

Crossing Boundaries – GIS for Improve Government Service Delivery and Service Manag

Northern Ireland has become the first region within the United Kingdom to develop a Geographic Information (GI) Strategy. Since the endorsement of the Belfast (Good Friday) Agreement by the people of Northern Ireland, there has been considerable uplift in the development of the regional economy. This offers a real opportunity for the local administration to begin to address the institutional barriers preventing progress in GI. The GI Strategy seeks to join-up all the disparate sources of geographic information in Northern Ireland.

By Nigel Mason



The 'Mosaic Portal' is the gateway to the pilot projects and aims to help develop awareness of the benefits of GI.

Background

The GI Strategy for Northern Ireland, Mosaic, is an initiative started in 2002 by the Department of Culture, Arts and Leisure (DCAL) which is being progressed by its Agency, Ordnance Survey of Northern Ireland. Mosaic's objective is to improve Government service delivery and service management through the use of geographic information. The vision for the strategy is to provide the leadership required for a practical and co-ordinated approach to improving the collection, funding, dissemination and use of geographic information. The objective being to maximise the social, economic and educational potential of this crucial component of the national information infrastructure resource. The latest Northern Ireland Programme for Government, entitled 'Making a difference' recognises the contribution that GI can make to improved service delivery by:

- Enhancing the role which mapping and GI play in developing the infrastructure to support a cost effective and efficient land registration system;

- Targeting disadvantaged areas, geographically identified as deprived;
- Identifying geographic differentials in unemployment and poverty;
- Examining the geographical barriers that can discourage people from taking up opportunities for education and training.

Direction of Strategy

In order to achieve these and other aims, the Northern Ireland Executive committed itself to developing a GI strategy. A set of values were developed from a stakeholder's conference workshop to govern the direction of the strategy:

- The importance of geographic information as a social, economic and educational resource;
- The requirement for strategic leadership and better strategic co-ordination;
- The need for an inclusive approach to the development of geographic information and working in partnership with other stakeholders in its development in Northern Ireland;
- The existence of standards, and the need

to adopt and adapt those that already exist;

- The importance of good communication and education about geographic information.

Getting Mosaic Off the Ground

Significant progress was subsequently made toward achieving the completed strategy, including the creation of an Implementation Project Board, a Programme Office, and a number of project groups to act as forums for stakeholders. These include:

- Culture & Heritage
- Education & Awareness
- Environment & Agriculture
- Health & Social Improvement
- Key Datasets
- Land & Property
- Public Safety & Emergency Services
- Statistics
- Transport
- Utilities & Networks

A critical success factor was engaging with stakeholders to ensure enthusiasm and communication for the projects remained high, and that GI data from groups was appropriate and meaningful.

Pilot Projects

Following the establishment of these groups, a number of pilot projects have been implemented to demonstrate the benefits and prove the feasibility of such a wide ranging GIS strategy. This illustrated how various technical, organisational and commercial barriers can be overcome. The Mosaic Programme Office selected GI specialist GDC, in partnership with PricewaterhouseCoopers, to provide a geographic infrastructure for the pilots. PwC in Belfast is providing overall project management for the Mosaic Programme. The two-year contract, which began in October 2004, was awarded through the Northern Ireland Civil Service (NICS) procurement framework. The 'Mosaic Portal' (www.mosaic-ni.gov.uk) is the gateway to the pilot projects and aims to help develop awareness of the benefits of GI. The site includes contact management for all parties involved and provides access to the online GIS portals delivered by other pilot projects. The development of a GI gateway metadata hub for Northern Ireland was also a key priority, to identify key datasets across the region.

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In tandem with identification, Metadata has also been collected and a Gi gateway Metadata node has been created. Metadata is seen as a key tool in promoting access to all Northern Ireland GI data, enabling searching for important data which can be visualised within the online applications.

Government Access Projects

Repositories of key datasets from the Environment & Agriculture group and the Land & Property group were chosen as pilots for government access projects and to support decision making across department boundaries. An Oracle Spatial database, managed by using GDC's GeoStore, holds over 80 datasets and feeds an online mapping portal powered using GDC's PlanWeb GIS, that allows intranet access to all the data. This information will also be accessible to the public via a more public friendly interface (using GDC's PlanAccess OGC compliant web map server) in due course. The Online GIS project has also allowed online access to the complete OSNI mapping for the first time.

Success so Far

The pilots have proven that the technology works and enables the whole region to share data. Information may be loaded, viewed and disseminated in a more efficient manner, which will inevitably lead to cost reductions. More importantly, they have shown that barriers, both at the departmental and organisational level, can be broken down and that the culture of data sharing for the benefit of others is possible. Following the initial implementation of the pilots, the benefits of data sharing became immediately obvious to the Utilities and Networks Group. They were keen to become more involved and as a result, an additional Utilities project was initiated. Using the technology already implemented within the Online GIS Pilot, utility information has been centralised within the Oracle Spatial data repository and made available over the Internet. This allows providers to limit functionality and accessibility as defined by their strict security policies while allowing users to access all utility information within a single website. Tangible benefits have already been identified

at this early stage. These include improved access to information for emergency planning and reduced information receipt lag times from weeks to minutes.

Future Plans

The vision for Mosaic is that every Public Servant should be able to access the appropriate geographic information in order to facilitate policy development and evaluation, administration and service delivery, all from their PC in a seamless way. Furthermore, the public should be able to view Government held information in an easily accessible format. Mosaic intends to deliver this via a full GeoHub for Northern Ireland managing and sharing all the Geographic Information. The opportunity now exists, under the Mosaic banner to realise the full vision for Geographic Information in Northern Ireland.

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