

A technology coming of age

Ralph Diment explains how open standards and European programmes are finally enabling spatial technologies to play a wider role in improving insight, efficiency and quality of services

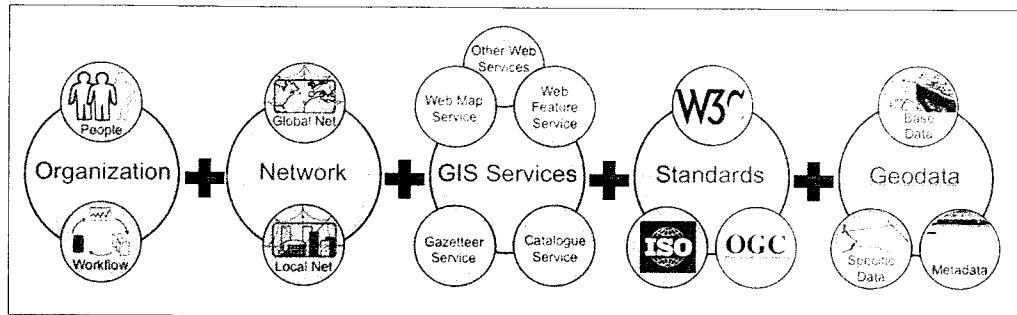
The prevailing economic conditions and uncertainty are forcing organisations to review spending and look for new and innovative ways to deliver services and increase efficiency.

There is a clear expectation for Information and Communication Technology to play a leading role in this process. In its document *Place Matters: The Location Strategy for the United Kingdom*, the Department for Communities and Local Government set out a vision for delivering better services at lower cost, improving decision making and realising efficiency savings.

Location, both as a means to share services and information, featured prominently as an enabler in these proposals.

Location-aware technology and systems can enable collaboration between neighbouring authorities or partner organisations, they can bring together the various information and process strands needed to deliver complete, end-to-end services on-line and they offer the possibility to pool common functions and hence share costs.

Geographic information systems have promised to fulfil these roles for years. However, proprietary data and inflexible interfaces that are characteristic of many GIS have meant the benefits of their 'spatial' capabilities are usually limited to specific functional roles instead of providing a ubiquitous and flexible resource. Consequently,



GIS is often viewed as a gifted but somewhat peripheral member of the broader ICT family.

Recent government initiatives, locally, at EU level and overseas are combining interoperability standards that remove technical barriers to integration with the organisational context (protocols, data models, metadata, etc.) to allow widespread, consistent and controlled sharing of spatial information.

Their adherence to open standards means these programmes also provide simple, consistent and sustainable methods of integrating spatial information and processes with other ICT platforms.

For example fusing maps and spatial/proximity searches within CRM systems in order to enable call takers to provide more comprehensive information and responses from a more informed position.

A key driver is the European INSPIRE Directive which obliges member states to make key data sets available through technology-independent, open web services. Themes range from addresses and property to

transport and water.

INSPIRE opens the possibility to not only publish data but also combine data from different governmental functions or geographic areas to create services that exceed current capabilities or fulfil existing workflows in less time and without manual intervention.

While the UK is lagging in its roll-out of INSPIRE, other countries have already established national and regional collaborative infrastructures (known as spatial data infrastructures or SDI) and now are looking at harnessing this foundation to support functional services and capabilities. One tangible example of this is its application to real-time, multi-agency collaboration for emergency management and civil protection.

Significant indirect benefits of these initiatives will be greater choice, competition and sustainability when procuring and implementing spatial technologies.

Up to now, the argument has always been that GIS is hard to integrate so you might as well specify a single supplier. The new generation of products,

based on open interoperability standards, prevents vendor lock-in while improving sustainability and choice.

This change in focus from proprietary data and interfaces to standards based technology is a prominent message in the consultation draft of the Declaration of Amsterdam *The Digital Road to Recovery* which received its official launch at the 2010 World Congress on IT in Amsterdam on 25 May.

It encourages both public and private sectors to harness "ICT to stimulate growth and address key social challenges" and stresses the benefits of open, interoperable ICT and the need to "support such solutions in public services based on interoperable standards, while avoiding mandating specific technologies or business models".

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