



A strategic approach to location for Great Britain: why place matters

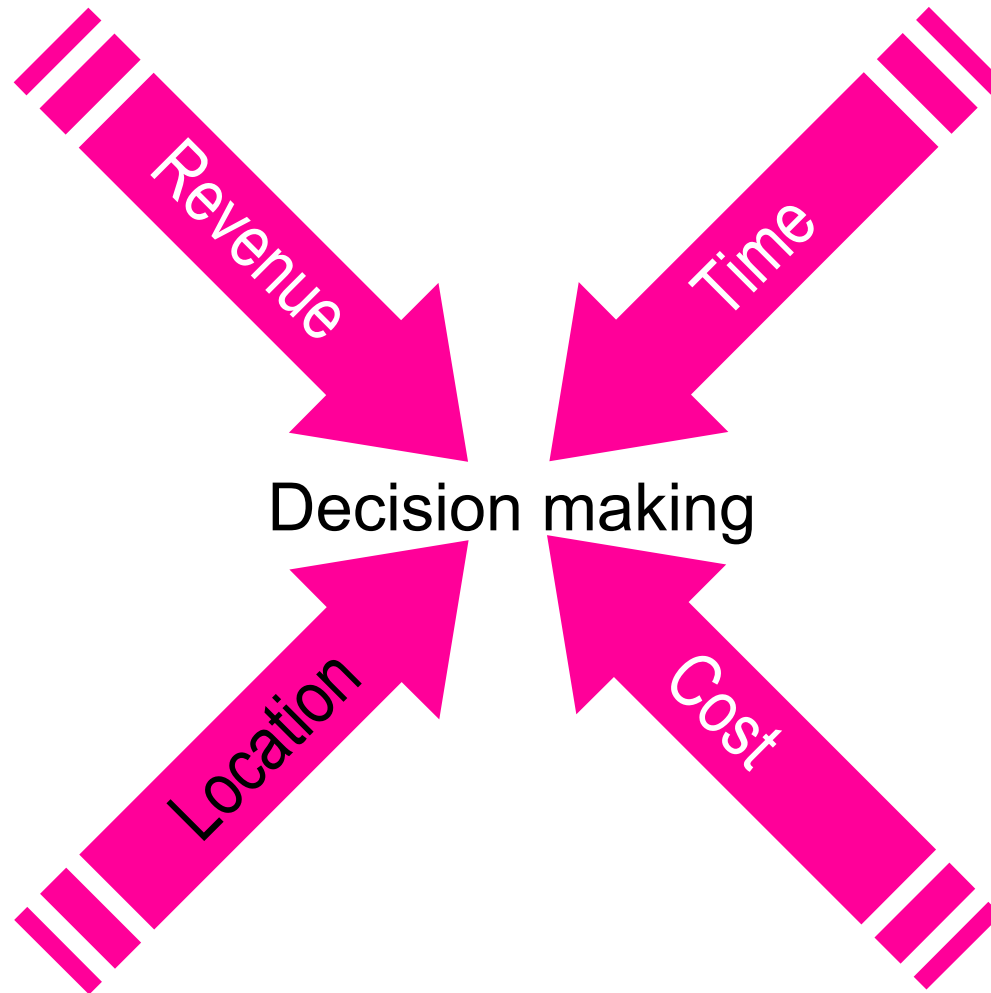
Vanessa Lawrence

Director General and CEO, Ordnance Survey Great Britain

18 June 2007

Toward more transparent government: Workshop on eGovernment and the web
United States National Academy of Sciences, Washington

Location is the fourth driver to decision-making in both the public and the private sector



The world is changing.....



Image NASA
© 2007 Europa Technologies
Image © 2007 TerraMetrics

© 2007 Google™



Henry Bacon Dr NW

Constitution Ave NW

22ND St NW

C St NW

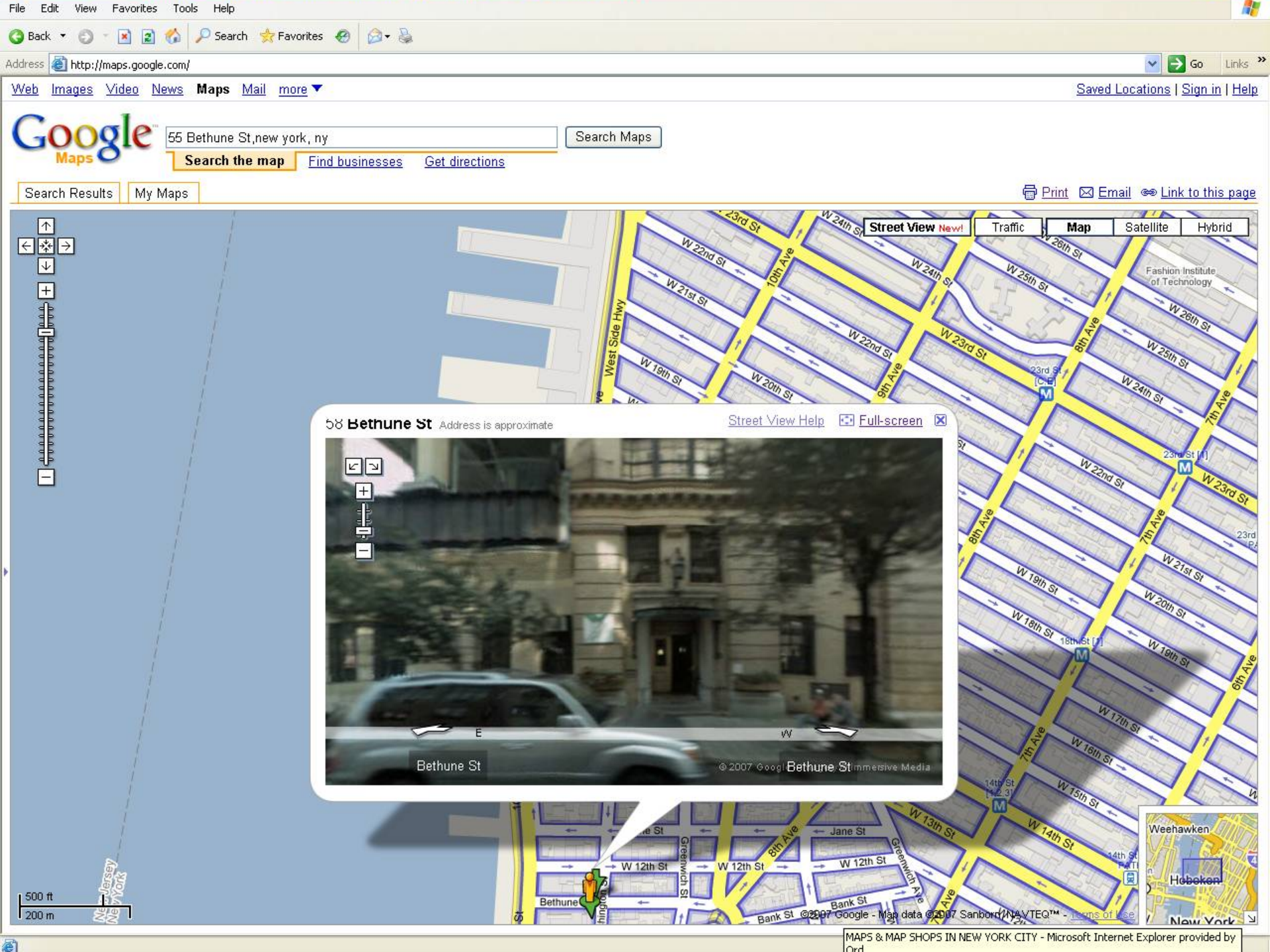
© 2007 Navteq
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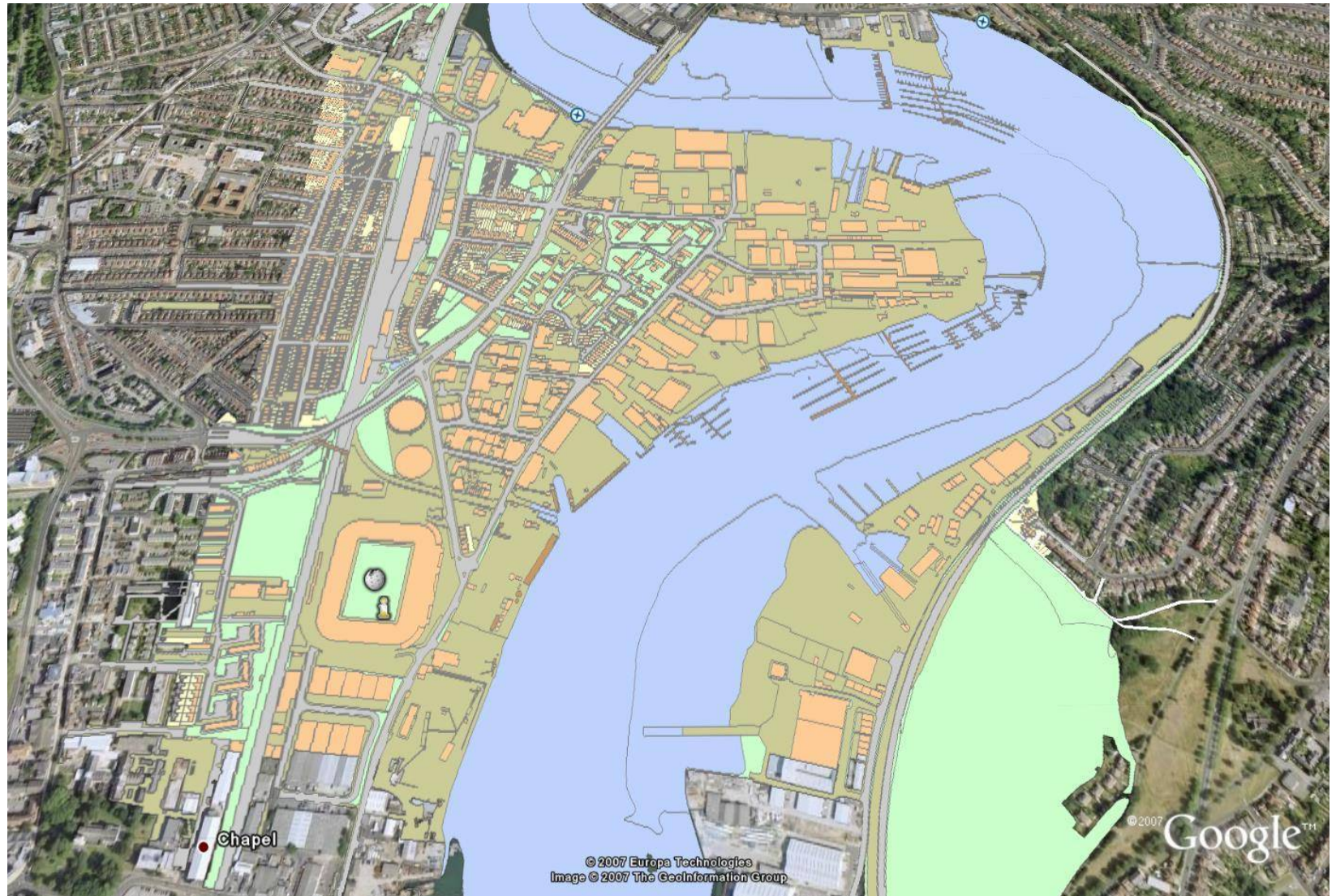
Pointer 38°53'34.20" N 77°02'51.91" W elev 7 m

