

# GIS Professional

issue 47 : August 2012

...joining the geography jigsaw



## Handheld technology at the pole

Analytics helps show us the money!

Asset management moves with the times

The business value of OGC standards

Share the power of place at AGI GeoCommunity

A look at the life of. . . a MapAction volunteer!

Product Interview: time to Coordinate

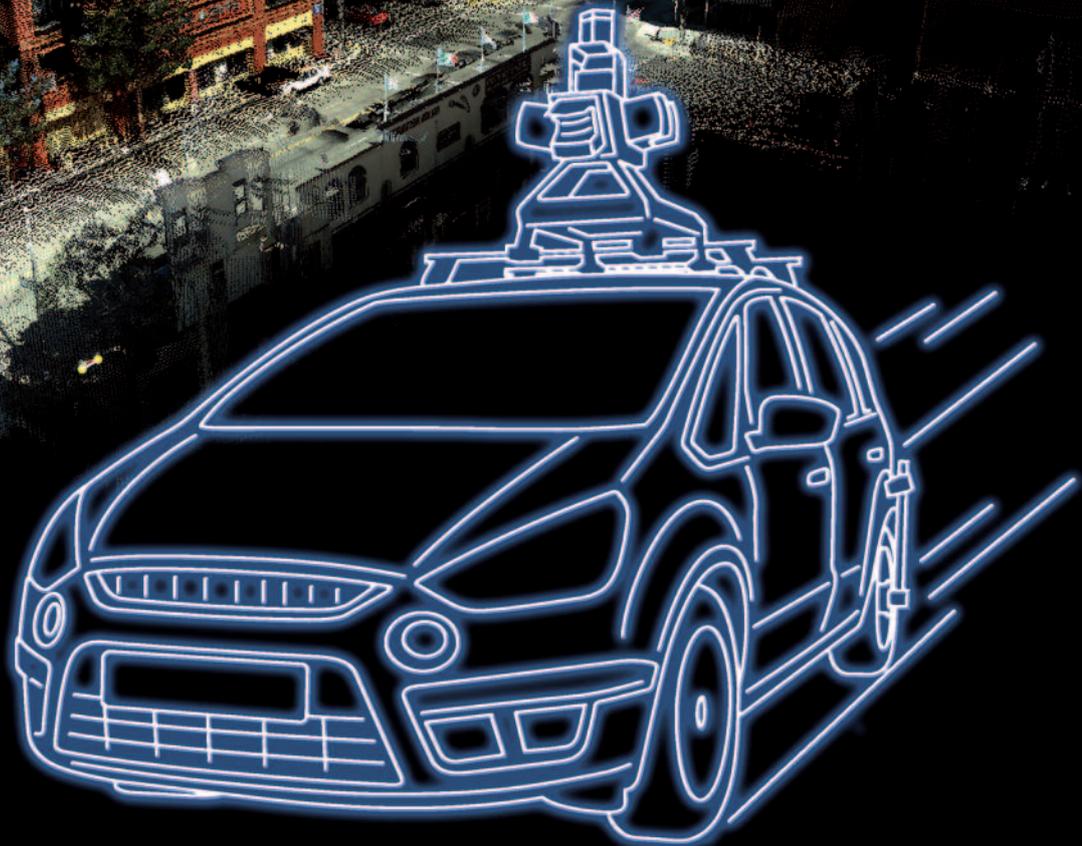
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## Technology tested: Algiz in the Arctic

For the North Pole 2012 expedition, any equipment taken had to withstand the harsh climate – Handheld's notebook was up to the challenge!



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 Prescriptive, real-time, pattern-based strategies with situational and regional context

## Smarter analytics – show us the money!

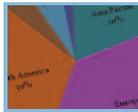
How can geography play a role within business analytics? Tony Boobier considers the convergence of analytics and the location agenda.



**p. 14** **Asset management moves with the times**

## Asset management moves with the times

Sarah Jones, Landscape Engineering, explores how GIS software can take mobile mapping to the next level.



**p. 16** **What is the business value of OGC standards?**

## What is the business value of OGC standards?

ConsultingWhere's Les Rackham reviews the recently released findings of the Open Geospatial Consortium's 2011 Business Value Survey.



**p. 18** **AGI preview: all set for a cracking event!**

## AGI preview: all set for a cracking event!

Cracking titles and intriguing topics – *GiSPro* delves into some of the presentations on offer for this year's AGI GeoCommunity in September.



**p. 22** **Interview: carrying the flame for MapAction**

## Interview: carrying the flame for MapAction

In the spirit of the Olympics, *GiSPro* talks to torch-bearer, Wai-Ming Lee, to find out about his life as a MapAction volunteer.



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## Time to Coordinate!

Jeremy Heath, Network Manager of Sutton and East Surrey Water, explains why he chose to test Google Maps Coordinate.

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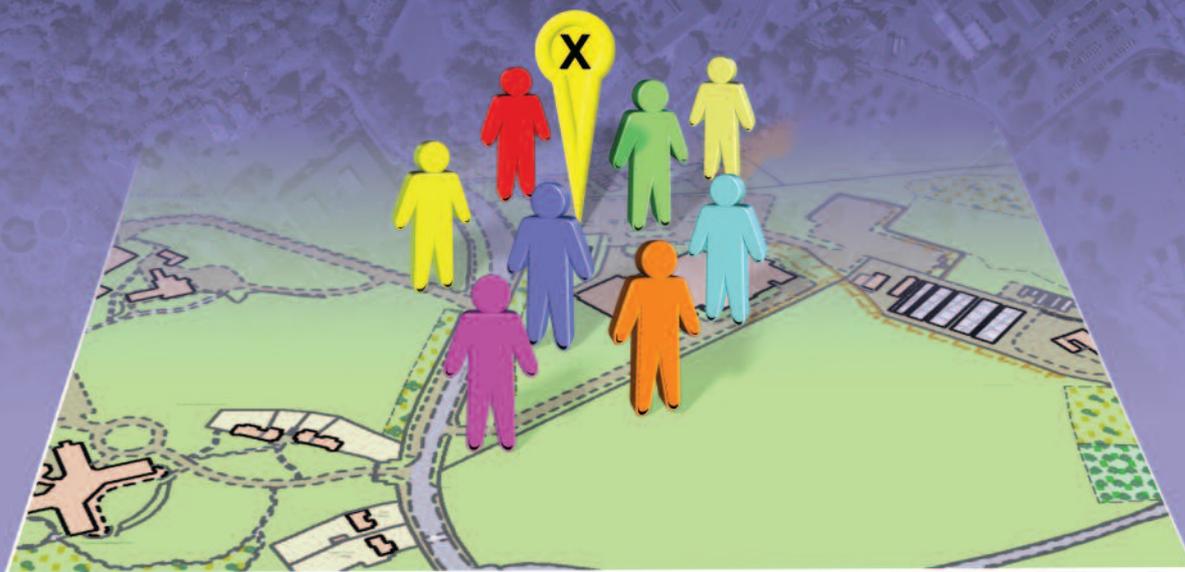
**Advertising:** 14 September

**Front cover:** Something to cool readers down – whether from Olympic excitement or the weather. Handheld's Algiz XRW notebook survived with flying colours a French expedition to the North Pole. Read more on page 10. *Front cover image courtesy of Pôle Nord 2012.*



**to subscribe to *GiSPro*, turn to page 34.**

**read on...**



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# Sharing the Power of Place

18 to 20 September 2012,  
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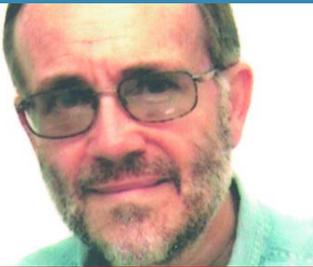
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# agi GEOCOMMUNITY'12

Association for  
Geographic Information



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

## Just when we thought the battle was won. . .

THE ADDRESSING WARS seem to be starting up again. Many readers will recall how, for years, Britain had three different public sector organisations creating their own address databases. Peace broke out two years ago with the creation of GeoPlace, the new public sector company that brought together Intelligent Addressing's local authority datasets and those from Ordnance Survey. But still outside the tent was Royal Mail and their Postcode Address File (PAF), which allocates codes to postal addresses. Perhaps it made sense as postcodes are very coarse in their positioning and in any case posties know their rounds.

Now unnecessary competition is set to break out again following Royal Mail's announcement that they are equipping their posties with GPS to capture coordinates for each delivery point in the East Anglia region. Although this is supposed to be a trial, where will it lead? Although Royal Mail say they have the union's blessing we somehow suspect once the database is complete just about anyone who can stand up straight and walk can deliver mail if equipped with a handheld GPS. The full story can be read, along with some pretty pithy comments from industry pundits, on page 6.

The battles over address databases are only part of the story that should worry citizens, whether as private individuals or business owners and principals. The announcement that UPRNs – unique property reference numbers – will be used as part of the new electoral registration process may present another challenge for citizens. We already have far too many "belt-and-braces" log-in arrangements to government websites. If I didn't have it logged in a file, from which I can copy and paste, I would have to key in over 22 characters to lodge our quarterly VAT return (if anyone would like to nick my log-in details and do it for me, thank you very much). Meanwhile to get to my bank account and move money around a neat little device into which I insert my debit card generates just eight digits for the log-in. Simples.

There is of course already a unique reference issued to every citizen in the UK: a National Insurance Number. Indeed I am told that certain citizens can recall it instantly when ordered by their guards in HM's prisons. As we enter the age of cloud computing (see the programme for AGI's GeoCommunity and that for Intergeo), HMG need to get a grip on the overuse of complex log-ins as they can be a real deterrent to using interactive websites. Now, wouldn't it be simpler if we all had identity cards. . . ?

Turning to this issue of *GiSPro*, we have several great articles that should provide not just GI brain food but reference for the future. Les Rackham has been looking at a survey of over 300 organisations around the world carried out by the geospatial standards organisation OGC. Over a third of respondents were from Europe (beating the US by a few percentage points). Interestingly, two thirds were not members of OGC even though they had adopted standards. Turn to page 16 to read Les's full report.

One of the star papers at Esri UK's user conference was on GIS analytics. Tony Boobier argues that we are being swamped by big data and the only way to deal with it is smarter analytics. For him, the GIS community has a great opportunity as so much of this data has a geo content. He contrasts the analytics business, which usually has little difficulty in getting into the boardroom, with GIS, which can struggle. Opportunities are ahead.

Finally, we have two interesting case studies: one on hardware (Topcon) and the other on software (Google Maps Coordinate). They both help clarify and inform those opportunities.

Enjoy the Olympics and the unexpected change in the weather and we will be back in October to tell you all about AGI GeoCommunity'12.

Stephen Booth, Editor

“

**. . . if anyone would like to nick my log-in details and do it for me, thank you very much.**

”

## Barking up the right tree



Cambridge City Council has used a digital map of trees, created by aerial mapping company Bluesky, to inform tree planting and management in the city. As part of a wider project to address the effects of climate change, the specially commissioned ProximiTREE data replaced a more traditional tree audit to determine which trees already existed and where they were located. Derived from aerial photography the Bluesky tree map details the exact location of all trees and includes measurements of tree height and canopy extent.

### Pinpointing the problem

Royal Mail has announced a pilot scheme in East Anglia to capture coordinates of each delivery point in the region. To be known as Pinpoint and described as being to “help improve the accuracy of location-based information used by individuals and businesses”, the move is a logical, if provocative, one from the public sector business. The reason, say Royal Mail, is to improve the position of properties’ letterboxes and delivery points where the postcode is too general and points are not always immediately visible. But isn’t this what GeoPlace do?

Several industry commentators have waded in. **Bob Barr** points out that “The public already ‘own’ a coordinate for every address in PAF – why do they need to pay for another one?” and **Steven Feldman**, chairman of Geo.me solutions, described the move as “bonkers”.

Once compiled into a new database, Royal Mail are almost

certainly likely to market it to business and other users. A spokesman for the government agency GeoPlace, which supplies addressing databases, said: ‘We have been working with Ordnance Survey to monitor developments with the Royal Mail’s initiative. We are aware that the initiative is being piloted in East Anglia and there are discussions with Royal Mail over the coming weeks to understand the full aims and objectives of the project.’

**Robin Waters** comments: “At the moment we have a set of address based products from Ordnance Survey and GeoPlace that rely on OS provided coordinates, which are normally inside the relevant building and also explicitly reference the OS MasterMap TOID for that building. These products also use OS and local authority sources to provide a lot more ‘addresses’ that are not in Royal Mail’s PAF data and will not,

presumably, be picked up by the posties.

The posties will however – or so it is claimed – pick up the ‘delivery points’ which are very often well removed from the seed points – particularly in larger buildings. And of course many of the delivery points (letter boxes) are not necessarily anywhere near vehicular access points from public roads – which might be better for satnavs.

