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Defining User Needs in Copernicus Climate Change Services

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Intercomparison of reanalysis results and identifying the relevant gaps between users and developers of reanalyses has been carried out in an EU FP7 project CORE-CLIMAX in 2013-2014. The desirable reanalysis characteristics were surveyed from November 2013 until the end of February 2014 online. Over 2500 users of climate information replied. This work is also linked to the Copernicus Climate Change Services (CCCS). Our findings are presented accordingly.

CCCS user base. There is a need to have a record of users of climate information. The demands of users can then be taken into consideration and the points below completed in an iterative and interactive continuous process.

CCCS data store. Users of reanalysis products would benefit from improved data access. Explanations for nominal resolution and feature resolution should be available. Enhanced tools for data discovery, extraction and subsetting would reduce data transfer volumes.

CCCS sectorial information system. It is useful to make some distinctions between the up- and down-stream users in both the private and public sectors. Faster release of the datasets would be a priority for providing better daily climate services. Ready-made graphical products would make the service more time efficient.

CCCS evaluation and quality control. The current level of uncertainty regarding biases in reanalysis datasets, in both the time and space dimensions, are identified as potential impediments to climate service and research. Users need guidance to decide for which parameters, and at which scales, reanalysis data might be a superior alternative to the observational records.

CCCS dissemination and outreach. Targeted training (e.g., e-learning) for different user subgroups would be appreciated. A more comprehensive set of diagnostics would help the users to factor in the uncertainties inherent in the reanalysis data.