Streaming 100%

Eye alt 398 m



New views of the world – merging of ideas



Local Search

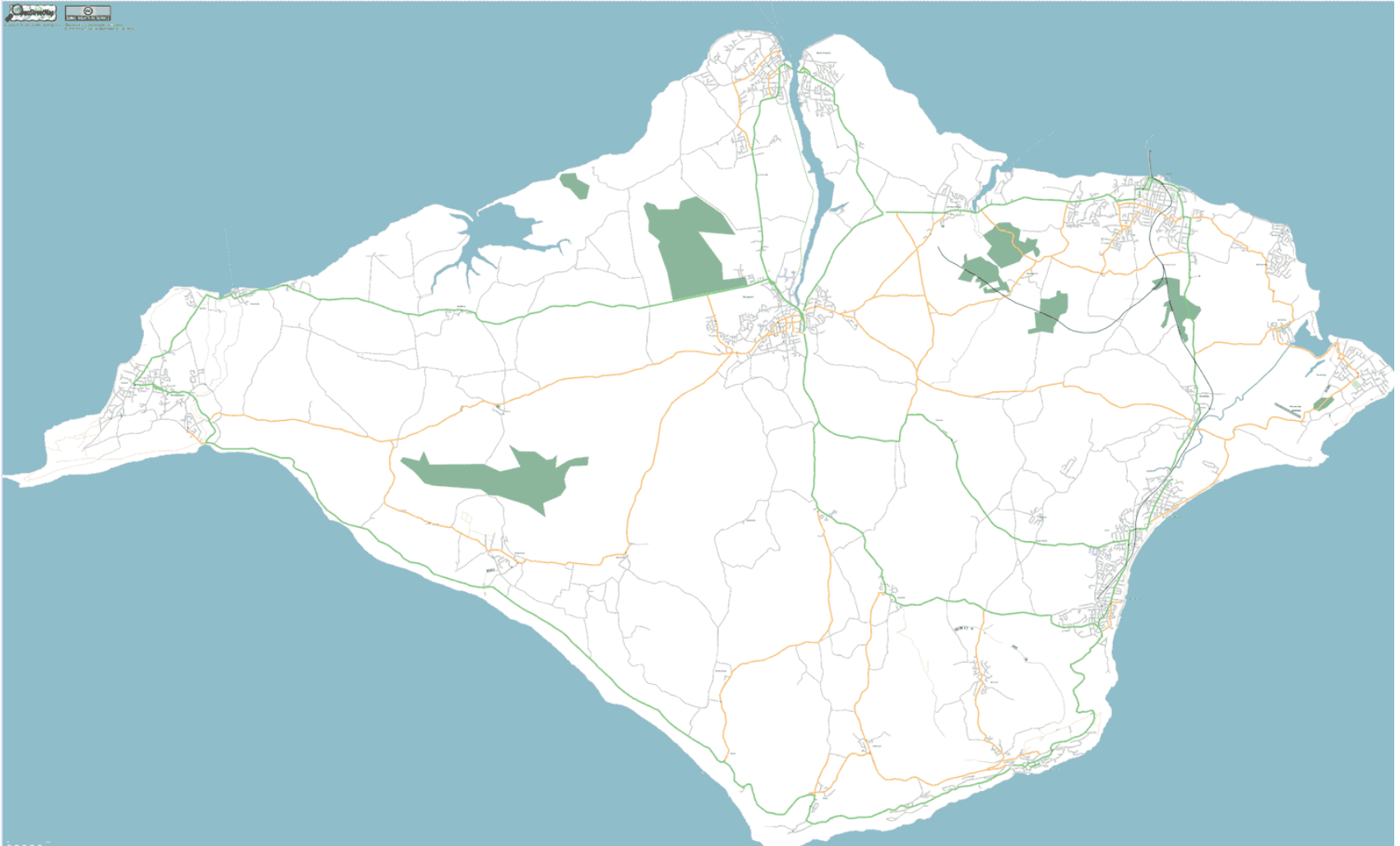
The image displays four overlapping screenshots of web browsers showing local search results for hotels in Washington, DC. The top-left screenshot shows Google Maps with search results for 'hotel' in Washington, DC, listing hotels like Marriott Hotel-Penn Ave and Capital Hilton. The top-right screenshot shows Live Search results for 'hotel' in Washington, DC, listing hotels like Marriott Wardman Park Hotel and Georgetown University Conference Hotel. The bottom-left screenshot shows Yahoo! Local search results for 'hotel' in Washington, DC, listing hotels like JW Marriott Hotel Pennsylvania Avenue and Hotel Washington. The bottom-right screenshot shows a map of Washington, DC, with a search for 'hotel' and a list of results on the left, including JW Marriott Hotel Pennsylvania Avenue, Hotel Washington, State Plaza Hotel, Lombardy Hotel, Beacon Hotel, Renaissance Mayflower Hotel, Hay Adams Hotel, Crowne Plaza Hotel the Hamilton Cp, One Washington Circle Hotel, Topaz Hotel, Harrington Hotel, The Jefferson Hotel, The Madison - A Loews Hotel, Best Western Georgetown Hotel and Suites, Embassy Suites Hotel Washington DC Convention Center, Allen Lee Hotel, St Regis Washington DC, Intercontinental the Willard Washington DC, and Hotel Sofitel.