There will also be charging and licensing issues, which could pit one government owned (for the time being) business against another. Could that be a good thing for customers? And let us not fall into the trap of thinking that there is any so-called ‘definitive’ database here. Different users have different needs and some users will be prepared to pay for comprehensive coverage of their specific requirement.

Notwithstanding the apparent duplication it will be fascinating to see yet another set of postcode polygons and compare them! Are we going back to the first principle of surveying – always do an independent check measurement if possible.

### Aiding UK electoral registration

Ordnance Survey and GeoPlace have welcomed the Cabinet Office’s call for greater use of Unique Property Reference Numbers (UPRNs) across the public sector, to support the move towards individual electoral registration (IER).

UPRNs are assigned to address records by local authorities at the planning stage and persist for the lifetime of each and every property across Great Britain. This means that every property is uniquely recorded and can be unequivocally identified by any organisation that holds the UPRN in its own records. Ordnance Survey publishes the UPRNs in its AddressBase range of products, produced by GeoPlace.

AddressBase is freely available to the public sector under the Public Sector Mapping Agreement and One Scotland Mapping Agreement. So all government departments can make use of UPRNs to potentially improve data matching and easing the transition to IER.

Under the current system of electoral registration an annual household canvass form is sent to

each address, which is completed by one individual on behalf of everyone living at the property. From 2014, this system of registration will be replaced by a one-off IER, with people registering individually and providing personal identifiers for registration.

### UK-Chinese Geospatial Centre

A jointly-operated centre for Sino-UK geospatial engineering has opened at the University of Nottingham. The project is supported by the university and the Chinese Academy of Surveying and Mapping, research arm of China’s National Administration of Surveying, Mapping and Geoinformation (NASG).

The Chinese arm of the centre was launched towards the end of 2011 in Beijing, in conjunction with Nottingham’s Ningbo Campus, while the UK end was opened as part of an annual international executive training seminar on survey and mapping at the University of Nottingham. The centre will offer executive training for Chinese leaders working in surveying and mapping companies, in areas such as technology, management and business. It aims to support long-term collaboration by integrating resources and will act as an incubation centre to realise the results of research and development, production and commercialisation.

The centre is building on eight years of collaborative work in this area, and involves several Chinese partners. A Chinese-British Board will agree the joint strategy for the Sino-UK Geospatial Engineering Centre. Dr **Xiaolin Meng**, University of Nottingham, will operate as the UK director and will work closely with Professor **Jixian Zhang**, president of the Chinese Academy of Surveying and Mapping (CASM) and overall director of the Sino-UK Geospatial Centre.

### Antitrust complaint to Google

Along with newspaper and magazine publishers, a mapping company is one of the complainants backing an antitrust investigation of Google by the European Commission. **Michael Weber** of Hot Maps argues that ‘not everything Google prominently shows is fair, balanced and really the best of the web.’ He believes that there is bias in the way the search giant determines results and that Google’s own services

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are preferred. 'Like a higher power, an algorithm supposedly helps answer your every question in the best conceivable way,' Weber cynically adds.

The concern antitrust complainants have is that Google's own products are affixed in the best spots of search result pages. Now the vice-president of the European Commission and Commissioner responsible for competition has set Google an ultimatum to address four areas of concern including the preferential placement of its own products and services. Watch this space.

### All set for Intergeo 2012

The world's largest event for geodesy, geoinformation and land management is set for 9-11 October in Hanover. The signs bode well: three-quarters of the space in Halls 8 and 9 has already been booked. Some 15,000 trade visitors and 1,400 conference participants from around the globe are expected to attend the event hosted by DVW, the German Society for Geodesy, Geoinformation and Land Management. The CLGE (Council of European Geodetic Surveyors) is inviting its members from 35 countries, including all EU member states, to take part in a conference as part of Intergeo on 11 October. More at [www.intergeo.de/en/index.html](http://www.intergeo.de/en/index.html).

### Defence technology partnership

Envitia and Tactical Communications Group (TCG) have entered a technology alliance for developing mission critical systems worldwide. The partnership will enable global defence organisations and major defence contractors to deliver standards-compliant, reliable, highly cost-effective tactical data link solutions. Envitia's MapLink Pro SDK powers TCG's Battlefield Operations Support System and Ground Tactical Data Link System. Using LinkPRO, defence contractors and systems providers can easily embed high fidelity tactical data link capabilities into their systems.

### Internet contact saves council

Channel shift and the savings it promises to deliver through ubiquitous broadband has been a major aim of transformation initiatives across local authorities in the UK. For one council, a web-based

initiative to access services has increased internet-based contact by 62 per cent. London Borough of Harrow's 'MyHarrow Account' has reduced phone enquiries by 30 per cent and visits to council 'One-Stop-Shops' by 17 per cent. The channel shift has seen the cost of individual transactions fall by 65 per cent from £2.33 to £0.77 and the value of payments via the online channel soar to over £720,000 per month. At the same time citizens, businesses and landlords have benefited from over 80 online services including payments, applications for facilities, licenses, discounts and incident reporting via the web.

### Gazetteer software helps with consultation

Gazetteer management software is helping a Leicestershire Council communicate plans for a proposed new town. In a second round of consultation for New Lubbesthorpe – a proposed development of 4250 homes plus shops, schools plus two motorway bridges – Blaby District Council has used GGP Systems NGz software to help prepare over 8,000 letters to local residents and businesses and collate and manage the responses. The first round of consultation also used NGz to prepare and dispatch notifications and the Council received more than 1,500 responses.

### Strategic alliance to help disaster response

Esri and Microsoft unveiled a 'strategic alliance' at Esri's annual International User Conference in San Diego last month. The move is designed to assist communities around the world during disasters. Microsoft will display Esri public information maps on its cloud-based Disaster Response Incident Portal, as well as pointing citizens to the maps via its online outlets, such as MSN and Bing. Esri's ArcGIS integration within a number of Microsoft's disaster response management systems will provide governments and leading aid organisations with a more comprehensive set of tools to address key challenges.

### System for emergency services

Lancashire Fire and Rescue Service has selected Symphony Bluelight as their corporate gazetteer management

## New UK dealer for Spectra range

From Left to right:

Peter Wallace  
(Worldwide Sales  
Manager - Trimble SPNA  
division), Dave Shandley  
(Director of Mobile GIS  
Services), Jean-Mark  
Ferre (EMEA Sales  
Manager) and Ian  
Pennington (EMEA  
Regional Sales Manager -  
Northern Europe, Spectra  
Precision/Nikon/Ashtech  
Division Trimble).



Dave Shandley of Mobile GIS Services Ltd has been appointed a UK dealer for Spectra Precision's Ashtech range of mobilemapper GPS and GNSS data collectors. Mobile GIS Services are GIS specialists in data capture and GIS mapping software using the latest technology in handheld GPS systems and mobile GIS software. For more information, visit [www.mobilegisservices.co.uk](http://www.mobilegisservices.co.uk).

system. The service covers more than 3,000sq km. The suite developed by Aligned Assets is designed for the emergency services and enables services to manage their address data by linking it to other systems like command and control that support the organisation. With address data common to most of these systems, Lancashire Fire and Rescue are looking to implement AddressBase Premium from Ordnance Survey as the single, definitive source of address data, selecting Symphony Bluelight as the only gazetteer management system currently capable of supporting it.

### Astun on track

A new tracking and monitoring solution for local authorities is using Astun Technology's Open Source and web-mapping expertise. Astun provides the web interface and core mapping technology that hosts the Ordnance Survey maps used by Exactrak, a web-based tracking and monitoring systems supplier for local authority highways maintenance vehicles, including gritters, gully cleaners, road sweepers, refuse trucks and white van fleets.

### Finding marine data online

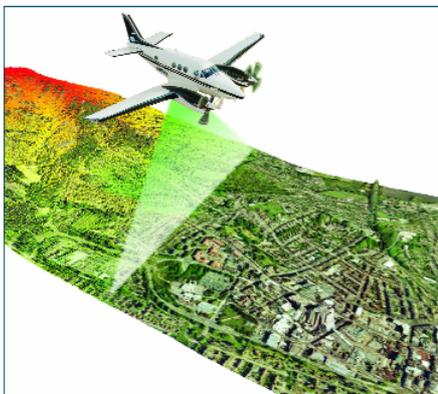
FIND Maps, in association with OceanWise, has launched MarineFIND online data services. Currently the only

supplier of OceanWise Marine data via TMS and WMS/WFS feeds, FIND Maps is developing this service so users of marine GIS data and charts can access data 'as a service' direct from desktop GIS applications. The data can be quickly and easily deployed in a range of online mapping applications as overlay map sets.

### German win for EDRS satellites

Astrium Services, the prime contractor for the European Data Relay System (EDRS), has contracted the German Aerospace Centre (DLR) to implement and operate major parts of the ground network for EDRS's two geostationary satellites, including the design, implementation, delivery and operation of four ground stations and two receiving stations. The contract is valued at around euros 65 million.

EDRS comprises two geostationary satellites facilitating the data relay between Low Earth Orbit (LEO) satellites or UAVs and an associated ground segment. EDRS will enable satellites to immediately transfer data in broadband quality to the ground and also provide the capability to re-programme satellites in almost real-time. This ensures the timely acquisition and delivery of data following natural disasters and will support security applications, environmental protection and weather forecasting.



## Bluesky's integrated mapping system

Bluesky has purchased an airborne mapping system, which includes a LiDAR with integrated thermal sensor and high resolution camera. Supplied by Optech, it combines an Orion M300 LiDAR, long wave infrared thermal sensor and a CS-10000 camera. The LiDAR is for applications such as electricity transmission network mapping, transport infrastructure modelling and environmental monitoring such as flood risk analysis and forestry management as well as 3D measurements for bespoke mapping and city models. The thermal sensor records infrared measurements and will be used for identifying heat loss from buildings and monitoring pipelines.

## BRIEFS

The London Borough of Harrow has selected Aligned Assets Symphony Suite of gazetteer software for the management of their Local Land and Property Gazetteer (LLPG). The software will help the authority ensure that changes to the borough's address data, including all new developments, are recorded accurately and in accordance with British Standard BS7666.

Autodesk is reported to have paid a puzing \$0m for Socialcam, essentially a free App for mobile phones enabling users to share videos on social network sites. Autodesk's view is that it "is an ideal medium for professionals and consumers alike to communicate and share their design

ideas." Others think differently. Sam Pfeifle of SPAR Point Group trenchantly observes "everyone (who signs up for Socialcam, (will) be presented with the Autodesk brand and it will serve the same purpose as a gateway drug."

1Spatial has been selected as a specialist consultant for data standards and quality by the Environment Agency in relation to a framework contract "Support for licensing public sector information and undertaking intellectual property reviews".

A multi-university student group in London has formed after a group of first year students on Birkbeck's part-time MSc in GIS concluded that there is a lack of engagement between current students and the GIS

community as a whole. Membership now extends to those who are just setting out in their GIS career, allowing feedback to succeeding years of students. The group offer initiatives to help students think about their careers and have a speakers programme for the academic year. With members across nine London colleges and universities, the group centres around a monthly pub session and its website: <http://London-tsgis.org>.

Registrations are open for the RSPSoc annual conference at the University of Greenwich, London, September 12-14 2012. The theme "Changing how we view the World" will bring together researchers and practitioners in photogrammetry and remote sensing. More at [www.rpsoc.org](http://www.rpsoc.org).

## PEOPLE

Operations manager for GGP



GGP Systems has appointed Gareth Brawn as operations manager to manage the software development team. Brawn is an experienced project manager who has held senior positions with organisations including The Inspiring Futures Foundation – an organisation that provides career guidance for young people and a leading name in supply chain management. Brawn brings more than twenty years of IT experience to his role with GGP Systems.

The Open Geospatial Consortium has awarded its Kenneth D. Gardels medal to David Wesloh for his unflinching support for the OGC standards process and his management of the US National Geospatial-Intelligence Agency's relationship with the OGC since 2004.



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*Adena Schutzberg is  
Principal of ABS  
Consulting Group Inc.  
and Executive Editor of  
Directions Magazine,  
[www.directionsmag.com](http://www.directionsmag.com)*

I USE OPEN SOURCE software regularly. I write about open source geospatial software. I used to teach with, and about, it. I mention its importance in keynote presentations at conferences. And, I invariably get the same question via e-mail, in person and on the phone: "What is open source geospatial software's business model?"

There's a lot of talk about Google's and Facebook's business model. Many people happily use those services and take with a grain of salt that they are advertising businesses. I've got good news: open source geospatial software aligned businesses, to date, are not advertising businesses! In fact, those organisations have a very traditional business model. It will sound familiar to anyone who buys software from a reseller or is a reseller.

**Don't sell software, sell services!** Travel back in time with me to 1989. I am one of two AutoCAD

And that's what my colleagues and I heard from resellers during the 1990s. I'm sure Autodesk's representatives heard the same complaints. The basic gist was "How do we make a living selling boxes of software at no profit?" The answer was: Don't sell the commodity (the box of software), sell services! Sell installation, customisation, training, support, etc. That worked for some, but others ended up competing on sales and services with the software vendors themselves. That situation led some software vendors to acquire the best resellers and terminate the rest. The number of GIS resellers of AutoCAD Map, Esri products and MapInfo products worldwide has dropped significantly in recent years.

