

Developing Common Frameworks and Methodologies for Great Britain

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Ordnance Survey Great Britain

- Ordnance Survey is 220 years old
- Civilian organisation since 1983; 1150 staff
- Independent Government Department and Executive Agency reporting directly to a Government Minister
- Trading Fund since April 1999
- Annual Report for 2010/11: Revenue of £129.4m, profit before exceptional items of £24.1m, dividend £6.3m
- Headquarters in Southampton with 28 field offices around Great Britain



Ordnance Survey today

- Creates and maintains the 'master map' of Great Britain from which others derive benefit
- Manages complete national large scale digital data down to building level detail
- Maintains a database of 460 million features with approximately 5,000 changes made daily
- In 2010/11, 99.9% of real world features were represented in the database within six months of completion on the ground
- From the database, Ordnance Survey produces a range of digital data and paper maps for business, leisure, educational and administrative use

Provides the underpinning geographic framework for Great Britain



Ordnance Survey's role



Ordnance Survey's Vision

Ordnance Survey and its **Partners** will be the content providers of choice for location based information in the new information economy



As a result of the vision

- 500 Partners
- Over £30m income for Ordnance Survey
- £350-400m new revenues to British economy





A geographic database to connect information

 Every object represented in OS MasterMap has a unique identifier called a TOID. These TOIDs can be used to connect other information.



OS MasterMap current layers



Layers of OS MasterMap



Topography Addresses Integrated Transport Network Imagery

Combination of Imagery, Address data and ITN data





And...attributed data

Small scales





Address There are 27 million

addresses in the database and we check 42 000 new addresses every month.

Post Codes



Updating the Ordnance Survey database





Use of Industry Standards



Process Management





Ordnance Survey Supplier Accreditation

'The process whereby Ordnance Survey satisfies itself that its suppliers, both external and internal, with an effective level of ongoing support, are capable of consistently delivering Geographic Information to the required quality, on time, in the necessary volumes and at the right cost.'

A tool to enable the building in of quality at source



The Agile working Environment



Why we have adopted Agile?

- 1. Reduces the cycle time of delivering products and solutions, ensuring speed to market
- 2. Breaks down work into smaller increments and enable early delivery of business benefits
- 3. Enables continuous customer review cycles so we can deliver to their exact requirement
- 4. Moves to a 'just in time' requirements process and allow for changes in direction when required
- 5. Eliminates waste and focus on delivering best value to the business
- 6. Enables team empowerment where decisions can be taken within the teams and encourage shared ownership
- 7. Encourages innovation within the organisation

Use of Agile in Ordnance Survey

- Delivered
 - OS OpenData
 - Online ordering for the Public Sector Mapping Agreement
- Delivering
 - Multi Resolution Data Programme
 - Web Services Improvements (OpenSpace and OnDemand)





The need for a referencing framework

- In Britain there are well-established sources of base information
- There are many established users with different applications
- The challenge establish principles to make information sources accessible and connectable



A common framework for all



"DNF is primarily concerned with geospatial information and its relationship to other data and information"



Where am I? > Home



Welcome to the Digital National Framework

The Digital National Framework enables and promotes the integration and sharing of location-based information from multiple sources. It supports the objectives of the UK Location Strategy and the rollout of the UK Location Programme.

Latest update

BCS announces new Linked Data geospatial group to further DNF principles

Bringing together DNF and Linked Data

BCS has announced the formation of a new Linked Data geospatial group to take forward the work of the DNF Expert Group. It has been formed as a sub-group of what was known as the Geospatial Specialist Group, which is now to be known as the Location Information Specialist Group (LISG). Dan Rickman remains the chair of the LISG but has now been joined by Mike Sanderson, of 1Spatial, as the chair of the newly formed sub-group. The charter of the sub-group will be to take forward the work of the DNF Expert Group while extending the work to embrace Linked Data and its growing community.

This will enable the principles of DNF to be aligned with the use of Linked Data and to use the reach of the BCS and its membership to expand and widen the community of interest for Linked Data. In having Mike Sanderson chair the new group, we ensure continuity of the work given Mike's close association with the DNF Expert Group and his current role on the DNF Management Team, as the representative of the System Suppliers community.