Google Maps - Microsoft Internet Explorer
Address: http://maps.google.com/?mid=1181649696
Search: hotel
Search Results: My Maps
Sponsored Links: Hilton Garden Inn - website, Hilton Family Websites, Our Best Rates. Guaranteed, www.HiltonGardenInn.com, 815 14th St NW, Washington, DC
Results 1 - 10 of about 17,396 for hotel - Modify search
Categories: Motels & Hotels
A Marriott Hotel-Penn Ave - more info, 1331 Pennsylvania Ave NW, Washington, DC (202) 393-2000 - call - ★★★★★
B Capital Hilton - more info, 1001 16th Street NW, Washington, VA (202) 393-1000 - call - ★★★★★
C State Plaza Hotel - more info, 2117 E St NW, Washington, DC (202) 861-8200 - call - ★★★★★
D Melrose Hotel Corp Lic - more info, 2430 Pennsylvania Ave NW, Washington, DC (202) 955-6400 - call - ★★★★★
E Crowne Plaza - more info, 1001 14th St NW, Washington, DC (202) 682-9523 - call - ★★★★★
F Inter Continental Washington - more info, 1401 Pennsylvania Ave NW, Washington, DC (202) 628-9100 - call - ★★★★★
G Sofitel Hotel Lafayette Square - more info, 806 15th St NW, Washington, DC (202) 730-8700 - call - ★★★★★
H Hotel Washington Inc - more info, 515 15th St NW, Washington, DC (202) 638-5900 - call - ★★★★★

Live Search - Microsoft Internet Explorer
Address: http://maps.live.com/
Search: hotel
Welcome Collect
Map all
Ads by Superpages
Marriott Wardman Park Hotel
2660 Woodley Road Northwest
Nw, Washington, DC 20008
Georgetown University
Conference Hotel
3800 Reservoir Rd Nw,
Capital Hotels & Suites
Call Us for Luxury Hotel
Reservations for Your Next
State Plaza Hotel
2117 E St NW, Washington,
DC | 0.33mi
(202) 861-8200
Allen Lee Hotel
2224 F St NW, Washington,
DC | 0.48mi
(202) 331-1224
Hotel Washington Inc.
515 15th St NW, Washington,
DC | 0.50mi
(202) 638-5900
Club Quarters Washington
839 17th St NW, Washington,
DC | 0.53mi
(202) 463-6400
Cafe Lombardy
2019 Pennsylvania Ave NW,
Washington, DC | 0.55mi
(202) 828-2600
Hay-Adams Hotel
800 16th St NW, Washington,
DC | 0.56mi
(202) 638-6600
Business | Web results
Welcome

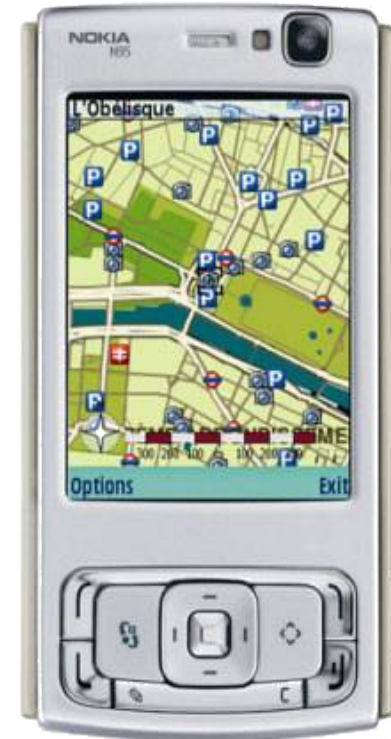
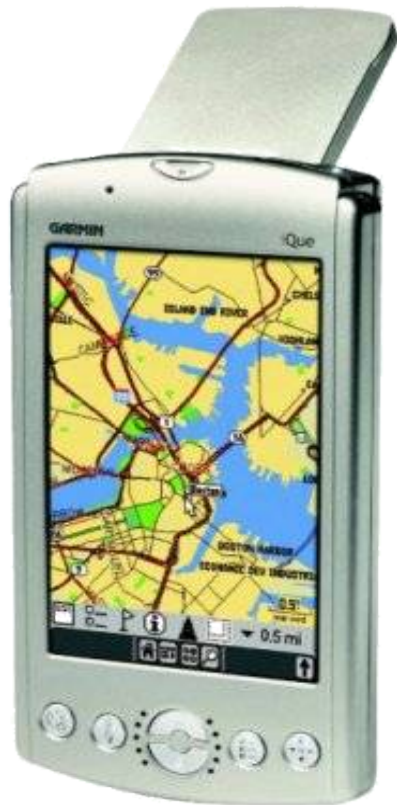
Yahoo! Maps, Driving Directions, and Traffic - Microsoft Internet Explorer
Address: http://maps.yahoo.com/broadband#mvt=m&tp=1&qt=hotel&q1=washington,%20dc&brf=0&lon=-77.040231&lat=38.8947078mag=3
Search: hotel
YAHOO! LOCAL Maps Sign In New User? Sign Up
GET MAP AND DIRECTIONS
Find on the map
washington, dc
Search
Browse by Category
Search Results: hotel
1 JW Marriott Hotel Pennsylvania Avenue
2 Hotel Washington
3 State Plaza Hotel
4 Lombardy Hotel
5 Beacon Hotel
6 Renaissance Mayflower Hotel
7 Hay Adams Hotel
8 Crowne Plaza Hotel the Hamilton Cp -Washington Dc
9 One Washington Circle Hotel
10 Topaz Hotel
11 Harrington Hotel
12 The Jefferson Hotel
13 The Madison - A Loews Hotel
14 Best Western Georgetown Hotel and Suites
15 Embassy Suites Hotel Washington DC Convention Center
16 Allen Lee Hotel
17 St Regis Washington DC
18 Intercontinental the Willard Washington DC
19 Hotel Sofitel
Results 1-25 of 196
Be city savvy Check out what's going down in your town on Yahoo! Local.
Find it fast Find businesses in your area fast on Yahoo! Local.
© 2007 Yahoo! Inc.
See these business locations on this map
Sprint Fairfield Inn GOODYEAR Holiday Inn
© 2007 Microsoft Corporation Privacy Code of Conduct Legal Trademarks Developers
© 2007 Google - Map data © 2007 NAVTEQ™ - Terms of Use

Creation and provision of free data...



This map was generated by OpenStreetmap contributors using GPS data, and are licensed as Creative Commons CC-BY-SA 2.0

Geography has gone mobile



Geography has gone mobile



The advertisement features a background image of a smiling woman and a young girl looking at a smartphone. Overlaid on this is a blue rounded rectangle containing text. To the left of the text is a yellow circular logo with the words 'Family Locator' and a trademark symbol. To the right of the main text is a close-up of a Disney Mobile LG phone screen displaying a map with a blue location pin and a yellow path. At the bottom right of the blue rectangle is a small link.

Family Locator™

Want to **see if your kid is still at soccer practice** by locating his or her phone using GPS technology?

[Click here](#) for operational limitations.