**A level playing field?** Now, let's get back to open source geospatial software. It's the same problem, really. There is exactly no margin on selling the

## What is open source's business model? Good news! Unlike Google or Facebook, to date, open source geospatial aligned businesses are not advertising businesses. The approach is more traditional, says **Adena Schutzberg**.

software users at the consulting company. We need the new version. I visit the company just down the road from us, to buy it. The reseller mostly supports surveyors and there are all sorts of instruments crowding the shop. In the back, under lock and key, are the boxes of AutoCAD. I hand over a purchase order for \$4000 in exchange for a box of Version 10.

Spin forward a few years to 1993. I'm a member of Esri's ArcCAD team. I work with the development team and our resellers, some of whom are also AutoCAD resellers. I start to learn about how resellers make money. The company that makes the software sells it to the neighbourhood reseller for, say \$3,500 (I'm making this up; I don't recall the numbers) and the reseller sells it for more, say, \$4,000 to the end user (that younger version of me, above). That difference, that \$500, is profit. A month or so later a reseller in the next town drops his price to \$3800 and the neighbourhood reseller starts losing sales. The margin is dropping! Basically to get any sales at all the local reseller has to drop the price to what he pays for it, \$3500! That's a profit of \$0.

software (it's free!), so you sell services.

Red Hat sold the service of putting Linux in a box with an installer and offering some tech support. OpenGeo does some of the same things with its OpenGeo Suite. Those interested can download the pieces for free, without the slick installer and support, or pay at one of three levels for that installer and support. And you can buy consulting, training and all the rest too. There are a host of smaller shops doing just what Open Geo is doing.

What's the difference between the proprietary reseller model and the open source consultant model? In the latter, there is no where for the cost of the licence to go! It starts and ends at \$0. Further, those who choose to go into services for open source have no software developer to compete with, as the Autodesk, Esri and MapInfo resellers did. No one has an extra edge since all consultants and developers can see the same source code. Everyone plays on the same field.

We'll just have to wait and see if this model plays out better, and for longer, than it did for proprietary GIS software resellers.

“

**Basically to get any sales at all the local reseller has to drop the price to what he pays for it, \$3500! That's a profit of \$0.**

”

# case study: Algiz in the arctic



Any equipment taken had to be light enough to carry on sleds and (left) Julien Cabon and Alan Le Tressoler use the Algiz XRW with the all important touch-screen allowing them to work despite three layers of gloves!

THE SCIENTIFIC COMMUNITY knows relatively little about the geographic North Pole, Earth's true northern axis of rotation. It's set in the middle of the Arctic Ocean, on sea ice that constantly drifts with wind and currents. The North Pole 2012 association calls the Arctic Ocean "an essential element in the balance of the planet". It believes a stronger base of knowledge about the Arctic,

home, allow the researchers to call for rescue if necessary and be light enough to carry.

**Connecting to an international audience** The researchers chose to use Handheld's compact, IP65-rated Algiz XRW notebook for computing and communications requirements during the five-week trip.

## Technology Tested – an Arctic challenge

The North Pole is a land of ice and snow where most humans, let alone computers, struggle to thrive. But when researchers **Alan Le Tressoler** and **Julien Cabon** planned the French scientific North Pole 2012 expedition they rigorously prepared themselves to withstand the Arctic's harsh climate and rough landscape. However, the expedition required not just a human presence but equipment that would also be up to the challenge.

including data related to sea ice, marine biology and polar atmosphere, can help scientists form a more complete and accurate picture of the world we live in. But satellites are unable to measure the ice beyond a certain latitude — about 200 kilometers around the Pole — making data collection a tricky process that can only be accomplished with a human presence.

So researchers **Alan Le Tressoler** and **Julien Cabon** planned the French Scientific North Pole 2012 Expedition to gather scientific data at the geographic North Pole with the aim to educate others about the journey along the way. The expedition began with two weeks in Spitsbergen, Norway, and then the team camped at the North Pole for three weeks in April collecting data. The aim was to reset camp at the Pole each day using GPS, to take measurements and collect samples at that site, and to share their adventure online. The most significant challenges for any technology chosen was, of course, the Arctic's extreme cold, which impacts battery life, and the rough terrain. Depending on the severity of ice drifts, repositioning camp could mean up to 25 kilometers of daily travel on foot over constantly evolving ice, inlets and high-pressure ridges — all while pulling 150kgs sleds full of equipment. The chosen computer would also need to facilitate communication with those at

A range of data was collected on weather, ice-sea drift and plankton as well as supporting the expedition's educational programme through which French school children followed the exploration remotely.

*'The Algiz XRW was really one of the most important pieces of equipment of the expedition, and it exceeded our expectations,' says Le Tressoler. 'This ultra-rugged mobile computer has been truly terrific and performed flawlessly in even the most extreme conditions.'*

By connecting the Algiz XRW to a satellite phone, the explorers were able to successfully transmit scientific data, images and texts on a daily basis. Even as they operated in permanent daylight conditions, the team was able to view and interact with the touch-screen display without difficulty.

*'I would never have thought that a computer could work so well in these harsh conditions,' adds Le Tressoler. 'The screen on the Algiz XRW is perfect, even in direct sunlight. The touch-screen did its job perfectly – very important and appreciated when you have three layers of gloves! Nothing at all broke down and I have to say we haven't been that gentle with the material because of compression ridges and so on.'*

“

**The touch-screen . . . appreciated when you have three layers of gloves! Nothing at all broke down and I have to say we haven't been that gentle. . .**

”

# case study: Algiz in the arctic

**Batteries are key!** One key to performance was the long life and performance of the batteries. The explorers stored the batteries for all their devices in their sleeping bags to keep them warm overnight but they found that the extreme cold caused most batteries to fail after only a few minutes of use – except for one: the AlgizXRW.

*'I would have hardly believed it if I had not seen it for myself; these batteries last forever! It was incredible. And that has been a big key in the success of the scientific programme,' continues   Tressoler.*

*'From a "crisis" logistics point of view, it was also very pleasant to be able to trust 200% the computer. In case of serious injuries, we know we could have communications with a doctor, with pictures and videos, or call rescue what ever happened with the batteries of the satellite phone, as it is possible to charge the satellite phone from the batteries of the computer (which we actually did).'*

He concludes: *'I will trust the Algiz much more in -40 C than my own laptop at +20 C. . . and it has all the connection you can dream about (RS 232, SD card, 2 USB).'*

## The Algiz XRW



*Taking the first measurements at the North Pole and (inset) the Algiz XRW.*

The Handheld Algiz XRW notebook weighs in at a mere 1.5 kilos and is IP65-rated, meaning it is dustproof and highly water resistant. It passes MIL-STD-810G ruggedness testing, including drop tests from 1.2 meters, and can handle extreme temperatures from -20 C to +55 C (in use) and -40 C to 55 C (storage). The 10.1-inch touch-screen display features MaxView screen technology, providing screen clarity and brightness in any outdoor condition, even direct sunlight. Mobile capabilities include Bluetooth, WLAN, GPS and a 3G modem that provides high-speed GSM/UMTS/EVDO data transmission. With Gobi 2000 technology it is possible to work on any choice of wireless frequency anywhere in the world. The 57.7 Wh battery works for eight hours on a single charge. [www.handhelduk.com/regions/uk/algiz-xrw.asp](http://www.handhelduk.com/regions/uk/algiz-xrw.asp).

### About Handheld

The Handheld Group is a manufacturer of rugged mobile computers and PDAs. Handheld and its partners worldwide deliver complete mobility solutions to businesses in industries like logistics, forestry, public transportation, utilities, maintenance, military and security. For more information, visit: [www.handheldgroup.com](http://www.handheldgroup.com).

- For more information about the French Scientific North Pole 2012 Expedition, visit [www.polenord2012.fr/](http://www.polenord2012.fr/). All images are courtesy of P le Nord 2012.

## Rugged Computers for Tough Environments



The best line-up of full-featured rugged mobile computers and PDAs

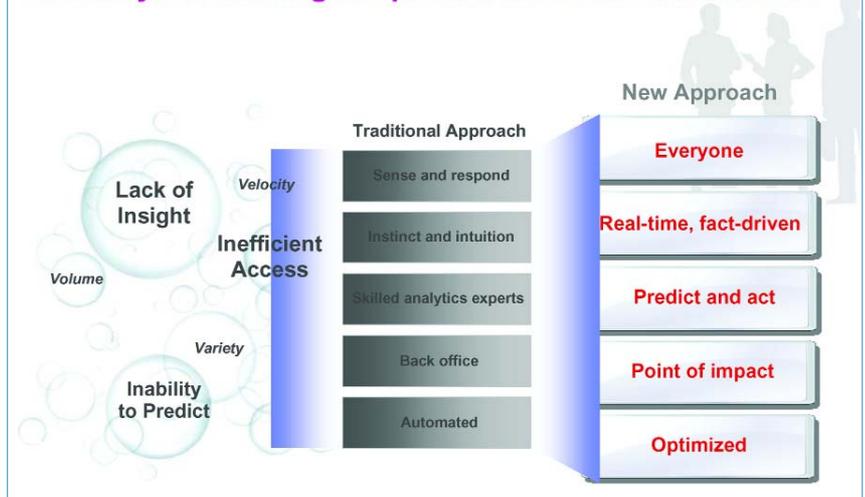
# handheld

[www.handhelduk.com](http://www.handhelduk.com)

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+44 (0) 1926 333 266



## New ways of working to optimize decisions and actions



*Above: Getting noticed in the boardroom has seldom been a problem in the analytics industry, which has adopted a strong value-based approach with clear returns on investment (ROI).*

UK industry bill and add £5 to each of our premiums every year.

All of these examples – and many others – clearly have a location component, yet GIS is seen as being only one data input when perhaps the impact of place could play a greater contribution in the mix.

**Out perform your peers** A survey identified that those organisations that effectively use analytics are over twice as likely to outperform their peers. On our own UK doorstep, since the start of May, more than 30 properties have been flooded in London and 50 have received flood warnings. The increasing challenges of climate change (regardless of causation) mean that we can no longer rely on intuition; location analytics increasingly becomes critical.

**The road to analytics transformation is well trodden, requiring the mastery of three competences:**

- **Information Management** – comprising a solid foundation layer and standardised management practices including data governance.
- **Analytics Capabilities** – with skills developed as a core discipline, enabled by a robust set of tools and solutions.
- **A data-Orientated Culture** – fact-driven leadership and a recognition that effective use of analytics becomes a strategic asset.

Historically, the GIS industry has struggled to get noticed in the boardroom or amongst senior executives. This has seldom been a problem in the analytics industry, which has adopted a strong value-based approach to solution development and has focused on industry 'pain' points with clear and tangible returns on investment (ROI)

The convergence of the location agenda and the wider analytics agenda is inevitable and should ultimately prove to be a significant catalyst for GIS transformation. Isn't it time for geographers to start looking at themselves in a new light?

- *In the next issue, we will look at how location analytics can be implemented in real life.*

### References

1) *Analytics: The Widening Divide*. IBM / MIT Sloan Management Review



### About the Author

Tony Boobier, BEng CEng FICE FCILA FCIM, is IBM Business Analytics' Executive for Insurance in EMEA. He has over 30 years operational experience in manufacturing, public sector, financial services and technology sectors.

## So why become "analytics driven"?

**Business analytics can help organisations to recognise subtle trends and patterns so that they can anticipate and shape events, thereby improving outcomes. By utilising "smarter analytics", organisations can not only drive more top-line growth and control costs but also identify risks that could derail business plans – and take timely corrective action.**

Business analytics software would enable your organisation to apply analytics to decision-making, anytime, anywhere. You can:

- Tap into all types of information
- Empower people in all roles to explore and interact with information and deliver insights to others
- Optimise all types of decisions – whether they're made by individuals or are embedded in automated systems
- Provide insights from all perspectives and time horizons – from historic reporting to real-time analysis to predictive modelling
- Improve business outcomes and manage risk, now and in the future

Source: [www.ibm.com/software/products/us/en/category/SWQ00](http://www.ibm.com/software/products/us/en/category/SWQ00)

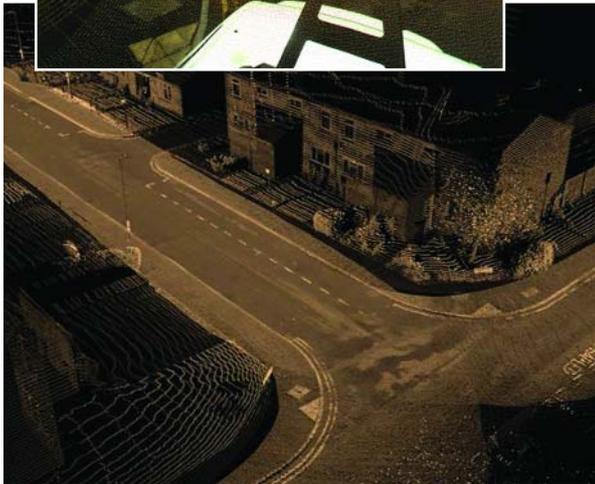
# mobile mapping



*The photographic imagery within mobile mapping datasets renders them accessible, intuitive and productive, removing ambiguity from feature identification.*



*These images are examples of high resolution panoramic photography (above), LiDAR point cloud (below left) and integrated LiDAR and photographic imagery (above left).*



MOBILE MAPPING SYSTEMS collect highly detailed and geo-referenced LiDAR and photographic datasets from vehicles travelling at highway speed.

