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EGEE, Grid infrastructure for geosciences data services

M. Petitdidier (1), D. Weissenbach (2), W. Som de Cerff (3), H. Schwichtenberg (4)

(1) CETP/IPSL, Velizy, France, (2) IPSL, Université Pierre et Marie Curie, Paris, France, (3) Royal Netherlands Meteorological Institute, the Netherlands, (4) Fraunhofer Institute for Algorithms and Scientific Computing, Germany

Geosciences partners are spread all over the world and some large sets of data have to be shared by many of them. Large data centres coupling both storage and computing elements exist however they don't fulfil all the requirements of end-users. They are not aimed to run applications that need several data sets coming from data not already registered in the centre. A copy of those large data sets becomes less and less possible due to their volume.

The interest of Grid infrastructure like EGEE is that the data could be distributed in different

Storage elements at least in Europe with an unique metadata base in or outside the Grid infrastructure. Only the authorized persons can access those data and metadata base. Another interest is the coupling of storage and computing elements. Then the data from several sources could be used at the same time for a given application without any need of data transfer on the end-user computer.

Some examples will be given based on applications ported on EGEE, in particular concerning the production of ozone profiles retrieved from ozone total content observed with the satellite experiment, GOME, and their validation with Lidar ground-based data. In some cases, information are associated with the data.