



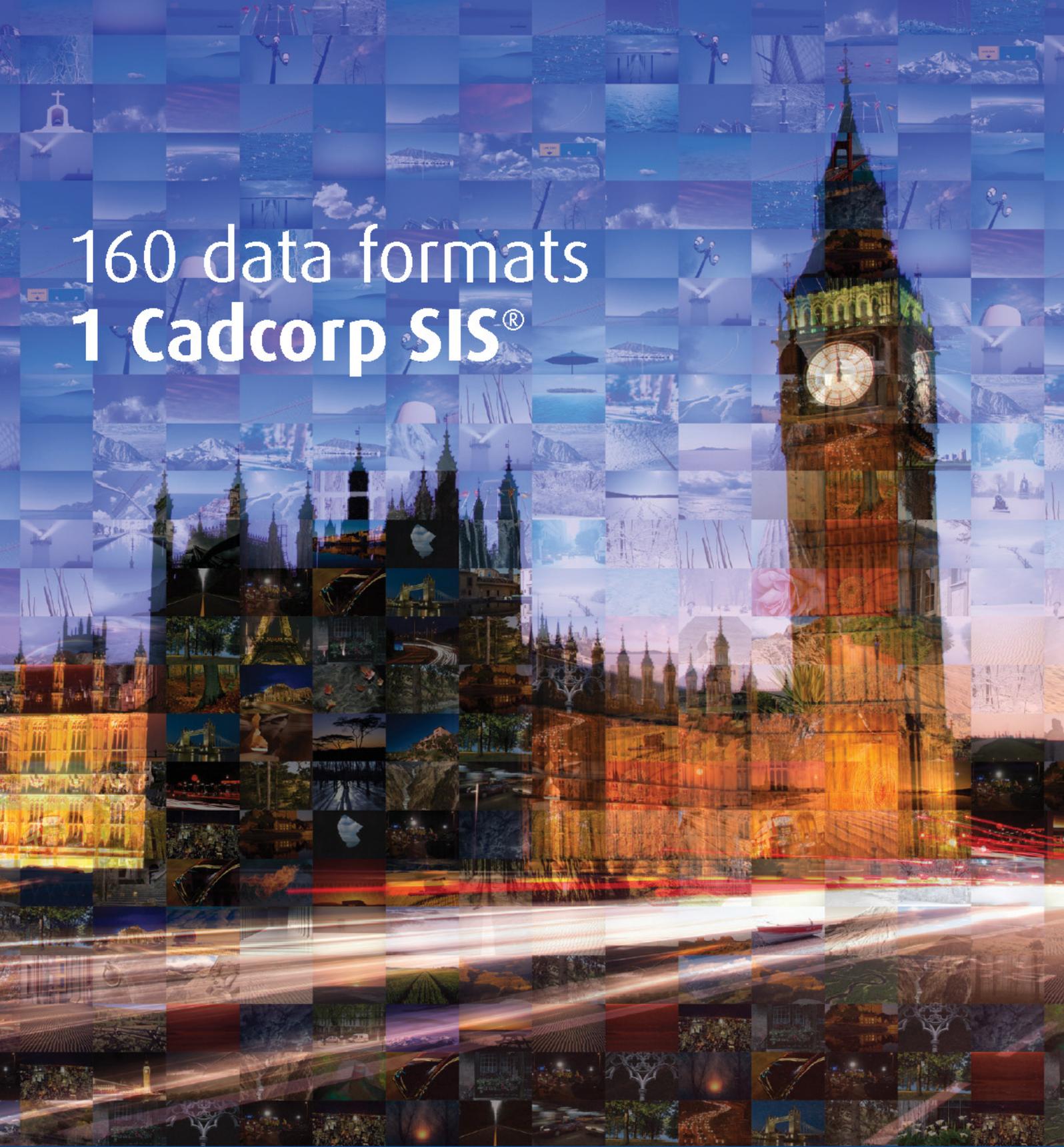
# GIS

## Professional

issue 32 : February 2010



*MapAction mobilises to Haiti  
Getting ready for the 2011 Census  
The Location Council: we talk to the chair  
Freeing public data: OS's response*



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Just before Christmas the OS slipped out its consultation document on the Government's Making Public Data Public initiative.



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Jeannette Anderson explains how two products from StatMap have provided an enlightening experience for West Lindsey District Council.



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## Census 2011 – preparing to count us all

How do you register a nation? Alistair Calder, head of the address register project, tells us how he's going to make sure we're all counted.



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## Taking forward the UK Location Programme

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New gazetteer management systems from Aligned Assets can help emergency services utilise address data, says Carl Hancock.



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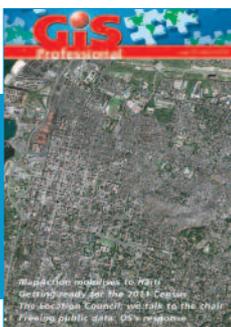
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Copy dates **Editorial:** 1 March 2010

**Advertising:** 12 March 2010

**Front cover:** It looks like any normal city. The airport (top) and to the left you can just see the port. Near the middle of the image you can make out a grand white building. But look closer. The roof seems to be lopsided. Look closer still and you see the ruins of what was once a busy bustling city, now the graveyard for many thousands. This startling image of Port-au-Prince was captured the day after the earthquake struck. ©GeoEye Satellite Image

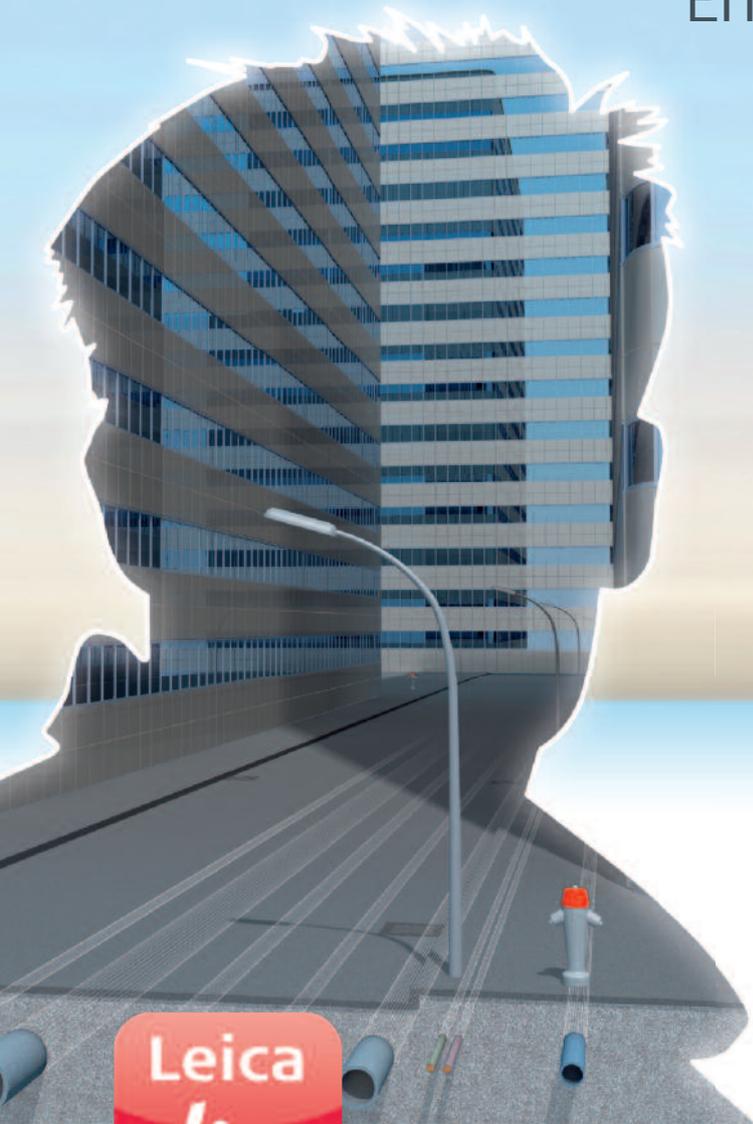


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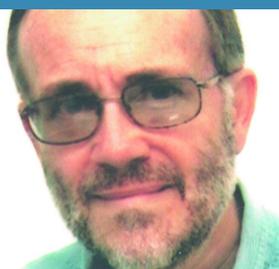
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welcome  
to the February issue of *GIS Professional* . . .

## Struggle for the heart and soul of GI

There is something of a struggle going on for the heart and soul of GI. In the one corner we have the dusty traditionalists, now only to be found in the depths of a few government departments and agencies (and some politicians), who want things to stay as they are – it's our data and you ain't having it! In the middle are the mainstreamers, who recognise that things must change but understand enough to know that data collection costs and that means there has to be a revenue stream from somewhere, whether it comes from the Treasury or our pockets. And in the noisy corner we have the young Turks – the open software, open source open mapping, open everything except their chequebooks, folk.

With an election impending, we tried for this issue to get some political traction on just what data should be available for free or at cost. The responses from the parties were patchy and so we haven't published them. There are few votes in GI, and as Mike Segal, a civil servant and chair of the Location Council, observes, 'spatial isn't special'. So it is fairly easy to predict that whichever party inherits the bed of nails that is the British economy, the current policy of gradually freeing up data will continue. There are three options identified in the Ordnance Survey's response to government (see page 10).



**In the eyes of many they have already arguably stumbled at the first hurdle.**

But just how serious is the Government going to take Making Public Data Public? In the eyes of many they have already arguably stumbled at the first hurdle. The Royal Mail's Postcode file (PAF) is one bit of "public data" that many have been lobbying to be on the free list (already 2500 datasets and growing). No 10 has firmly slammed the door shut on that one in its response to a petition (2000 signatures) that called for the release of the file. For the full story, go to Steve Feldman's blog, <http://giscussions.blogspot.com/>. Ordnance Survey data therefore remains the big geo prize.

Inside this edition of *GiSPro* you will learn more about the census due to take place next year and the painstaking efforts being made to ensure that it is at least 99% accurate. An omission of 1% may not seem very much but give or take a thousand or two, it represents 600,000 people. We also take a look at a local authority that has moved away from those big GIS brands and has opted instead for a bespoke solution from a company well below our radar.



We've also been lucky to talk to the chair of the UK Location Council, Mike Segal. The Council has been through something of a turbulent year as government departments and agencies have decided whether they want a voice at the table (like those Tony Blair dinners in the states, tickets are not cheap). Segal is confident that things have settled down now but why are there no members from the private sector? Their interests are supposedly covered by the AGI and through membership of the Council's subsidiary bodies. Surely this is not enough.

Finally, the Haitian earthquake so graphically shown on our front cover cannot fail to move us all. The GI industry has its own special charity in MapAction whose teams have already deployed to the stricken capital Port-au-Prince. We will report further on their progress in future issues, including the problems of reconciling OpenStreetMap data and Google Maps (see Muki Haklay's blog at <http://giscussions.blogspot.com/>). To make a personal or corporate donation to MapAction go to <http://mapaction.org/> and follow the link.

Stephen Booth, editor

## Making sense of a shattered landscape



A four-strong team from UK charity, MapAction, is now working in Haiti, providing emergency mapping services to support efforts to rescue victims of the earthquake in January. The team has been providing up-to-the-minute, post-earthquake maps – drawn up using existing maps, on-site information, and the latest mapping technology and satellite imagery – that capture critical information about the real-time situation on the ground in Port-au-Prince. This will allow NGOs (non-governmental organisations) and emergency responders to identify where help is needed, where bridges or roads may no longer be usable, where survivors have gathered, and the most effective way to get to where they can make the most difference. With many aid organisations trying to make sense of the shattered landscape and communities, MapAction's director Nigel Woof says: 'Our job is to gather information that can be mapped to create a shared operational picture, so that people most in need can get the help they so vitally need'.

Image credit: ©GeoEye Satellite Image.

**Customer success** Northumbrian Water (NWL) and the Department of Agriculture and Rural Development, Northern Ireland (DARD), both Star-Apic customers, won awards for innovation and best practice at the AGI's annual awards event. NWL was recognised in the private sector category for its operational planning and management (OPM) application, which helps the

company deal with the impact of planned or emergency events in the water supply network. DARD won the central government award for the Northern Ireland Countryside Management Scheme (NICMS) administration system: a seven-year, £220 million agri-environment scheme designed to help farmers and landowners and improve the environment.



## Post-war survey rediscovered

A series of aerial survey photographs dating from 1949 and covering all of Greater London has been uncovered. The images reveal landmarks like Battersea Power Station and the Royal Festival Hall pictured under construction. The original survey was taken by Hunting Aero Surveys in June and July 1949 and comprises two sets of photographs: a low scale survey of the whole of Greater London and coverage of the old administrative County of London at a higher scale. The photographs were rediscovered following an agreement between Bluesky and Blom Aerofilms. The original contact prints (prints made directly from the film negatives) will be scanned by Bluesky and georeferenced for prosperity and uploaded to [www.oldaerialphotos.com](http://www.oldaerialphotos.com).

## A Near immersive experience

NearLondon is the first in a planned series of interactive 3D cityscapes from Near ([www.nearglobal.com](http://www.nearglobal.com)). Made possible by the convergence of 3D laser scanning, digital modelling and gaming technologies, the centre of the development process is Geomagic Studio software, which allowed the company to convert 3D scans into realistic digital models of the capital's West End. The project began by scanning streets and buildings with a Leica HDS 6000 laser scanner as part of an ongoing process to recreate all of London's zone one. The current (time of writing) virtual environment covers 8km of linear streetscape. The 3D experience allows visitors to stroll the streets and by clicking on items in shop windows it will link them to the same items on the store's website – allowing theatres, sporting venues, restaurants etc to directly engage customers within the 3D world.

## Future marine needs

Research has revealed limited awareness and little involvement in legislative and data management initiatives by local authorities in Wales. SeaZone has published the market research undertaken last year, which has shown that many authorities are unsure of future marine GI needs. However, recognition is given to the need for greater collaboration/co-ordination with organisations such as county councils and central government. The results found that 96% of local authorities in Wales already work

closely with other stakeholder organisations. But results also showed that whilst the majority of local government authorities have adopted Ordnance Survey data for their terrestrial base mapping (76%), many respondents (52%) are still using Admiralty Nautical Charts as a primary source of marine information.

## CONTRACTS & PROJECTS

### Cambridge consortium win Inspire contract

RSW Geomatics has announced that, with the 1Spatial Group and Rob Walker Consultancy, it has been awarded a contract by the European Commission's Joint Research Centre, Institute for Environment and Sustainability. This contract is to "develop technical guidance for the INSPIRE transformation service" – enabling on line access to geographically referenced datasets from different countries and different environmental themes. The contract requires: a survey of state-of-the-art transformation services; drafting of the associated technical guidance; prototyping of a schema transformation service; and production of a demonstration video in three languages. The project will last eight months and will be carried out in Cambridge, UK where all three companies of the winning consortium are based. The consortium is also co-operating with national mapping agencies from Ireland, Northern Ireland, Finland, Sweden and Norway. Their data will be used as an integral part of the project. Robin Waters, director of RSW Geomatics, said: 'We are really proud to have won this contract against strong opposition and we are looking forward to delivering a practical solution to the existing problems of sharing spatial datasets'.

### Promoting green backyards

The Green Backyard project in Peterborough has received a donation from Bluesky following a thermal aerial survey completed by the company on behalf of Peterborough City Council. The environmental project promotes sustainable lifestyles



## Investigating the Orkney Islands

Getmapping aerial imagery is being used in a research project focusing on the landscape and population history of the Orkney Islands between 1750 and 2000. The North Orkney population history project, funded by the National Science Foundation, has been running for six years at Pennsylvania State University in the US. The project is run by the Population Research Institute, Department of Anthropology, and the Department of Landscape Architecture and is investigating demographic changes on the islands of Papay, Westray, Eday, Sanday and North Ronaldsay. The imagery supplied was flown at 25cm pixel resolution using a Vexcel UltracamX digital camera with full on-board inertial management and GPS ground control.

and raising awareness of environmental issues through practical demonstration and community involvement. The council approached the company to see how they could compensate for the greenhouse gases emitted as a result of the survey. The council will use the digital image map in its GIS, with Ordnance Survey mapping and its Land and Property Gazetteer centralised address database, to help identify communities to target with awareness campaigns and promoting energy efficiency measures. The donation will be used to fund some mature fruit bushes on one of the project's sites.