But, as with Google Street View, it is the panoramic photographic imagery that renders the datasets

of the mapping sensors – whether photographic, LiDAR or other – are limited.

**Breakthrough** GNSS provides not only high accuracy positioning but also a definitive timing

## Asset management: moving with the times

Sarah Jones, Landscape Engineering, explores how multi-dimensional data acquisition and GIS software can take mobile mapping to the next level.



**... the reserve of specialist high-budget mapping campaigns... is now available as a commercially-viable tool for routine mapping projects.**



accessible, intuitive and productive from a mapping perspective. Whereas many professional users may be intimidated by a 3D LiDAR model, when the point cloud is combined with high-resolution photographic imagery, the underlying geometrical model is unlocked enabling powerful 3D modelling and representation.

The photography removes ambiguity from feature identification and it provides an invaluable textural input to modellers, condition assessment to asset managers and overall context to all. It is the human ability to instantly interpret and relate photographic data to reality that is so effectively leveraged with mobile mapping. Users of the system may view geographically unique environments from any aspect and can coordinate what they see. The technology provides fully geo-referenced models, in which coordination, measurement and modelling is as simple as pointing and clicking.

Regardless of whether the feature coordinates are derived from photogrammetric or LiDAR aided techniques, the challenge is to maintain accurate and robust 3D coordinates of the mapping platform, i.e. the survey vehicle. Without this assurance, the value

reference. Of course, the chances of maintaining accurate position with GNSS alone in a built-up environment are minimal. The breakthrough has been the augmentation of the GNSS solution with inertial navigation technology – the use of multiple accelerometers to determine positional change. Now users can maintain accurate position, and motion compensation, even while passing through GNSS black-spots. What has been the reserve of specialist high-budget mapping campaigns, utilising custom-built vehicles with protracted mobilisation and calibration procedures, is now available as a commercially-viable tool for routine mapping projects.

A single data acquisition campaign at highway speed provides a rich dataset, enabling data to be used for multiple applications by multiple users at multiple sites. The photographic core component of the datasets enables all these users – asset owners, operators, planners, security advisors and maintenance teams – to benefit from the single source of data.

Within a GI platform, the ability to derive value from

this dataset greatly supports asset management workflows. Mobile mapping enables rapid acquisition of fit-for-purpose data as an aid to the development of the asset management life cycle: What assets do we have? Where are they located? In what condition are they?

**GIS-based software** Orbit AIM3 software from LandScape Engineering extracts the asset inventory data from the mobile mapping model. This is a GIS-based software package developed for the extraction and GI management of asset data from photographic panorama data, recently enhanced to manage point cloud data embedded within the dataset. However, the introduction of a LiDAR-aided solution, based on the Topcon IP-S2 system and format, has increased the capability and productivity rates.

The software allows the user to view, inspect and extract information from, and overlay content within, the mobile mapping model. The operator has tools such as: map, panorama, point cloud, measurement and table information to enable a project specific workflow. Assets within the model are, by definition, features commonly represented by points, lines or polygons. In addition to this symbolic representation, the model enables the capture of descriptive information, which is managed through the user interface or directly within the database.

Metadata is also extracted for each feature alongside x, y and z coordinate values. Generally, within Orbit AIM3, user navigation within the model is of similar layout and process – panorama and map plan view – to Google StreetView. A new level of productivity for geodatabase population is achieved through the map point and click technique. This allows for rapid population of assets into a central spatial repository, which can integrate into existing back office asset management systems.

#### Orbit AIM3 can meet the challenge of GI issues like:

- **Integration** – a scaleable product, deployed either stand-alone or in a client server configuration within existing IT infrastructures.
- **Interoperability** – support for open file formats and Esri shp files.
- **Visualisation** – enables greater multi-discipline access to the measurement / data acquisition interface.
- **Promotes re-use and sharing of data** amongst traditionally disparate functions.



**Above: This is a view of the user interface for Orbit AIM3 software for extracting asset inventory data. The software includes a map point and click technique that allows for rapid population of assets into a central spatial repository, which can seamlessly integrate into existing back office asset management systems.**

**Sharing is key!** It is the ability to interpret and provide location-based asset analysis, quantification and trend mapping from the captured data that, built into the workflow, provides a useful tool for the asset manager. However, a more fundamental challenge is to provide this rich dataset in organisations where functions are often very different and not transparent. So having captured the data, sharing it is key!

Within the mobile mapping GI extraction model, the ability to deliver an intuitive fully geo-referenced photographic, or video, model to a multi-disciplinary user base, which allows all users to take their own accurate measurements, is a powerful and cost effective tool. Data may be revisited time after time for further measurements or feature extraction.

Mobile mapping provides the asset manager with a rapid, accurate data acquisition tool in which the photographic core unlocks multiple applications to multiple discipline users at multiple sites. The spatial intelligence embedded within the photographic domain – from both LiDAR and photogrammetry – takes mapping to the next level.



#### About the author

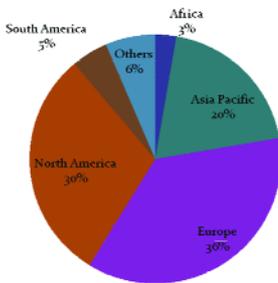
Sarah Jones is the GI Manager for LandScape Engineering Ltd where she is involved in the autoMAP mobile mapping initiative in association with TopCon GB and Orbit Geospatial Technologies. Prior to this, Sarah worked for 10 years in GIS in local government. She read geography and computing at Staffordshire University within the scheme of Applied Science BSc(Hons) framework. She obtained a First and also achieved the best overall performance award.

“ . . . the ability to deliver an intuitive fully geo-referenced photographic, or video, model to a multi-disciplinary user base. . . is a powerful and cost effective tool.”

# OGC standards

## Geographic Distribution

### By regions:



### By countries:

USA	24.3%	Chile	0.7%
Australia	11.1%	Mexico	0.7%
Canada	5.4%	Norway	0.7%
UK	5.4%	Poland	0.7%
Germany	3.7%	Portugal	0.7%
Spain	3.4%	Russia	0.7%
France	3.0%	Bolivia	0.3%
Italy	2.7%	Czech Republic	0.3%
Denmark	2.4%	Egypt	0.3%
India	2.0%	Ghana	0.3%
New Zealand	2.0%	Greece	0.3%
Sweden	2.0%	Hungary	0.3%
Brasil	1.7%	Japan	0.3%
Netherlands	1.7%	Kenya	0.3%
Finland	1.4%	Kuwait	0.3%
UAE	1.4%	Madagascar	0.3%
Argentina	1.0%	Nigeria	0.3%
Belgium	1.0%	Pakistan	0.3%
China	1.0%	Serbia	0.3%
Croatia	1.0%	Singapore	0.3%
South Africa	1.0%	Slovenia	0.3%
Switzerland	1.0%	Turkey	0.3%
		Vietnam	0.3%

Slide 19 from the OGC 2011 Business Value Survey shows the geographic distribution of respondents to the survey with the largest proportion being from Europe. Source: [https://portal.opengeospatial.org/files/?artifact\\_id=48440](https://portal.opengeospatial.org/files/?artifact_id=48440) (Prepared by Xexin Zhao & Mu Xia 2012).

(30%) and then Asia and the Pacific (20%). Not surprisingly, the majority of respondents had already adopted OGC standards although nearly two-thirds of respondents were not actually members of OGC. Nearly two-thirds had adopted some OGC standards for over three years with, on average, technology providers having adopted standards earlier.

### The top four standards adopted by both technology users and providers were:

- Web Map Service (WMS)
- Web Feature Service (WFS)
- Keyhole Markup Language (KML)
- Geography Markup Language (GML)

The primary benefit of adopting standards was identified as improved customer satisfaction and service. Users also gave high ratings to coordination with partners, reduced operating costs, improved productivity, market expansion and competitive advantage highly. The providers rated market

## What is the business value of OGC standards?

Following the recently released findings of the Open Geospatial Consortium's 2011 Business Value Survey, ConsultingWhere's **Les Rackham** reviews the report for *GiSPro*.

STANDARDS ARE "GOOD THINGS". But where are the case studies – or studies of any sort – that can help those making business cases for the adoption of open standards <sup>1</sup> within their organisations? They are rare or non-existent. Few identify the costs of adoption and/or the resulting benefits – particularly in the field of geographic information. Cases for getting involved in the development of open standards are equally rare. Thus, the recently released findings from the study by the Business Value Sub-Committee (BVC) of the Open Geospatial Consortium (OGC) on the value of open standards are to be welcomed. The report is available as a set of slides from [https://portal.opengeospatial.org/files/?artifact\\_id=48440](https://portal.opengeospatial.org/files/?artifact_id=48440).

The focus of the study was on OGC standards with the aim of assessing their adoption status and business value. The ISO standards developed by TC/211 were not included although a number of OGC standards have been adopted by ISO.

**Benefits and costs** Technology users and providers were both involved in the survey. Over 300 organisations responded from around the world, which is impressive and indicates the degree of interest in the topic. The largest proportion were from Europe (36%) followed by North America

expansion, competitive advantage, reaching new markets and reduced development costs.

The costs of adoption were seen as higher or a greater barrier by users than by providers. Employee training was rated by both as the greatest cost. Users also rated organisational changes, integration costs, security & privacy, and implementation costs as significant. Providers also rated integration costs, implementation costs and organisational changes.

These results are subjective assessments; they are useful in pointing to potential costs and benefits but can only be a start in seeking to justify standards adoption. These findings, on their own, are unlikely to convince a board of directors that this is an area worth investment.

Three quarters of respondents, both users and providers, agreed that OGC should provide a certification service for clients, i.e. an independent certification that an application conforms to the relevant OGC standard or standards. The top four listed as requiring certification were WMS, WFS, GML and WCS (Web Coverage Service).

The survey also looked at standards participation and promotion. Technology providers participated more in OGC activities than users although both users and providers claimed to actively promote standards whether members of OGC or not.



**The primary benefit of adopting standards was identified as improved customer satisfaction and service.**



**Still a way to go** So what can be concluded from this survey? It could not be described as a random survey. Over 300 organisations participated globally so the results should not be dismissed lightly. Of these, 86% had already adopted some OGC standards but often over a narrow spectrum. Amongst users there was the perception that acceptance of OGC standards was only moderate with providers expressing a slightly higher perception of acceptance. There is still some way to go to acceptance and adoption of these standards – especially if the biased nature of this survey is taken into account. The top four standards should not come as a major surprise: they would probably be top of most GI interoperability lists. The user and provider perceptions about costs and benefits are useful indicators but also point to the need for objective i.e. financial measures of costs and benefits from case studies.

The BVC are doing valuable work in a neglected area. They should be praised for taking the initiative in launching this survey and for making the findings available. This now needs following up with more detailed work, particularly the development of case studies to provide greater objectivity and input to business cases justifying the adoption of standards.

**References:**

- 1) Unfortunately there is no generally agreed definition of “open standards” but in general we are referring here to standards that have been adopted and maintained by a not-for-profit organization, have an open decision-making process available to all interested parties, and are available freely or at a nominal charge with no constraints on re-use.

*The views represented here are those of the author and should not be taken as representative of AGI or of the Standards Committee.*



**About the author**  
 Les Rackham is one of the directors of ConsultingWhere, a business consultancy specialising in location information, and he is also a member of the Association for Geographic Information (AGI) Standards Committee.



**The costs of adoption were seen as... a greater barrier by users than by providers. Employee training was rated by both as the greatest cost.**



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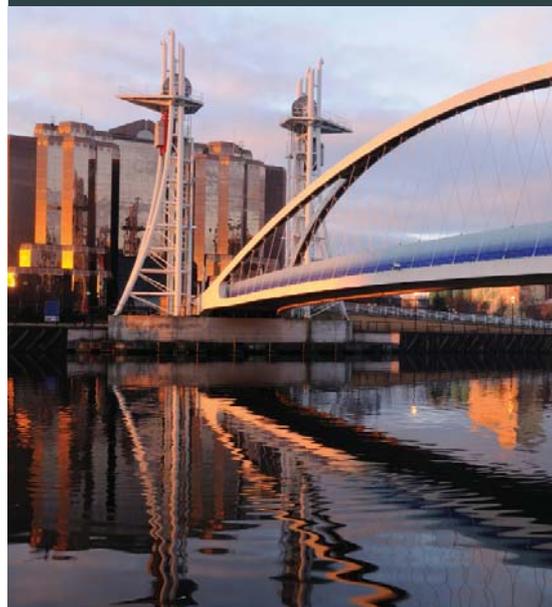
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# AGI GeoCommunity'12 preview



VIA BIM, BATHING WATER, augmented reality, cadastral parcels and workplace zones we eventually arrive at things with familiar words like 'geospatial' and 'geography' in the titles. Study of the programme for this year's AGI GeoCommunity shows some very intriguing papers indeed. If the presentations are only half as good as the titles,

GeoCommunity events".

