

# Sentinel-4 and Sentinel-5 Validation Preparation

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Acknowledgements: ESA Sentinel-4 and Sentinel-5 project teams,  
L2 consortia led by DLR and S&T, S-4/-5 Mission Advisory Group

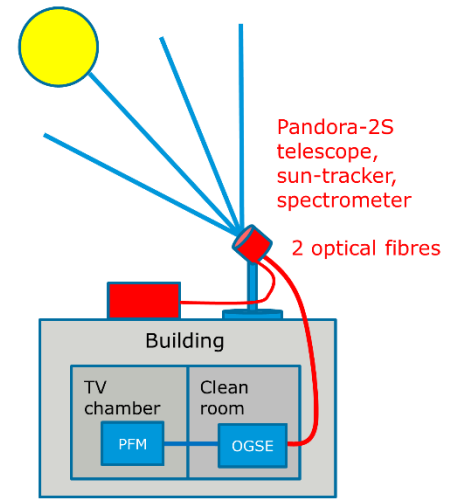
- Geo-AQ Constellation = GEMS + S4 + TEMPO + LEOs
- Set inter-mission consistency targets for Constellation Products
- Identifies activities
  - performed consistently for each mission
  - addressing new Geo-AQ challenges
  - establish and monitor inter-mission consistency
- Recommendations

→ GEMS Validation Announcement of Opportunity released April 2020

→ Joint Sentinel-4/-5 Calibration Validation Plan (current draft)

# Ground-based Sky and Solar Occultation measurements with S4 and S5 PFM

- Under consideration
- After on-ground characterization and calibration
- Using front-end of Pandora
- Collocated TCCON and Pandora measurements



	Sky radiance (scattered solar)	Solar irradiance (occultation)
L1b	Evaluate fit residuals (UVN) to identify spectral features and verify ISRF	Evaluate fit residuals, compare NIR-SWIR with TCCON, to identify spectral features and verify ISRF
L2	Compare with Pandora to verify trace gas columns (UV-vis)	Compare with Pandora (UVN) and TCCON (NIR-SWIR) to verify trace gas columns (UV-vis-SWIR) and surface pressure (NIR)