



Reprocessing and Calibration of Satellite Data With FIDUCEO

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FIDUCEO (FIDelity and Uncertainty in Climate data records from Earth Observations) is a project within the EU Framework Programme for Research and Innovation. It will create new climate datasets from Earth observations with defensible uncertainty and stability information. By setting new standards of accuracy, FIDUCEO responds to the need for enhanced credibility for climate data and will support rigorous science, decision-making, and climate services.

The aims of this project are twofold. Methodologies and processes shall be created generating Fundamental and thematic Climate Data Records (CDRs) that are widely applicable and have well-defined error margins. The second objective is to make these data records easily accessible, with complete and traceable estimates of stability and uncertainty. New tools will be provided to this end, e.g. for re-gridding, averaging or sensor-to-sensor matches. The chosen FCDRs will cover a period of more than twenty years; i.e. long enough to make them relevant for studies of climate change. They will form the basis for the generation of the further processed CDRs. These products can be used for direct comparison with models of the Earth's atmosphere and will illustrate the particular benefits and capabilities of the new data records. The Meteorological Institute of the University of Hamburg will contribute here in particular to the generation of the microwave humidity sounder FCDRs and the highly processed geophysical datasets. CDR datasets on a higher level to be produced by FIDUCEO are sea and lake surface temperature, upper tropospheric humidity, aerosol optical depth, and surface albedo.

All data, software tools, and methods will be freely and openly accessible for general users.