**New corporate GIS** Weymouth and Portland Borough Council has selected Cadcorp SIS – Spatial Information System desktop and GeognoSIS web-based software for its new corporate GIS. The new software will replace existing facilities and will be the basis of all GIS applications

used by the council. The company will supply licences of its SIS Map Modeller and Map Editor desktop software plus GeognoSIS web mapping software that will allow access to GIS facilities via the council's corporate intranet and provide public access to map-based data through the council's website via the Internet.

**Surveying in China** The StreetMapper mobile mapping system has been delivered to China and has already been used in various projects including high precision mapping of the Peking University Campus, 3D modelling of road tunnels in Beijing together with highway surveying for road construction and network planning. 3D Laser Mapping's system is operated by Tecdawn HT, and partners Eastdawn IT, and has also been used as part of a project to assess, analyse and manage public safety and security ahead of the 11th National Games of the Peoples Republic of China.

### Managing security

**resources** The Saxon State Ministry of the Interior, Germany, has selected Intergraph integrated public safety and security products to support the ministry's incident prevention and response efforts. The software will enable Saxony Police Force's 13 control centres and other government agencies to improve response coordination through increased operational interoperability and information sharing. The company will implement a computer-aided dispatch (CAD) system and a state-wide emergency operations centre (EOC) service with full integration of digital radio communications. This will enable personnel to field calls, create and update incidents and manage critical resources from a single interface.

### NLPG reseller unveiled

Following an agreement with Intelligent Addressing, Aligned Assets is now a UK reseller of

National Land and Property Gazetteer (NLPG) data. The NLPG data that is available for purchase from the company ranges from small subsets covering local authority areas, up to regional subsets, through to data for the whole of England and Wales. The company aims to bring to the commercial sector, and public sector organisations, the benefits of the NLPG, including accurate addressing and standardisation plus updates available every working day.

### NLPG addresses citizen index

The National Land and Property Gazetteer (NLPG) is providing the address and location information to the London Borough of Hackney's "Citizen Index": a central repository of citizen information that will be used by all service systems and a new online service portal. As the NLPG is a national dataset, the index is also populated with information

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**Parish Online is a new web-based service designed to help parish and local councils and is purchased by annual subscription. The service provides access to Ordnance Survey digital maps, Getmapping aerial photography and the National Land and Property Gazetteer.**

from neighbouring boroughs to ensure that Hackney's systems can cater for those who work but do not necessarily live in the borough. By merging data from different council sources and the gazetteer, the index provides a single view of the borough's citizens that can be accessed and searched council-wide.

**Updating the landscape model** The initial project phase of the update of the Federal Digital Landscape Model of Germany (DLM-DE) has been completed. The working group ARGE-DLM-DE, coordinated by Infoterra, delivered a test map covering 2,700 sq km across the Munich metropolitan area to the German Federal Agency for Cartography and Geodesy (BKG), which was reviewed and accepted. The complete update is expected to be completed by the end of 2010. Cartography experts from DELPHI IMM (Potsdam), IABG (Dresden) and Infoterra will examine the DLM-DE using up-to-date satellite imagery. This will encompass the verification of land cover and land use, the capturing of thematic and geometrical changes as well as the addition of objects, which are not included in the current DLM-DE. The primary data source for this mapping project is the German satellite constellation, RapidEye.

**Welsh contract awarded** The Welsh Assembly has awarded a contract to Yotta DCL worth

approximately £4-5 million over four years. The company will be surveying the country's road network, which includes 22 local authorities and the trunk roads managed by the government. A comprehensive condition survey of approximately 15,000km of road will be carried out by the company's scanner vehicles each year. The contract includes coarse visual inspections (CVI), detailed visual inspections (DVI), SCRIM (sideway-force coefficient routine investigation machine) and deflectograph surveys as part of the four-year deal.

**Map Mechanics and map reseller, Stanfords, have signed agreements to enable them to resell The GeoInformation Group's UKMap to their customer base. The latter company is also planning an online tool and is offering the delivery of UKMap in DXF format for the architectural market.**

## BRIEFS

A German/UK consortium has been asked to supply the first operational spacecraft for Europe's Galileo satellite-navigation system, reports the BBC. OHB System and Surrey Satellite Technology Ltd will build 14 satellites in a contract valued at 566m euros (\$811m; £510m). The contract was announced by the

European Commission in Brussels and should mean that the much delayed Galileo will finally become operational in early 2014.

Source: By Jonathan Amos, Science correspondent, BBC News (<http://news.bbc.co.uk/1/hi/sci/tech/8442090.stm>)

**The conference programme for the International LiDAR Mapping Forum 2010 has been launched and will see representatives from global manufacturers, service providers and government and national user organisations. The event, to be held on 3-5 March, will include papers on the latest developments in lidar technology and recent projects from around the world.**

The UK's National Land and Property Gazetteer and the National Street Gazetteer received a best practice award at the European Spatial Data Infrastructure Conference organised by the European project, e-SDI net plus, on behalf of the European Union. In addition, Forth Valley GIS was selected from 135 entries as a best practice example of a spatial data infrastructure at the European SDI best practice awards 2009.

**Mapping Forestry (ISBN: 9781589482098, 88 pages) from ESRI Press is a new book that provides a view in to the many ways GIS technology is being used throughout the world to support better forestry and land management decisions.**

Maps@Mouchel, the project to implement Maps@ within the consulting and business services group Mouchel, has won second place in the innovative project of the year category at the 2009 IT Industry Awards. Maps@ is a map data and licence management application that simplifies the process of managing, storing and serving geospatial data, from many different data providers, for usage under specific licence agreements.

**Reading Girls Grammar is the 100th school to sign up to ESRI UK's GIS for schools programme, which offers specially tailored GIS software and resources to enable teachers to integrate GIS into their lessons.**

The Open Geospatial Consortium is seeking input on enhancements and changes for a revision of the OGC City Geography Markup Language (CityGML) encoding standard such as change requests, proposed additions and suggestions for future development. These should be submitted by 26 February, 2010 with an online form available at [www.opengeospatial.org/standards/cr](http://www.opengeospatial.org/standards/cr).

**Ordnance Survey has surveyed critical infrastructure changes to roads and bridges in Cumbria following November's floods. The changes to bridges, Workington Railway Station and the road network will be reflected in MasterMap Topography and Integrated Transport Network Layers.**

The GeoInformation Group has announced that individuals from the following companies have been awarded UKMap accredited consultant status: centremapslive.com, ESRI (UK), Geospatial Intelligence (GSI), MapMechanics, Sigma Seven, Cadcorp, Stanfords Business Mapping and GroundSure.

## PEOPLE

**Managing GIS sales** Matthew Tuohy has joined eSpatial as the new sales manager and will lead the company's delivery of products designed for UK local government. Tuohy has worked in the GIS and mapping sector since 1973 as a user, consultant and salesman and has previously worked for other GIS suppliers such as Autodesk and MapInfo. A fellow of several professional associations, he is also a former council member of the AGI.



**Lord Chorley's retirement as AGI President was marked by a special award from outgoing chairman John Pepper (above right).**

LONG, LONG AGO in a far away land where there were no mobile phones, i-Pods, digital cameras, world wide web or MasterMap, a small group of like-minded people, who had been spurned assistance from government, came together to form the AGI. Over the course of 20 years and just four chief execs, the organisation evolved into a vibrant, thriving body of people with a brilliant annual conference.

It seems extraordinary that it is two decades since the founding of the AGI following the *Chorley Report* of 1988. The report had called for a "centre for geographic information" but the government of the day had refused to back it. Fortunately there were enough geographically minded individuals and companies around to come together and form the AGI.

Chaired by outgoing chairman **John Pepper**, this half-day event preceded the AGI's annual awards dinner and was an opportunity to hear from some of the association's stars from yesteryear including the author of the eponymous report **Lord Chorley**, whose retirement as AGI President was marked with an

pay you to take the data, he wondered?

Resistance to change may present the greatest opportunities for those in GI. Steve highlighted several markets ripe for invasion by GI: financial services, energy and health (despite a postcode lottery very little GI!). He believes that people will continue to pay for high quality data; the challenge is the interpretation and the problems that will come from what he described as 'the democratisation of data'.

There are light and dark forces that shape our future, according to **Robin McLaren**, whose brief was to look at where public policy might be going. There are big gaps in public policy on privacy. Education is teaching today for jobs tomorrow that don't yet exist. The UK Location Council and Inspire will provide the framework but government no longer has any money so the future will be about collaboration. McLaren wondered whether OSGB may go the way of OSNI.

**Nothing to do with me!** Discussion following these speakers varied from: 'all totally over my head! How did I become chairman of a committee to look into GI?' from Lord Chorley to an impassioned argument from **Mike Turnhill** for an economy not based on Google but on science and technology. **Peter Capell** thought that GI

## Looking back – looking forward

At the end of November last year, the AGI held a special seminar to mark its 20th anniversary. Editor **Stephen Booth** reports.

award, as well as some of the key contributors to the current *AGI Foresight Study*.

**Crystal balling** The study is an attempt to crystal ball gaze five years from now to see what the world will be like, not just for GI but all those things that impinge on it – digital rights management, open source, public policy, the media, LBS and many key market sectors for GI.

**Andy Coote**, who succeeds John Pepper as chair, gave a quick overview on where the technology may have taken us by 2015. Sub metre 3D data available for all urban areas (most of it for free although Andy predicts a rising return in demand for specialised data capture); a GNSS of a 100 or so navigation satellites; cloud computing will be the dominant way for office applications; transaction based location based services with devices like the i-Phone leading the way; crowd sourcing an essential component (OpenStreet Map expects to complete the UK in 14 months time); Google will be able to parse natural language sentences (but will Ed Parsons find the spell-checker button on his blog?). All these wonders await in the world to come.

So what will the market for GIS look like in 2015? **Steve Feldman** argued that 'technology drives markets'. He foresees passive crowd sourcing where you are the data collector. The price of data will continue to fall. What will happen if the providers

analysis of Britain's rising social problems could help.

It was a fascinating day with added insights from early stalwarts like **Mike Brand**, who said that if after Chorley we'd gone down the route of a government centre it would have been a disaster. **Peter Woodsford** reminded us that in those heady early days of AGI there were many names and faces that have since disappeared – ICL, DEC, IBI – 'We've finally realised that GI is part of IT and we have to build on mainstream standards,' he concluded. While Peter Capell recalled those early days were all about telling people about the technology: 'We were preaching; now it's debate and discussion'.

This informative afternoon was summed up by the irrepressible Dr **Bob Barr**. Reflecting on some of the AGI's problems over the years, the serious one was always, 'Who do we lobby?' We've always struggled to get the interest of government departments. For Barr, 'it's because government doesn't see anything in GI to regulate'.

Although many of those early players came from a cartographic background, and in many countries GI continues to mean maps, GI is not about maps. Although the OSM community are pleased with nicely rendered maps and the general public still think it's about maps, 'we are information systems people', concludes Barr.



**Resistance to change may present the greatest opportunities for those in GI.**





**Left: Published on 23 December, the consultation paper offers 91 pages on the government's proposal to open up Ordnance Survey's data.**

**Source: Communities and Local Government website ([www.communities.gov.uk/publications/corporate/ordnancesurveyconsultation](http://www.communities.gov.uk/publications/corporate/ordnancesurveyconsultation)).**

datasets (from 1:10k to 1:1M); Strategi (effectively a 1:250k vector dataset); Meridian2 (which is effectively a 1:50k vector dataset); the 1:50k gazetteer; Boundary-Line (a 1:10k vector dataset); and Code-Point (Postcode locations). Code-Point covers the whole of the UK whereas the other products are limited to Great Britain. It is estimated that the cost to OS would be approx £20m p.a. from loss of direct revenue; product substitution; and increased competition. The actual cost of maintaining and publishing these datasets is estimated at approx £7m, which would have to be met from other sources.

In addition to these products, the document asks for comments on a proposal for a single national address register – that never got off the ground from Project Acacia several years ago. It also notes that both the postcode and address datasets would require agreement with other government agencies – notably the Royal Mail.

## Space for OS – but what sort of universe?

Following the publication of the Ordnance Survey Consultation in December, **Robin Waters** reviews the policy options. But with a general election looming – are we just wasting our time responding?

IN OUR EDITORIAL IN the last issue, we reported on the prime minister's announcement that the government is 'opening up Ordnance Survey information' at the behest of the Making Public Data Public initiative led by Sir Tim Berners-Lee. Subsequently, just in time for Christmas, the Department for Communities and Local Government (DCLG) published a 91 page consultation document with a very comprehensive analysis of OS finances and several options for realising Sir Tim's vision.

The snappily titled 'Policy options for geographic information from Ordnance Survey: Consultation' can be found at [www.communities.gov.uk/publications/corporate/ordnancesurveyconsultation](http://www.communities.gov.uk/publications/corporate/ordnancesurveyconsultation). Responses are required by 17 March and there is an accompanying 28 page impact assessment available from the same page.

**Opening up Ordnance Survey** The consultation

*'sets out the proposals....to make available certain Ordnance Survey datasets for free and without restriction on re-use. It does this in the context of the broad long-term strategic options for Ordnance Survey.'*

The consultation lists certain OS products that are suggested for 'Ordnance Survey Free': all 'raster'

Perhaps even more significant than the free-of-charge availability of these datasets is the proposal that they should be made available under a 'Creative Commons – Attribution2.0' licence, or similar, that would allow users to derive data from the OS mapping and licence it in the same way. For the products in question this would remove the current problems of derived data that bedevil the web publication of many local authority datasets.

**Steady State + OS Free – option one** The document draws heavily on a report from L.E.K. Consulting that was obviously commissioned well before the prime minister's announcement and which is arguably more objective than some of the recent papers on OS and public sector information policy. Analysis and stakeholder interviews showed that there are five main issues with the current OS self-funding business model:

- Imbalances in tariff structure between public and private sectors that 'prices out' some private sector consumers and may lead to 'excess specification quality' from the lack of a clear price signal.
- Limited flexibility to change licence terms and conditions and a recognition that this will be



**... this would remove the current problems of derived data that bedevil the web publication of many local authority datasets.**



very difficult to change without further funding.

- Lack of transparency to government customers of the business economics – particularly between different areas of the Ordnance Survey's business.
- Weak commercial interface between Ordnance Survey and major public sector customers due to intermediary procurement organisations – this has been based on existing products with little negotiation on specifications/quality and very weak price signals.
- Financially constrained pace of change – due to high cost of early staff termination under existing public sector employee contracts.

Option 1 would maintain the rest of OS operations as at present with no change to the existing business model.

**Big Bang** Option two would be to make OS MasterMap available free of charge under similar licensing arrangements and thereby remove the majority of OS revenue. The suggestion is that this would require the division into 'OSDataCo' – for data collection and maintenance – and 'OSProductCo' for 'downstream' value added products. It is further suggested that OSProductCo would, inevitably, end up in the private sector – competing with other users of OSDataCo datasets. However, OSDataCo could be funded in various ways:

- annual government vote subject to annual spending reviews
- increased collaboration with Land Registry which then raises appropriate fees
- establish an alternative funding vehicle using compulsory fees incurred when individuals and/or organisations register changes to the databases
- set up a PFI activity to maintain the databases and ring-fence government funding for a long-term period

**Contracting Universe?** Option three is entitled 'Staged transition from the current strategy' and would include Ordnance Survey Free; tariff rebalancing (between public and private sector pricing); greater customer centricity; accelerated investment for improved efficiency; and 'enhanced ownership function' for government with 'segmental accounting' to enhance transparency. It is admitted that this option would require upfront investment of the order of £40m per annum

immediately but does not spell out any longer term financial costs or benefits.