Disney mobile

quick menu

Full

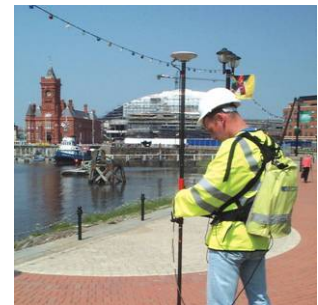
Zoom

LG

© Disney Mobile

Ordnance Survey Great Britain

- Ordnance Survey is 216 years old
- Civilian organisation since 1983; 1448 staff
- Independent Government Department and Executive Agency reporting directly to a Government Minister
- Trading Fund since April 1999
- Annual Report for 2005/06: operating turnover of £118.4m; profit before dividend and interest £7.9M
- 100% owned by Government and we pay a dividend to the Government equivalent to 5.5% ROCE
- Less than 50% of our trading revenue is sourced from the public sector
- At most only 27% of Great Britain is profitable to map; however Ordnance Survey maps the whole of Great Britain



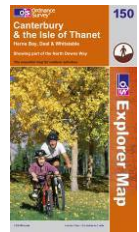
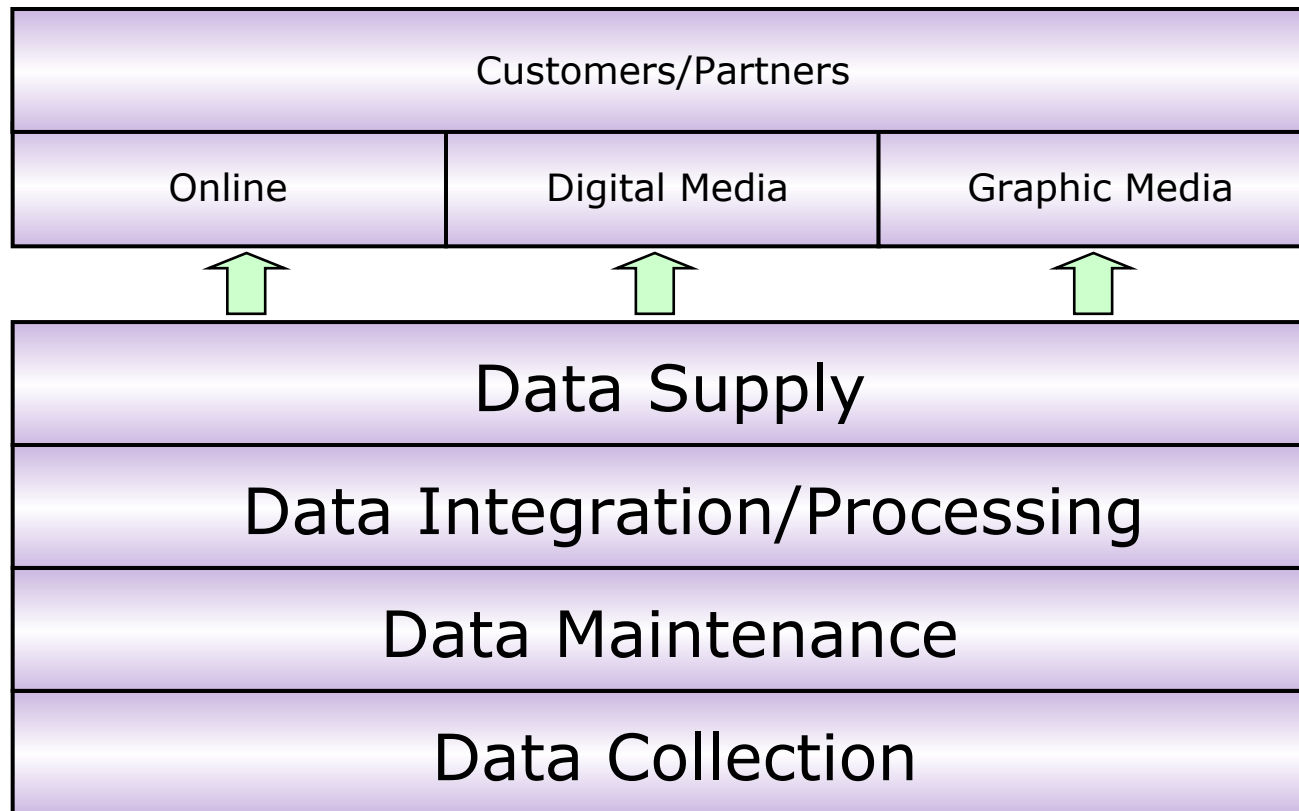
Ordnance Survey today

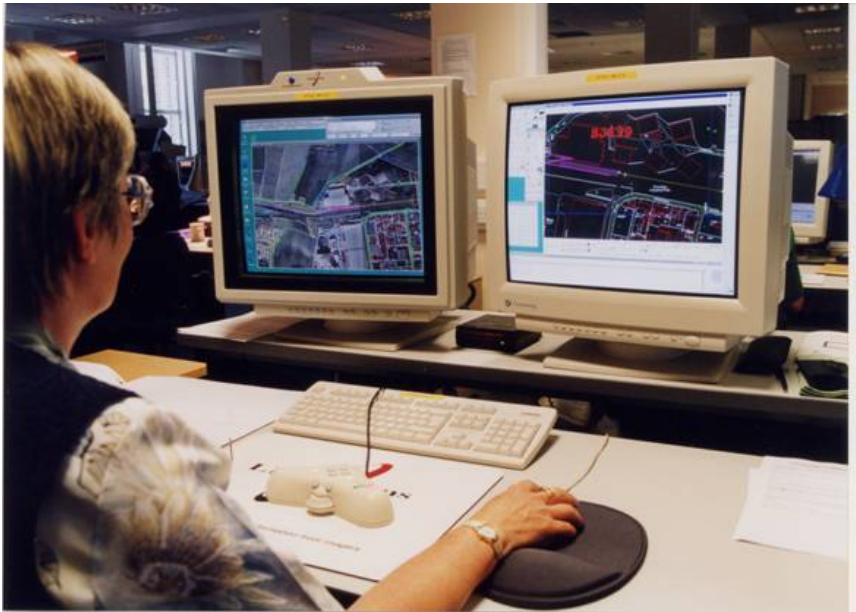
- Creates and maintains the 'master map' of Great Britain from which others derive benefit
- Manages complete national large scale digital data down to building level detail
- Maintains a database of 440 million features with approximately 5,000 changes made daily
- In 2006/07, 99.86% of real world features 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

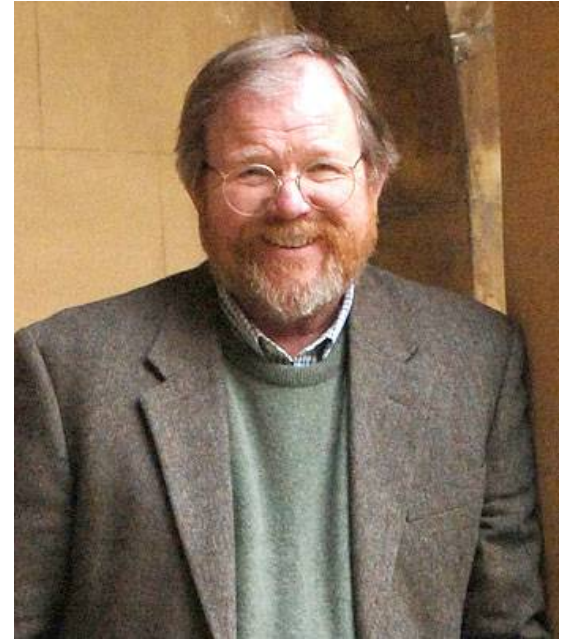


Ordnance Survey's business





“Looking at an Ordnance Survey map is one of the most satisfying things in life. Every little woodland has got a name. Everything on the landscape is named.”



Bill Bryson, the new President of the Campaign for the Protection of Rural England, speaking on BBC Radio 5 Live, Wednesday 1st May, 2007.

