



EuroGEOSS: building inter-disciplinary interoperability for the global community

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EuroGEOSS is a new 3-year Integrated Project funded by the European Commission in its 7th Framework Programme for Research & Development. It responds to a specific call to develop European Environment Earth Observation systems supporting INSPIRE and compatible with GEOSS (Global Earth Observation System of Systems). The specific aim of EuroGEOSS is to demonstrate the added value to the scientific community and society of making existing systems and applications interoperable and used within the GEOSS and INSPIRE frameworks. The project will build an initial operating capacity for a European Environment Earth Observation System in the three strategic areas of Drought, Forestry and Biodiversity. It will then undertake the research necessary to develop this further into an advanced operating capacity that provides access not just to data but also to analytical models made understandable and useable by scientists from different disciplinary domains. This concept of inter-disciplinary interoperability requires research in advanced modelling from multi-scale heterogeneous data sources, expressing models as workflows of geo-processing components reusable by other communities, and ability to use natural language to interface with the models.

The presentation will especially address the multi-disciplinary interoperability framework of the EuroGEOSS project. Starting from user requirements defined in close cooperation with domain experts from the three thematic areas, the EuroGEOSS Initial Operating Capacity (IOC) for multidisciplinary interoperability is based on the framework developed by the GEOSS Interoperability Process Pilot Project (IP3) and takes into consideration requirements from the ongoing developments in INSPIRE (in particular, the emerging Implementing Rules), SEIS and GMES, through the input of the GIGAS project. An important output of this task is to provide specifications, guidelines and prototypical implementations in order to support the implementation of the IOC in each of the thematic areas. The EuroGEOSS architecture (including both the basic and the advanced version of the infrastructure) will be presented and discussed. A possible framework for model interoperability will be described in order to allow the discovery and access not only of heterogeneous data and services but also process models.