**The space time trade off** But are we just wasting our time responding to this consultation? After all there is a general election in May at the latest and it is most unlikely that the government will make a far-reaching decision like this in its last month – and even if it did, that it could not easily be overturned by an incoming government. We tried to address this issue by canvassing the political parties for their policies. We asked three questions:

- 1) *Can the Ordnance Survey provide free data AND be sold into the private sector? If so, how would you ensure that a privatised OS would continue to provide the free public services? If not, how will you continue to pay for the free public services that the Prime Minister thinks are vital in an 'information society'?*
- 2) *How would you ensure that the UK establishes a single, definitive address database that is freely available for all applications in government and commerce?*
- 3) *How will you support the UK Location Council and the UK Location Programme to ensure that costs are minimised (e.g. by avoiding duplication) and that benefits are maximised (e.g. by promoting the sharing of information)?*

We gave a little bit of background as well but have only received "holding" responses from some of our politicians.

What we know is that the present government is likely to continue with the current moves toward freeing up OS data and that the Tories are likely to have a similar policy – though perhaps with even less government spending available. The government's 'data.gov.uk' ([www.data.gov.uk](http://www.data.gov.uk)) portal is being matched by Boris Johnson's London Datastore (<http://data.london.gov.uk>) and there is clearly a significant GI requirement in both of these. Although the Lib Dems have toyed with ideas for land value taxes – and the so called 'mansions tax' – they do not seem to have articulated a specific policy on OS or the Land Registry.

Continuity of policy was stressed by Francis Maude MP at his Locus Association presentation – see page 30 – but neither he nor Prof Nigel Shadbolt, the government's information policy advisor, were committing themselves to any of the options set out above.

So it's up to us all to respond with our own opinions on how spatial information should be made available and funded – space time may have some interesting curves for the Ordnance Survey and time horizons do seem to get shorter and shorter!

“  
 . . . OSProductCo would, inevitably, end up in the private sector – competing with other users of OSDataCo. . .  
 ”

# the *GiSPro* interview



## The Segal File

Mike Segal is a Director in Defra's Strategy and Evidence Group. Before joining Defra's forerunner MAFF in 1988, he had ten years' experience in R&D in the nuclear industry.

He led MAFF's nuclear emergency planning team in the years following the Chernobyl accident, which included one of the first uses of GIS in the Ministry. He has held posts in food safety science and policy, including Chief Nuclear Inspector and Head of Nutrition.

He joined the Food Standards Agency on its formation in 2000 where he was Director of Corporate Strategy and Secretary to the Board.

The Foot & Mouth Disease crisis brought him into the newly-created Defra in August 2001.

His responsibilities since September 2009 include leading the Data-Sharing Programme and deputising for Chief Scientific Adviser Bob Watson.

**It has been an extraordinary year in which to set up the Location Council (LC). It has had several changes of membership since its inception in November 2008. How will 2010 compare?**

I became chair several months after the Location Council was set up but was immediately struck – and encouraged – by the enthusiasm and energy of all of

through membership of one of the subsidiary groups. The Location Council has no executive authority and provides advice and guidance – the only legislation for which it has had any responsibility is the Inspire statutory instruments.

**How does chairing the Location Council fit with your role in Defra?**

Defra is a department with responsibility for executive agencies (such as the Rural Payments Agency), non-departmental public bodies (such as the Environment Agency), public corporations (such as British Waterways) and others (such as the Forestry Commission). My role in Defra is to promote data-sharing across this whole network. Not all of the relevant datasets are location based but location is fundamental to many of them. I don't believe, in this context, that 'spatial is special' – most of the issues around the collection, maintenance, sharing and dissemination are common to all types of information.

**There are several government initiatives ongoing - e.g. Location Programme, Making Public Data Public (MPDP), Smarter Government – can the Location Council set a coherent path through these?**

Evolution is the keyword in my response and our member from the Cabinet Office, Andrew Stott, will

**Negotiating a dynamic landscape** Chairing the Location Council is but the latest of challenges for a man who cut his teeth in government on the Chernobyl accident. **Mike Segal** talks to *GiSPro's* features editor Robin Waters.

the members. 2009 was a formative year for the council, which is now likely to remain more stable. However 2010 will be challenging as we negotiate the dynamic landscape of developing technologies and numerous government initiatives as well as getting to grips with Inspire.

**Several departments have "fallen off" the LC – how will their concerns be considered and will the LC have any influence over them?**

It is a misconception to believe that original members of the Location Council left because they could not fund or otherwise resource their membership. It is more about their overall commitment – at this particular time – to the Location Programme. Some are not yet at the stage where they can, or need to, commit. I believe that the Council will evolve and that other departments will join over the next few years. I believe many government departments and other public bodies will become more involved in contributing to the Location Strategy without necessarily becoming members of the Council. They may have their views represented to the Council

also be the key bridge between many of these initiatives. All of these initiatives are evolving within themselves and must take account of the others. However I am struck by the number of examples quoted in the recent launch of the data.gov.uk site which involved a location element – as this is written the three most recent applications on the site are for property information, cycle routes and crime mapping.

**Will the LC be able to articulate a single view, for example, on the future of Ordnance Survey, which has a business model at odds with the MPDP initiative?**

The Location Council is currently debating whether to put in a collective view to the CLG consultation on the freeing up of OS datasets. We understand the tensions between freeing government datasets and the business models currently set for the organisations that provide the information. It is a matter of sorting through the issues and trying to reach the best possible solution in the current context. This is not just a matter of being able to free up data one day and charge again the next – once the genie is out of the bottle it can never be returned.

“

**I don't believe, in this context, that 'spatial is special'...**

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**Is the potential change of government going to make any difference to the work of the Location Council?**

As a civil servant I have to be very careful what I say! However, the trends for freeing up government datasets and the pressures on budgets will be very similar – whatever government is elected later this year.

**The annual report mentions crowd sourcing but doesn't elaborate – does the Location Council see this new form of data collection as likely to seriously impact the Location Programme and/or INSPIRE?**

There will be much more crowd-sourced data in the future and that it will have a large impact on the market in general. The experts tell me that this means of data collection has a lot of potential, as highlighted by some of the recent applications demonstrated as part of the data.gov.uk initiative. Crowd sourcing should not be a substitute for data that should otherwise be available from definitive sources. It should be used to enrich our knowledge with additional information and, where appropriate, provide feedback to and complement government data.

**Many producers and users of information are still awaiting guidance on meeting UKLP/Inspire requirements. With Inspire spatial infrastructures in place, do you believe we have sufficient resources identified to interpret the opaque Implementing Rules and Guidance coming from the EC?**

I believe that we are moving as fast as we can to implement the UK Location Programme and Inspire and that we are ahead of the game compared to most other member states. UK was the sixth (out of 27) to fully transpose the Inspire legislation into national legislation. As noted in our report, we have welcomed several overseas visitors – most of whom wanted to learn from our experience. In my experience much European legislation is opaque and needs careful interpretation – so there is a lot of work to do to ensure that all of those affected are made aware of their responsibilities in good time. The Blueprint has been published and a detailed programme will be available in the next month or so.

**Inspire, GMES, SEIS. . . Does the LC believe these are being joined up in Europe and/or in UK?**

My Defra role already includes co-ordination of environmental monitoring and therefore I am well aware of the current state of these other EC programmes. The EU is undoubtedly worse at joining up its directorates than is the UK with its ministries – so it is no surprise to find that some EC directives overlap or leave gaps. But with good will and enthusiasm most of the issues will be resolved as the programmes are fully implemented.

**AGI is the only non-government member of the Council – how is it proving useful?**

AGI plays a vital role on the council representing users (in all senses of the word) and helping with the communication of the Location Programme. I understand the AGI is seeking to move beyond its traditional members to a wider user community and this will also be very useful to the Council. It is very important that the Council is able to find the right channels to reach all stakeholders.

**What devolved government experience does the LC see as being most relevant to the Location Programme?**

We have a very different and asymmetric organisation of devolution in the UK compared to some continental countries. I think that all devolved government experience in location information is useful – not just at a technical implementation level – including the work done on strategies and the experience from the different levels of devolution in different domains. We are particularly interested in local authority participation, which is vital and their representatives have been very active with the council.

**The Location Council advertised for a chair of the User Group – can you tell me how this is progressing?**

By the time this is published the chair of the Location user Group will have been announced and, with the Council, he/she will be choosing the members of that group. We had a very strong set of candidates for the chair and we expect that the membership will represent public sector policy makers; private sector industry; and the general public – the ultimate end users. Feedback from this group will be very important to the Council to ensure that all interests are taken into account as the UK Location Programme is implemented. Equally, we expect the Group will play an important role in communicating outward to the various user sectors, and championing the objectives of the Strategy.

**How will the Location Council be able to resolve issues such as the lack of a National Address Register?**

Actually we can't necessarily resolve all of these issues. We can act as a facilitator and we can bring parties together. We can advise but certainly cannot enforce agreements that need to be made between consenting parties. One of our roles is to advise government on such issues.

**What would your "elevator pitch" message to the GI community be?**

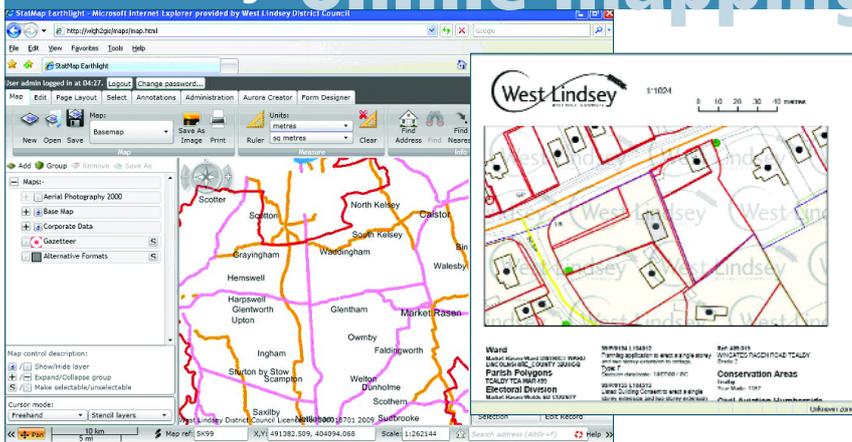
There's never been a better moment for the GI community to exploit its expertise!



**. . . once the genie is out of the bottle it can never be returned.**



# casestudy: online mapping



**Above: Earthlight screen with main roads and (above right) a typical map print out from Earthlight.**

MANY READERS WILL NOT be able to place West Lindsey on the map. But most will have heard of the Dam Busters. The Dam Busters – 617 Squadron – took off from RAF Scampton in what is now West Lindsey, with very few lights showing, on their way to the Ruhr in 1943. The flat Lincolnshire countryside still shows many relics of WWII with disused airfields slowly returning to peaceful use. But RAF Scampton is currently

to influence the design and functionality of both products and are continually working with the developer, Karol Kolanda, to enhance them. As corporate systems manager, I worked with the suppliers to ensure that council experience was incorporated and that all their requirements were met.

The user experience is of a rich Internet application that looks and feels like a desktop product. The speed and intuitive feel of the software have enabled the roll-out of this application to over two hundred internal users to take place within a week of going live. I produced a basic user guide for the operation of Earthlight and all users – including those previously using GIS – have commented on its ease of use and the much faster access to maps on the screen.

Full GIS functionality is available on the council intranet – creation, editing and deletion – as well as buffering, merging, tracing, etc. Thematic maps are easily produced and extra tools have been added since the first implementation, based on users' feedback. Administrative tasks can also be performed via a

## Lincolnshire Lights in the Sky?

Web-based services are an important tool for councils, providing a single point of interaction for staff and members of the public. **Jeannette Anderson** explains how two products from StatMap have helped to replace other GIS applications at West Lindsey District Council.

the home of the Red Arrows RAF display team that still lights up the sky as it practices.

West Lindsey District Council (WLDC) also has lights in its own virtual sky – it has recently implemented StatMap Aurora to provide web access to the council's map based information.

The council has been using GIS since the early 1990s to enable internal processes and tasks to be completed efficiently and as an essential tool for producing the Local Plans documents. All the planning data (applications, conservation areas, constraints, etc. – some 250 datasets) were captured during the 1990s. It is this information that has now been made available via the new web application for use by members of the public, property search applications and other interested parties. Internally, the council also now uses StatMap's Earthlight with the full GIS functionality on which Aurora is based.

The West Lindsey system provides a single point of interaction with geographic information held throughout the district. This includes viewing information about properties or neighbourhoods (My Property), reporting incidents/issues (Report It), applying for forms etc (Apply for It), and finding your nearest amenities (Find my Nearest).

**Earthlight inside** WLDC are the first local authority in the UK to procure and implement the internet versions of Earthlight and Aurora. They have therefore been able

browser and the Local Land and Property Gazetteer can be displayed and controlled directly. Earthlight and Aurora are capable of storing the spatial data in native Oracle and SQL Server databases enabling seamless interoperability with other GIS products. Ordnance Survey MasterMap is loaded using Statmap's Courier application, which claims to be a market leader and works with both SQL Server and Oracle. Maps can be viewed as quickly as on the most popular commercial websites and do not therefore hold up users' workflows. The providers also claim that Earthlight is highly scalable and can support hundreds of sessions on a single server.

PDF format is used for printing so that maps can be emailed, saved or sent direct to the printer after users have customised print layouts with a print layout editor. A standard map output is shown above.

Database and spatial queries can be output as spreadsheets to print as tables or text.

It was especially important to WLDC that their information was secure despite much of it being available on the internet. This did not require any special configuration of the web server or changes to firewalls.

**Aurora outside** Earthlight is used via the intranet by all WLDC's employees and has been implemented with very little training or previous GIS experience. It is also used to configure the public facing Aurora including the design of the on-line forms.

The **My Property** application enables users on the



**The user experience is of a rich Internet application that looks and feels like a desktop product.**



# casestudy: online mapping

web to find addresses, local administrative and electoral boundaries together with local councillors. Also available at the touch of a button are listed buildings, conservation areas, tree preservation orders and planning applications that are updated on a daily basis. Refuse collection rounds can be viewed and then linked to calendars to show next collection day. Aurora also displays a public register – this is the option Local Land Search companies use when carrying out Land Searches – that has all the information that is freely available to solicitors when carrying out conveyancing.

**Find My Nearest** holds information on both public and private sector amenities from car parks and libraries to schools and churches. Having established which amenity is of interest, the user can then click through to an external website, which will show details of opening times and other current information.

**Report It** enables the public to report any type of incident such as fly tipping, abandoned vehicles etc directly to the council via on-line forms without the need to use a telephone. An acknowledgement is automatically sent back to the customer and an email is dispatched to the relevant council department.

**Apply for It** invites users to complete an on-line form to request a service or information such as alternative formats (large print documents, audio CD, different language etc), to request services and to comment on planning applications.

Those that follow the government target setting agenda will have heard of National Indicator NI14 – Reducing Avoidable Customer Contact. This has nothing to do with communicable diseases but it has everything to do with reducing duplication of communications – and unnecessary communications – between the community and local authorities. In West Lindsey, the Aurora application is now linked to their CRM system, which helps the council to meet this target by reducing the number of “chasing” or reminder calls and automatically responding to all contacts at the appropriate time.

Fundamental to any council GIS is the Local Land & Property Gazetteer (LLPG). Although originally “built in” to the application, Aurora now links to a view of the master copy of the LLPG held on the council’s main database. This removes the need for uploading the LLPG on a regular basis and allows interrogation of the live data.

**An enlightening experience!** As I had been working on a GIS development plan, a lot of the preparation work had already been completed. With Statmap, West Lindsey have been able to achieve both fully implemented intranet and Internet GIS applications ahead of time and under budget. Costs were offset by the cancellation of existing GIS desktop licences and the savings almost covered the annual maintenance cost for both Earthlight and Aurora. The benefits of procuring these products have been far beyond our expectations – they have completely replaced all existing GIS

applications. They are providing excellent value for money for all of our service areas.

It is still early days for the new system with on-going development and frequent enhancements. The new features will include integration into back-office systems to enable enquiries about the status of planning applications and other services – such as local land searches. Other tools will help with priority planning, flood-risk analysis and route planning.

West Lindsey DC are benefiting from new software that takes advantage of many of the latest developments in web and PC technology – increased functionality at a reduced cost. That’s got to be good for the industry – Earthlight and Aurora are clearly illuminating a large part of Lincolnshire!

Aurora™ Mapping West Lindsey can be found at: <http://mapping.west-lindsey.gov.uk/maps/Aurora.html>.

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Above: An overview of “Nearest Amenities”.

