



# Design and Implementation of a Persistent Testbed for Geo Web Services

Mike Gould<sup>1</sup>, Mike Jackson<sup>2</sup>, **Eva Klien**<sup>3</sup>, Rob Lemmens<sup>4</sup>

<sup>1</sup>University Jaume I, Castellón, Spain

<sup>2</sup>University of Nottingham, United Kingdom

<sup>3</sup>University of Münster, Germany

<sup>4</sup>ITC, Enschede, The Netherlands

# Agenda

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- Background
- Motivation for testbed initiative
- Report on the joint AGILE-EuroSDR-OGC Workshop
  - Objectives of a geospatial testbed
  - Implementation Strategy
- Consultation phase and preliminary summary of feedback
- Next Steps

# Background



- Increasing recognition of the benefits of service-oriented architectures for geospatial applications, especially in multi-agency collaboration
  - OGC Interoperability Experiments and test-beds (e.g. OWS4)
  - EC funded Interoperability and Harmonisation Projects (e.g. Orchestra)
  - EuroSDR Commission 5 (Integration and Delivery of Data and Services) Workshops
  - AGILE Interoperability Workshops
  - GSDI Cookbook, and meetings
  - UNSDI
  - ...
- Achievements and Drawbacks
  - Typically short-term initiatives, directed at the specialist GI community
  - Demonstrated the potential and advanced the specification development
  - So far, no persistent environment for broad community research and iterative development has evolved

# Motivation

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- To support collaborative research against a common environment and with shared data resources
- To focus on OGC web service interoperability
- To investigate methods and tools for service composition
- To promote web geoprocessing (e.g. WPS, WFS-T)
- To investigate semantic interoperability issues, e.g. combining semantic web technology with OGC services
- To develop Catalogues that support publishing geoprocessing services and service compositions
- To develop Catalogues that support semantic annotation and discovery
- Persistence: environment should ensure stable access over a period of years, allowing for iterative development and for comparable (scientific) testing

# Report on Testbed Workshop



- 8th May 2007: joint AGILE-EuroSDR-OGC Workshop on Persistent Geospatial Testbeds, Aalborg, Denmark  
Workshop programme see [www.agile2007.dk](http://www.agile2007.dk)
  - Presentations on interoperability challenges
  - Demonstrations of Interoperable Web Services and Service Compositions
  - Panel Discussion with experts in interoperability research
- Initiate work on test-bed based on existing capacity



# Workshop: Agreed on Objectives

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- To act as a **research test-bed** for collaborative European research in geospatial interoperability,
- To aid the **assessment of the current standards** for geospatial interoperability in terms of research compatibility, completeness, consistency and ease of use and extensibility,
- To provide an **environment for teaching** standards and techniques for geospatial interoperability,
- To provide a **resource to AGILE/EuroSDR/OGC** for the coordination of research requirements as well as definition, testing, validation and development of open standards.

# Workshop: Implementation Strategy

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- Selection of a Steering Committee made up of representatives from AGILE (Michael Gould), EuroSDR (Mike Jackson) and OGC (Chris Higgins)
- Phase 0:
  - Consultation on organisation and content of subsequent test-bed development with the European communities of AGILE, EuroSDR and OGC
    - Call for Contribution issued on 30th May 2007
- Phase 1:
  - Initial testbed development
  - Collaborative project proposals for fund raising

# Consultation Phase: Call for Contribution

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We asked potential participants:

- What purposes should a test-bed serve?
- What does it need to comprise of?
- How should it be governed and administered?
- How will it be constructed?
- How will it be funded?
- How will it be sustained so that it is available in the long term?
- What will be the relationship of the testbed to other data/service infrastructures (national SDIs, INSPIRE, UNSDI, GEOSS, etc)?

# Consultation Phase: Preliminary Analysis of Responses

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- 23 submissions from over 30 organisations
- From 13 countries plus JRC (Denmark, France, Germany, Norway, Italy, Ireland, Poland, Portugal, Spain, Sweden, The Netherlands, Turkey, United Kingdom)
- Involves 5 national mapping agencies plus other national, regional and local agencies
- Demonstrates the success of the previous and continuing EU funded projects as many of the responses are building from expertise gained within these programmes
- Many services offered covering nearly all of the OGC standards – WMS, WFS, WCS, CWS, WPS, OLS, ....

# Next Steps

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- Phase 0: Call for the Establishment of a European Persistent Geospatial Testbed for Research and Teaching (closed)
- Phase 1: Initial testbed development
  - Review of responses and discussion of detailed implementation strategy with participants
  - Setup of Wiki site to support communication among testbed participants
  - Collaborative project proposals for fund raising (31 March 2008)
- Long-term perspective:
  - Further Calls for Participation will be issued in subsequent phases
  - Open access to testbed in subsequent phases
  - Call for Geospatial Interoperability Challenge

# Contact

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- AGILE: **Michael Gould**, University Jaume I, Castellón, Spain
- EuroSDR: **Mike Jackson**, University of Nottingham, UK
- OGC: **Chris Higgins**, Edinburgh University Data Library, UK
  
- Questions should be emailed to:  
[test-bed-questions@nottingham.ac.uk](mailto:test-bed-questions@nottingham.ac.uk)

**Thank you for your attention!**