

The ESA Climate Change Initiative (CCI)

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This talk will provide an overview of the ESA Earth Observation missions and programmes, with a particular focus on the ESA "Climate Change Initiative" (CCI). In particular, it will discuss the elements of the programme, the international context and scientific guidance, the specialized teams and their activities, from the processing of raw satellite data to their exploitation by climate data users. It will address some of the challenges and opportunities related to the generation of long-term consistent Climate Data Records of Essential Climate Variables (ECV), including quantification of errors, assessment of quality and value of climate data within model context, data stewardship and management, engagement of climate users, international cooperation and community building. The ongoing and planned ESA EO missions supporting the initiative will be discussed, with a particular focus on the ESA Research satellites (e.g. ENVISAT, ERS, Explorers) and "Global Monitoring for the Environment & Security" (GMES) satellites (e.g. Sentinels).