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# columnist: Chris Holcroft



• *Chris Holcroft is the Director & CEO of the Association for Geographic Information (AGI). The views expressed in this column are his and not necessarily those of AGI.*

I RECEIVED MY FIRST Sat Nav last Christmas. Ironically, being involved in the geospatial world, owning one was never a pressing need for me. I'd managed fine with navigation on paper devices.

Over recent years sat-nav devices have been a major electronic gadget success story. That they were 'mainstream' struck me when I saw them in Halfords and then Tescos. Mature in the market, they have become increasingly attractively priced and I'd recently begun to ponder if it was worth the investment to make that last unknown mile before destination a little smoother. Getting one in my Christmas stocking meant that the purchase decision was taken for me.

I'm very happy with the device. I've 'tested' its ability on known routes and it knows its stuff. If anyone recalls the line from the recent episode of the Royle Family, 'That sat-nav girl's so clever you know. . . she knows where we are going and we only decided last week', you'll get the picture.

My children have got over the 'let's download some silly voices' phase; Homer Simpson and John Cleese have been superseded by some soothing female traffic reporter who actually enhances the

Well-publicised success stories like OpenStreetMap (OSM) have been created by individuals with more than a degree of competence, equipment and enthusiasm for good geographical data collection. It is the strong example mentioned by neogeographers – a now-dead phrase, I'm advised on good authority – of how new technology and mass participation can succeed in areas previously formalised by, for example, large monolithic mapping agencies. Work such as Muki Haklay's (UCL) study of the quality and accuracy of OSM suggests to me that the factors required to ensure that a successful digital data product comes out the other end – data specification, adequate mass collaboration, quality control and so on – are in place. OSM gets a good write-up, on a par to comparable and more 'traditionally' crafted products.

**Web 2.0 surge** Web 2.0 has allowed a surge of public participation in IT projects of common interest. OSM tells us there is a large base of competent practitioners out there with the enthusiasm to pioneer such developments. A talent pool so to speak. This is not unlike other fields of study. Biological studies, for example, have surged in

## When three is not a crowd

Chris Holcroft thinking about crowd sourcing. Should data collection really rely on arbitrary points of interest and the votes of other users?

navigation exercise. I've since been browsing, selecting and downloading POI data via the unit's web interface.

And that's where this column really begins. Crowd Sourcing – having the public participate in some way in IT project activity, whether it be data collection, structuring or analysis – really needs a "crowd", and on top of that some very robust controls.

**Voting for POI is arbitrary** Where user-collected data seems to have failed on my sat nav, is that whereas reporting data errors in the main route database does leverage mass collaboration and seems to work well, the POI data collection does not. It is not, it seems, crowd sourced in the collection. Here we seem to have individuals collecting data of personal interest. The system then depends on fellow users voting on its usefulness. Thus data collection is entirely arbitrary, the type of data collected is arbitrary and the end-user verification is arbitrary. In practice then, quite a lot of the user collected POI is patchy and is of marginal use with no guarantee of update.

No surprises then, that rule one is that for mass collaboration on IT work, crowd sourcing needs a crowd. The old saying is that 'three's a crowd' – but it's not in this context.

capability owing to new technology and a ready base of volunteer enthusiasts on hand, not just professionals or academics.

That said we have nothing new here other than the ability to very effectively connect individuals in mass collaboration. I believe nothing about the 'rules' and 'good practice' of project management are changed or re-written by this. Collaboration for mass data collection and verification needs a critical participant level commensurate with the scope of the project. One or two people collecting a bit of data for upload to a POI service is clearly not what it's about. Project specification, robust population sizes, good quality control, interface mechanisms, distribution capabilities, update cycles and feedback tools are essential to make crowd-sourcing work well and give the resultant products credibility for proper and ongoing use.

Our world today is burgeoning with information; we are increasingly challenged to understand not only what it is, but also its veracity and then be able to use it responsibly and properly. The Crowd is playing a big part in enriching this growing surge of available information. In addition to this, with all indications that a tidal wave of government sourced information is to be made available to the public, our challenges and opportunities can only grow.



**Thus data collection is entirely arbitrary, the type of data collected is arbitrary and the end-user verification is arbitrary.**





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IT'S BEEN ELEVEN DAYS since the 12 January earthquake in Haiti as I write this. The event continues to be part of each hourly newscast and just last night here in the US there were two large scale musical events to raise funds to help the people of that country. From a geospatial standpoint, I find myself both pleased with and a bit perplexed about our community's efforts in supporting response, rescue and recovery.

**The spirit of giving** Let's start with actions that should make all of us in the industry feel good. The two US commercial satellite imaging companies, GeoEye and DigitalGlobe, continue to show leadership in times of crisis by acting quickly to make imagery broadly available. The images help those who are following the news to make sense of the scale of the devastation and bring detailed, valuable information to those on site. Both companies have

situations where the public or professionals should be learning new technology. That, I think, is why views of satellite imagery on Google Maps/Earth and Bing Maps were high. These were the everyday tools the public, journalists and many responders know well. ESRI followed what's become its "regular" procedure: offering up a web page to support its users in response efforts. As I noted above, GeoEye and DigitalGlobe have similar procedures in place.

On other fronts there were no "regular" procedures, which led to confusion. One example: both OpenStreetMap and Google Map Maker were updating their basemaps, but the two could not be combined (mostly due to licensing, not technical issues). That meant developers and even end users had to determine which was "authoritative" for specific areas. How would those individuals, many of whom are not geospatial professionals do that? That's one of the things for which I hope there is a

## Haiti – lessons from the geospatial response

To avoid confusion in the face of future crises, we need repeatable procedures in place so that we are better prepared, argues **Adena Schutzberg**.

developed a process to turn on a dime to capture and distribute the imagery directly to those who need it and indirectly to the world via Google's and Microsoft's mapping portals.

I was very pleased to see that both providers made their imagery available to the OpenStreetMap project to use as a base for creating updated maps of the country. Volunteers self-organised to "trace" that imagery to provide timely vector street data. Google turned to its volunteer force to help update its Haiti Map Maker vector map. Many organisations offered data, technology, map production and other services including such familiar names as ESRI, Erdas, DeLorme, MDA, Spot, GeoCommons and The Carbon Project. Universities involved geospatial students in map production work for formal and informal support efforts.

The weekend of 23-24 January marked the second set of CrisisCamps where software developers came together in teams to help build useful applications in support of response, rescue and recovery. The turnout at these events and the spirit of giving reinforced the idea that one need not be in Haiti to help out.

**Routines to avoid confusion** Now I want to move on to why I'm perplexed. I've come to the conclusion after watching so many disasters (9/11, Katrina, and the Indonesian earthquake, among others) from a columnist's chair, that the best way to address these emergencies is with the tools and procedures professionals use everyday. These are not

documented, repeatable "procedure" for the next event before, as Sean Wohltman who works for Google and raised this issue in a blog post put it, this confusion "gets people hurt".

A similar issue came up revolving around the many databases and applications for connecting family members with information about loved ones in Haiti: there was no single "authoritative" starting point. That lead Christopher Csikszentmihalyi, Director of the MIT Center for Future Civic Media, to plead with organisations hosting such apps to "come together" around a single database and app. These two dilemmas suggest an embarrassment of riches related to user generated content.

That embarrassment grows beyond user generated content to commercial content and applications. Many bloggers and journalists inside and outside of the geospatial community tried to maintain updated lists of new apps, datasets, data services and the like. What should be the single starting point for documenting such resources? Who should maintain that listing of data sources (with details about currency, quality, licensing – aka metadata) so that those who need them can find them? We have this issue day to day in the geospatial community; if we can solve it for day to day situations, it will be in place for the next disaster.

I wish the best for the people of Haiti and challenge those in the geospatial community to learn from dilemmas in this event to better prepare for the next one.



**These two dilemmas suggest an embarrassment of riches related to user generated content.**





I HAVE LONG BELIEVED that if you inspire an interest in geography through maps at an early age you will have an inquisitive, well-rounded human being. As if to prove my thesis, the Ordnance Survey's GeoVation Awards day saw two finalists with ventures that used maps in a highly imaginative and engaging way with children. But they were up against seven other contestants with ideas that might equally attract the judges and the audience.

The awards are part of a larger network that aims to encourage ventures that use geography. So far over 300 have signed up to the website with some 220 ideas, but only a few have proceeded to the next stage of a fully evaluated proposal, beta test or prototype product. The Awards day, held in the hallowed surroundings of the Royal Geographical Society, heard from nine finalists. They each had five

**Big maps, text alerts – and a gorilla!** So, let's take a look at the finalists. Mapland is a very big map, indeed so big is it that you will probably need a school hall to set it out, which is exactly what developer **Terrie Sawyer** and her colleagues have in mind. The map, based on OS 1:50,000 data, can be hired by schools with a teaching pack. Children can wander round the coastlines or trace the routes of the motorways.

Every year hill-walkers get in to difficulties by misjudging their route, the weather or they have accidents. One way of getting help speedily is an online service where they log their route in advance and set up automatic phone and text alerts if they don't phone in on time. A worthy idea indeed.

The Mission.Explore London team, The Geography Collective, turned up in force complete with their own gorilla. The idea is to encourage people and children to explore new places in the capital city via geolocated mobile phone apps and

## Geographic Rewards

Big maps, little maps, web maps and no maps at all, were amongst the finalists for the Ordnance Survey's 2010 GeoVation Awards, reports **Stephen Booth.**

minutes to make their pitch to a panel of judges that included **James Cutler**, the CEO of eMapSite, **Gary Gale**, head of geospatial engineering at Yahoo!, **Steve Coast**, the founder of OpenStreetMap and **James Alexander**, founder of Green Thing and zopa.com. They were joined by the Ordnance Survey's **Peter ter Haar** and the GeoVation Champions, **Steven Feldman** and **Chris Parker** who acted as compère.

thereby "enthuse them with geography". The bouncy gorilla was already rather too enthused.

Mapping Britain on Horseback was an altogether less frenetic venture. Developed by the British Horse Society, the aim is to collate all equine routes in the UK. It could be a useful resource for walkers and cyclists too and is part of the Society's EMAGIN (see *GiSPro*, April 2008) – equine mapping and geographical information network.

**Geo apps and blue plaques** Now for an app specifically for the i-Phone. Just in case you haven't tried one of these devices I can report that they are fantastic – camera, mapping and GPS navigation, Internet, music player and thousands of downloadable apps, many for free. Oh, and did I mention a phone too? The interface may be intuitive for Apple users but less so for us PC people. Having had one for just over a month now, I have at last worked out how to reply to or forward a text message! And now Mr Jobs has a whole tablet PC that works like the i-Phone. . . arrghr! Back to the proposed app.

Goodfindr uses geography to help you locate seasonal food and other locally produced goods as well as showing the socio-economic impact of your purchases. It didn't include the socio-economic and carbon footprint in travelling to get your purchases. Oops!

*This article continues on page 21.*



The winners for the GeoVation Awards Programme gathered at London's Royal Geographical Society. In the front row are (left to right): **Stuart Grant**, The Open Climate Data Repository; **David Coughlan**, London Blue Plaque; **Daniel Raven-Ellison**, Mission:Explore London; and **Rowena Wells**, representing the winning venture, **MaxiMap** – a large educational floor map.

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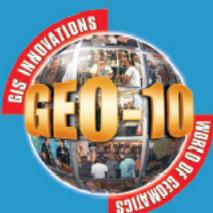
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LAST WINTER I WROTE EUROFILE in Hungary – with snow and black ice everywhere and with ice yachting on Lake Balaton. Everyone was worried about the gas supply situation – especially the stranglehold that Ukrainian pipelines have on a lot of European consumers. This year it has been just as cold in the UK and we have all seen the wonderful satellite image of our white island – from Lands End to John O’groats. And who’s been worried about gas this year?

Anyway, work must go on and Eurofile has managed trips to Italy (again) and Moscow during December – just to see how our cold compares with theirs you understand! My flight to Moscow and back was an absolute joy. Half empty both ways, proper in-flight service and free wine. And, although the client was paying, it was also a pretty cheap fare

see one drop of the stuff all the time I was there. And now, within spitting distance of the Kremlin there are windows full of every luxury brand that you have ever heard of – from Rolls Royce to Louis Vuitton – and a huge skating rink in Red Square.

The Moscow visit was all about national spatial data infrastructures and, interestingly, the Russians have just combined their mapping, land register and technical inventories into one institution – as is already the case in several EU member states and latterly Northern Ireland. There is an interesting RICS paper on the subject from one of their members in Moscow, which describes how the new “Federal Service of State Registration, Cadastre and Cartography” has been created. Everyone now hopes that this will lead to a much more efficient and

## Reminiscing in Russia

Our Eurofile reporter **Robin Waters** lands in Moscow to take in the sights and hear the latest geo talk on spatial data infrastructures – but where’s the vodka gone?

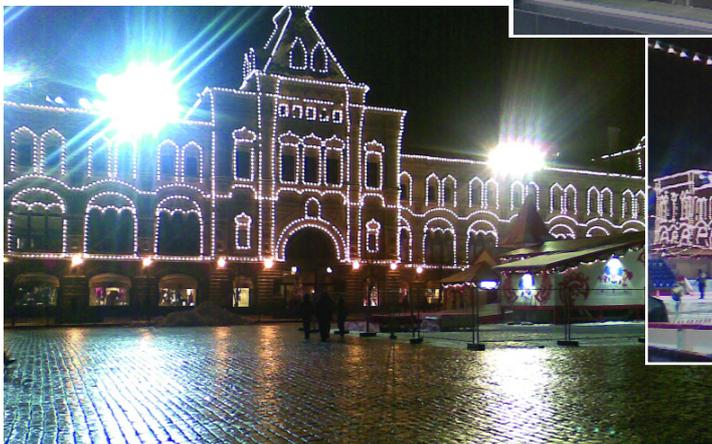
as well. How long can that last I thought? In fact, the worst part of the journey was the melee at the car park entrance where none of the automatic barrier machines appeared to be working first time.

**From vodka to Vuitton** My last visit to Russia was 15 years ago and Moscow has certainly changed in that time! Official visits in 1993 were often accompanied by copious quantities of vodka – in the office and during working time. Not any more! I didn’t

transparent land and property market, which has been sadly lacking since private ownership was theoretically restored in the early 90s.

I certainly saw an effective on-line enquiry system that enables a user in St Petersburg to query the land registry in Vladivostok. Remember that Russia covers 8 time zones and the greater part is in Asia rather than Europe! The ‘technical inventories’ have been regionalised ‘building cadastres’ that in some senses parallel our address databases. Whether the Russian

*Moscow nights – The sights of Russia’s capital are reason enough to visit. But be careful – you can spend money just looking in some windows!*



postal service is involved, and if so whether it copyrights their postcodes, I know not.

**Inspiring tender?** In September I mentioned the tender put out by Europe's GMES (Global Monitoring for Environment and Security) for European and worldwide 'geospatial reference' datasets. Now we know who won – or do we? Lot 1 (for European datasets) was won by Indra Espacio of Spain with 49% of the 2.08m euro project subcontracted. Lot 2 (for non-European datasets) was won by SiTI, an offshoot from Turin Polytechnic with 80% of the 250k euro work subcontracted. These were awarded in mid December and are apparently of so little import to the organisations concerned that neither has bothered to announce them on their websites! The GMES website states that:

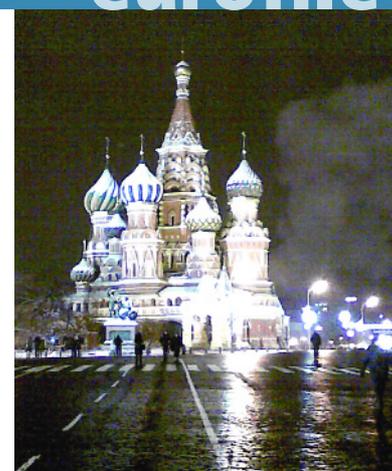
*'According to the Inspire Directive, all the data providers of the Member States are obliged to make this data available. The aim of the contract is to provide a central service to access these reference data providers in a unified manner.'*

No hint about the subcontractors and we don't quite understand how this ties in with the Inspire reference datasets – which come from Member States – or with

the Inspire geoportal which is being built by the team at the EC Joint Research Centre near Milan. However, it looks very much as if GMES – sponsored by DG Enterprise – is not altogether joined up with Inspire – jointly sponsored by DG Environment, EuroStat and JRC. Is this a case of letting the best solution win or of a lot of overlapping, if not completely duplicated, expensive datasets?

