

Topics (T)

Next Generation of Climate Services / Business Models and Cooperation for Missions, Data and Services
(7-8)

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COPERNICUS CLIMATE CHANGE SERVICE (C3S): FROM DATA TO ACTIONABLE CLIMATE INFORMATION

Abstract

The operational Copernicus Climate Change Service (C3S) delivers climate data and information designed to address the evolving needs of different community of users within diverse decision contexts. The service offers open and free access to data and information based on current and past climate data, on climate predictions and multi-decadal climate projections in a standardized way, through the Climate and Atmosphere Data Store infrastructure (CADS).

The CADS development platform allows the creation of web-based applications operating on the datasets and products available in the C3S catalogue. Sector-specific, user-tailored co-designed applications are developed as a concatenation of operations performed on the underpinning data within the cloud-based CADS Infrastructure. All computations are executed within the infrastructure in a distributed, service-oriented architecture. These workflows include user guidance and full documentation.

Working at the data-to-user and science-to-service interface, C3S offers numerous examples where the generation of customizable climate information is the added value for different applications in diverse contexts and sectors. This presentation focuses on examples for the energy and the finance sector at the global and European level and it shows how climate-based applications become benchmarks to support regional and transnational climate adaptation strategies.