Opportunities for shaping a convergent evolution of GEOSS, INSPIRE and GMES

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- **GEOSS** (Global Earth Observation System of Systems)
  - Built by the Group on Earth Observations (GEO) on the basis of a 10-Year Implementation Plan running from 2005 to 2015.
  - Seeks to connect together all existing Earth Observations resources and to make it easily accessible with the aim of support better decision making on 9 Societal Benefit Areas
- **INSPIRE Directive**: establishing an Infrastructure for Spatial Information in the European Community (14 May 2007)
  - Legislative instrument that lays down a general framework for a European Spatial Data Infrastructure (SDI) for the purposes of Community environmental policies and policies or activities which may have an impact on the environment. It builds upon National SDIs operated and maintained by European Member States
- **GMES** (Global Monitoring for Environment and Security)
  - GMES is a joint initiative of the European Commission and European Space Agency that consists of 3 components:
    - Space Component that relies on existing or planned European space infrastructure (co-financed by the EU and ESA)
    - In-Situ Component that relies on facilities, instruments and services at national, regional and intergovernmental levels inside and outside the EU.
    - Service component on Marine, Atmosphere, Land, Emergency, Security at pre-operational stage

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Interoperability on European Level?

- Shared commonalities:
  - focus on environmental monitoring,
  - use of geomatic and geographic information,
  - their Europe- or worldwide dimension,
  - their reliance on international standards and
  - the advanced Spatial Data Infrastructures that are needed for their implementation
- However:
  - different organisational models, different stakeholders, different governance, different funding, different levels of implementation, different approaches for technical development, different timelines

  → *risk of evolving into separate, incompatible services and not profiting from the benefits of an interoperable approach*

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…an Action in Support to the GEOSS, INSPIRE and GMES

- Consensus process that facilitates communication between INSPIRE, GEOSS, GMES and the standardisation bodies
- Understanding requirements, commonalities and discrepancies between INSPIRE, GEOSS and GMES architectures and identify common interoperability needs
- Contribute to a rapid uptake of standards
- Design of an open, persistent test-bed in which organisations or external projects can integrate their (compliant) services
- Recommendations for agenda for further strategic research areas to ensure investigation on the problems that are unsolved today

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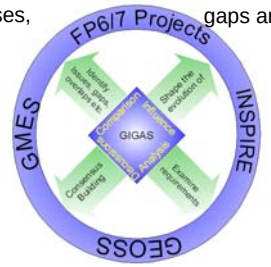
Iterative and Consensus-driven Approach

1. Analysis
Monitor each initiative and selected FP projects (architecture approaches, requirements, consensus processes, and resultant service-oriented interfaces and encodings)

2. Comparison + Recommendations
Identification of possible synergies that can be built and further areas of cooperation, to highlight the gaps and overlaps within the initiatives.



2 iterations

3. Discussion + Consensus
Recommendations will be revised through a broad consultation to achieve as wide a consensus as possible

4. Shaping
Suggest modifications to INSPIRE, GEOSS and GMES and be proactive in influencing and shaping their evolution

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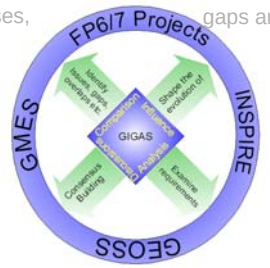

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→ **Stakeholder Workshop**

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Stakeholder Workshop

- Scope:
  - To get insight into and to influence the development of arrangements for interoperability within and between the initiatives
  - To achieve a common understanding on how to perform a concerted adoption of activities to influence and shape the evolution of GEOSS, INSPIRE, and GMES towards convergence

→ Organized around the interoperability recommendations that have been identified in GIGAS

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Stakeholder Workshop

- Working Sessions:
  - To discuss and to receive feedback on the issues and recommendation raised so far
  - To work on a common strategy for institutionalize them through the relevant forums and standards bodies (like GEO SIF, OGC TC, ISO/TC 211)
  - To discuss the long term strategy for sustaining the communication and information platform established through GIGAS

http://www.thegigasforum.eu/workshops/shaping-2010/material.html

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GIGAS
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Links to targeted Initiatives, Organisations and Projects:

The GIGAS Consortium

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