The growing value of geographic information

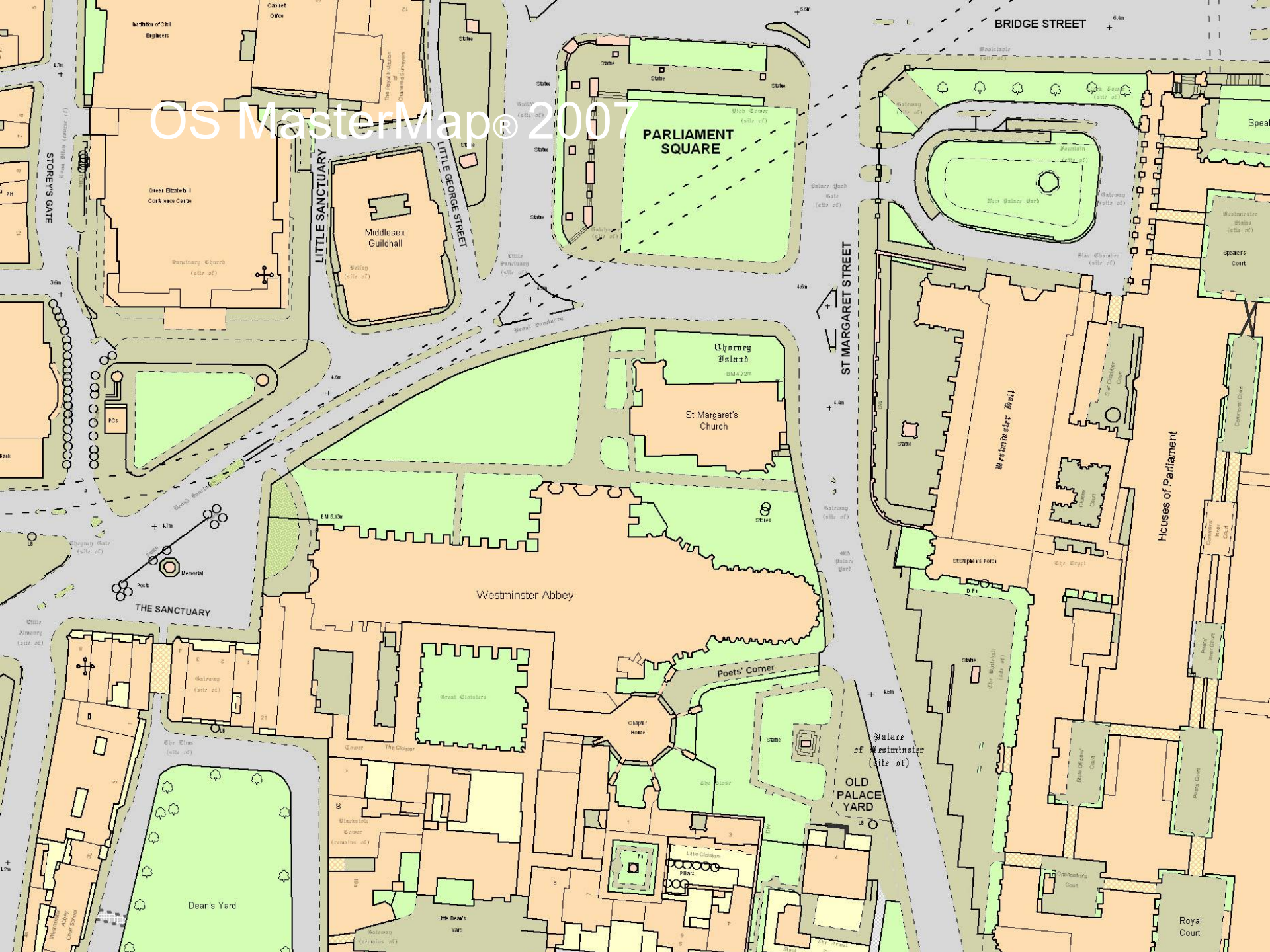
- Geography (in disguise) is becoming a working tool in wider markets
- Public sector information is a huge untapped asset (OFT; 2006)
- Geographic information from Ordnance Survey alone is said to underpin in excess of \$200bn of GDP per annum (OXERA 1999; 2004)
- Information-rich sectors of the UK economy are faster growing than the rest of the economy over the past five years (The Economist; 2006)
- US economists have identified location information as one of the fastest growing sectors of the economy above biotechnology and at least the third largest growth sector for employment (US Bureau of Labor; 2006)
- Geographic information is an essential ingredient to tackling the nation's grand challenges
- Many major companies, such as Microsoft, Google and Yahoo!, are realizing the benefit of using geographic information.

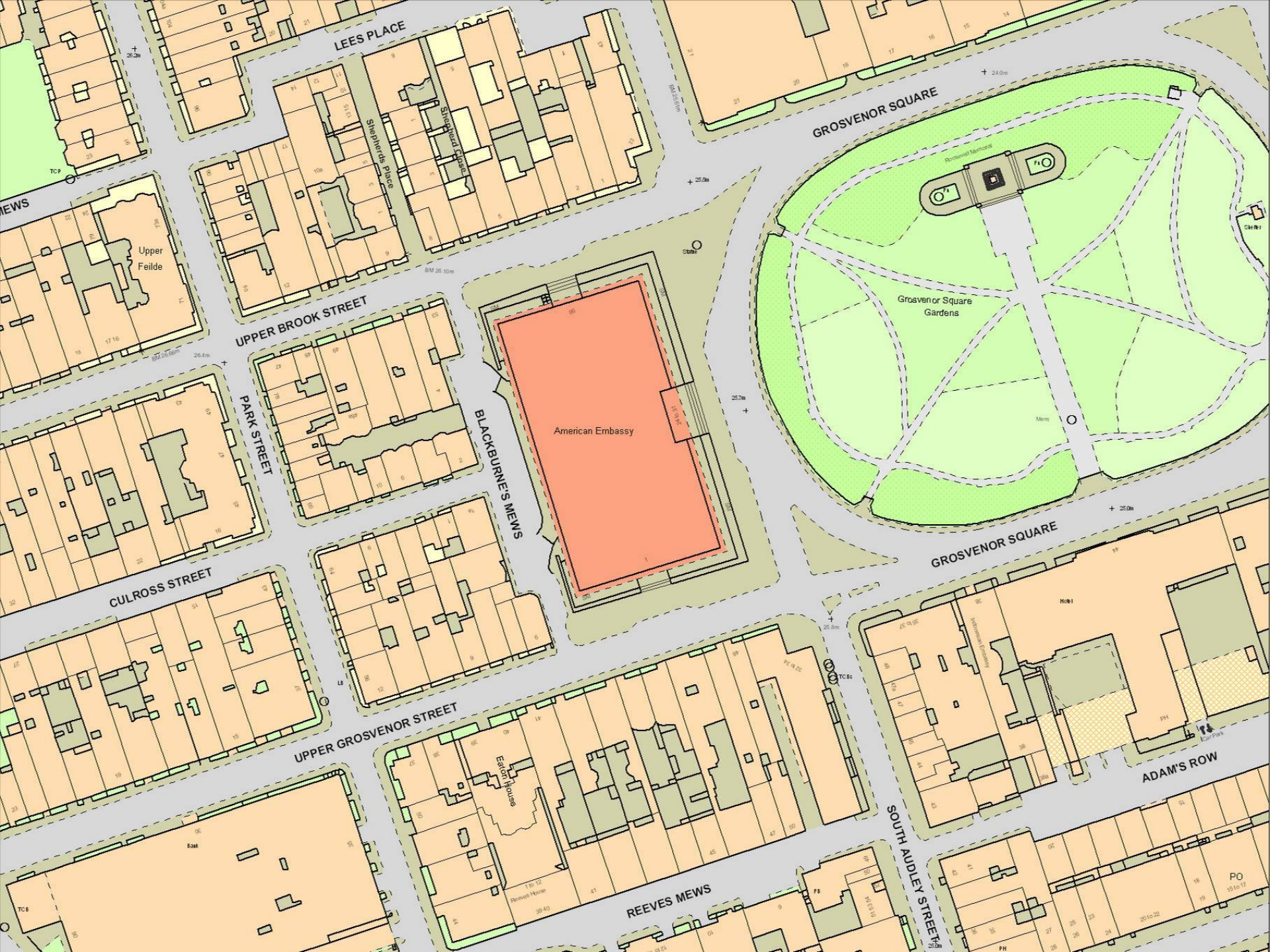


First map of Kent in 1801

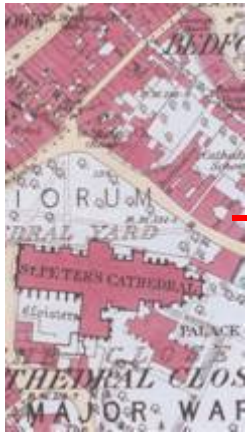


OS MasterMap® 2007





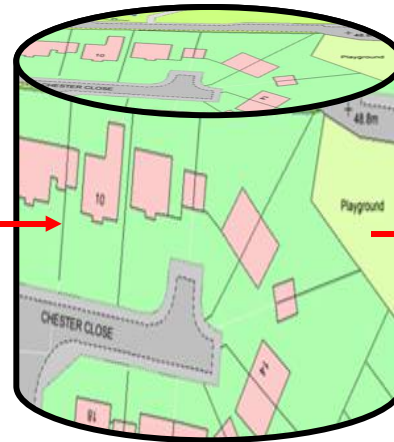
Changing models of geospatial information



