projects (e.g. in and outside SPPA, in the international community)
 - Revision of detailed activity planning
 - Opening up communications between ESA's different cal/val communities

Agenda



- Introduction:
 - Introduction and welcome – Philippe Goryl (ESA)
 - Objectives – Angelika Dehn (ESA) and Gareth Davies (Serco)
 - Major points arising from previous Task 3 meetings in March and December 2015 – Gareth Davies
 - Overview of IDEAS+ Task 3 activities and changes for Phase 2 – Gareth Davies
- L1 activities:
 - Radiometric Uncertainty Tool – Javier Gorrondo (NPL)
 - IMPETuS (Intercomparison of Multi sPECTral data over Test Sites) – Alessandro Burini (Rhea)
 - Calibration and Data Quality Toolbox – Steve Mackin (EOSense)
- Terrestrial (part 1):
 - ACIX – Georgia Doxani (Serco)
 - Proba-V cloud contest – Fabrizio Niro (Serco)
- Atmosphere and ground-based measurements:
 - H RTP Sensitivity on GOMOS – Rosario Quirino Iannone (Serco)
 - OMI validation and Pandoras (including tracker) – Alexander Cede (Luftblick)
 - First results from the supersite instruments – Stefano Casadio (Serco)
- Evening meal in Frascati

Agenda



- Atmosphere and ground-based measurements (continued):
 - Ground-Based Instrument Calibration – A Pulsed Tuneable Laser System for the Characterisation of Spectrometers (ATLAS) – Julian Groebner (PMOD-WRC)
 - Maintenance for ground-based validation instruments calibration laboratory – Philippe Goloub (Lille)
 - Preliminary testing of new approaches to retrieve aerosol properties from joint photometer-LIDAR inversion – Qiaoyun Hu (Lille)
 - Aerosol Remote Sensing – ISTINA – Oleg Dubovik and Benjamin Torres (Lille/GRASP)
 - CAWA – Oleg Dubovik (Lille)
- Terrestrial (part 2):
 - Calibration and Validation of Sentinel-2 and the Landsat 8 Time Series Data for Forest Monitoring – Martin Herold/Benjamin Brede (Wageningen)
 - Landsat 8 Sentinel 2 Fusion – Beatrice Berthelot/Germain Salgues (Magellium)
 - MBASSS – Ray Soffer (NRC)
- Collaboration/synergies/future planning
- Discussion of major points and recommendations
- Summary of actions
- Scope and date of next meeting