



## Advances in Multi-disciplinary Interoperability

J. Pearlman (1), S Nativi (2), M Craglia (3), J Huerta (4), JM Rubio-Iglesias (5), and JJ Serrano (6)

(1) IEEE, Seattle, United States (jay.pearlman@ieee.org), (2) Italian National Research Council (CNR-IIA), Rome, Italy, (3) European Commission, Joint Research Centre, Ispra Italy, (4) Universitat Jaume I, 12071 Castellón, Spain, (5) Centro Nacional de Información Geográfica Instituto Geográfico Nacional, 28003 MADRID, Spain, (6) BRGM, 45060 Orléans Cedex 2, France

The challenge for addressing issues such as climate change, food security or ecosystem sustainability is that they require multi-disciplinary collaboration and the ability to integrate information across scientific domains. Multidisciplinary collaborations are difficult because each discipline has its own "language", protocols and formats for communicating within its community and handling data and information.

EuroGEOSS demonstrates the added value to the scientific community and to society of making existing systems and applications interoperable and useful within the GEOSS and INSPIRE frameworks. In 2010, the project built an initial operating capacity of a multi-disciplinary Information System addressing three areas: drought, forestry and biodiversity. It is now furthering this development into an advanced operating capacity (<http://www.eurogeoss.eu>). The key to this capability is the creation of a broker that supports access to multiple resources through a common user interface and the automation of data search and access using state of the art information technology.

EuroGEOSS hosted a conference on information systems and multi-disciplinary applications of science and technology. "EuroGEOSS: advancing the vision of GEOSS" provided a forum for developers, users and decision-makers working with advanced multi-disciplinary information systems to improve science and decisions for complex societal issues.

In particular, the Conference addressed:

[U+25E6] Information systems for supporting multi-disciplinary research;

[U+25E6] Information systems and modeling for biodiversity, drought, forestry and related societal benefit areas; and

[U+25E6] Case studies of multi-disciplinary applications and outcomes.

This paper will discuss the major finding of the conference and the directions for future development.