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The CORDEX archive in ESGF: a global archive for regional data

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The CORDEX program will produce regional model simulations for all areas of the globe, run by many modelling centres but with a consistent set of experimental parameters. Following the example set with the Coupled Model Inter-comparison Project, Phase 5 (CMIP5) archive of global climate simulations, a federated archive infrastructure will be exploited to support efficient distribution of the data and provide a single catalogue with a flexible search interface. Initial work towards establishing the European component of federated archive for CORDEX using the Earth System Grid Federation (ESGF) software has been started in the FP7 project IS-ENES (InfraStructure for the European Network for Earth System Modelling http://is.enes.org) and will be continued under IS-ENES2 (with additional support for an archive node at the University of Cape Town, S. Africa). The ESGF system allows data held at multiple sites to be accessed by users in a transparent manner.
This poster will describe key adaptations of the ESGF CMIP5 infrastructure for CORDEX and some of the data services the system will provide. The vocabularies which underpin the facets of the search interface have been adapted and extended, a strategy for quality control has been developed. For the CMIP5 archive, most modelling centres contributing data also deployed an ESGF archive node. For the CORDEX archive a different approach will be followed because data is expected from a larger number of contributors without the resources needed to run such software. Instead, the CORDEX federated archive will be hosted at a moderate number of institutions with the required resources and expertise.