# IS-ENES3: Infrastructure for the European Network for Earth System modelling - Phase 3

## Description

IS-ENES3 will deliver the third phase of the distributed e-infrastructure of the European Network for Earth System Modelling (ENES), which includes Earth system modelling, climate change, model data repository, WCRP international experiments and high-performance computing. IS-ENES3 will be initiated as the European climate modelling community faces the challenges of contributing to the next assessment report of the Intergovernmental Panel on Climate Change through the 6th phase of the Coupled Model Intercomparison Project.

IS-ENES3 will address these challenges by developing, documenting and deploying new and advanced models and tools, standards and services to deal with unprecedented data volumes and model complexity. IS-ENES3 will stimulate collaboration, disseminate software and data, and further integrate the European climate science community. IS-ENES3 will support climate research, climate impact science, and the climate services industry. It will bring down barriers to access, and expand the community who can exploit the data and knowledge produced by state-of-the-art climate models. In doing so, it will find innovative ways of working with the Copernicus programme, other parts of the European data infrastructure, and with high performance computing and data analytics industries. IS-ENES3 will be delivered by partners with a combined expertise in climate modelling, computational science, data management, climate impacts and climate services, with proven ability to increase the influence of European science internationally. It will deliver the European part of the Earth System Grid Federation and act as a central point of entry to services that provide access to new data, software, models and tools. Joint research will support a new community sea ice model, promote efficient use of high-performance computing, improve the European common model evaluation framework, and develop and enhance services on data. Networking will grow the user base, increase the cohesion of the climate modelling community, promote innovation and prepare for a long term sustainable infrastructure in support of climate modelling.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación