

## **The OGC Interoperability Institute (OGCII)**

The OGC Interoperability Institute (OGCII) is a tax-exempt scientific and educational corporation under section 501(c)(3) of the U.S. Internal Revenue Code. It is dedicated to the organization of programs designed to apply advancements in the development, sharing and use of geospatial information to the analysis and treatment of complex societal problems, and to enhance the power and effectiveness of IT tools in general in support of related policy formation.

Areas of concern for OGCII include global climate change, hydrology and ocean conditions, the impact of urbanization and industrialization on ecosystems and biodiversity, and the related issues of hunger, sustainable development, health and security.

OGCII is particularly concerned with the creation of the institutions required of a practical global “spatial data infrastructure”, and is positioned to seek resources for implementation of projects conceived to support the goals of such programs as the global GEO collaborative (Group on Earth Observation) through implementation of persistent network infrastructure and related education, prototyping and project coordination initiatives.

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“Geoprocessing” denotes the collection of digital technologies used to acquire, store, analyze and output data that are referenced to Earth coordinate systems. Most stored data have some location component, rendering these technologies of unique importance to science, government, business, education and the daily life of the consumer. Historically, however, and as a matter of research convention, conceptual and engineering diversity among systems has hindered their widespread integration and universal application.

To overcome this problem, the Open Geospatial Consortium, Inc. (OGC<sup>®</sup>) and other standards organizations have developed a globally accepted framework of IT processing standards – open interfaces, encodings, conceptual information models, best practices, etc. – that enable the “interoperability” or barrier-free exchange and sharing of the world’s diverse data collections.

Complementing the work of these standards organizations, the OGCII’s unique mission is to facilitate collaborative research studies, infrastructure creation, and curriculum development projects that leverage and support their standardization efforts, with a particular focus on meeting the needs of decision-makers and program managers engaged in addressing the most critical and time-dependent social, environmental, and economic challenges of our time.

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OGCII is defined to seek funding from private and public sector foundations, government agencies, and global financial and service organizations such as USAID and the World Bank. Sponsors are invited to fund projects designed to satisfy specific requirements of “critical” spatially-enabled IT infrastructure. OGCII is organized to collaborate with leading universities and research centers world-wide to define a framework of related projects for this purpose, and is positioned to provide coordinated leadership, organization, and technology capabilities according to project requirements.

In this context, the role of OGCII is to assist both sponsors and research organizations develop ideas, proposals, and collaborative approaches that ensure a focus on the most critical social challenges, and maximize in terms of societal amelioration the sponsoring organizations’ return on investment. Toward this end, the most important asset of OGCII is its board of directors comprised of recognized academic and business leaders, together with an associated network of research scientists who serve as program directors and participants in the organization’s proposal and project activities.

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OGCII is forming a diverse and creative community of researchers and development scientists by virtue of the intellectual interest inherent in the unique and essential challenges it has chosen to address, as well as the practical importance of the results it is possible to achieve by means of its unique, consensus-based collaborative process.

Research topics which are expected to command increasing focus within the OGCII community include real-time sensor network architecture, metadata management, semantics and ontology development, implementation of security strategies, definition of best practices for digital rights management, the application of geospatial interoperability principles to scientific data collection and analyses, refinement of methods for geo-temporal data management and archiving, development of open Web services for specific disciplines, policy formulation, and redefinition of institutional barriers to the sharing and use of geospatial data and services.

OGCII’s unique value derives from its disciplined approach to the selection and coordination of research issues that contribute to understanding the causes and implications of global climate phenomena and related societal challenges. It is our mission to focus on such coordinated research because of its critical importance to the future of humanity.

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If you are interested in learning more about how your organization might work with OGCII, contact:

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