

Project: **1149**

Project title: **CCLM2ESGF (COSMO-CLM/ICON-CLM to be published on ESGF)**

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Report period: **2023-11-01 to 2024-10-31**

All simulations from CORDEX-CORE and PRINCIPLES that have been produced by the CLM Community in the context of CORDEX – CMIP5 were published on ESGF until mid of 2021.

There was not much activity in this project until October 2023, because no simulations with CMIP6 boundary conditions were completed and CMORized so far. The work on the downscaling of CMIP6 simulations with ICON-CLM has started in the project UDAG (bb1364) in September 2023. Other member institutions of the CLM Community will also contribute to the CMIP6 downscaling in EURO-CORDEX with COSMO-CLM and ICON-CLM. Some groups will use model configurations that also include ocean models or other components of the earth system.

DKRZ suggested already some years ago, that the CLM Community should establish a project (this project) that provides the necessary storage for the data that is published via ESGF. This project was established in 2019 and is extended very year and expanded if necessary.

Once the simulations with CMIP6 boundary conditions are completed, the data will be standardized and quality controlled. For the first simulations, this will happen until end of 2024 or in Q1 2025. Afterwards, the data will be published via this project (1149). More simulations will come in the course of 2025 and maybe also in the following years.

Even if no CMIP6 based data has been published yet, the resources of this project were very helpful for the test simulations and as additional storage during the tests for the postprocessing and standardization procedure of the data.

Most of the simulations that will be published via this project in the next year(s) are already planned. The UDAG project (Updating the data basis for adaptation to climate change in Germany, DKRZ Project 1364) will produce many simulations for the EURO-CORDEX balanced matrix with ICON-CLM. As mentioned above, other member institutions of the CLM Community will also contribute to (EURO-)CORDEX with ICON-CLM and COSMO-CLM simulations.

We ask now for the storage of the simulations that will very likely be produced in the next year. We will ask for additional storage in the next applications periods if additional simulations will be produced or the storage amount per simulation is larger than expected.

For the CLM Community, it would be very helpful to continue the established collaboration with DKRZ for the data publication on the ESGF via this project. More details on the simulations that should be published and the necessary amount of resources are provided in the allocation request for 2025.