The detailed programme follows the familiar format of past years with delegates having a choice of up to five streams at any one moment. Several new topic areas have been added to the list. There are a number of sessions within each topic with their colour code on the programme. But do bear in mind that things may change between now and the event.

- **Who, What, Where?** – 3 sessions (dark red)
- **Environmental Impacts** – 3 sessions (yellow)
- **Emerging Technologies** – 6 sessions (lavender)
- **Data** – 3 sessions (pale blue)
- **Sharing Best Practice** – 5 sessions (green)
- **Social Geography** – 4 sessions (brown)
- **Engagement** – 4 sessions (beige)
- **Health Geography** – 2 sessions (dark green)
- **BIM** – 4 sessions (turquoise)
- **Opening Up** – 6 sessions (purple)
- **Cloud Solutions** – 4 sessions (dark blue)

## AGI set for cracking event

With some intriguing titles and topics lined up, *GiSPro* delves into a selection of the presentations that will be on offer at this year's AGI GeoCommunity in September.

we're in for a cracking couple of days.

"Sharing the Power of Place" is the theme for this year's AGI GeoCommunity conference. Plans are shaping up for the event, which is scheduled for 18-20 September at the East Midland Conference Centre (located on the University of Nottingham campus).

**Is the end of geography already in sight?** On day one, a session will hear **Graham Wallace**, senior business strategist with Esri UK Ltd, pose the question: "The end of Geography?" He takes his cue from Francis Fukuyama's proposition of 20 years ago (following the collapse of the Berlin Wall and end of the Cold War) that the world was now so stable that he could foresee the end of history. Whilst acknowledging that this wasn't quite what happened, Wallace will nevertheless argue that because GI is now ubiquitous it can be processed just like any other data. He will explore the implications of these statements taking into account the likelihood that within five years anything that can be digitised will have been. In the process, he contends that we will have been the authors of our own demise. A challenging thought indeed for GIS professionals.

When *GiSPro* spoke to AGI Director **Chris Holcroft** towards the end of July he said: "GeoCommunity'12 has a diverse mix of content and will be aimed at what matters to the many sectors that use GI and its related technologies. In 2012 delegates will enjoy a top quality conference that builds on the success of previous AGI

With the exception of Opening Up, all the topics span one day only, making it attractive for those who can afford only a day away from the geo face.

In addition to the individual sessions, the conference will come together for plenaries each day.

**Devil in the detail?** Looking in a little more detail at the planned presentations, *GiSPro's* eye was caught by "Virtualising Swindon" by **Kristin Warry** of the town's borough council. The town has a 3D virtual model and is also a Regeneration Area and designated for urban expansion. Maybe some in the surrounding countryside might wish to keep Swindon virtual.

"Forget your Nike and Adidas, this year's cool geobrand is Open," says **Steven Feldman**, with an eye on open source, open data, open street map and free sources. Always value for – and on – the money. A pity Steven didn't run the Olympics. Meanwhile, **David Burdge** of North Somerset has set himself the intriguing subject of "How to get a Local Authority to the middle of know where". Now what can he mean, given the last two words are not capitalised?

"Fishing for geospatial information across the oceans of data published on the social web" doesn't sound as though it has much to do with geology but I suspect **James Passmore** of British Geological Survey has a few tricks up his sleeve to alert us to the connections.

"Geopunchlines and visual impacts: Making a point of making your point!" sounds like something for the AGI's soapbox session but **Andrew Thompson**

“

**. . . likelihood that within five years anything that can be digitised will have been. In the process, he contends that we will have been the authors of our own demise.**

”

of Groundwork Maps may have more cerebral ideas. His paper examines how geovisualisation of data or information should tell a story and present facts within a context that help communicate the message. To get us down to earth (or even deeper), **Luke Cooper** on behalf of Dwr Cymru Welsh Water will be looking at "Sewer Pollution Reduction Using GIS". Thoughtfully, this is followed by **Emma Bee** of the BGS and "The Natural Hazards Partnership".

"Cadastral Parcels in the UK" is a provocative title in a country where that old military buff General Boundaries rules, yet the speaker, **Gareth Robson**, is from the Land Registry. Change could be coming, driven along by INSPIRE.

Health Geography may not sound too exciting a theme but **Keith Wishart** of Esri UK has some surprises in store for us with the title "Can the NHS know you are ill before you are?" while **Graham Hyde** of the Health and Social Care Centre poses the controversial question "Do All The Best Things Come From Yorkshire?" Apparently Dr Snow, the man who turned the pump off and halted London's cholera outbreak in 1851 by mapping the disease, came from that shy and retiring county. Prepare for sparks.

For those pondering what's happened to the UK Location initiative, **Mick Cory** will argue that the UK Location Strategy is now out of date, and although the approaches to INSPIRE across the UK will deliver compliant information infrastructure, and avoid Infraction, he queries whether it will deliver best value to users of geographic information? Ironically, no one has mapped this policy landscape. And it is unclear, he continues, who in government is responsible for protecting the public interest in this area. Is the Geocommunity well enough engaged in it to fully understand it?

Not too far away and in an adjoining room "Are we nearly there yet?". A speaker from Civica will explore sharing the power of place with mainstream IT.

The above is only a taster of what's on the menu. To view the full list, go to [www.agi.org.uk/speaker-and-paper-information/](http://www.agi.org.uk/speaker-and-paper-information/).

**Introducing the Top Tens** Last year, the event attracted 450 delegates. The residential format, introduced in 2007, is now well established and has proven its sustainability. Feedback from delegates indicated that 97% of those polled thought the event offered value for money and 89% felt it fulfilled their expectations, with 97% describing the venue as 'good' or 'excellent'. A full report of delegate feedback is available on the AGI website ([www.agi.org.uk](http://www.agi.org.uk)).

The two-day residential conferences includes an evening icebreaker with dinner on 18 September featuring Nottingham Jazz (they did 100 gigs last year) followed by Alan's Annual Quiz in which delegates try to, if not outwit, at least stay up with **Alan Wilks'** brain stretching questions. The annual AGI Party will be on 19 September preceded by an informal series of short presentations, the Top Tens and replacing the soapbox sessions of previous years. The style however is similar with a maximum of five minutes to present on a geography/GI/GIS related subject; 10 slides per presentation and individuals or groups are welcome with serious... or not topics. A presentation template is available from the AGI.

Finally, we must mention this year's sponsors without which the event would not be possible. We expect to see Ordnance Survey, Esri UK, Autodesk, Civica, Cadcorp, Europa Technologies, Leica Geosystems, Océ UK, PSMA, GGP Systems, SCISYS, Snowflake, UK Location, UNIGIS and COWI. *GISPro* offered the sponsors the opportunity to provide more information about themselves and the next page (page 20) includes the entries we received. MapAction is once again the supported charity and you can find out more about what it is like to be a MapAction volunteer on page 22.



**... Mick Cory will argue that the UK Location Strategy is now out of date. . . he queries whether it will deliver best value to users of geographic information?**



**Turn to page 20 for information on the AGI GeoCommunity'12 Sponsors.**



## Geographic Information Systems

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This programme is designed to provide an advanced education in the principles and practice of Geographic Information Systems (GIS). The PgDip comprises eight taught modules, which include material on data models, sources and quality, data management including database technology, programming and GIS functionality and analysis of spatial data (including vector, raster and image data) as well as broader issues relating to the role and implementation of GIS. Theoretical material is introduced in online lectures and reinforced by directed reading and practical exercises, through which students gain extensive hands-on experience of key GIS packages and other analytical software (including ArcGIS, Erdas Imagine, Access and SPSS), developing technical expertise in managing, manipulating and analysing data. Optional modules are available in environmental and health-related applications of GIS, customisation of GIS and work-based projects. For the award of MSc you must undertake an independent research project in addition to the eight taught modules.

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# the GISPro interview



Wai-Ming Lee volunteers with the disaster mapping charity MapAction to channel aid to people left in desperate need after devastating disasters. Ming flew out for his first emergency mission in December 2004, in the aftermath of the Indian Ocean tsunami. He has since deployed on assignments across Asia, Africa and continental Europe. As well as being ready to travel half way around the world to a disaster at a few hours' notice, Ming gives freely of his time to support team training and has played a vital, though often unsung, role developing and maintaining MapAction's unique high-tech capacity. Ming's 'can-do' attitude and passion to use his skills for good, exemplifies the volunteer spirit of more than fifty inspirational people who make up MapAction's team, responding year on year to direct lifesaving aid to those in need.

ON 26 JULY 2012, WAI-MING (MING) LEE carried the Olympic Torch in front of Buckingham Palace, one of the most prestigious legs of the Olympic Torch Relay, on behalf of disaster mapping charity MapAction. MapAction create and distribute 'real-time' re-mapped areas of disaster zones, which are crucial in

being flooding in Paraguay this June / July period.

**Does GIS technology really have a critical impact on how well volunteers can respond to post-emergency situations?**

Our unofficial motto is: 'Aid in the wrong place, is no aid at all'. I think this summarises what we do and GIS plays an absolute critical role in pulling together disparate bits of data and painting a coherent, consistent and comprehensive picture of what is happening on the ground during rapidly evolving situations. GIS is being used at all levels in the humanitarian field but MapAction volunteers are all GIS experts in their 'real jobs' so can bring a much needed professional focus and expertise to the mix. A good example is in Haiti where MapAction, using GIS, helped plot out survivors

## Carrying the flame for MapAction

The Olympic Torch was recently carried past Buckingham Palace by one of MapAction's volunteers on behalf of the charity whose patron – HRH Prince Harry – nominated them for the honour. In the spirit of the Olympics and highlighting the achievements of our industry's charity, *GISPro* talks to **Wai-Ming Lee**, torch-bearer and Online Operations Manager at Esri UK.

helping governments, the United Nations and aid agencies to deploy resources and channel aid as quickly as possible, to people left in desperate need after devastating disasters.

**Nigel Woof**, MapAction's chief executive, says the day was 'a celebration of the humanitarian motives, commitment and drive of MapAction's very special volunteers. I am humbled by their selfless efforts that help get aid to where it's needed most.'

Ming joined MapAction in 2004 and helps the charity develop its technical capabilities, so its operations are as streamlined and effective as possible.

**We understand that you have been volunteering for MapAction since 2004. Please tell us about some of the emergency situations you have been deployed to.**

I have deployed on several emergencies since joining the charity as well as training and simulation drills around the world. The 2004 Boxing Day Asian tsunami, 2009 Philippines Typhoon and 2010 Pakistan flooding disasters readily come to mind for me due to their scale of devastation, the outpouring of humanitarian goodwill and impact on me personally.

I have also been in a support capacity when I have been unable to deploy but had spare time to help other deployed volunteers, the most recent

who used SMS to send their locations, which were then accurately plotted on a map (and downloaded to GPS) and sent off to Urban Search and Rescue teams. We've made flood extent and predictive maps, evacuation routes, suitable helicopter landing sites to name a few.

**How do you personally feel you make a difference to the people you help?**

First, MapAction are not medical staff, firemen, or engineers. We have never had to pull people from rubble, or stitch someone back together in a field hospital. However, what we have done consistently is offer a crucial on-the-ground, real-time and responsive mapping service to the planners and organisers of the relief effort. Our impact over time has led to MapAction being an expected part of any United Nations disaster response. This is a massive honour for a small voluntary charity.

We do not class ourselves as first responders but I have seen evidence first hand of aid being delivered following our mapped routes, of a disparate group of rescue workers working off our maps, of plotting locations of trapped individuals via their SMS and sending them off to search and rescue teams.

I know we are making a significant difference. Our maps and work saves lives.



**GIS is being used at all levels in the humanitarian field but MapAction volunteers are all GIS experts in their 'real jobs' so can bring a much needed professional focus. . . to the mix.**



**Are you able to continue helping MapAction in your role at Esri once you return from deployment?**

Absolutely, Esri UK has been a staunch and reliable supporter of MapAction through their support and donations to the charity and for offering me time to deploy when able and some free time to continue to assist when I return from a deployment.

**How would you sum up your experience as a MapAction volunteer?**

Personally, I am deeply honoured and humbled by the chance to do something like this: I am not a fireman, a doctor or an engineer. I make maps and play with GIS but MapAction has given me an avenue to really do something worthwhile and life-changing with the technology that I love. As a volunteer with MapAction, I have done and seen things that have enriched my life. It continues to be an exciting and exhilarating journey for me and the GIS world.