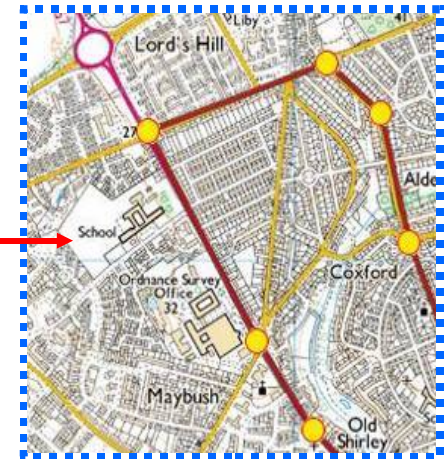
Paper maps
1791-1771



Digital data files
1971-2001

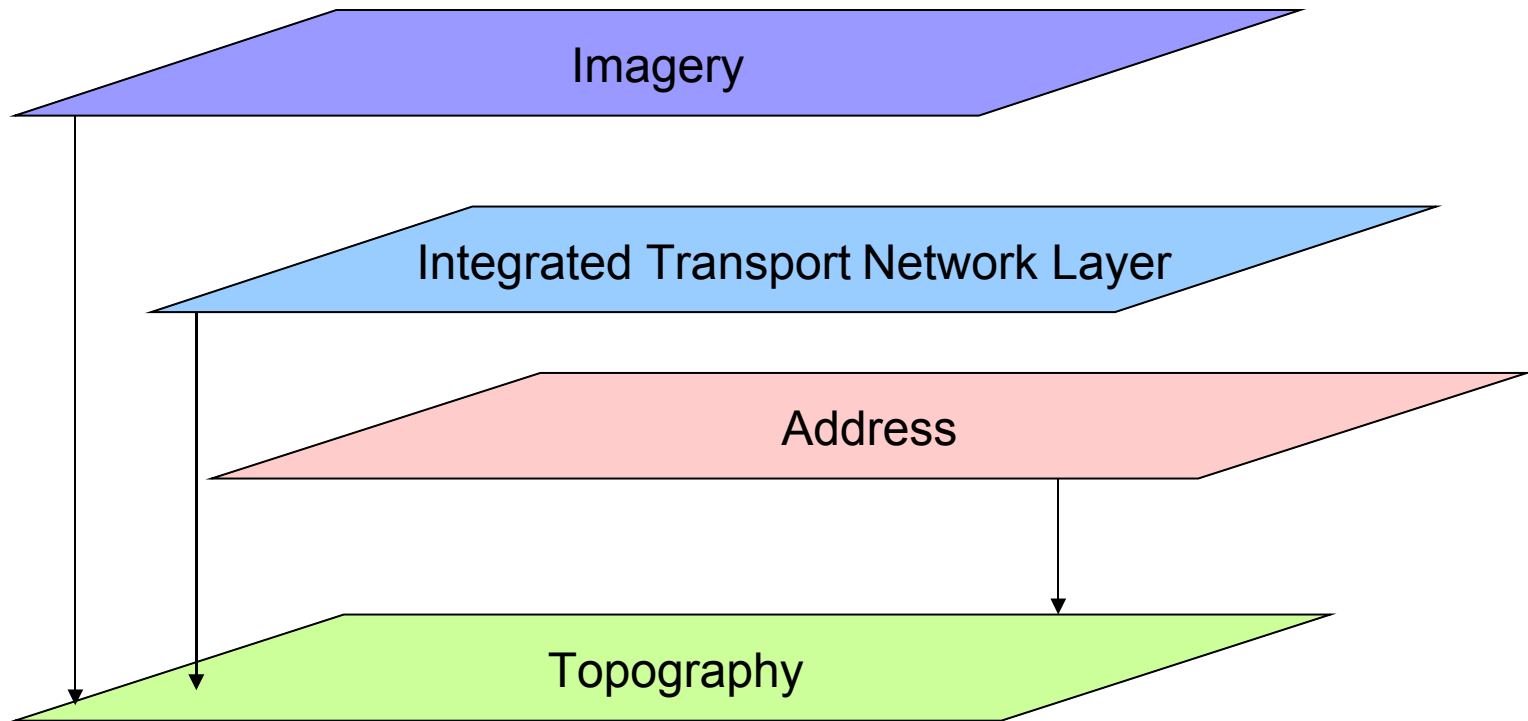


Spatial database
2001-

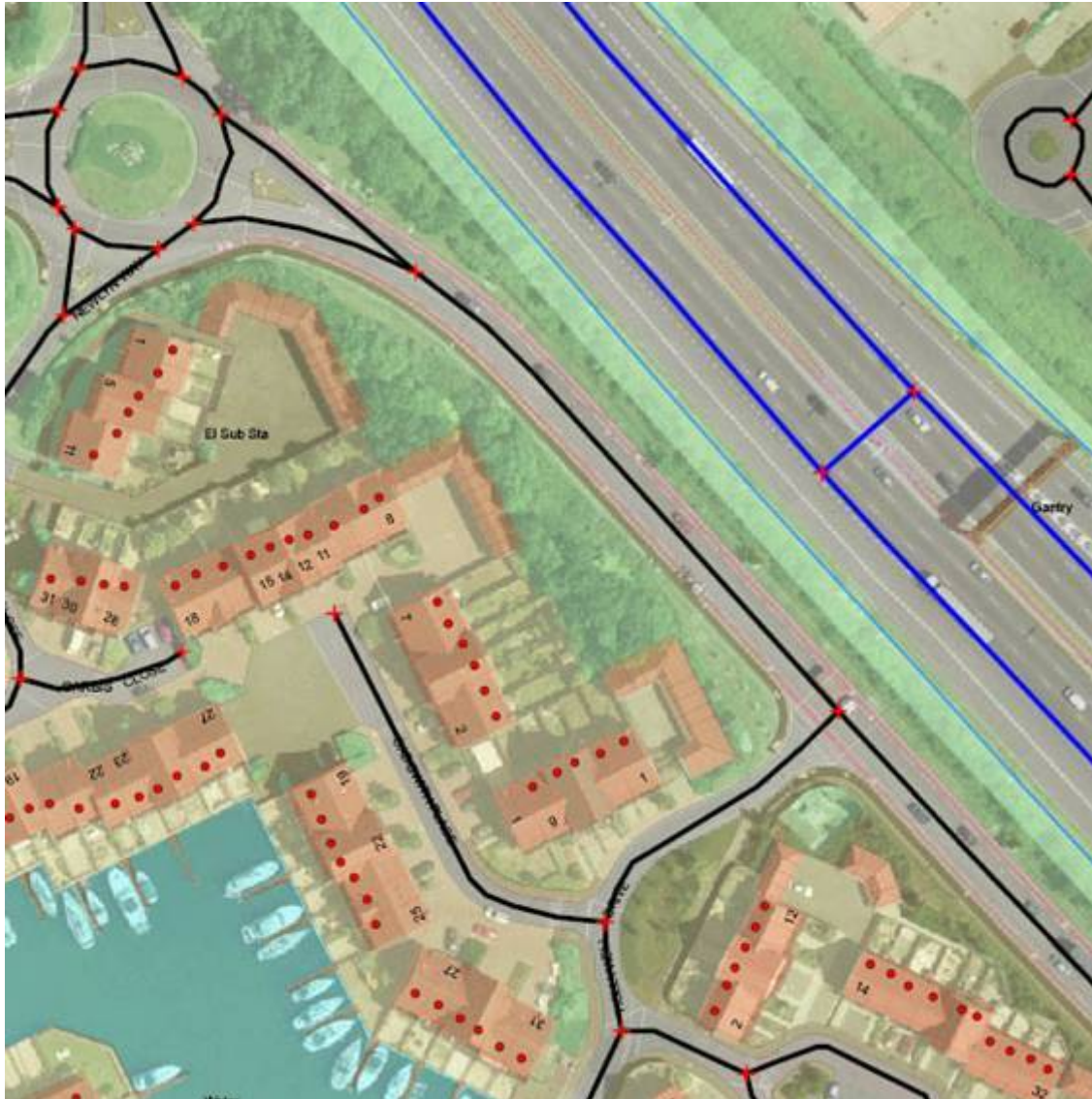


Web service
near future

OS MasterMap current layers



Layers of OS MasterMap



Topography

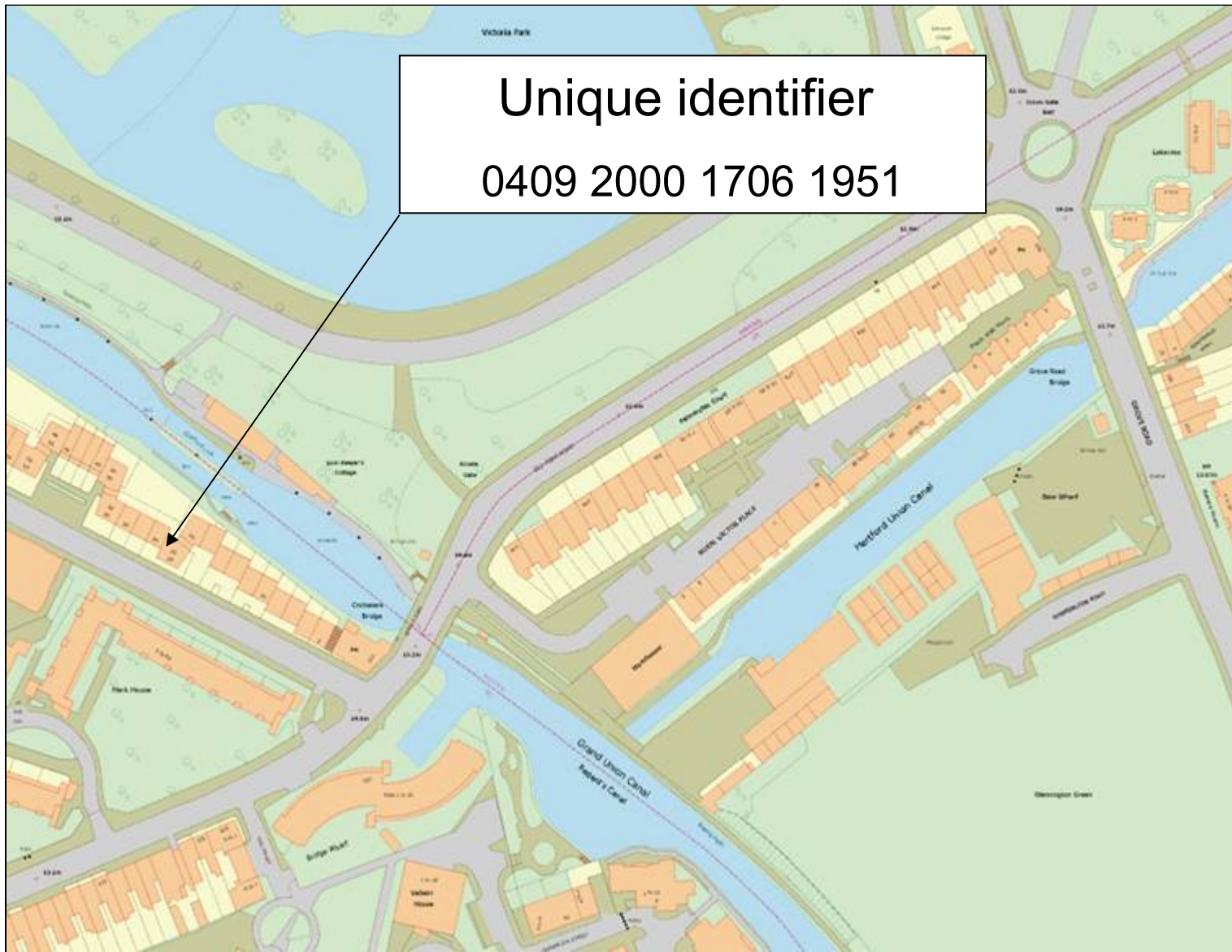
Addresses

Integrated
Transport
Network

Imagery



Unique identifier
0409 2000 1706 1951



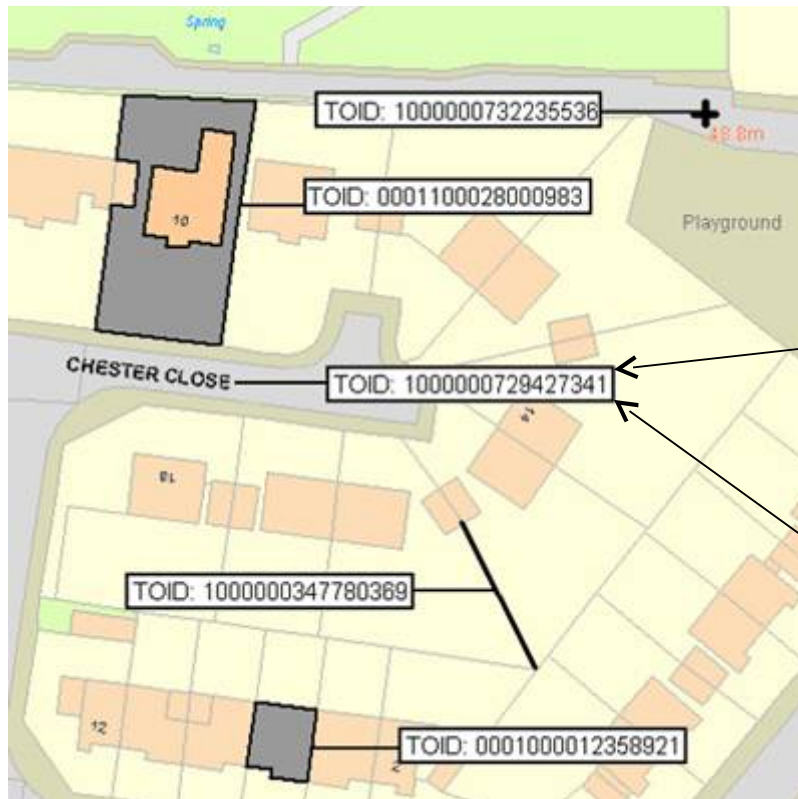
Open Geospatial Consortium



- The Open Geospatial Consortium (1994) is an international industry consortium of 339 companies, government agencies and universities
- OpenGIS® Specifications support interoperable solutions that "geo-enable" the Web, wireless and location-based services, and mainstream IT
- Consensus process to develop interface standards (i.e. GML, WMS, WFS, ...)
- Liaisons with other standards, professional and educational organizations

A spatial database... to what benefit?

- Every object represented in has a unique identifier. These IDs can be used to connect other information.



Highways database

road_name: Chester Close
road_type: cul-de-sac
lighting: none
TOID: 1000000729427341

