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The Euro-CORDEX initiative: A new generation of regional climate scenarios for Europe

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The WCRP Coordinated Regional Downscaling Experiment (CORDEX) provides an internationally coordinated framework to improve regional climate scenarios. This includes harmonization of model evaluation activities and the generation of multi-model ensembles of regional climate projections for the land-regions worldwide.

As part of the global CORDEX framework the EURO-CORDEX initiative (http://www.euro-cordex.net/) provides regional climate projections for Europe at 50 km (EUR-44) and 12.5 km (EUR-11) resolution, thereby complementing coarser-resolution data sets of former activities like PRUDENCE and ENSEMBLES. The regional simulations are based on the new CMIP5 global climate projections and the new representative concentration pathways (RCP). EURO-CORDEX is actively supported by 26 modeling groups contributing with 10 different regional climate models, partly in different model versions. In total, 38 evaluation simulations and 90 scenario simulations have been conducted or are currently being produced (38 of them in high resolution), based on the rcp45, rcp85, and rcp26 pathways.

Recently, the first evaluation and climate change analyses based on EUROP-CORDEX became available and user-oriented derived datasets are being constructed to facilitate the application of EURO-CORDEX results in climate impact research.

This presentation provides an overview on the status of and on current research activities in EURO-CORDEX.