



IS-ENES: The Infrastructure for the European Network for Earth System modelling

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IS-ENES is the distributed e-infrastructure of models, model data and metadata of the European Network for Earth System Modelling (ENES). This network gathers together the European climate modelling community working on understanding and predicting climate variability and change. It organizes and supports European contributions to international experiments used in assessments of the Intergovernmental Panel on Climate Change, such as the Fifth Coupled Model Intercomparison Project (CMIP5) and the Coordinated regional Climate Downscaling Experiments (CORDEX). IS-ENES is supported by FP7 and is entering its second 4-year phase (<http://is.enes.org>). IS-ENES integrates the European climate modelling community, stimulates common developments of software for models and their environments, fosters the execution and exploitation of high-end simulations, in particular using the European PRACE facilities, and supports the dissemination of model results to the climate research and climate impact communities.

The central point of entry to IS-ENES services, the ENES Portal (<http://enes.org>), integrates information on the European climate models and provides access to models and software environments needed to run and exploit model simulations, such as the climate data operators, as well as to simulation data, metadata and processing utilities. IS-ENES supports the European contribution to the international Earth System Grid Federation data distribution for CMIP5 and CORDEX. In order to help the use of climate model results for impact studies, e.g. in water management, a prototype portal climate4impact (<http://www.climate4impact.eu>) has been developed providing access to guidance on how to use global climate model results through documentation of use cases, and will be further developed in IS-ENES2.

Adaptation to climate change requires strengthening the integration between the climate and hydro-meteorological communities and the e-infrastructure IS-ENES2 might contribute to this challenge.