**Would you say volunteering with MapAction is a life changing experience? If so, in what way?**

Yes, most definitely a life-changing and life-enhancing experience. During most humanitarian disasters, many people want to do something but feel frustrated that they are unable to do anything expect watch it unfold on television. With MapAction, I can, as a GIS specialist, really do something tangible and of immediate relevance. MapAction's work directly touches the lives of millions. It is very humbling.

**What would you say to those thinking about volunteering? Is it a good idea to take time out of work given the current economic climate in the UK?**

Volunteering needs to be driven by a passion, and I think even in this current economic climate, it is important for everyone to strive to do more, if their passion demands it. It is tougher but with a considerate employer and the right opportunity, it is a chance worth taking. I have no regrets.

**And, of course, we understand you had the honour of carrying the Olympic Torch recently? That must have been quite an experience? Hopefully, we wont see that particular Torch appearing on e-Bay any time soon?!**

Well, my wife Shena wanted to place it as a garden ornament! However, no, there is no intention of me selling the torch on e-bay even for a ridiculous amount of money. I will donate it to MapAction as it was they who made it possible. The event was a fantastic occasion and the Torch needs a suitable resting place. My garden isn't one of them!

**A look at the life of. . . a VSO volunteer!****"It was a wonderful and unique experience, hard to sum up in a couple of sentences".**

This is how **Alan Mercer**, an IT security manager for technology company Assureweb, sums up his experience of volunteering with international development charity VSO. The charity is currently calling on qualified IT professionals to use their skills to fight poverty by volunteering in some of the world's poorest countries. Placements are typically for one or two years (with some shorter term positions) which all start in September 2012. Alan volunteered as an IT training expert for two years (Feb 2008 until Jan 2010) at the Beneshgul-Gumuz Regional Capacity Building Bureau in Assosa, Ethiopia. And luckily, *GISPro* did not expect him to sum up this period in just a couple of sentences!

**What did your role in Ethiopia involve?**

I was teaching and helping with some basic computer support issues like how to clean viruses, fix software configuration errors and troubleshoot hardware faults. Creating and delivering more detailed training courses for local IT staff on Microsoft server and email technology. Also keeping the local satellite network link between the 20 or so government offices around the region and encouraging the use of the link.

**Were you able to take a sabbatical from your work and return to the same job?**

No I left my job completely but a role became free at the time of moving back to the UK so I did end up back at the same company.

**How would you sum up your VSO experience?**

Humbling to live and work alongside people who had very little but were willing to offer what they had to you as a guest in their country. You realise just how lucky you are to be able to travel and how many things we take for granted in the UK.

Given my background in IT Security is quite specialist, I did not expect to move my technical skills miles forward but I certainly advanced the softer, personal skills. Your listening skills improve, you have to explain things very clearly, encourage people (sometimes work on exercising your patience skills). As you move through management in an organisation you actually find these personal skills contribute towards your success much more than the techie ones.

**Would you say volunteering with VSO was a life changing experience for you?**

Think of the film *The Matrix*. It is like taking the red pill. You never see the world the same way again, you come back far more aware of the real world beyond the corporate rat race, suburbia and TV dinners. Whatever you expect, you will be surprised; whatever you think you know, you will re-evaluate. Will you change other people's lives? Maybe one or two but undoubtedly you will make some friends for life.

**Do you think your post overseas helped with your job back here?**

I think so. If you can analyse what you achieved and convert it into a language recruiters and HR understand. It also makes you a far more interesting person – you immediately stick out as someone who has done something different.

**What would you say to those thinking about volunteering with VSO?**

Do it. Don't be an "if only" or "I wish I had" person but do expect challenges and tough times as well as amazing unique experiences that you will keep in your memory for ever.

**Is taking time out and volunteering a good move for IT professionals, given the current economic climate in the UK?**

Why not? Spending some time overseas working with people who really appreciate the help and returning with a much healthier perspective on what is really important in life might be just what the doctor ordered.

• *This interview is a condensed version of one carried out and kindly supplied to GISPro by Claire Murray, Pascha PR.*



**Robin Waters is an independent consultant who has worked extensively in several European countries and who has a keen interest in EU's INSPIRE Directive and its implementation.**

THE OLD CITY CENTRE of Istanbul is on the continent of Europe – with Asia just a mile away across the Bosphorus. It is here, in Constantinople as it was then known, that the Byzantine part of the Roman Empire finally collapsed in 1453. Its cathedral, Hagia Sophia, had served for over a thousand years before becoming a mosque for another five hundred. Atatürk, founder of modern Turkey, secularised the building in 1935 and it is now a museum reflecting both its Christian and Islamic heritage.

Today, the visitors that throng the museum – and the rest of the city – dress as they please. It is common to see bare mid-ribs and burkas in the same snapshot. Mosques and minarets are visible at almost every turn. The muazzins' calls to prayer are broadcast, five times a day, from loudspeakers on every minaret. You can imagine the cacophony when multiple calls are within earshot!

The grand bazaar and the spice market cater for every taste. Ferry boats on the Golden Horn make the sedate royal pageant on the Thames look like a Sunday school picnic. And, if you think that driving in London, Paris or

Inside, the Congress was big: much too big for the conference even though it had attracted at least as many delegates as any previous INSPIRE meeting. The main auditorium was only used for the opening plenary and had a curtain shutting off the rear half of the hall. The exhibition was disappointing – only 22 stands with half of them representing Turkish companies and the usual suspects like Esri, AED Sicad, Conterra, Safe Software and Snowflake.

The opening session had the usual worthies extolling the virtues of the host nation and city as well as their GI achievements – remember that Turkey is a big country with a population of over 70 million and a land area about three times that of the UK. Its main cities are developing fast and, together with the relevant government agencies, are using all of the latest geospatial technologies.

The panel session was much more interesting, despite a rather long-winded introduction by **Hugo de Groof** from EU DG Environment, and featured **Santiago Borrero** from South America and **Sanjay Kumar** from India-based GIS

## INSPIRE 2012: Istanbul hosts a grand bazaar!

Despite some rather long-winded presentations, our Eurofile columnist found many speakers hit the right note, from real examples of implementation issues to finalising Annex III data specifications to the changing context in which INSPIRE is operating.

Rome is nerve wracking – don't try driving in Istanbul! The yellow taxis are plentiful and reasonably priced although the drivers will not necessarily understand you.

**Different perspectives of progress** Up the hill from the Bosphorus, and still on the European side, are the big hotels and the Istanbul Congress Centre where the 2012 INSPIRE conference was held from 23-27th June. The main entrance to the Centre is next to the Hilton Hotel on a turning off Cumhuriyet Caddesi (Street). Bizarrely, the Centre's address is given as Taskisla Caddesi from which it is accessible only by several flights of steps.

Development as well as some well known European faces. We therefore got several different perspectives on INSPIRE progress and the 'landscape for sharing environmental information'. Santiago, who presented the S. American equivalent of INSPIRE in a later session, contrasted the legal status of the European initiative with the completely voluntary nature of agreements under the Organisation of American States.

**Clare Hadley** (Ordnance Survey and Chair of the INSPIRE Data and Service Sharing Drafting Team) was asked whether INSPIRE was working! She thought that it was still early days but that the focus was very much

*Below: Chaos on the Golden Horn and (right) take your pick – a stall at the spice market caters for literally every taste!*



on the 'sharing' issues and that the complexity of sharing should not be underestimated. She also thinks that 'services' are overtaking 'data' in importance and that this also highlights sharing issues as soon as a service involves datasets from different sources.

**Cameron Easton** (Scottish Centre for Ecology and Natural Environment) was clear that sharing worked best, and was probably most needed, at regional level within Scotland. He even questioned the need for cross-border sharing in many cases – especially with the rest of the UK!

**Paul Smits** from JRC (the "home" of INSPIRE) emphasised the continuing urgency for the sharing of data for emergency response to disasters and highlighted that the GMES programme was commissioning new datasets that could in theory be met by integrating existing national datasets if the sharing issues could be resolved.

**Inspiring or bureaucratic?** From my perspective, the most interesting question was about the role of the private sector. This was answered by Sanjay Kumar who pointed out that not many CEOs had heard of INSPIRE. He thought that it was still seen as rather a bureaucratic process and that it therefore did not excite industry. Perhaps the main reason, at least in the short term, is that INSPIRE has a very small budget compared to programmes such as GMES and therefore industry will only take note when their real world clients have money to spend – the data or service providers in each member state.

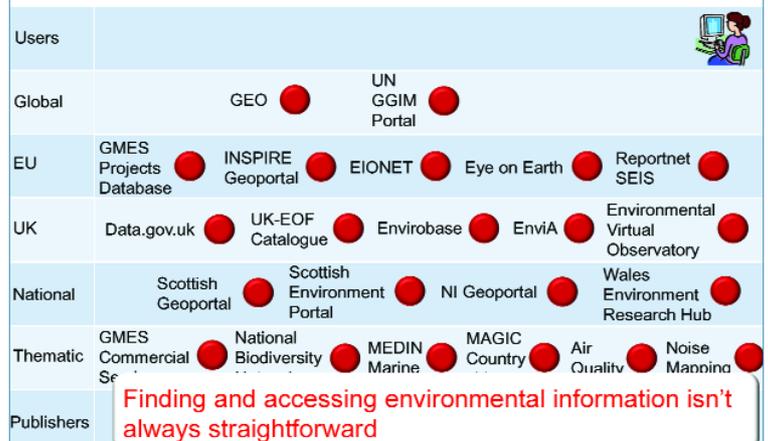
Just as time was running out "data quality" came up and it was suggested that INSPIRE didn't really deal with data quality at all – even mandated metadata would not necessarily give useful "quality" information. Judging fitness for purpose for any particular dataset would therefore remain difficult and rely on trial and error.

Nearly all of the 190 breakout session presentations can be found online at [http://inspire.jrc.ec.europa.eu/events/conferences/inspire\\_2012/index.cfm/page/ps](http://inspire.jrc.ec.europa.eu/events/conferences/inspire_2012/index.cfm/page/ps) and reflect the stage that INSPIRE has now reached. There were plenty of real examples of data sharing and of the implementation issues now being faced and overcome. There were important sessions dealing with the Annex III data specifications that are still being finalised. These specifications are outwith the 'comfort zone' of Annexes I and II, which are dominated by national mapping agencies. Annex III brings in many more data suppliers with a very wide range of new vocabularies that do not always match the 'core' datasets for various reasons. There were also several presentations on the changing context – crowd sourcing; multi-sensor networks; mobile phone apps; and not least the collision with reality of charging and licensing issues which, to be fair, are not limited to spatial data alone.

### Voluntary cooperation v. "big stick" approach!

On the final day of the conference we had a morning plenary session that overran by nearly an hour! The story of the Latin American equivalent of INSPIRE was indeed worth more time than its 30 minute slot even if it

## The user journey



abounded in yet another set of worthy acronyms. **Erik van Praag** from the Development Bank of Latin America and Santiago Burrero from the Pan-American Institute of Geography and History showed how voluntary cooperation can produce at least as impressive results as INSPIRE's compulsory 'big stick' approach in some areas.

However, **John Herring** (Oracle) was in danger of giving "standards" a bad name! His talk was discursive and did not seem to have a main theme other than that standards are a good thing. However, he did make the very good point that standards need to be testable. A standard is useless unless a dataset (for example) can be evaluated as conformant or not. If either of these two presentations were available on the conference site we could count exactly how many slides they contained. Too many – by far.

**The future of INSPIRE** So, when **Ray Boguslawski** got up for the final talk delegates were already missing their coffee break. His presentation is on the web as a pdf, which is a pity because one of its highlights was the animated picture of a poor data user trying to find their way around the plethora of portals for environmental data now vying for attention on the web (see slide 1).

Ray has been running the UK Location team for the last four years and, having been re-organised out of that position, was able to look at progress and look 'Beyond INSPIRE: a UK perspective'. He also stuck to his allocated time for which we were all grateful.

One of his main messages related to the changing context in which INSPIRE is operating. Policy makers and politicians have to deal with "foreground" issues whereas we all know that geospatial data and services provide "background" support. It is therefore difficult to get their attention. Policies on government transparency and open data via the Cabinet Office have had much more effect on the provision of spatial data in UK than INSPIRE. Fortunately, the results have been generally complementary.