And while we are in space we should note that Surrey Satellite Technologies Ltd have won, in partnership with OHB System from Germany, the contracts for 14 Galileo GNSS satellites. The Guildford based company, now owned by EADS Astrium NV, will be responsible for the navigation payloads for this implementation phase of the project. This follows the success of the GIOVE-A satellite that they launched in 2006 to stake Galileo's claim to the GNSS signal spectrum.

Back down on earth I have just booked my return flight to Krakow for the 2010 INSPIRE (22-25 June) conference, which promises to be a really good event. If you are coming, watch out for the "alcohole's" (*sic*) down every street but don't expect to get the same service on your flight from Stansted as I received en route to Moscow & back!



**St Basil's Cathedral Red Square.**

*Robin Waters is an independent consultant. He is also chair of the AGI's INSPIRE Action Working Group and secretary of the BSi IST36 Standards Committee for Geographic Information.*

## geovation awards

... continued from page 18

Those ubiquitous blue plaques to be found on city streets that record the residency of famous people are perhaps an obvious application for a website that tracks their location and tells you something about those they commemorate. Search by Google and maps from similar sources, it's an interesting idea. But no mention of an i-Phone app for which it might be well suited in the hands of an inquisitive tourist.

MaxiMap is a large format (5 x 4m) educational floor map of the British Isles. The brainchild of retired history teach **Ann Jones** and her colleague **Rowena Wells**, the map is designed to give pupils of all ages a working knowledge of the basic geography of our islands.

Next was a website resource called The Open Climate Data Repository. Designed as an archive of climate data with web-based tools for analysis, the aim is to help inform the controversial debate on climate change. The developers assured us there would be guidance on understanding statistics and provenance of the data.

Finally we were shown the Open.HistoryMap. Using Google maps or imagery with historic mapping overlays and a timeline, the user may discover the past history of local places and features through links to Wiki and other sources.

**And the winner is. . .** Steven Feldman said the judges' decision was difficult and that 'it was the beginning and not the end of the GeoVation Awards'. Indeed, so impressed were the judges with their two leading finalists that they decided to tighten the allocation of prize money from £12k for the winner and £5k for second, to £10k for the winner and £7k for second. And so the winners were. . . in third place the Blue Plaques scheme, second was Mission:Explore but out in front, and very clearly also in the judgement of the attending delegates who voted for them to receive a £1000 bonus community prize, MaxiMap. Ann Jones said she was 'flabbergasted! This is going to mean such a lot to the project. It'll help us get it off the ground and allow more schools to hear about MaxiMap and what it can do'. Steven Feldman reminded all the winners that once they received their prizes, the GeoVation team would be following them with close interest and support as they developed their schemes.

An important footnote to the day was the raising of £750 for MapAction, the disaster relief charity that sends volunteers to re-map damaged areas, like Haiti, following earthquakes and other natural disasters.



**Steven Feldman said the judges' decision was difficult and that 'it was the beginning and not the end of the GeoVation Awards'.**



# running the census



**Buildings in multiple occupation are a major challenge.**

CAN YOU IMAGINE what it would be like to run a census, distributing questionnaires to, and receiving them back from, 25 million households, even before the number crunching takes place? This is the challenge that is facing the Office for National Statistics (ONS), the census arm of which is based in Titchfield, Hampshire. As it is a legal requirement for every household in England and Wales to complete a census questionnaire, the overall task appears relatively simple, however the practicalities are complex.

fair to say that it is one of the most challenging parts of the census. The majority of households, (defined as one person living alone or a group of people living at the same address who share cooking facilities as well as a living room, sitting room or dining area), are straightforward. The vast majority of England and Wales's housing stock has remained stable over long periods, but new builds, demolitions, conversions and commercial / residential change all add spice to the mix as do the more complicated nature of household identification in static caravan parks, guest houses and communal establishments (such as air bases, naval establishments and similar).

No single national list currently provides a full solution to the census requirement.

The residential core of the 2011 Census address register is formed by matching two national datasets – Royal Mail's Postcode Address File (PAF) and the National Land and Property Gazetteer (NLPG), maintained by local government. The version of PAF used in the match also incorporates grid references

## Census 2011 – preparing to count us all

In March next year your census questionnaire will come through your letterbox in a fat white envelope with a purple logo emblazoned across it. **Alistair Calder**, head of the address register project for the 2011 Census, tells us how he's going to make sure we're all counted.

ONS holds the responsibility for running the census in England and Wales (Scotland and Northern Ireland run simultaneous yet separate censuses), and has been doing so for the past 200 years (bar 1941).

In order for every household in the country to receive a questionnaire, a robust address register is being developed. This is the first census to post out questionnaires – traditionally enumerators have delivered each questionnaire by hand, assessing lists of households as they go.

Additionally in 2011, people will be able to post back their questionnaires or complete the census online, so the address register will provide the key to accurate follow up if questionnaires are not returned (each household is assigned an individual barcode, which enables ONS's sophisticated tracking system to re-deploy field staff in areas with a higher proportion of non response).

**Adding spice to the mix** The address register has been in development for over three years and it is

sourced from Ordnance Survey's MasterMap Address Layer 2 product. Although both PAF and NLPG are high quality and improving products, standing alone neither of them provides a complete solution for the 2011 Census. Initial mismatches between the two lists (of around 5 per cent) suggested that addresses needed to be drawn from both lists, as well as from elsewhere.

Pulling together and de-duplicating these lists (around 27 million addresses each) is initially being carried out using an automatic match between databases.

**A core of addresses** The matching process is being carried out by Manchester Geomatics Limited (MGL), while the ongoing infrastructure and management of the process is provided by Lockheed Martin UK. The NLPG / PAF match is supplemented by a match with address identifiers derived from data provided by the Valuation Office Agency. This data does not provide extra addresses; rather it helps to provide clues about links between the other products. Together this work

## Counting us all since 1801

For those who aren't aware, the census takes place every ten years and provides Government and other bodies with a high quality statistical snapshot of the population. These numbers then feed into decisions, planning and funding for housing, health, education, transport and the like at both national and local level. It is often suggested that for every person counted in the census, their local authority receives somewhere in the region of £500 per annum, so it is essential that every person in every household is counted. To enable the best population estimate to be achieved, and for that to be used in the most effective manner, the census asks a wide variety of questions, including sex, marital status, ethnicity, employment and qualifications.

provides a consistent core of residential addresses – close to 95 per cent of the register.

The next stage of development is focusing on those addresses which did not match – the anomaly addresses.

Intelligent Addressing, which maintains the NLPG, is providing further data cleaning as well as quality assurance for the match carried out by MGL. This work has identified and cleansed obvious problems before anomaly addresses were split up and provided for resolution to individual local authorities (LAs). Each LA received a list of the remaining unresolved anomaly addresses in its area in November 2009. The numbers varied between a handful and several thousand.

At the same time, anomaly addresses were provided to Royal Mail who split the remaining problem addresses and provided them to each of their 1,400 delivery offices. Whereas the work carried out by Intelligent Addressing was deskwork, Royal Mail carried out an almost exclusively field-based check, using postal delivery staff.

The process will soon enter its next stage with an extensive field check focused upon areas where the register is believed to be weakest. This field check, employing roughly 400 staff nationally, will cover around 15 per cent of addresses in the country, targeted using postcodes. The precise criteria for identifying postcodes with high levels of potential problem addresses are still being investigated, but a mismatch between the source products and the predicted level of multi-occupation are likely to be the main factors. Properties hosting multiple occupation are common and increasingly there are hidden households which involve several families with their own facilities living at a single address, without any external indication of multiple occupancy. This fieldwork will help identify these addresses.

**Data cleaning** Previous census experience has highlighted that the cut off point for the address register is critical. In 2001, it was taken more than a year in advance and so the field collectors found it woefully out of date. It failed to pick up changes and, critically, new addresses that were introduced in the intervening period.

A key principle for 2011 is that the central register will be kept up-to-date until census day. Updates will be taken for both the NLPG and PAF and applied to the central register.

During the process there will be continual data cleaning within the address register. On-screen inspection and comparison of records by a team of clerical staff will be used to validate any areas of the match where there remains doubt. This work will be supported by using simple GIS software to plot addresses on maps and aerial photographs. Although potentially time-consuming, this type of work will be significantly more cost effective than attempting to validate the remainder of addresses on the ground.

While it is anticipated that 95 per cent of households will receive their questionnaire via the post, the remaining 5 per cent will be hand delivered

in areas where it is recognised that there are more enumeration challenges such as high concentrations of hard to count populations, large households and challenging household structures.

On the surface it may seem that the address register will be built by merging the national datasets to form a single list and gradually knocking out spurious and duplicate addresses until a polished final list emerges. This is not totally incorrect, but the approach being taken is more flexible and much more powerful. Rather than simply discarding records, a full list of addresses will be retained throughout, and evidence recorded at each stage against each address to provide what might be called “address dna”.

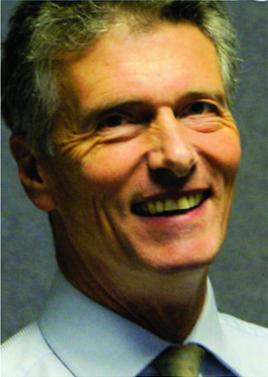
**Population sub-groups** With the residential address register taken care of, a separate though complementary communal establishment register is being built. Defined as “managed residential accommodation”, communal establishments include prisons, nursing homes, caravan parks, hotels, university halls of residence and more esoteric categories such as holiday camps and royal residences. The communal establishments are just as critical to the census results as they can include large numbers of residents, or particular sub-groups of the population that might otherwise be undercounted. Preparing a register for these is extremely challenging, there is a lack of coherent national sources that match with the census definition. Similarly, early attempts to draw a list from the residential address register, using data from PAF and NLPG, have proved unsuccessful. A new approach is now being taken, collecting lists from third parties for specific communal types and combining these with national sources such as Non Domestic Rates. It has become increasingly obvious that local authorities have a vital role to play in this second register development and as such they are likely to be asked to validate the lists of communal addresses in their area.

There are currently no plans to make the census address register publicly available as there are significant commercial, licensing and confidentially obstacles that would have to be overcome. The address register currently being developed is solely for the use of the 2011 Census.

The Office for National Statistics recognises that, due to the change and complexity of addresses, no register can ever be 100 per cent complete. The aim, therefore, is to get to an address register that includes at least 99 per cent of all existing residential addresses in England and Wales on census day, with low levels of duplication (at less than 1 per cent). This latter target is important as duplication in the list will lead to wasted postage, potentially wasted staff hours (through unnecessary follow-up) and, critically, the risk of disturbing householders who have already returned their completed questionnaire.

For more information on the 2011 Census, visit: [www.census.gov.uk](http://www.census.gov.uk).

“  
*... a full list of addresses will be retained throughout, and evidence recorded at each stage against each address to provide what might be called “address dna”*  
 ”



INVESTIGATIONS IN TWO local authority areas after the 2001 Census showed that there were significant numbers of addresses missing from the address list compiled by the Office for National Statistics (ONS). Therefore, for the 2011 Census, ONS has specified that the address list to be used must be at least 99% complete against their specification of the addresses to be included. This set them a challenge. How to prove that the list was at least 99% complete?

**A perfect match?** For the 2001 Census, the primary source for the address list was Ordnance Survey's AddressPoint product, which is Royal Mail's Postcode Address File (PAF) with coordinates for each of the addresses. In 2001, the list was supplemented by addresses found during field work but subsequent research showed that the result was still materially incomplete. This isn't a criticism of PAF, which is fit for

one of these concerns would be a challenge but to meet all of them is a complex undertaking.

**Meeting the challenge** ONS has sought help from Royal Mail and the local authority community to investigate records they have uncovered to see whether there are:

- Addresses missing from the PAF/NLPG which should be included.*
- Addresses which are already in the PAF/NLPG but with different address labels (n.b. whilst the NLPG holds the address allocated to an entity through the street naming and numbering process, it also holds alternative addresses such as previous plot numbers and house names).*
- Addresses which were in the PAF/NLPG but which are now either historic or have been changed.*

## Census 2011 – the complexity of addressing

With preparations for the 2011 census well under way, Intelligent Addressing's **Tony Black** explains how the source datasets are matched to avoid duplication and everyone is counted, just once.

purpose for the specific application it is designed to meet – the delivery of mail.

ONS does not have and maintain its own address list for normal business and it is thus reliant on other sources when a Census is required. So, for the 2011 Census, ONS has specified its requirements and has been undertaking a variety of tests to see how it can meet them. Its initial objective was to match PAF to local government's National Land and Property Gazetteer (NLPG). The NLPG has been compiled from a range of local authority address lists with the objective of having one application-independent master list as the source for all the services local government bodies provide. Once the initial PAF/NLPG match was completed, ONS' intention was to test it by carrying out field work to identify any addresses missing from both lists.

Matching of this sort is not straightforward and cannot be done purely automatically. For example "The Cedars" in PAF might be "16" in the NLPG and "Ground Floor Flat" might be the same as "Flat 1". PAF also records addresses in fields related to postal geography, which includes different localities and post-towns, whereas the NLPG follows the structure of BS7666 Part 2, which defines geographic addresses. PAF is also significantly smaller than the NLPG.

ONS has publicly stated their concern that the list should be as complete and up to date as possible, that the amount of additional work should be minimised and as little of it as possible should be abortive, and that the number of duplicate addresses should be minimised. Given the nature of the task being undertaken and its mechanism, meeting any

Obviously the validity of the work depends upon the validity of the initial PAF/NLPG match. Fortunately ONS has not presented very large numbers of records for investigation to either Royal Mail or local government and, in the case of local government, the number of valid records requiring further investigation so far appears to be small.

This is unsurprising. The NLPG was designed to support the majority of local government services (rather than those just receiving mail). For the purpose of the Census, it should offer a more complete list of addresses than PAF. For example, over 99% of the Valuation Office Agency's Council Tax records are matched to the NLPG whereas the same level of match would almost certainly be neither achievable nor necessary for PAF.

There is other evidence of the NLPG's completeness. Recently, the Ministry of Justice's Data Standardisation project has helped local authorities ensure that all the addresses in their Electoral Registers are matched to records in the NLPG. As with the ONS work to date, the project showed that the majority of the unmatched addresses were already in the authorities gazetteers but with different versions of the address for the same entity. One of the key objectives of the MoJ funded project was to ensure that 100% of the qualified electorate is approached to register to vote in elections. Whilst the project helped to complete the Electoral Rolls, relatively few records were added to the NLPG, and most of these were alternative addresses to those which already existed.

The ONS aim of excluding duplicate records requires a profound understanding of how to deal



**... excluding duplicate records requires a profound understanding of how to deal with these alternative addresses. . .**



with these alternative addresses as well as those of buildings in multiple occupation. The NLPG holds multiple occupancy details at the individual level, so whilst PAF will hold one address for a block of flats, where post is delivered to the main entrance, the NLPG will hold individual addresses for all the flats, as well as one for the block. In addition, the NLPG includes buildings which don't have postal addresses, referred to as OWPAs (Objects Without Postal Addresses), such as student accommodation and entities within hospital complexes, which are relevant for the Census.

There have been calls from outside the ONS project for their work to be used as a new National Address Register after 2011. ONS has stated that the process was not designed to achieve this nor is it their intention to continue to maintain the list. There are many reasons why it would be impractical to do so but perhaps the key ones are:

1) *It is a composite list. This means that there would be a significant overhead in continuously matching two different sources together. There should be a single integrated national addressing process to which several parties contribute (primarily local authorities as the Street Naming and Numbering Authority and Royal Mail as the*

*provider of Postcodes and Post-town data);*

- 2) *The ONS list is in part based upon secondary rather than primary sources. This creates a timing difficulty. Any national address list needs to be entirely up to date from primary sources;*
- 3) *The 2011 Census address list specification was prepared for one application not as a work-horse to be incorporated as a component in many applications;*
- 4) *ONS's requirements are primarily concerned with residential properties so there are no commercial properties. Commercial property data and a wide range of OWPAs are needed to support the provision of services;*
- 5) *ONS's stated target for completeness is 99% whereas to meet the requirements of many services – such as those provided by local authorities – an objective of 100% completeness is needed at any moment in time.*

The ONS is well-funded to meet the challenge of the 2011 Census. They have learnt many lessons from the 2001 Census operation and they have two much-improved datasets upon which to base their ongoing work as well as considerable support from Royal Mail and Local Government. The outcome of their work will be eagerly awaited.