The release on the BCS LISG site can be found here.

Other news

BCS announces new Linked Data geospatial group to further DNF principles Bringing together DNF and Linked Data ... read more

BCS Geospatial Specialist Group event
- registration open
Open Data and the Public Data Company:
Whose data is it anyway and who pays for
it? ... read more

DNF Expert Group Meeting #23 -Dudley A short summary of the day ... read more

DNF to embrace Linked Data Major step in DNF evolution to bring Linked Data to Geospatial community ... read more

Meetings & events

Sponsors 2011



The Digital National Framework (DNF) for managing buried services

- The cost of not knowing precisely where pipelines and cables are buried is extremely high
- There are 4 million road excavations every year
- The Institution of Civil Engineers has recommended that all buried services should from now on be captured to DNF standards and principles





The OS Net Network

- Complete national coverage
- 1-3cm, 3D, GPS+GLONASS positioning
- Galileo ready
- Free GPS products from; www.ordnancesurvey.co.uk/ oswebsite/gps





How OS Net works



OS Net underpinning the construction of London 2012

- Ordnance Survey upgraded the OS Net network around the Olympic Park and across the Thames Gateway region
- Ordnance Survey acted as consultants to the ODA on grid coordinate system definitions and the fitting of Olympic Grid to National Grid
- All developer contractors and subcontractors were able to access very high accuracy GPS positioning via OS Net, leading to higher accuracy and positional uniformity across the site



Use of industry standards

OGC[®] Making loc

Making location count.



INSPIRE: UK Implementation

Integration with <u>www.data.gov.uk</u>



- Ordnance Survey as Technical Delivery Partner for UK Location Programme and in assisting the Cabinet Office supplied to the community:
 - A metadata Editor (using GeoNetwork)
 - Data publisher tools WMS and WFS
- Ordnance Survey's own implementation
 - Metadata published December 2010
 now available on www.data.gov.uk
 - View Service implemented in May 2011
 - Will participate in testing of Annex II and III specs



Figure 2: Extending ISO and OGC Standards for INSPIRE Requirements

• OGC standards supplement the Implementing Rules which are applicable to all 27 member states

Revised licensing and simplified pricing



Streamlining how we reach the market

Meeting the challenges of extending market penetration, decreasing costs to serve & improving customer service:

- Rationalised our paper mapping customer supply chain
- Working with our Licensed Partners to increase penetration into commercial markets while also making it easier for our Partners to do business with us e.g. simpler contractual/licensing terms
- Developing new on-line ordering & supply systems, allowing an increasing number of customers to self-serve
- Investigating how we can use new technologies both to reduce customer service costs and improve our customer responsiveness; also freeing-up staff to develop new business opportunities
- Developing an on-line consumer business to extend our reach into new markets

Public Sector Mapping Agreement (PSMA)

- Announced in Government response to Consultation
- High-spec GI free at the point of use for all public sector bodies including Parish Councils, Emergency Responders such as RNLI and those carrying out core government activity on behalf of Government e.g. IDBs
- Came into effect 1 April 2011



Public Sector Mapping Agreement (PSMA)



- A new 10 year agreement for the Public Sector in England and Wales.
- The PSMA provides access to core geographic datasets from Ordnance Survey
- The PSMA datasets are free at the point of use for all eligible public sector bodies.
- Providing common geographic framework for the Public Sector will enable sharing of information

PSMA Member licence key facts >>>

5 months after launch...

Now has 1705 members, comprising:

- 118 in Central Government, including 38 new (non-PGA) members
- 510 in Local Government, including 18 new (non-MSA) members
- 164 in the Health sector
- 913 other members, including from Town and Parish Councils

... and customer/member feedback has been excellent...

One Scotland Mapping Agreement





Innovate or Die



Three related initiatives to support open innovation



OS OpenSpace[®]



Three related initiatives to support open innovation

OS **OpenData**[™]





OS OpenData



You are here: products

Business - home

Products - home OS MasterMap

OS VectorMap

OS OpenData OS OpenData home

OS VectorMap District

1:50 000 Scale Gazetteer

1:250 000 Scale Colour Raster

Boundary-Line

Code-Point Open Land-Form

PANORAMA

Meridian 2

Miniscale

OS Locator

Strategi

OS Street View Address and location

data

Backdrop mapping Land and height data

Roads and logistics

data

Web Services

OS OpenData

Create and support innovative, exciting ideas and applications using our mapping.