Data providers also need to scratch their heads when it comes to publishing their data. They are caught between many obligations and choices. The first slide shows just some of the different "levels" and portals that

*Above: Slide 1 – Ray Boguslawski's presentation at INSPIRE 2012 highlighted the many different web portals for environmental data vying for users' attention.*

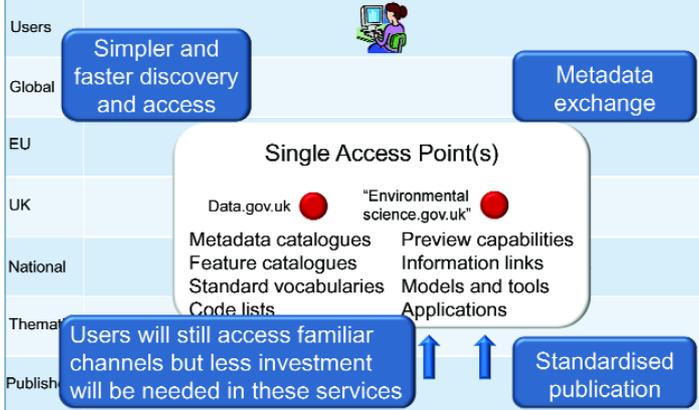


**... INSPIRE has a very small budget compared to programmes such as GMES and therefore industry will only take note when their real world clients have money to spend. . .**



# euofile

## The potential for improvement



Above: Slide 2 – Ray Boguslawski shows how data providers might address the dilemma of publishing their data when caught between many obligations and choices.

are candidates for publication on top of which is the question of whether to keep all publication mechanisms “in house” or whether to involve suitable public sector partners or to go to commercial publishers. One of the parameters for that decision may be the likely number and frequency of uses which could potentially affect obligatory response times. Ray asked the somewhat provocative question – what happens if there are NO users?! We should perhaps give the demand side some of the emphasis that INSPIRE has so far placed on the data supply side. The second slide (see image 2) shows how we might address the publishing dilemma.

Ray is now helping the Commission to look at the future of INSPIRE and he suggested several actions that might be needed. These included exploiting the synergies of different legislative and policy initiatives that use geospatial information – which may need some changes to INSPIRE – and evaluating whether INSPIRE principles can be applied to other thematic policy areas (e.g. transport, health, etc.) to maximise the value of reference data. He also thinks that we should ensure alignment with cross-sector initiatives such as the Digital Agenda for Europe, Open Data, the European Interoperability Framework, and the European Statistical Programme 2013-2017. His final message was that we need to listen, prioritise, simplify, and communicate outside the GI world.

This point was emphasised by **Dave Lovell**, Director of Eurogeographics, who had read in the Financial Times of their correspondent reporting on a GMES conference who complained of a surfeit of acronyms and ‘deadly technocratic dullness’.

So, even if you are not into INSPIRE, or think it is deadly dull, I would still recommend a trip to Istanbul. The Bosphorus, the Blue Mosque and the Golden Horn conjure up a magical geography and history that Turkey unashamedly promotes to the world. Don’t just take my word for it – go and see for yourself! However, if you are into INSPIRE then another treat is in store – next year the conference is in Florence! Ciao.

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# Everything Happens Somewhere 2012

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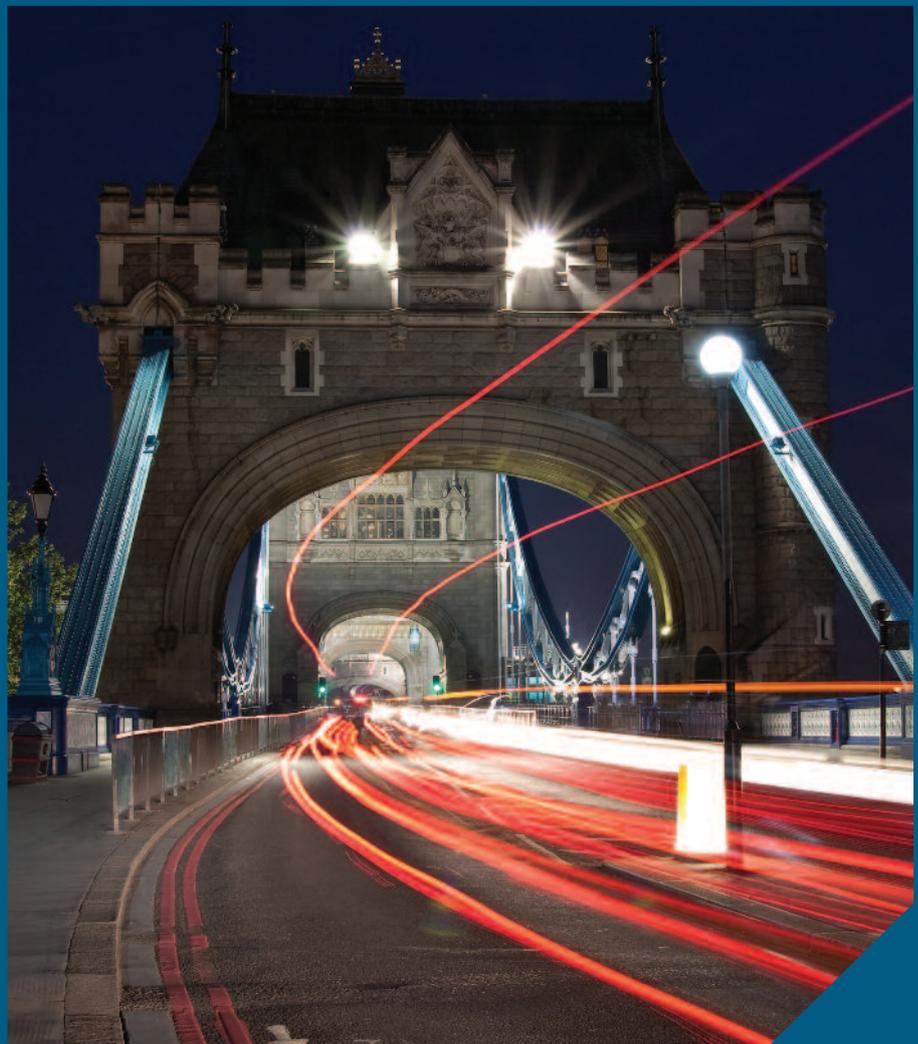
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# interview: product launch



Jeremy Heath is the Network Manager for Sutton and East Surrey Water, located just south of London. With a background in mechanical engineering and a qualification in software application development, part of his responsibility includes the introduction and implementation of remote working systems to enhance the company's existing working practises.

A RECENTLY LAUNCHED MAPPING TOOL aims to improve communication between businesses and their employees in the field. Marketed particularly at companies with a dispersed workforce, Google Maps Coordinate is a location sharing tool that works in real-time, combining the company's mapping technologies with modern smartphones to help organisations assign jobs and deploy staff more efficiently. Of course, Google are not the only company to see the value in supporting the "lone worker" in the field – so what does this

undertaking. It is with this in mind that Sutton and East Surrey Water (SESW) have been testing and are looking to use Google Maps Coordinate as part of a trial system to provide such information.

The water company uses direct labour crews for a large number of its excavations in the highway. By enabling the crews to update the status of a job whilst on site, together with the ability to geolocate each job, the progress can be easily tracked by staff at the head office via the web portal. By using this information, SESW can ensure that the correct opening and closing notices are submitted. Failure to correctly supply this information can result in fines from the council and, although SESW have consistently displayed one of the highest compliance levels amongst the utilities, they are continuing to look to improve their service.

## Time to Coordinate! Sutton and East Surrey Water has been testing a new mapping tool aimed at companies with a dispersed workforce. *GiSPro* interviews Jeremy Heath, Network Manager, to find out why he chose Google Maps Coordinate.

particular app offer you? *GiSPro* spoke to Jeremy Heath, Network Manager for Sutton and East Surrey Water plc, who has been testing the service, to find out more:

### Why are you testing Google Maps Coordinate?

In recent years, the information required before and after carrying out an excavation in the road has greatly increased. With a view to increasing cooperation between utilities and also managing traffic flows, councils have introduced electronic notice communication, permit schemes and even lane rental. It is therefore vital that a utility company has accurate and up-to-date information on the location and status of any work that it is

### There are other similar apps out there offered by third parties for the "lone worker". Why Google?

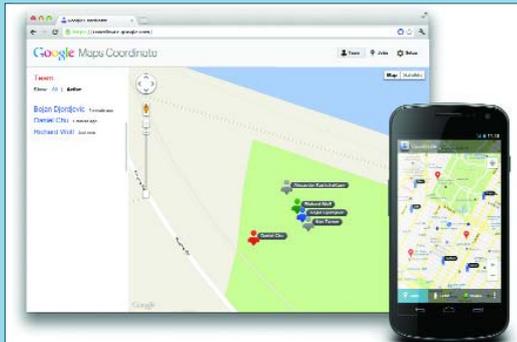
Google Coordinate allows us to use an interface that many of our staff are used to (i.e Google Maps) combined with the ability to use a standard Android phone to carry out the updates. The interface is simple to understand and provides a high level of visual information.

### Have you tried other similar products? If so how is Google Maps Coordinate different?

We have looked at similar systems, but were attracted to Google due to the straightforward design and functionality. It also dovetailed almost exactly with a perceived need within our company.

## Is your team always on the move?

Google Maps Coordinate is a recently launched location sharing mapping tool that works in real-time aimed at companies with a dispersed workforce, such as an electric utility company or call centre operators. The mobile app is built to work with Google Enterprise Maps and Earth and it comes with an API that can integrate with existing systems.



Above: Maps Coordinate supports communication between office and field workers in real-time.

Staff working away from the office can download the mobile app to their phone and make use of the following functions to improve communication with the rest of the business:

- share real-time location about your whereabouts, even when indoors.
- record data – from measurements to client contact details – directly in the app.

Meanwhile, a designated dispatcher back in the office can:

- add team members and see their locations in the Google Maps Coordinate web and mobile app.
- create, assign and manage jobs and notify team members instantly.
- visualise the locations of all their jobs and teams, including current and past jobs to help them assess where they should be assigning or hiring more workers

Source: <http://googleenterprise.blogspot.co.uk/2012/06/introducing-google-maps-coordinate.html>

**Google say this app is particularly useful for companies with a "dispersed work force". How has the service improved efficiency etc compared to the way you would normally work?**

As one of the smaller water companies within the UK, to date we have been able to manage our work force effectively mainly due to the central location of our offices, a small geographic area to cover and a good local road network (We have both the M25 and the M23 intersecting our area). However, the increasing roadworks requirements have meant that in order to maintain our current high levels of compliance, we need to make a step change in the amount and availability of information whilst it is taking place. It is envisaged that Google Coordinate will provide this additional information.

**How would you normally work before using Google Map Coordinate?**

Our works crews are managed by section managers who assign their work, and monitor their daily activity. Although this provides a very proactive and "hands on" approach, it does mean that information on the works that have been carried out tends to lag behind. Currently, one of the key bits of information that we are missing in our works crews is a real-time update in our offices of the time that they started

and completed their work, which is essential in ensuring that the relevant authorities are notified correctly.

**Did you test the app yourself from the field or office end? What was your experience?**

We tested the app both in the office and in the field. Both experiences were very positive.

**Google says users can "create, assign and manage jobs and notify team members instantly" – did you find this to be accurate?**

One of the key demonstrations to senior management and involved staff was the speed with which updates arrived. Within seconds of sending the update from the phone, the status of the job would be updated on the screen, which proved to be very impressive.

**Have you/would you continue using Google Maps Coordinate having tested it?**

We have now purchased licences for the product and are seeking to integrate the application into our daily work stream.

- For more information and to enquire about pricing, visit [www.google.com/enterprise/mapsearth/products/coordinate.html](http://www.google.com/enterprise/mapsearth/products/coordinate.html).



**Google Coordinate allows us to use an interface that many of our staff are used to. . . with the ability to use a standard Android phone to carry out the updates.**



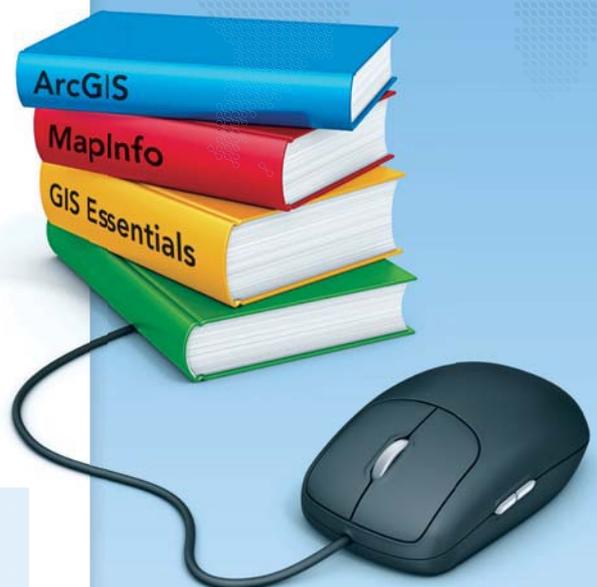
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Chris Holcroft is Director and CEO of the AGI.

PERIODICALLY, THE AGI conducts a general online questionnaire that addresses its role and activities. It is a useful way to understand how AGI members are thinking and also the general level of perception of the diverse things that the Association gets involved in. It also helps shape new developments and the refinement of our current services.

