OGC Invites Expertise on Underground Maps and Models

The Open Geospatial Consortium (OGC) is requesting information from interested parties to inform a Concept Development Study (CDS) that will assess the current state and future direction of information standards for modelling, mapping, and managing underground infrastructure.

The CDS will define the scope of a multi-phase underground infrastructure interoperability project. The purpose of the study is to develop an in-depth understanding of all the components necessary to enable infrastructure data interoperability and standards in an underground environment. The CDS is initially focused on the urban landscape, but is extendable. This Request for Information (RFI) is a first step in the CDS process. Any organization with an interest in underground infrastructure is invited to respond to the RFI before 15 March 2017.

Currently, the exchange of underground utility information between infrastructure organizations within the same jurisdiction or in adjacent jurisdictions has been greatly hampered by incompatible and incomplete data. OGC anticipates that this project will make a significant contribution towards facilitating improved information management and secure sharing and collaboration, which should make infrastructure planning, operations & maintenance, and emergency response less costly and time consuming, and more effective.

The Fund for the City of New York, through its Center for Geospatial Innovation, has provided significant support for project conceptualization. The Fund will continue to provide assistance throughout the upcoming phases of this initiative.

The Singapore Land Authority (SLA) has contributed significant support to the project. SLA constantly looks for ways to optimise the use of scarce land resources. Given Singapore's limited size as a city-state, putting underground space to good use will allow us to accommodate future growth. "Mapping, recording and understanding the infrastructure assets underground will help SLA and our partner agencies in planning and designing the use of underground space. We have embarked on the formulation of a holistic framework for managing underground geospatial information. The OGC's Concept Development Study is timely and relevant for us in the area of underground infrastructure asset data and information standards." said Liyang Lim, GeoSpatial Policy and Development Senior Manager, SLA.

"As Singapore's national geospatial agency, we have a keen interest to ensure that geospatial data, be it aboveground or underground, are captured and recorded accurately and of interoperable standards so that they can be of productive use. We are collaborating with OGC to expand the horizon in various aspects of underground geospatial information standards and these insights will be useful to our work on the holistic framework of underground geospatial information management."

Britain's National Mapping Agency, Ordnance Survey, has contributed resources to this project and has been active in this area through its open innovation scheme, Geovation, to seek answers to how we can better manage underground assets.

"In a digitally based society, the lack of comprehensive and reliable data relating to above and particularly below ground assets, will prove to be a barrier to the effective operation of those assets through digital systems," commented Rollo Home, Strategic Product Manager, Ordnance Survey. "We recognise that establishing data as an infrastructure capability will be key to managing assets within an open, secure context. Geospatial data, in particular, can act as the framework within which the inter-relationships across these domains can be identified, modelled and managed. Advances in geospatial data standards, capture and management technologies are all rapidly evolving to give us a potential toolkit to manage the interaction between these domains more effectively. In this project we'd like to explore the art of the possible and set the agenda for future data integration."

More information about the Underground Infrastructure CDS can be found at: www.opengeospatial.org/projects/initiatives/undergroundcds

Instructions for submitting a response are detailed in the RFI, available at www.opengeospatial.org/standards/requests/155

Responses in electronic version can be submitted to the OGC Technology Desk (techdesk@opengeospatial.org), and are invited before 15 March 2017.