

ImpECt: integration of heterogeneous data sources and services by exploiting Grid technology

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The main purpose of the ImpECt experimentation framework is to support Earth Observation (EO) experts in creating and maintaining environmental reports.

Typically the EO business process to generate a scientific report is concerned with the acquisition and analysis of information about the environmental status of specific geographic areas. Such process may be requested to routinely run depending on the availability of computing and storage resources, time constraints, data access and data fusion procedures. Currently the ImpECt test-bed is supported by DILIGENT infrastructure that allows virtual e-Science communities to share data sources and services and collaborate in a secure, coordinated, dynamic and cost-effective way.

By exploiting DILIGENT, ImpECt accesses to three gLite based Grid infrastructures and takes advantage of available EO services and applications for generating chlorophyll distribution profiles, vegetation index maps, atmospheric profiles, mosaics and environmental reports. The data sources used and produced may be environmental reports, workshops proceedings, added value maps and high level products like optical, radiometric and atmospheric images.