The latest AGI member poll got a good rate of response. Around 10% of members filled in our questionnaire and the results were extremely balanced across the spectrum of respondents, whether they had been members for less than a year, right through to those who had been members for over a decade.

- Data capture and geomatics = 44%
- INSPIRE/UKLP = 40%
- GI and broader public policy = 37%

**The top three reasons for joining the AGI were identified as:**

- Keep abreast of best practice and developments = 62%
- Networking = 50%
- CPD = 50%

**AGI polls its members** From those just welcomed this year to stalwart supporters with over a decade of membership, the latest feedback from AGI members has provided a welcome steer for future developments and can only help to further refine our services, says AGI director **Chris Holcroft**.

What follows is a brief trawl through some of the data that we collected from the exercise.

**Interests and perceptions** We found that 51% of those responding were under a collective membership umbrella, in other words a corporate membership, whilst the rest were from individual categories such as individual, non-practicing or student.

The top three categories of work practice were as follows: 43% identified themselves as a GIS practitioner, 20% as operating in management and 15% identified themselves as consultants.

In terms of industry sectors of origin, 24% of respondents said they came from central government, 28% from local public service providers, 10% from education and 13% identified themselves as system suppliers. The residual were largely private sector users.

**And those responding primarily found out about the AGI by the following means:**

- Recommendation = 54%
- Through university = 21%
- AGI Event = 19%

What about member perception of the AGI? 85% said their perception was 'good' or 'excellent' and the AGI events programme was found to be 'good' or 'excellent' by 92%. As far as recommending the AGI to others, 97% of those polled said they would.

A range of service levels were questioned and the most popular response to these was 'good'. In fact, at the other end of the spectrum, 'poor' never exceeded 2.7% in any instance.

We saw evidence of the current downturn with 13% saying they couldn't leave the office and 20% saying that training and travel budgets had been cut.

**It was interesting to see what those polled stated as their main interests:**

- Spatial data management and analysis = 91%
- Web Mapping = 62%
- Cartography = 55%
- Technical/interoperability/standards = 47%

**AGI activities and awareness** In terms of communication with members, 85% said we had it 'about right'. Additionally, 35% followed our social networking feeds and 98% of AGI members read our fortnightly e-newsletter either partly or fully.

**It was also interesting to see the levels of awareness**



**As far as recommending the AGI to others, 97% of those polled said they would.**



**amongst our respondents about the range of AGI activities. For example:**

- 89% know we have a member's CPD scheme
- 66% know we support MapAction as our official charity
- 80% know we are on the UK Location Council
- 95% know we run AGI GeoCommunity
- 56% know we developed UK GEMINI, the national metadata standard
- 71% know we are an INSPIRE Spatial Data Interest Community (SDIC)
- 72% know they can renew online
- 59% know they can join AGI SIGs and AWGs

On top of these 'headline' results, we received a number of questions from members, which are currently being processed and responded to.

Additionally, many useful comments, positive and negative, were gratefully received. All of which can help steer future developments and refinements.

Future work will involve breaking down these responses into different categories to discern any patterns that emerge from particular member types, as well as looking at some of the results against similar historical exercises.

The AGI staff would like to thank everybody who spared their time to reply to this questionnaire and reiterate how useful the results are for better understanding AGI members and helping us to refine and develop our services.



The AGI exists to "maximise the use of geographic information (GI) for the benefit of the citizen, good governance and commerce". Membership details are available from [info@agi.org.uk](mailto:info@agi.org.uk) or by calling: +44 (0)20 7036 0430



**Future work will involve breaking down these responses into different categories to discern any patterns that emerge from particular member types...**



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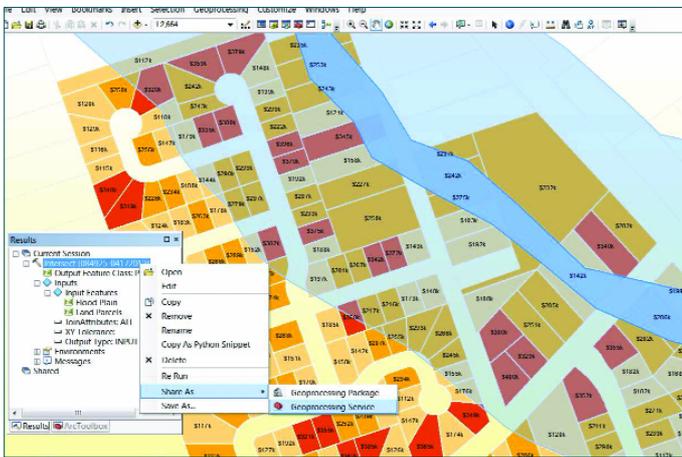
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## New ArcGIS tools extend reach of GIS



The latest update to ArcGIS is now available and aims to extend mapping and geospatial analytics to more people, including those with no GIS expertise. Esri's ArcGIS 10.1 further integrates desktops and servers, plus mobile and web applications. Users can author maps, models and analytics and deliver GIS resources, including imagery, geodata and tools, as a web service. The introduction of ArcGIS Online, a cloud-based content management system, makes geographic information easier to share within and outside an organisation. Desktop improvements include: edit any aspect or component of a map, including feature-level metadata; use spatial analysis tools to predict outcomes and explain geographic information better; tools to simplify working with large collections of imagery and raster data; and view lidar Log ASCII Standard files as point clouds, surfaces and rasters. Also, ArcGIS for Server includes: native 64-bit application; quicker to install; and available on physical, virtualised and cloud infrastructures or any combination of these infrastructures.

### Unlock ArcGIS Online

A new cloud-based mapping service for organisations offers expanded collaboration tools for cataloguing, visualising and sharing geospatial information.

ArcGIS Online works with all types of data and is built on an enterprise mapping platform that lets users manage their geospatial content, such as data, maps, images and applications.

### Raft of launches from Leica

June's Hexagon user conference saw the launch of many new Leica Geosystems products including additions to the Zeno GIS family. The Zeno 5 is an entry-

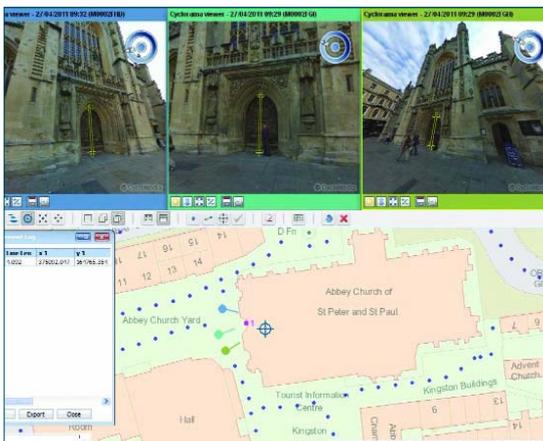
level, rugged PDA for users with full phone capabilities and wi-fi and Bluetooth. It has a 3.7" full VGA transfective display, Windows embedded handheld 6.5.3 operating system, rechargeable and hot-swappable all-day battery (10 hours +) and a full range of interactive sensors including camera, digital compass, gyroscope, light sensor, proximity sensor and accelerometer.

### Automatic 360° camera

Claiming a world first, NCTech has launched a fully automatic 360° panoramic camera. The iSTAR captures instant 50 megapixel high-resolution full spherical images. The image resolution far exceeds existing cameras and when superimposed onto a point cloud allows the viewer to clearly visualise the scene. Designed to be integrated seamlessly into lidar scanning process, the camera can process its images internally. Operated by a touch screen, iSTAR can be controlled remotely via a tablet providing a real-time view and can also be linked live to a TV monitor or over the Internet.

### Portable system for GIS

The handheld ProCyon system for GIS applications from Altus Positioning Systems integrates Pison's Workabout Pro handheld computer with Altus' APS-3 RTK GNSS receiver for an GIS data-acquisition platform. The ProCyon



## Integrating CycloMedia imagery

Getmapping has integrated CycloMedia street level imagery and tools into its web-based GIS applications for local authorities and parish councils. Bath and North East Somerset Council and parish councils in the region are the first to benefit from locationally accurate street level images integrated into their existing mapping applications hosted by Getmapping. The CycloMedia module and associated imagery became available to all staff within the organisation as a Software as a Service (SaaS). 'CycloMedia imagery makes it possible to reduce staff car usage and planning, property and highways departments are all reporting that they can reduce the number of site visits needed by using it. A 3% reduction will be sufficient to pay for the service,' says Martin Laker, GIS manager for Bath & North East Somerset Council. 'Elsewhere our CRM team are reporting improved response times from being able to find and visualise the property at the outset of a customer call'.

Left: This imagery of Bath Abbey shows how users can use OS MasterMap and CycloMedia imagery in the same window. It also shows CycloMedia measurement tools.

## Trimble expands Positions



Trimble has expanded its "Positions" software to streamline Esri workflows for mapping and GIS applications. The Positions Mobile extension integrates the company's GNSS professional field solutions and data verification into the ArcGIS for Windows Mobile environment, providing a streamlined workflow between users' Trimble devices and Esri mobile software environment.

system delivers one-centimetre RTK accuracy using an external antenna, integrated camera and quad-band GSM modem. The ProCyon Windows Mobile operating system accommodates Esri ArcPad and ArcGIS applications.

## BRIEFS

Optech's CS-10000 aerial camera features "true" forward motion compensation, a field-replaceable shutter, interchangeable lenses and 80Mpx format. The unit can be integrated with Optech's existing lidar sensors. Amongst the first customers for this unit was Bluesky (see News on page 8).

Blom has released v3.5 of its desktop geospatial application, BlomDESKTOP, including improvements to LiDAR functionalities. Aimed at professional and academic GIS users, BlomDESKTOP Viewer offers advanced measurement and interrogation capabilities in a standalone package. The latest release focuses on new LiDAR viewing and measurement features, including: measurement tools for the LiDAR 2D

profile view; customisable LiDAR colour modes based on classification, height, true colour and intensity; additional LiDAR viewer functionality, including point size and image export; and PAC (Proxy Auto Configuration) files are now supported.

**Google Maps Coordinate is a location-sharing mapping tool launched for businesses with dispersed workforces, which features significant mobile function and works in real-time. Read more on page 28.**

The GeoInformation Group has announced the first release of its land use reference database for the UK. This National Land Use Map identifies the location and extent of 26 different land use categories throughout England, Scotland, Wales and Northern Ireland. It enables planners and policy decision-makers to consider the strategic implications of their plans in the context of a national picture. The land use information is updated regularly and includes industrial areas, retail and business parks, agricultural and natural landscapes plus different types of urban environments.

**Avenza Systems has released MAPublisher 9.0 for Adobe Illustrator, which provides support for CS6 32-bit and 64-bit. Other enhancements include increased performance for MAPublisher 9.0 64-bit users on Windows and user interface improvements and performance enhancements to improve usability.**

1Spatial, a value added reseller of Safe Software, has announced an FME (feature manipulation engine) transformer to help users to quickly prepare their postcode data for effective geocoding, without incurring any additional costs. The UKPostcodeValidator is now available in the "FME Store" ([www.safe.com/fmestore](http://www.safe.com/fmestore)) and allows users to identify whether their postcode data has a valid syntax when compared against the BS7666 rules.

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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 or e-mail: [hayley@pvpubs.demon.co.uk](mailto:hayley@pvpubs.demon.co.uk).

**2012**

**OSGIS 2012:**

**Fourth Open Source GIS Conference**  
**4-5 September, Nottingham Geospatial Institute, University of Nottingham, UK.**

More information: [www.nottingham.ac.uk/osgis/home.aspx](http://www.nottingham.ac.uk/osgis/home.aspx)

**AGI GeoCommunity '12:**

**Sharing the Power of Place**  
**18-20 September, East Midlands Conference Centre, Nottingham, UK.**

More information:  
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**Intergeo**

**9-11 October, Hannover, Germany.**

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

**Everything Happens Somewhere 2012**

**25 October, Friends House, London, NW1 2BJ, UK.**

More information:  
[www.geoplace.co.uk/geoplace/link.htm?nwid=263](http://www.geoplace.co.uk/geoplace/link.htm?nwid=263)

**Trimble Dimensions 2012**

**5-7 November, Mirage and the Treasure Island Hotels, Las Vegas, USA.**

More information: [www.trimbledimensions.com](http://www.trimbledimensions.com)

**SPAR Europe 2012**

**12-14 November, World Forum, The Hague, The Netherlands.**

More information: [www.sparpointgroup.com/Europe/](http://www.sparpointgroup.com/Europe/)

**European LiDAR Mapping Forum**

**4-5 December, Salzburg, Austria.**

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

**2013**

**International LiDAR Mapping Forum**

**11-13 February 2013, Denver, Colorado, USA.**

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

**GeoComputation 2013**

**23-25 May 2013, Wuhan University, China.**

More information:  
[www.lmars.whu.edu.cn/geocomputation2013/index.html](http://www.lmars.whu.edu.cn/geocomputation2013/index.html)



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