**About the author**  
**Tony Black is the Operations Director at Intelligent Addressing Ltd. After completing a retraining MSc in Computer Science Tony's career included a range of positions in Local Government and OSGB. These involved developing ways of applying information management principles to GI, including the production of BS7666. In 1999 Tony joined IA to work with local government implementing the NLPG. He was one of three experts who worked with ONS to investigate the address issues relating to the 2001 Census.**

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# UK location update



IN MOVING THE UK Location Strategy (LS) forward, programme director **Stefan Carlyle** says the problem is 'islands of data'. An analogy all too appropriate to what happened to bits of Tewkesbury in Gloucestershire two years ago when floods engulfed the town. 'If there had been more and better access to data then more property could have been saved,' said Carlyle, speaking at a seminar organised by Westminster Briefing.

The LS and its overarching parent – or perhaps Big Brother – the EU INSPIRE directive, are not just an IT system, explains Carlyle. 'It's about resource and knowledge sharing'. He draws an analogy with the iPhone; there are many applications that will need developing – for the public, private and third sectors.

It is worth refreshing ourselves with the key demands of the LS (Strategic Actions, para 28):

1. to know what data we have, and avoid duplicating it
2. we use common reference data so we know we are talking about the same places
3. we can share data-related information easily

2019 to fully implement the INSPIRE directive, will be to discover metadata, design standards and promote the strategy by the end of next year.

This work has to be done in the context of a world very different from when the LS was conceived. Faced with likely budget cuts, for the foreseeable future local authorities are liable to be focusing on front line services and local democracy only as they switch to a more "enabling" role. This point was taken up by **Tim Allen** from the Local Government Association, who argued that 'slowly the state is withdrawing its boundaries of what it does for people'. However, he reminded us of the massive demographic changes that have taken place between 2004 and 2008 in the UK, driven by migrants arriving and increasing demand on local services. Allen concluded that local government needed 'systems not widgets' to reverse the imbalance that currently exists between the 80% of time expended in finding data and the 20% spent in analysing it. A typical example is that many national statistics are 'only understandable if you give them geography'.

**Peter Capell** from the AGI is an old and wise

## Taking forward the UK Location Programme

*GiSPro* recently attended a briefing seminar on progress to date of the UK Location Strategy. Is sharing data the key? If so, what are the barriers? And who are the "place shapers"? **Stephen Booth** reports.

through a common infrastructure of standards, technology and business relationships

4. we have the appropriate skills, both among geographic professionals and among professional groups who use location information or support its use.
5. we have strong leadership and governance to drive through change, including the implementation (of the UKLS) and the implementation of INSPIRE.

hand when it comes to GI. He began his career as a statistician but, he believes, his old profession is in danger of losing the plot in a world assailed by crowd sourcing and ventures like OpenStreetmap. He explained that AGI's role in the LS is to help make it work. 'Data sharing is the key,' he argued, citing the recently launched interactive crime mapping website from the National Policing Improvement Agency. Hopefully, it will help reduce people's, often irrational, fears about crime. But somehow I doubt it as long as the *Sun*, *Daily Mail* and *Mirror* can get to press!

**"Place shapers"** One of the latest buzz terms in local government is "place shapers". This is what local authorities are supposed to do in developing a sense of how places will be in 5, 10 or even 30 years time. For that they need good availability of GI, explained **David Onions** who heads up Worcestershire CC's research and intelligence unit. He explained how local authorities must be aware of long-term trends both locally and nationally. His authority was focused on giving its elected members a detailed profile of the take-up of services in their area to respond to the anticipated question, 'Is there something I should know?'

**Shifting the silo mentality** The benefits of this programme are not difficult to see. Sharing data is the key, as several speakers agreed, but the barriers are cultural as well as technical. Often there was too close allegiance to one's own organisation. 'We must shift the silo mentality,' said Carlyle, 'to one of "must do"'. Service providers in the public sector, where currently there remain too many ring-fenced silos of information, will benefit from better location information but so will the public sector as increasingly websites and information portals rely on geographic information.

The next steps in the programme, which has until



**... losing the plot in a world assailed by crowd sourcing and ventures like OpenStreetmap.**



Onions' colleague **Emma Clark**, who is titled "community safety analyst", gave an example of how a mapped study of where people feel unsafe during the day and at night in Redditch, helped pinpoint an area where additional street lighting might help. However, it depended on data sharing from the police.

**Points of discussion** Discussion amongst the small but well-informed audience drew several significant issues. The implementation of INSPIRE, which calls for much more accessibility of joined-up information, has many implications for local authorities; for instance, property searches where charges may have to be abandoned.

Peter Capell questioned the strength of enforcement of the directive: 'What would it take to be sent to prison under INSPIRE?' he wondered. 'Would you have to stand up in the market place and holler 'I don't believe in metadata!' Stefan Carlye quickly explained that enforcement came under para 12 and a level 5 fine would be imposed from the standard scale! Ultimately though public sector data holders can serve up to two years in prison for being unco-operative.

More seriously, Carlye argues, that the UKLS is a very good high-level policy document that 'chimes

with civil servants' while INSPIRE provides the basis for delivery. It is 'designed to complement the re-use of public sector information and fits in with the bigger regime to promote access to public sector information'. 'We are on the cusp of moving from talking about it to implementing it,' he says. The newly set up Location Interoperability Board will be at the heart of the delivery programme. As programme director, he has to deliver an annual report on progress with metrics that will go to the secretary of state as well as to Brussels.

The event was ably steered and summed up by Professor **Mike Batty**, who is director of the centre for advanced spatial analysis at UCL. 'The Location Programme is bigger and broader and needs filling in whereas Inspire is well filled in and is precise'. He wondered what would happen if a local authority used OpenStreetmap. Could it lend itself open to legal action for using unaccredited data? He concluded that, amid the plethora of initiatives, we were all part of a 100-year long plan to re-organise local government!

• **Our thank to Westminster Briefing who organised this seminar. Their full programme is available at:**  
<http://www.westminster-briefing.com>

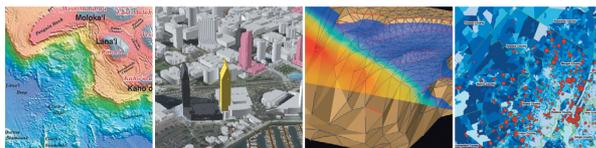
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# gazetteer management systems



*Symphony Bluelight Search supports the emergency services' need for fast accessing of data for faster emergency response.*

THE 'BLUE LIGHT' SERVICES rely on having good equipment, well trained people and effective systems that all play an essential role in their ability to respond to immediate emergencies and also assist in reducing the chance or impact of future emergencies.

A fundamental component underpinning all of their work is accurate address data, with the proper

new system that placed accurate addressing at the heart of the Brigade.

In addition to being a secure, central depository of data, Enterprise offers a complete, embedded geographical information system in order to give the data a spatial component. This GIS enables full location analysis and is an important tool in strategic planning.

Importantly, Symphony Bluelight Enterprise allows for the synchronisation of all back office systems, enabling the user to ensure that each system contains identical address data. It creates direct links to these systems so that when updates to the National Land and Property Gazetteer (NLPG) are received, these are automatically disseminated throughout the organisation.

It allows for all non-NLPG address data in other systems to be tagged with Unique Property Reference Numbers (UPRNs) so that these numbers can be used as a comprehensive system of cross referencing, giving confidence that all departments are using the same address. The same process also allows for back office data to be geocoded, by which geographical coordinates are attached to the address. This gives the data a spatial component,

## Gazetteers for blue lights

New gazetteer management systems from Aligned Assets are specifically designed to help the emergency services utilise the address data that is fundamental to their work, says **Carl Hancock**.

management and utilisation of that data equally vital. From mobilisation through to analysis, having an accurate address not only saves lives but helps reduce risk long into the future.

Aligned Assets – already known as gazetteer specialists – have created three new address management solutions designed specifically for emergency services. These build on experiences from working on the national FiReControl project as well as work with the British Transport Police (BTP) and, more recently, with Kent Fire and Rescue Service.

Collectively known as Symphony Bluelight, there are three distinct options available: Symphony Bluelight Enterprise, Professional and Search – each addressing the varying needs of the emergency services.

**Accurate addressing at the heart** Enterprise is the complete corporate gazetteer system, which will support front line response, whilst all the while aiding in cost cutting and efficiency gains. It is based upon the gazetteer solution rolled out at Kent FRS, which had a requirement to implement a

which in turn allows for that data to be analysed through GIS.

As well as being able to fully exploit the NLPG, Enterprise allows for an infinite amount of user defined fields to be attached to each record within your corporate gazetteer such as key holder information, alarm codes and flood risk designation.

Through the use of the intuitive management console, the user has numerous options for creating and importing data from other systems and schemas, and including them alongside the NLPG. With Symphony Bluelight Enterprise, the user can import data from a set of Oracle GIS layers by spatial reference to a property. This means that every time the property geometry changes, the data created by spatial relationship is automatically updated.

**BS7766 compliant system** Designed for those services looking for a phased approach to implementation, at the core of Symphony Bluelight Professional is a BS7666 compliant gazetteer management system. It is a tried and tested



**...the geocoding functionality allows for your organisation to have a more complete usage of GIS as it will enable other department's data to have an accurate spatial component.**



solution used in both local government and the emergency services, is the gazetteer of choice for the FiReControl Project and is backed up by over twelve years of address management and GIS expertise.

It has been built to allow for the creation of local records, which are records that would not normally be included in the NLPG, but have significant value to the emergency services. They can be accessed alongside the NLPG data in supporting both back office analysis and frontline incident response.

To enable the further exploitation of the NLPG, Professional is designed to allow for the validation of all other address data against the NLPG through its address matching components. Just as with Symphony Bluelight Enterprise, the geocoding functionality allows for an organisation to have a more complete usage of GIS as it will enable other department's data to have an accurate spatial component.

Key to both the Professional and Enterprise option is the inbuilt method for creating and processing candidate records. This allows the user the ability to feedback changes in the NLPG data for future inclusions, which is yet another method by which the data can be constantly improved and kept up to date.

**Sub second response** Irrespective of the data source and method of managing that data, the one thing that is absolutely essential to the emergency services is the need for the fast and accurate accessing of that data. The quicker data can be accessed, the quicker it can be used and the better the emergency response.

Based on the solution designed and built for the BTP, Search is a flexible, web-enabled search engine that allows the user to search their address database and return results in sub-second time.

With a look and feel that is similar to an internet search engine, Search primarily consists of

a simple, one line search bar in which the search terms are entered. It allows for "wildcard searches" if the user is unsure of the complete search term and "fuzzy searches", which means words will be found even if misspelt.

As a web service, Search gives complete, corporate access to your central address database, giving all departments access to the same, consistent data and in doing so reduces costs, reduces the risk of errors caused by inconsistent data and ultimately allows the user to offer a safer, more efficient and higher level of service to the public.

More than just an address search engine, through the use of adaptor technology, Search can index, compress and search a whole variety of data sources alongside your core address data. The most common use for this is to search a names database, alongside the address data, giving the user access to both names and addresses via one search, which was one of the primary requirements of the BTP.

With this option, the user will have access to huge amounts of departmental data at the touch of button as well as a resource by which different address datasets can be search simultaneously e.g. AddressPoint@NLPG. It could even be used to search the PRUFOS (Police Reporting UFO Sightings) database!

**Conclusion** The needs of the emergency services vary from that of other organisations and they require specialist tools in order to function effectively and efficiently. The Symphony Bluelight systems have all been designed entirely with the emergency services in mind.

The three options are intended to give choice,. Enterprise is a full corporate gazetteer, Professional an entry level solution to complement FiReControl and Search gives complete corporate access to a variety of data sources.

• To find out more visit [www.aligned-assets.co.uk/bluelight](http://www.aligned-assets.co.uk/bluelight).

“ . . . Search can index, compress and search a whole variety of data sources alongside your core address data. ”



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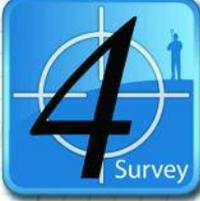


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## conference report



*Three wise men. Speakers, from left to right, Nigel Shadbolt, Francis Maude and Sir Bryan Carsberg.*

PSI - THE NEXT 10 YEARS was always going to be an ambitious title and I don't think I heard much about 2011 – let alone 2020! The Locus Association may still exist in ten years time but this event was actually focused on the government's *Making Public Data Public* programme and the likely results in the immediate future including the effect of a general election. Locus is a trade association of private sector organisations working to increase opportunities and reduce barriers to fair trade between the public and private sectors – particularly in the use of Public Sector Information (PSI).

adding developers to provide a range of applications of which civil servants would never even dream!

There are already nearly 3000 datasets available and hundreds of applications from the last few weeks of prototyping. Within forty minutes of the launch another three new applications were already live. The programme works from the top down (ministerial support), from the middle out (civil servants making it happen), and from the bottom up (developers ready to show what they can do). What Shadbolt would like to see is a 'duty to publish' placed on all government departments – if the

**PSI – The next 10 years** Joining the crowd at the recent Locus Association meeting on freeing public sector information, **Robin Waters** reports on the successes and future challenges raised by speakers.

The meeting was chaired by **Audrey Mandela**, who is chair of Locus, and was addressed for 10 minutes each by Professor **Nigel Shadbolt**, information advisor to the government, **Francis Maude** MP, shadow cabinet office minister, and Sir **Bryan Carsberg**, president of Locus.

Shadbolt, who is professor of artificial intelligence at Southampton University, gave a passionate account of the successes and challenges of the Making Public Data Public programme and the launch, a few days earlier, of the data.gov.uk portal for finding and downloading public sector datasets. He clearly believes that this work is vital to drive improvements in public services and to enable value

freedom of information act applies why shouldn't datasets be made available as an RSS feed?

Francis Maude spoke in a much more subdued tone and agreed with almost everything that the government was doing in this context! He promised a high degree of continuity if the Conservatives form the next government but suggested that the increased availability of PSI would be uncomfortable for ministers and civil servants alike and warned the media that there might still be a 'reaction' from the public sector suppliers if life becomes too uncomfortable. That sounded like a threat!

Maude was also brutally honest about the potential loss of power (because information is power) and the inherent conflict posed by the business model of the trading funds like Ordnance Survey. His mention of crowd sourcing was very interesting – he didn't refer to the likes of OpenStreetMap – but to the possibility of replacing management consultants with crowd sourced information!

He also raised the issue of the inevitable trade-off between speed of delivery and



*Right: An ambitious title attracted a packed audience.*

the quality of the datasets delivered. Raw data faster might come at the price of some loss of quality. (Some might say that quality sometimes includes a dose of spin?) Some of the data that the Tories will make available is only linked to geography by the Ordnance Survey – they will publish the salaries of the top 35,000 civil servants and we would be surprised if some of those don't work in Southampton!

**Pipe dream to reality** Sir Bryan Carsberg liked what he had just heard! He was the first director general of Ofcom and later the director general of fair trading, so he knows a thing or two about public sector information in general and about regulation in particular. He was pleased that both speakers were articulating policies that were a pipe dream only a few years ago when the association was formed. His main message was that the best regulation is competition and that the market will always be cleverer than the regulator. But regulation would always be necessary where monopolies are concerned and could be achieved in different ways. OPSI and/or the OFT could be given more power or an internal board level committee could be set up such as British Telecom's equivalence of access board – of which he is a

member. However, he would not advocate a new regulator (Ofmap or Ordnance Survey?) – too costly for a relatively small sector.

