

OGCII

OGC Interoperability Institute, Inc.

Prospectus

OGC Interoperability Institute

Overview

The OGC Interoperability Institute (OGCII) is a scientific and educational organization dedicated to continued improvements in worldwide application of interoperable geoprocessing technologies and spatial data. OGCII's special mission is to propose and manage research studies, pilot initiatives, educational programs and infrastructure that help advance the development and adoption of open standards, interoperable solutions, policies and practices that improve society's ability to use geospatial data and technologies to address important social, environmental and economic issues.

Geoprocessing technologies are tools and computer applications used to acquire, store, analyze and output data that are referenced to a location on the earth. Eighty per cent of information has some spatial reference to a location on the earth, so spatial data are important in many scientific disciplines, government functions and most sectors of the economy, and thus the sharing of spatial data is important. But historically, collecting, processing, managing and archiving spatial data has been accomplished by many different people for many a variety of purposes using many diverse kinds of systems, and the variability between approaches and systems have imposed obstacles to the sharing and application of spatial data in all sectors. To overcome these obstacles, standards development organizations have developed and continue to develop standards – open interfaces, encodings, schemas, data models, best practices etc. – that enable data sharing and interoperability. OGCII exists to leverage and advance standards, policy and proven practices to ensure that critical elements of the geospatial information infrastructure become and remain freely available for use by government at all levels and by the general public; to improve capabilities that support sustainable development; to support the validation and transfer of geographic research; to emphasize educational programs that encourage adoption of new solutions, and to better prepare IT professionals entering the work force.

To accomplish its mission, OGCII seeks funding from:

- 1) Private foundations dedicated to research in the development of methods to improve technology infrastructure and quality of life in local communities, urban environments and third world communities
- 2) NGOs concerned with research meant to address societal, environmental and economic issues of importance
- 3) Government agencies and global financial and service organizations

Rationale

The OGC Interoperability Institute was formed to better coordinate and advance research and education activities that contribute to improved geospatial interoperability, with particular focus on exploring and accelerating the application of open standards, policies and proven practices in research, education, government and other non-commercial activities.

Research

Science, policy and public awareness can benefit from widespread interoperability that supports easy publishing of and access to spatial data and online geoprocessing services. OGCII research projects will seek to:

- 1) Employ existing open standards and facilitate the development of new standards as necessary to facilitate validation of research results and to accelerate their transfer into community practice
- 2) Advance standards-based methods for archiving and publishing spatial data and services in a public webspace. Scientific research, and particularly interdisciplinary research, depends on shared data.
- 3) Describe geoprocessing methods in standard ways, to ensure repeatability and verification of results obtained using geoprocessing.
- 4) Promote the "Semantic Web" by developing the concept of geographic disciplines and sub-disciplines as "Information Communities," communities who use common data models and who benefit from an open and efficient process for harmonization and translation of data models. It is important to note that metadata is crucial to the use of spatial data, and thus the geospatial research community and industry have made particular progress in semantic processing.

Education

OGCII projects focused on education will be based on the following assumptions:

- 1) Greater emphasis on interoperability in academic curricula and in research programs will accelerate transfer of research to practical use, and will better prepare new entrants to the workforce.
- 2) Widespread integration of spatial information and tools will significantly enhance government operations and services for use by the general public by enabling decision makers to address social, environmental and economic problems from a geographic perspective.
- 3) Increased use of spatial data and associated policies, procedures and interoperable technologies by non-experts will create additional demand for geospatial expertise and geosciences in the workforce.

Government and the public interest

OGCII projects will foster accelerated transition of research findings to practical application by government and the general public, and will help introduce the

interoperability requirements of government bodies and the communities they represent into the standards development process. Critical infrastructure protection, e-government, sustainable development, sustainable agriculture, famine relief, disease surveillance and response, disaster management, health monitoring, climate and weather prediction and warning, and many other activities can benefit from better access – at all levels of government – to spatial information and geoprocessing services.

OGCII programs will help government and the general public minimize IT costs, improve their ability to rapidly mobilize new and innovative solutions as they are developed, attract and develop new industries, and significantly improve their ability to share geographic data and IT services across jurisdictional boundaries as regional issues demand collaborative response.

OGCII Activities

OGCII will provide overall staff management of proposals, initiative planning and the transfer of results into the research and user community. Typical initiatives would include interoperability testbeds (development of new interoperability standards), pilots (validation of newly developed standards in an operational setting), and feasibility and planning studies (pre-acquisition initiatives designed to help researchers and practitioners implement interoperable solutions). The results from the various testbeds, pilots and studies will be made publicly available. OGCII programs will include discussion forums and education and outreach programs. OGCII will also conduct and take part in conferences, symposiums, workshops and other events to advance its educational objectives. Furthermore, OGCII will provide technology infrastructure to meet the needs of government and the general public when the commercial marketplace does not provide such capability.

Call for involvement in OGCII

OGCII is at the beginning of a great adventure. Consider partnering with OGCII to advance research and practical applications of research, develop and deliver geoprocessing education programs for members of the global workforce, and help address pressing social, environmental, and economic issues through programs that leverage the power of new consensus-derived standards in the geoprocessing industry.

If you are interested in learning more about how your organization might use OGCII to fulfill its mission, or if you wish to sponsor or contribute to OGCII goals and programs, please contact Mark E. Reichardt, Executive Director, OGC Interoperability Institute, (703) 707-0261, or cellular (240) 899-8026, or mreichardt@ocgii.org