

## **The Copernicus Climate Change Service and the ECV programme**

The Copernicus Climate Change Service (C3S) is one of the six thematic services of the EU-funded Earth Observation programme Copernicus, overseen by the European Commission (EU). C3S is implemented by the European Centre for Medium-Range Weather Forecasts (ECMWF), and it has as objective providing authoritative climate information in support of the EU's climate adaptation and mitigation policies. C3S aligns with the objectives of the United Nations Framework Convention on Climate Change (UNFCCC) by supporting the implementation needs of the Global Climate Observing System (GCOS). This support is facilitated by ensuring timely access to a substantial number of quality-assured Climate Data Records (CDRs) of Essential Climate Variables (ECVs). C3S has already successfully implemented 22 thematic ECVs, spanning land, ocean, and atmosphere, derived from space-based Earth observations. Target requirements for most ECV products, including specifications related to uncertainty, stability, temporal and spatial resolution, are predominantly rooted in the GCOS Implementation Plans. Access to data and associated information products is provided through the C3S Climate Data Store (CDS). Other associated services include extensive user documentation, user support and user-oriented resources, including training materials. This presentation will offer an insightful overview of the ECV program within C3S.