A lively question and answer session followed with discussions on regulation, licensing, pricing mechanisms (anyone for Ramsey pricing?) and the need for certain datasets – particularly boundaries, addresses and postcodes – to be made available to enable the linking of most other public sector data. It was suggested that addresses and postcodes would be crowd sourced if the Postcode Address File (PAF) was not made available soon – despite the recent review of postcode pricing that had confirmed the status quo. Both government and opposition bottled out on how to pay – admitting that it was difficult!

Prof Shadbolt admitted that data.gov.uk was still a work in progress but that some 'totemic datasets' – such as addresses – were clearly needed if all the benefits of the Making Public Data Public programme were going to be realised.

• *GiSPro is indebted to Graham Vowles for all of the images with this article.*



**Above: Professor Nigel Shadbolt was passionate about the successes of the Making Public Data Public programme and the data.gov.uk portal.**

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**ashtech**

columnist **nick day**

**Nick Day, FRICS, FRGS, PLS, is retired from the California Department of Transportation (Caltrans). He can be reached at [feasibility.nick@gmail.com](mailto:feasibility.nick@gmail.com)**

IT'S NOT THAT I'M PARTICULARLY drawn to the macabre, but a recent story piqued my interest. Seems the dead, or rather their living kith and kin, are feeling the effects of the recession so much that they are trying anything to cut the costs of funerals and burials. Benjamin Franklin may have said it best, "There are only two certainties in life: death and taxes".

In the US, costs can run upwards of \$10,000, as some funeral directors take advantage of the recently bereaved. Cremation, which is on the increase, can keep costs down, but they're still too high for many. Now we are hearing of "Do-it-yourself funerals" and "Green funerals." Apparently there are about 20 "green" cemeteries in the US at present. They're basically open fields where grave markers are simply made from local rock.

Now, here's the kicker (of the bucket?), some families are even dispensing with these in favour of GPS coordinates! We're not told if they're using a simple handheld GPS that places their dearly departed within  $\pm 5m$ , or opting for cm accuracy using RTK! I'm

area yard sales that have been posted on Craigslist. It's free and even gives a recommended driving route. A listing of what's for sale, where, and time of sale, can be found by clicking on the red balloons shown on the Google map.

**i-Phones and other gizmos** Once upon a time, in a far off land, one wrote a letter, once in a while, to friends. Snail mail, as it is now derogatively known, allowed them to know where you were. There were stamps on the letters that alerted them to the fact you were in Rhodesia, or Mauritius, or Tanganyika. Apart from the postmark, if you collected stamps, which many of us did, you also learned a little geography along the way. If lucky, you might have got a reply within the month, but expectations were not high. Today, you have no idea where your friends or business contacts are when they email you, unless they expressly say, often as one-upmanship. . . "Hi there, right now I'm sipping a margarita on the beach at Acapulco; must dash!" But what they do expect is an almost instant reply from you. They assume you sit in front of your

## Geocurrents

In an occasional column, US domiciled British chartered surveyor **Nick Day** runs a sharp eye for us over recent stateside events.

wondering if there's anyone out there yet who's been commissioned to do this kind of work?

**A new way to spend your weekends!** While in the UK this summer, I was surprised how few people had heard of Craigslist. Over here, especially in California, Craigslist is a household word, maybe as well known and used as E-Bay. Founded by local lad **Craig Newmark** in March 1995 as an email list for San Francisco and Bay Area events, it has expanded beyond everyone's wildest imagination. In June 2000, he added Boston, and by February 2008 had expanded into 450 cities in 50 states, and 50 different countries. In June 2009, revenues topped \$100 million – this from only 25 employees all in San Francisco. The listings include local classifieds, discussion forums, job opportunities, housing for rent and sale, personals, services, and local community events. At least 30 million new classifieds are created each month. Craigslist carries no ads and stresses a non-corporate culture.

Now, in America, we have "yard sales", equivalent to the UK's "car boot" sales, where you try to sell as much as you can over a weekend – all the accumulated "stuff" you've bought over the years, and probably subsequently regretted – to other hoarders or those even less discriminating than yourself, for as much as you can get away with! So, at weekends, many Americans cruise around neighbourhoods in their big gas-guzzling cars looking for yard sales (garage and front lawns). But now, we hear, they can do it more efficiently, saving time, petrol, and therefore the environment. By visiting [www.YardSaleTreasureMap.com](http://www.YardSaleTreasureMap.com), they can enter their starting address, plug in the maximum miles they want to travel, plus the day, and up pops a Google map showing

computer, on line 24 hours a day, just waiting for their message to pop up. Or, that you have your I-Phone or Blackberry on all the time and are always available.

As far as I know, an i-Phone can't yet cook my meals, wash my clothes, or even write this column for me. So what use is it? I have my handheld GPS that costs nothing per month to operate (except 2 AA batteries every now and then); use Skype for round-the-world calls at either no cost, or about 2c/min; and Pay As You Go on my mobile phone for the very occasional time I really need to reach out and touch someone. That way I don't get strange bills like the fellow, I think in Wisconsin, who received a monthly mobile phone bill for about \$80,000. An obvious mistake, but it took him an inordinate amount of time and frustration to get it resolved. As an old retired geezer I can't justify the monthly fee of about \$150 (only \$149.99 per month the ads say...ONLY!), according to my eldest son who has an i-Phone. However, I do enjoy him popping round every now and then to show me what it can do. Quicker than you can say "Amy Whitehouse" he slides his finger across the screen and tells me the name of the nearest store where I can buy a "whatsit" at the lowest price and that actually has it in stock, and how to get there using Google Maps and Streetview. He also tells me I would get 9000 free minutes a month (how come \$150 is free?). I was not aware there were that many minutes in a month, or at least not waking-hour ones; or ones where I wasn't shaving, eating, or doing other mundane but necessary tasks. But, of course, the dreaded curse of multitasking allows not a minute of wasted time. And, as the bumper sticker says, "Sleep is for Cissies!"

Now, I like to embrace many of the new technologies and trends, many of which come out of my

“

**Today, you have no idea where your friends or business contacts are when they email you, unless they expressly say. . .**

”

home state of California. But I'm not a slave to fashion and don't believe in change for change's sake. Many of my generation try to keep up with the latest fads to avoid being branded as Luddites, or thought of as "just not with it." Although I do have my own YouTube Playlist (with some fabulous oldies I'd almost forgotten about), I can't for the life of me see any reason to "Twitter" or be "Twittered." So, it came as somewhat of a relief when I read recently that **Matthew Robson**, a 15-year old Morgan Stanley intern, had written a research report on teenagers' likes and dislikes. It caused a huge stir among fund managers and CEO's as he "dissed" Twitter and on-line advertising as being irrelevant.

But, hold on, not so fast! In early September, according to the *San Francisco Chronicle*, **Andrew Lipsman** of comScore MediaMetrix (whatever happened to nice short company names like IBM & NIKE?) blogged that the portion of the 21 million Twitter users in the US, under the age of 35, is increasing at a breakneck pace. The initial explosive growth in its use was from users aged 25-54, and not the very young early technology adopters that typically push the popularity of new innovations. Much of the attraction of Twitter for the younger set is apparently being driven by celebrities; a kind of new "groupies, perhaps? As one teenager put it, "Twitter has become the new Facebook". But, it doesn't end there. The Safe America Foundation, working with FEMA, has recently announced a campaign to train families in the use of alternative ways to communicate during disasters – earthquakes, flooding, fires, etc – if traditional communication methods don't work. Twitter and other social-networking websites could fill the bill. And, applications are becoming available that will allow iPhones to replace the much hated remote in operating TiVo and TVs, without the need for infra-red.

**Jack in the list** Who says there's no money to be made in mapping? Every year Forbes magazine publishes its list of the 400 wealthiest Americans. Last year the price of admission was \$1.3 billion, but for 2009 it was a mere \$950 million (I still missed the cut!) thanks to the great recession. One must feel extreme sorrow for the likes of Bill Gates and Warren Buffett – the top two – down \$7 billion (to \$50b) and \$10 billion (to \$40b) respectively. Ah, 'tis a cruel world! But, we learn that the charismatic and innovative founder of ESRI, **Jack Dangermond**, has just made 158th place on the Forbes' 400 list with a personal fortune of \$2 billion. Just keep that ArcView, ArcGIS, and all the other little Arc suffices rolling ESRI – the house that Jack built!

**Change for the better?** A couple of years ago the editor gave me a delightful and apt book entitled *The Traveller's Companion* to help while away a few hours on trains, planes, and buses. From it I extracted this interesting nugget: When the company which ran Peak Cavern in Derbyshire wanted to whip up more tourism to their caves following the Foot and Mouth crisis it renamed

the site to its original title: Devil's Arse. The result was a 30% increase in visitors. So, if you want to attract more business, you must learn how your clients think!

**Read all about it!** So, what newspaper do you read? Are you a *Times* guy, or a *Guardian* gal? Maybe the *Independent*, *Telegraph*, or *FT*? Or maybe you just like to be titillated by the *Sun*! Are you independently minded enough to read a different paper to what your parents took? Do you read the same paper every day, the same one you've bought for the past umpteen years, safe in the knowledge that you know the layout, know how the crossword puzzler's mind works? A paper that reflects your views and political leanings? Something that's comfortable, doesn't require you to think too much, or challenge the status quo? Do you ever buy a different paper just to see how the other half thinks, or is that too scary? Might you just find out your convictions have been wrong all along? As Friedrich Nietzsche noted, "Convictions are more dangerous foes of truth than lies." Or, as eminent economist John Kenneth Galbraith put it, "Faced with the choice between changing one's mind and proving there is no need to do so, almost everyone gets busy on the proof." Not that routine can be a bad thing, far from it – for Flaubert said "Be regular and orderly in your life like a bourgeois, so that you may be violent and original in your work." More food for more thought!

**Dinosaurs** Nobody is really sure how or why the dinosaurs died out. The large scaly ones that is, not the odd one or two in your office who still insist on doing their calculations on an abacus. Some say their brains were too small for their bodies. But if that were truly the case politicians, insurance, bank and auto company executives, treasury officials, and sub-prime mortgage lenders would no longer be roaming the earth, trampling all in their path and wreaking havoc. Others believe dinosaurs were overcome by a new and sudden ice age. Doubtful that would work today with our new breed of dinosaurs as we're supposed to be undergoing global warming. Actually, I prefer the term "climate change" as last winter in California and the Northeast we experienced one of the coldest on record. And skating on lakes and canals returned to the UK and Holland.

These have not been good times for those living al fresco in the tent cities that have been sprouting like unwanted weeds up and down our Golden State. For the supposed richest country in the world – I'm not sure how that jives with our trillions of national debt, and being in hock to the Chinese and Japanese – it's a poor reflection on our form of brutish capitalism. As of this writing – it could change drastically by the time you read this – the average house price in the US is down to \$152,000. In the UK, it's about £163,000; this would have been the equivalent of \$326,000 last summer (2008), and \$259,000 now thanks to the pound's free fall.

What is sure is that the two-legged variety of dinosaur tends to die out because they're inflexible, unable to change, lack vision, or don't see the writing on the wall.



**It caused a huge stir among fund managers and CEO's as he "dissed" Twitter and on-line advertising as being irrelevant.**



## AGI column



The AGI's new chairman, Andy Coote, is also one of the founders of ConsultingWhere.

THE AGI IS A MATURE organisation with a strong membership base and committed staff. In recent years, it has achieved a level of financial stability that enables it now to look to the future with more confidence, despite difficult economic conditions.

We've created a business plan, covering the period 2010-12, to set a long-term vision for the organisation, based on the opportunities afforded by significant technology advances and wider awareness and cost-effective availability of geospatial information.

**Ambitious vision** The overall mission of the organisation is "to maximise the use of GI for the benefit of the citizen, good governance and commerce. It does this through influencing, informing and acting". To deliver against this mission, we have created a vision of the AGI as a community of over 10,000 members and affiliates by 2015. This is a deliberately ambitious target to ensure that the

being more widely recognised, with government initiatives to make significant datasets available free and encourage sharing and interoperability, through initiatives like the UK Location Strategy and Inspire.

The AGI membership currently includes over 2000 named members, with the majority of its income derived from commercial and corporate sector organisations. It is financially stable, in no small part because of the success of its flagship event, the GeoCommunity conference, which attracted a record attendance in 2009, and a small but dedicated staff led ably by its director, Chris Holcroft. We also recognise that limited staff resources and modest revenues put constraints upon ability to fully realise our ambitions for the organisation.

**External Activities** The externally focused aspects of the business plan are organised into objectives and actions under six headings:

**AGI goes for growth** In early January, the AGI's new chairman, Andy Coote, joined the association's chief executive, Chris Holcroft, for a chat about AGI's Business Plan for the year ahead. This article is an abridged version of the podcast available on the AGI's website.

Association does not rest on its laurels. It also reflects our conviction that our market is set for rapid expansion over the next few years, particularly with the growth of the consumer space, which is already spawning many new companies and user organisations that recognise the value of location as a consequence.

Although ambitious, this target is achievable when considered in terms of the current numbers of individuals working in the geospatial industry. The UK Geoforum, which brings together the main representative bodies in the geospatial market, estimates its overall membership at 40,000 individuals. Also we believe that there may be within our existing member organisations as many as 10,000 individuals whose main activities can be categorised as essentially geospatial. The affiliate concept is important in this context since it is one of the central planks of our outreach activities to create relationships with other bodies that provide for various forms of shared membership.

**Operating Environment** The context for the business plan provides an analysis of market trends and a current organisation status report. This suggests that the organisation is operating in a market where usage is set to expand rapidly, particularly in relation to the use of geographical information by consumers. Technological change is making the analysis and visualisation of such information much more accessible and cost-effective. Furthermore, its value is

**Membership** – our focus will be to attract members from new markets, particularly in the Business to Consumer (B2C) space, whilst re-doubling our efforts to ensure we remain relevant to our existing membership. New joining incentives and joint membership schemes with other industry bodies will be backed up by a task force to look at medium and long-term initiatives.

**Services** – we will look to revamp our events programme to spread it more evenly through the year and focus on the new directions in the industry, particularly those related to the technology and business "paradigm shifts", such as cloud computing, crowd sourcing and augmented reality. We will also evaluate the feasibility of launching new services to widen our income base.

**Public Policy** – We have an excellent platform to advance the influencing mission of the AGI through our membership of the UK Location Council (UKLC) and will seek to gain representation on all subsidiary bodies to the UKLC as they are formed. We will also seek to replicate this influence in the devolved administrations through our regional groups in Scotland, Wales and Northern Ireland. Engaging senior commercial and public sector representatives on specific public policy issues, such as the Operational Efficiency review options for OSGB, is an additional plank of our strategy.



... a vision of the AGI as a community of over 10,000 members and affiliates by 2015. This is a deliberately ambitious target. . .



**Outreach** – building and strengthening relationships with other representative bodies both inside and beyond our current sphere of influence is essential to achieving the growth in membership our vision requires. An Action Working group has been formed under the immediate past chair to bring forward proposals by mid 2010 identifying how this can be achieved.

**Communications** – to increase awareness of the work of the AGI within the membership, the geospatial market and wider public sector and business community, we will need to exploit the widest range of media available. We will be looking to maximise the opportunities afforded by social networks to get across a series of new messages about our vision, focus on future market needs and influence.

We will broadcast at every available opportunity, our key messages, as follows:

- The AGI has a vision for the future, based on building a geo-community representing 10,000 members and affiliates by 2015.
- The AGI is a broad-based organisation working for the common good rather than any particular sectoral interest;
- The AGI has a strong and wide base of knowledge within its membership that can be drawn upon for expert advice;
- The AGI is outward looking – we are focused on engagement with the whole geospatial community, beyond to the wider ICT community and the economic sectors impacted and potentially impacted by geospatial information and technology.
- The AGI is forward looking – we understand the “paradigm shifts” currently taking place and will help our members position themselves to take advantage of the opportunities presented.
- The AGI is a network builder helping to make connections between users and suppliers;
- The AGI aims to influence future developments and to facilitate growth in the industry.
- The AGI will champion business benefits-led solutions to citizens, public, private and third sectors organisations.
- The AGI will, through our representation on the UK Location Council and its sub-groups, act as a vital bi-directional channel and positively articulate views and needs to Government on behalf of our members. We will pursue

opportunities to exercise the same influence with the devolved administrations.