With OS OpenData[™], you can access a selection of the most detailed mapping datasets available for Great Britain.

Changes to the OS OpenData Licence

We now incorporate the new Open Government Licence into our OS OpenData Licence.

The Open Government Licence, developed by The National Archives, is designed to provide a single set of terms and conditions for anyone wishing to use freely available government information. Importantly, this does not alter what users of OS OpenData can do. All the data available through OS OpenData is still open for commercial or non-commercial use without restriction.

As before, we ask for little more than an acknowledgement of the source of the data.

More information on the change, and why we have made it »



On 1 March, we announced the

'How Can we Improve Transport in



Discover all of our



It's free and easy to use our web-map builder to design your OS shortlist for the GeoVation Challenge: OpenSpace map; with markers, routes and notes added if then

A wide range of our products are available for you to use right now; you can see some of them in action using our viewer or have them supplied directly to you for you own

MiniScale®

1:250 000 Scale Colour Raster

products





www.ordnancesurvey.co.uk/opendata



See also: Linked data http://www.ordnancesurvey.co.uk/opendata/linkeddata.html





http://www.cyclestreets.net/

CycleStreets: OpenStreetMap application using the Code-Point Open postcode search



http://en.wikipedia.org/wiki/Bewdley

Bewdly Parish in Worcestershire Wikipedia entry contains VectorMap District and OpenData products





Three related initiatives to support open innovation



OS OpenSpace[®] (



What is OS OpenSpace?

- It's a free service that provides free access to mapping data
- Embed maps in any web site or web application
- All applications are free to consumers
- API based on OpenLayers and can be used to access OnDemand Service







OS OpenSpace – What it can do for You



OS OpenSpace® application programming interface (API) allows our mapping to

be displayed on your web page or your online application. We offer two types of

services. A free service available for non-commercial website and a paid-for



OS OpenSpace

internal applications.

Products - home OS MasterMap OS VectorMap OS OpenData Address and location data Backdrop mapping Land and height data Roads and logistics data Web Services

Web services home

OS Net

no luciolet



OS OpenSpace API



centres



Develop a great idea with OS OpenSpace The OS OpenSpace[®] Application Programming Interface (API) is a free service

that lets you create amazing websites and applications using our maps. OS OpenSpace API is not just for developers - anyone can create an application

About OS OpenSpace







Have a look at some applications into your website editor for an instant OpenSpace APL You can also

OS OpenSpace is an application programming interface (API) that supports the creation of dynamic

manning applications that can be

Design your own map – when you've finished adding markers and routes, that have been developed and collect the final html code and copy it websites that use the OS









OS OpenSpace Pro

OS OpenSpace Gallery



OS OpenSpace Community

page discussion view source history Main Page

navigation

content

Main Page

Getting Started

Code Examples

Technical FAQs

Troubleshooting

Ge Search

What links here Related changes

Special pages

· Permanent link

Documentation

Developing

Tutorials

Events

search

oolbox

5

Road Map

🖬 Share / Save 🖪 🎽 🌫 🗧

Ordnance Survey

OS OpenSpace OB

 Recent changes Welcome to the OpenSpace wiki. The wiki has been created to help you during the development of your OS OpenSpace Application. OS OpenSpace allows Back to OpenSpace Ordnance Survey Mapping to be displayed in your Web Page, below you will find a simple example of this.



Get code	examples here
Search th	e forum 🕼 for advice from the community or ask a question
Ask our n	esident GeoDoctor a question on our blog 🖉
Add your	own examples to the wiki by following these instructions.
Innovat	te with OpenData
OS OpenDa	travel Create and support innovative, exciting ideas and applications using Ordnance Survey mapping.
Insert a	a map into WordPress
WORDPRES	Make your blog stand out by installing an OpenSpace map into your WordPress pages.
Insert a	a map into Blogger
8	Make your blog stand out by installing an OpenSpace map into your Blogger pages.

