

Aerospace/Space Engineer for UVNS Calibration and Operations Support

Description

We are looking for a highly qualified **Aerospace/Space Engineer** to support the development, implementation, validation and evolution of operational observational products for the upcoming Copernicus Sentinel-4 and Sentinel-5 missions at our customer **EUMETSAT**. The role of the **UVNS Calibration & Ops Support** is to ensure the quality and performance of pre- and in-flight calibration, Level 0 to Level 1 processing, commissioning and data analysis.

The successful candidate can be based in Spain, Italy, Germany, or The Netherlands and work remotely. Occasional travel within Germany, Europe, or worldwide may be required

Responsibilities

The scientific service will work closely with the **EUMETSAT Remote Sensing and Products Atmospheric Chemistry team** and contribute to the following activities:

Activity 1: Support to Pre-Flight Activities

- Evaluate existing **technical specifications and algorithms** for Sentinel-4, Sentinel-5, and potentially CO2/NO2I.
- Review and assess previous methodologies based on experience with **GOME, SCIAMACHY, OMI, and TROPOMI**.
- Support the review of **on-ground calibration analysis reports** and propose approaches for monitoring and correcting in-orbit degradation effects using **dynamic Calibration Key Data**.

Activity 2: Support to Level-1B Data Analysis During Commissioning

- Perform **Level-1B data analysis**, focusing on selected topics.
- Utilize **Level-2 processing and dedicated algorithms** to assess data quality.
- Provide feedback and recommendations on **residual calibration issues**.

Activity 3: Support to Level-1B Data Analysis During Routine Operations

- Propose improvements for **in-flight calibration analysis algorithms**.
- Collaborate with the **EUMETSAT technical team** on continuous data analysis.
- Support **validation and quality analysis** for reprocessing campaigns.

Qualifications

- Master's degree in Aerospace Engineering, Space Engineer or a relevant scientific or engineering discipline.
- Well-developed English communication skills, both written and spoken.
- Significant experience in the calibration of raw satellite instrument data from hyperspectral push-broom grating spectrometers operating in the ultraviolet,

Hiring organization

WGS Workgroup Solutions GmbH

Employment Type

Full-time, Part-time

Date posted

February 14, 2025

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visible, near, and short-wave infrared regions.

- **Knowledge of Ultra-violet, Visible, Near-infrared, and Shortwave-infrared (UVNS) parameters** is essential , particularly in the context of calibration, commissioning, and operations support
- Experience in radiometric calibration of visible grating spectrometer data, as well as experience with CCD and CMOS detectors, is considered a distinct advantage.
- Experience in on-ground and in-orbit calibration, as well as the operations of the TROPOMI instrument, is a distinct advantage.
- A broad range of skills associated with product science, hyperspectral UV/VIS/NIR/SWIR instrument on-ground and in-orbit calibrations, operational level-0 to level-1 processing, and scientific software development.
- Significant experience with hyperspectral UV/VIS/NIR/SWIR level-1 to level-2 processing algorithms and access to associated software tools.
- Excellent knowledge of scientific foundations and relevant algorithm state-of-the-art, as well as expertise in the full processing chain with an understanding of instrumental and modeling error sources.
- Good knowledge of the instruments and their capabilities for the requested algorithms/techniques, as well as dependencies between calibration and level-0 to level-1b data processing key parameters and algorithms/systems, both online and offline.
- Experience in the development of modular, clearly readable, and adaptable scientific software.
- Proficiency in Python and C++ coding languages.
- Knowledge in coding with portable languages (WORA/WOCA) for cross-platform compatibility is advantage
- Experience with software configuration management tools, with preference for GitLab for code delivery.

Contacts

Interested applicants should submit their CV and Cover Letter in Europass format, either through the website or by emailing the WGS recruitment team at **vacancies@workgroup-solutions.com** before **04.04.2025**.