- The AGI is aware of its own corporate social responsibilities and will, in its activities, encourage the optimal use and maximum value of GI for the greater social good.

**Corporate Social Responsibility** – we operate in an industry that has the potential to support real positive change in the world on challenging issues like climate change and social deprivation. We will commit to using our expertise and influence to make a positive difference in these areas.

**Internal Activities** The internal health of the organisation is as important as its external activities. The business plan identifies three key areas for attention:

**Governance** – the AGI is organisationally complex with many channels of communication and interaction between its ruling Council, volunteer groups and the staff. In the business plan period, we will make these interactions more effective to relieve the AGI team from unnecessary work. We will also make more effective use of Council members by giving them “real tasks” to perform.

**Volunteers** – the volunteer members of the AGI are the life-blood of the organisation, allowing us to do more with limited resources within the team. We will actively pursue ways to make it easier for them to get involved.

**Learning and growth** – the success of the AGI is critically dependent upon the performance of its staff. Providing them with opportunities for personal development is a key contributor to their motivation and well-being. We will make a commitment to all members of staff to allocate to them each at least five days training over the course of each calendar year.

**Finance** Critically, the business plan must be financially sustainable. During 2010, the AGI will lose a key source of income when the administration contract for the Gigateway project terminates in March. It would be unrealistic to commit ourselves to replacing that gap in a single year, especially in the current economic climate. Therefore we anticipate a deficit budget in 2010, whilst maintaining reserves at above £100k at the end of each year, the amount mandated by AGI Council.

At the same time, it is essential that we make the investment, which is required to increase regular revenue to the levels which are necessary to maintain financial viability through to 2012 and beyond. Our aim is therefore to deliver a break-even budget in both 2011 and 2012 in order to hold reserves above £100k and we will commit the time and effort required to ensure we achieve that aim.



*The AGI exists to “maximise the use of geographic information (GI) for the benefit of the citizen, good governance and commerce”.*

*Details of membership are available from [info@agi.org.uk](mailto:info@agi.org.uk) or by calling: +44 (0)20 7036 0430*

# casestudy: GIS & Coca-Cola



**Above: A Segmentz system was built for the Glacéau Vitaminwater launch by Coca-Cola – the company needed a tool with “real intuitive appeal”.**

IF I LOOK BACK at the GIS work I produced as an analyst in the late 1990s, I’m staggered at how quickly things have progressed, particularly in terms of output quality and speed. These are things that matter to all users. But they should question whether complex functionality and the addition of the latest

In this context, Serendipity2 (S2), an agency specialising in data-driven marketing, is re-launching Segmentz; a pre-configured tool that enables users to visualise, manipulate and report on their data without the need for GIS expertise. S2 has developed the software so that it can be easily customised for a specific customer or project, whilst sticking to the original concept of a fast and simple tool.

**Understanding the relationships** An example is the Segmentz system built for Coca-Cola’s Glacéau Vitaminwater launch. They needed to understand relationships between locations of pilot stockists, prospect outlets, distribution points and target demographic hotspots. S2 created a bespoke system, pre-loaded with pertinent Coca-Cola and third-party data (covering consumer, retail and workplace), Coca-

## GIS: don’t believe the hype – simple solutions can deliver powerful results

Pre-configured tools can quickly help the non-GIS expert to visualise, cross-analyse, manipulate and report on their data, explains **Caroline Johnson**.

GPS technology such as 3D visualisation will really benefit their business.

There are clearly a significant number of companies for whom GIS remains an unexplored opportunity. There are plenty of potential users within very large companies for whom GIS is completely new. These newcomers are likely to be bewildered by the multitude of GIS software available and by the technical language used by many vendors.

**Ready-to-use tools** What the majority want, in my experience, are cost-effective tools that are fast, intuitive and ready-to-use. As a result, they are increasingly adopting tailor-made and streamlined solutions that are customised to suit their particular business or project. They aren’t interested in buying empty-shell, off-the-shelf products, or in systems that only contain data owned by the vendor. They are demanding the flexibility to combine their data with any third-party data in order to reflect the true dynamics of *their* marketplace, and they need the ability to cross-analyse this data at the touch of a button.

After all, if you are a retailer, it’s just as important to know the daytime workplace population and nature of business activity in an area, as it is to understand the consumer geodemographics. And if you are a manufacturer or FMCG (fast moving consumer goods) company, it’s vital to match your brand criteria to the underlying consumer geodemographics as well as identifying the best retailers in the right locations to distribute your products.

Cola territories, and the functionality to assign demographic suitability scores to imported outlets. They were thereby able to visualise and cross-analyse the data, creating reports and maps, and pinpoint exactly which outlets to target for the launch, down to a localised level.

Market Execution Controller at Coca-Cola GB, **Stewart Beale**, adds: “We needed a software tool which had real intuitive appeal and was ready to use as none of the team was an experienced GIS user and timelines were such that we didn’t have time to invest in intensive training or setting up a system ourselves. Having a version of Segmentz built specifically for our purposes meant that we were able to devise and execute our launch strategy in record time”.

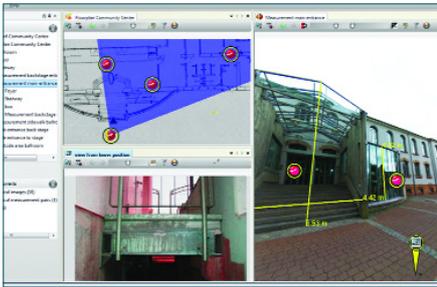
There’s no doubt that there’s a growing demand for GIS technology as awareness increases, but if the rate of technological progress continues to out-pace typical levels of user knowledge and demand, GIS will continue to be perceived as a specialised niche. GIS should be an inclusive technology, catering as much for the new, inexperienced user as for the software expert.

In their haste to enhance functionality, the major vendors are creating an opportunity for smaller players catering for the less experienced user. The number of suppliers operating in this space is currently limited but is likely to grow over time, opening up GIS technology to a whole host of new users who are demanding speedy, flexible, ready and easy to use, competitively priced, tailored solutions, output of the highest quality, and no need for any existing GIS experience. It’s a tall order, but with the right software product you’ve got the makings of a very lucrative business!

### About the author



Caroline Johnson joined Serendipity2 as Data & Insights Director in September 2008, having previously worked as Head of Customer & Spatial Analytics at Experian Business Strategies, and as a Property Planning Analyst for Dixons Group Retail Properties. Caroline studied Geography at Loughborough University and has an MSc in GIS from Leeds University.



## New SceneWorks release

The SceneWorks business division of Spheron VR AG has launched version 1.2 of its SceneCenter Forensic and SceneCenter Framework visual content management software. The software includes improved features such as: full integration of Windows Media Player; improved resolution of published spherical images; new support to the publication of Word documents; enhanced GPS features; and an increased feature set for 3D photogrammetric measurement. The software can be tailored for areas like

crime scene documentation, tactical training, military and anti-terrorism. This allows for a complete new workflow of visual scene documentation – from a crime scene through to court or from an onsite critical location through to the desk of analysts or decision makers. The technology allows clients to connect spherical imagery, take 3D photogrammetric measurement and interconnect other asset information.

**New releases for 2010** Erdas has announced new releases of Imagine and ER Mapper 2010. This release includes Imagine Feature Interoperability – extends native vector support by adding support for additional CAD and GIS formats and tools – a new Imagine module and SAR Interferometry plus new products in the Imagine Radar Mapping Suite. This release also includes joint licensing between Imagine Professional and ER Mapper, the latter of which introduces an improved coordinate system and projection support, plus improvements in data handling and processing. The company has also launched its Apollo 2010 data management, delivery and collaboration product, which manages and serves large volumes of vector, raster and terrain data. In addition, LPS eATE is a new module for generating high-resolution terrain information from stereo imagery and is designed for both small and large terrain generation jobs. The module is an add-on to LPS: an integrated suite of workflow-oriented photogrammetry software tools for production mapping.

Finally, in the new LPS 2010 release, LPS Core now includes Erdas MosaicPro and also provides improved sensor support and increased performance.

## New CrimeAnalyst launched

With version 2.0, CrimeAnalyst – a GIS analysis software package for policing and crime prevention – now automates routine tasks by allowing analytical models to be easily created, saved and shared with colleagues. These models can be scheduled to run at set times to ensure assessments are delivered when required. Also, a new seasonal analysis capability enables users to visualise how patterns of crime change throughout the year or from one season to another. ESRI (UK)'s software also includes a feature that communicates the extent of a particular crime occurring at the same location, for example a building continually being used for drug dealing. The software runs on the company's ArcGIS platform, providing the use of many commercial datasets such as census information, 3D landscape and aerial imagery,

including seamless free access to Microsoft Bing Maps base mapping.

## Customer roll-out for Insight

Symology's integrated infrastructure asset management system, Insight Version 3.1, includes the latest version of the Cadcorp SIS – Spatial Information System ActiveX Control to provide users with integrated digital mapping capabilities. The system is aimed at highway authorities, utilities and contractors. The company has introduced the "hot layers" concept: a facility allowing mapping layers to be generated on-the-fly from the results of any of the Insight enquiry/reporting screens. Examples include creating layers containing: all assets with a particular value or condition rating; all active customer service requests; all street lights with current defects; all highway inspections due next week; and all the assets with components that are out of warranty.

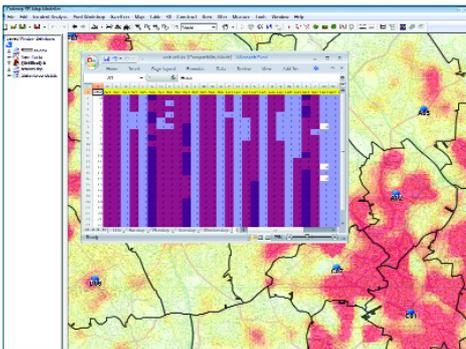
**Web GIS with GeoBI** The latest product from eSpatial, the iSMART6 web GIS, provides Geo-BI (geographic

business intelligence) capabilities, advanced pure web GIS capabilities and a new web-user interface. The company will also offer the product "in the cloud" as a Software as a Service (SaaS) option. This release offers full function online GIS and is based on customer requirements for corporate GIS capabilities via the web. The GeoBI tools enable users to view and analyse information with interactive charts and graphs. Other new features include advanced web editing, a rules engine that allows administrators to define rules for validating data and for users to run rules and review and correct rule exceptions.

## BRIEFS

**MapMechanics' GeoConcept Internet Server 4.0 aims to make incorporating maps in web pages easier. With this version, maps are delivered to browsers faster, users can pan around the maps more quickly, the web server can deliver map-based pages to far more users at the same time, and interactive mapping can be made more seamless for users.**

Erdas ADE 2010 is an integrated suite of products for real-time editing of spatial and business data via the web, desktop or mobile device. The suite includes ADE Remote, Mobile and Enterprise. Enhancements include: WMS (web mapping service) support; new viewer manipulation tools to swipe all rasters or vectors in the view to see underlying data; support for targeted updates; and improved conflict resolution tools.



## Workload support for fire services

A new application for GIS users in the fire service sector extends the range of applications available to fire services that are based on Cadcorp's SIS – Spatial Information System product suite. The company's Workload Modeller aims to provide transparent and flexible methods to model current resource workload against historic incident databases. Fire services are able to monitor levels of efficiency whilst also modelling "what if" situations. Vikki Sharpe, technical and operational support directorate of West Midlands Fire Service, says: 'The Cadcorp Workload Modeller has allowed us to filter data quickly and effectively; predict at which fire stations the available appliances should be based to best address the selected level of demand, and to run scenario analysis which predicts impacts on performance'.

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**| seminars | conferences | exhibitions | courses | events | workshops | symposiums |**

We welcome advance details of conferences, seminars, exhibitions and other events which are likely to be of interest to the GIS community. Please mention the name of the event, venue, date and point of contact for further information and send to Hayley Tear, *GISPro*, 2B North Road, Stevenage, Herts SG1 4AT Fax: +44 (0)1438 351989, e-mail: [hayley@pvpubs.demon.co.uk](mailto:hayley@pvpubs.demon.co.uk)

**FEBRUARY 2010**

**ESRI Federal User Conference**

**17-19 February, Washington DC, USA.**

More information: Email, [feduc@esri.com](mailto:feduc@esri.com) or [www.esri.com/events/feduc/index.html](http://www.esri.com/events/feduc/index.html)

**GIS World 2010**

**21-24 February, JW Marriott Hotel, Dubai, UAE.**

More information: <http://www2.iirme.com/GISWorld/>

**GPS Jamming & Interference – A Clear and Present Danger**

**23 February, National Physical Laboratory, Teddington, Middlesex.**

More information: [www.rin.org.uk/](http://www.rin.org.uk/)

**UK Gazetteer Best Practice Day**

**24th February, Southwark Council, 160 Tooley Street, SE1 2TZ.**

More information: [www.aligned-assets.co.uk/events/events.html](http://www.aligned-assets.co.uk/events/events.html)

**The British Cartographic Society Annual Symposium**

**– Talking with Maps**

**9-11 June, VILLAGE Nottingham, Brailsford Way, Nottingham, UK.**

More information: [www.cartography.org.uk](http://www.cartography.org.uk)

**3rd International Conference on Cartography and GIS**

**15-20 June, Nessebar, Black Sea, Bulgaria.**

More information: Email, [cartography@abv.bg](mailto:cartography@abv.bg) or [www.cartography-gis.com](http://www.cartography-gis.com)

**The Second Open Source GIS UK Conference**

**21-22 June, University of Nottingham, UK.**

More information: [www.opensourcegis.org.uk](http://www.opensourcegis.org.uk)

**The International Society for Photogrammetry and Remote Sensing (ISPRS) Commission V Symposium – Close range image measurement techniques**

**22-24 June, Newcastle upon Tyne, UK.** More information:

Email, [isprs\\_sec@hotmail.com](mailto:isprs_sec@hotmail.com) or [www.isprs-newcastle2010.org](http://www.isprs-newcastle2010.org)

**MARCH 2010**

**The International LiDAR Mapping Forum 2010**

**– Tenth Anniversary Event**

**3-5 March, Hyatt Regency, Denver, USA.**

More information: [www.lidarmap.org](http://www.lidarmap.org)

**GEO-10: a world of geomatics and GIS innovations**

**24-25 March, Ricoh Arena, Coventry, UK.**

More information: Tel, 01438 352617 or Email, [sharon@pvpubs.demon.co.uk](mailto:sharon@pvpubs.demon.co.uk) or [www.pvpubs.com/events.php](http://www.pvpubs.com/events.php)

**APRIL 2010**

**The Geospatial Information & Technology Association's (GITA) 2010**

**Geospatial Infrastructure Solutions Conference**

**25-29 April, Phoenix Convention Center, Phoenix, Arizona, USA.**

More information: Email, [info@gita.org](mailto:info@gita.org) or [www.gita.org](http://www.gita.org)

**MAY 2010**

**INTERGEO East**

**6-7 May, Istanbul, Turkey**

More information: [www.intergeo-east.com/](http://www.intergeo-east.com/)

**Positionale – International Trade Fair for Satellite Positioning, Navigation and Telematics**

**18-20 May, Stuttgart Trade Fair Centre, Stuttgart, Germany.**

More information: [www.positionale.de](http://www.positionale.de)

**JUNE 2010**

**58th German Cartographer's Day 2010**

**8-10 June, Berlin and Potsdam, Germany.**

More information: <http://dkt2010.dgfk.net>

**JULY 2010**

**The Geoinformatics Forum Salzburg (GI\_Forum)**

**6-9 July, Salzburg, Austria.**

More information: [www.gi-forum.org](http://www.gi-forum.org)

**ESRI Survey & Engineering GIS Summit**

**10-13 July, San Diego, CA, USA.**

More information: [www.esri.com/events/survey/index.html](http://www.esri.com/events/survey/index.html)

**ESRI International User Conference**

**12-16 July, San Diego, CA, USA.**

More information: [www.esri.com/events/uc/index.html](http://www.esri.com/events/uc/index.html)

**24 & 25 March 2010**  
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#### Module 2

Metadata Workshop – Rob Walker, Independent Consultant, member of AGI AWG for INSPIRE, member of the UK Location Programme Interoperability Board Metadata Group and member of JRC TNS project

#### Module 3

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