CAMS2_82: Evaluation and Quality Control (EQC)

Description

CAMS provides daily analysis and forecasts, as well asreanalysis products. CAMS has a global service, implemented by ECMWF, and a regional air qualityservice implemented by the CAMS2_40 consortium. The CAMS2_82 ITT is asking for a detailed aposteriori evaluation of the global service components and products for the period 2021-2025.The contract below is the response to this tender. A consortium led by KNMI will implement a seriesof activities to meet all the requirements of the tender. The core deliverables are:

- Three-monthly validation reports for the CAMS daily production of real-time analyses andforecasts of global atmospheric composition;
- A series of validation reports for the global-scale reanalyses during production.

These re-analyses are providing consistent multi-annual global datasets of atmospheric composition with a stablemodel/assimilation system for the period 2003-present. Currently a re-analysis is produced close to real time. During the project a new re-analysis will be initiated, again starting in 2003.The CAMS2_82 activity involves the evaluation of a number of different model configurations. The global model has three different chemical schemes included and two aerosol schemes. Apart from analyses runs there are forecast-only products which will also be evaluated. Analyses and forecasts will be compared. New candidate system configurations are tested in parallel to the operationalsystem and will be evaluated by the CAMS2_82 consortium. All these products will be evaluated based on a large set of independent observations. Apart from the validation reports the CAMS2_82 teams will develop a newly introduced system forthe routine production of verification plots (WP CAMS2_8250), with a presentation of these plotsthrough a web interface. This new system will complement the operational validation server (WPCAMS2_8220) which will be maintained during the project duration. The measurement datasets andvalidation approaches will be documented in detail, and the consortium will further develop scoring methods. All these tasks will be implemented with a relatively large consortium of 12 partners.

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