Integrating your code into an existing web nade either directly or

OS OpenSpace Forum

Forum Home | Log in | Help | Search

Web-Map Builder



Web-Map Builder provides wizard-like structure allowing you to create sophisticated maps in the space of a few clicks.

Three related initiatives to support open innovation







GeoVation®



GeoVation runs challenges to address specific needs within communities, which may be satisfied in part through the use of geography.

www.geovation.org.uk

Ordnance Survey's open innovation network



GeoVation Supporters





Technology Strategy Board Driving Innovation





Government challenges. deas from business nnovative solutions.



Community





GeoVation Camp - problem focussed

Your thought leadership is needed to help understand... "How can Britain feed itself?"

GeoVation

Identify the most important problems to address in meeting the challenge. GeoVation runs challenges to address specific needs within communities, which may be satisfied in Veovation runs challenges to address specific needs within communities, which may be saustie part through the use of geography. Those that enter submit their ideas online. A long-list of entrans then get to develop their ideas over the course of a weekend at u more baseling will have be related to enter the course of a weekend at u entrants then get to develop their needs or at the durate a showcase where small handful will then be selected to progress towards a showcase where

We'd like your help to ensure our entrants are developing the best ideas viant of sheer your more to ensure our ensures are overenging one describes in want to spend a few hours with you before the GeoVation Camp takes p want to speng a tew hours with you before the Geovation Lamp takes P dig into the various issues, big and small, that any great ideas would need ung into the various rasides, ong and sinial, that any great roles would meed going to be successful. You'll be in at the start of the process and so coul solutions with real business value. You might even get involved in their d

Your knowledge of areas of unmet need could enable Innovation projects that focus on peoples' needs (problems that they b not have both double the success rate of, and 70% higher market sha not) have both bouble the success rate of, and /vie righter market shi While many of the ideas submitted to the challenge have terrific pote them through their paces at the Camp. We want to make sure their is of a problem worth solving and believe your views on this will add hu

Wednesday 3rd November. 10.30 am for an 11.00 a We are running a four hour facilitated workshop to unpack the unm Yes are running a tour nour tacinicated workshop to unpack the unit feeding, itself sustainability. The output will be used to as stimuli fo Challenge as a whole. In addition to stimulating discussion, we will a

Where?

Sconeleigh Park, Warwickshire, CV8 2LZ. We'll be gathering at the home of the Royal Agricultural Society. vve II be gathering at the nome of the royal Park can be found be Royal Pavilion. Directions to Stoneleigh Park can be found be ROYAL PAYMENT: Directions to assessing rate can be insura signs for the Pavilion. If you have any problems, you can call Sto Parker from GeoVation on 07867 553091

The GeoVation Challenge is funded by: Technology Strategy Ordnance Survey

Needs identified through expert "PowWow" and fed into GeoVation Camp

Campers ground solutions and ventures in identified need

WHAT PROBLEMS CAN YOU SEE FOR YOUR

CAN

(AGAINST)

ORGANISATIONS FOR BRITAIN FERDING ITSBIEG

CARRON Abettoirs shering Patents

GeoVation



Scout 🐇

INNOVATION = PROBLEM X SOLUTION X EXECUTION



Feedback from GeoVation Camp





"The time spent was invaluable"

"An ideas environment to encourage and build on ideas; a very nourishing experience, not just for the winners.."



"It's an amazing learning experience"

"Very high standard of training in innovation"



"An intense, fun, inspirational character and idea building experience, from which every participant takes away a positive, rewarding experience, new contacts and new leads and a sense of community"



How can Britain feed itself?



Enter the GeoVation challenge





CITYFARMERS

Social enterprise facilitating new & exist growing schemes & local governmen engagement with local food.





Images supplied by: www.city-farmers.co.uk



<image><text><image><image>

A location based web and mobile application that promotes locally sourced food and farms

Images supplied by: www.food-nation.co.uk



How can we improve transport in Britain?



Enter the GeoVation challenge

http://www.geovation.org.uk/geovationchallenge/



Developing Common Frameworks and Methodologies for Great Britain