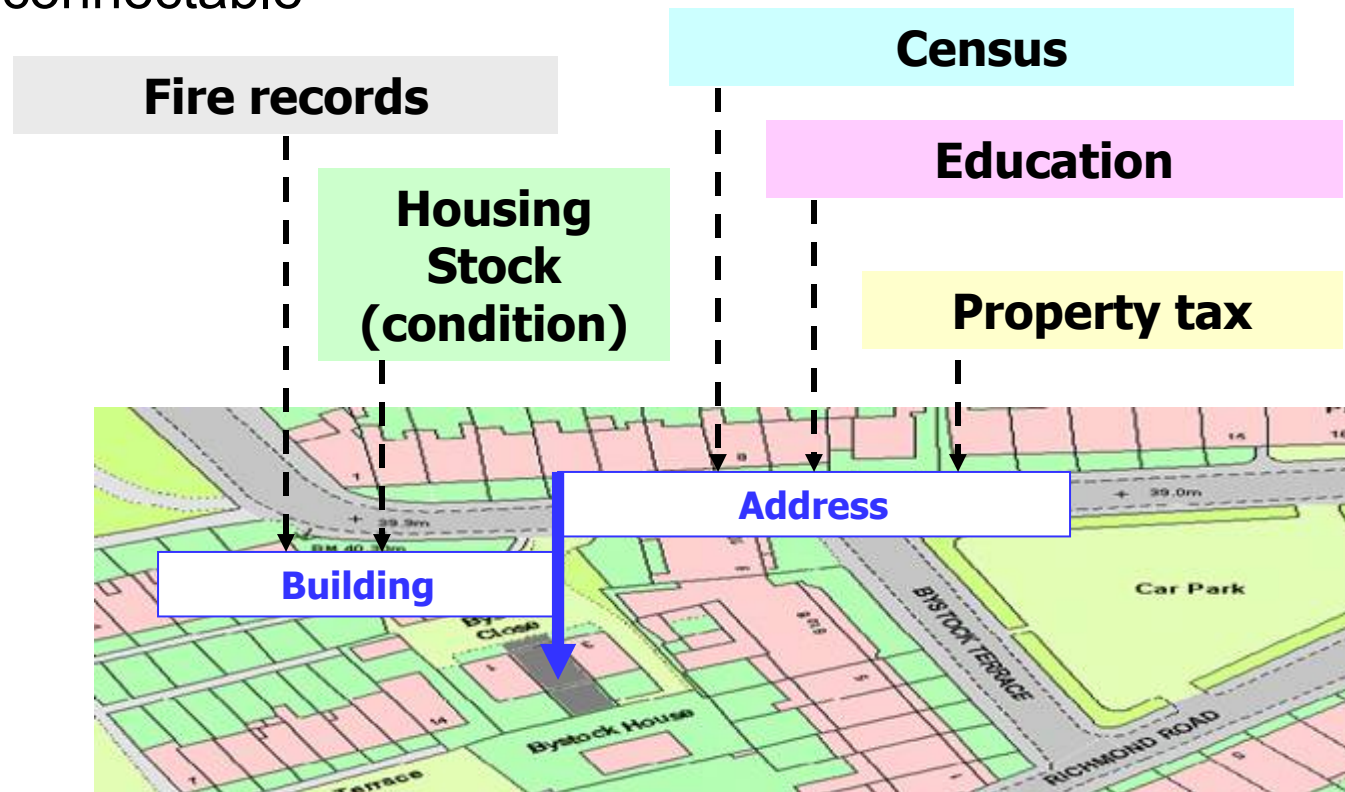
Crime report database

crime_type: vehicle break-in
date: 09/05/2003
TOID: 1000000729427341

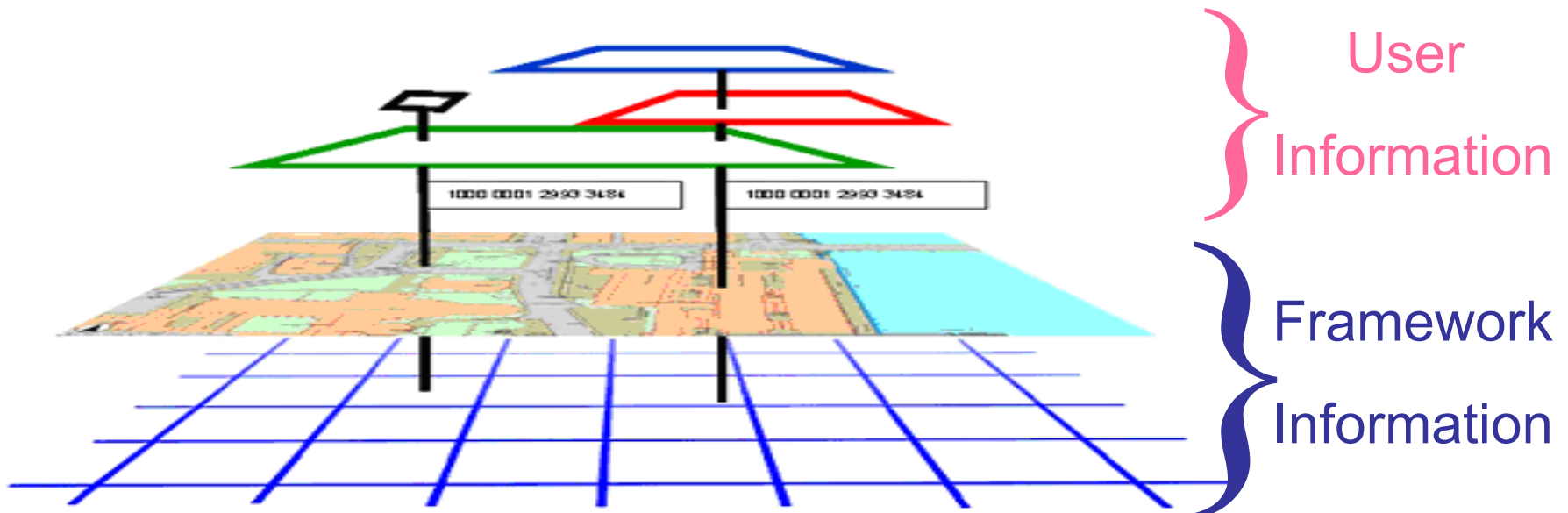
Highways
and Police
can share
information

The need for a referencing framework

- There are well-established sources of base information
- There are many users with different applications
- The challenge - make information accessible and connectable



Digital National Framework

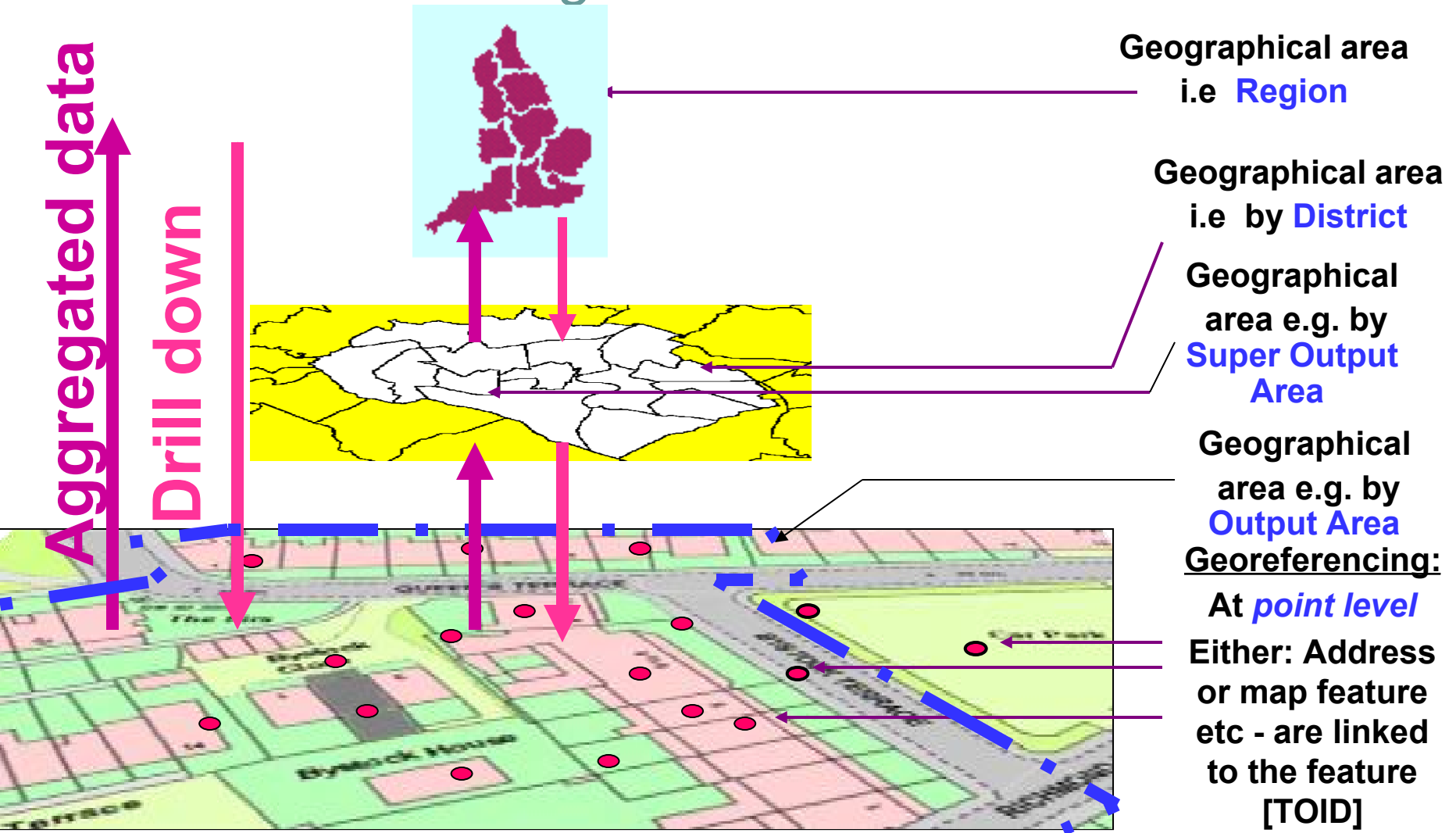


DNF for managing buried services

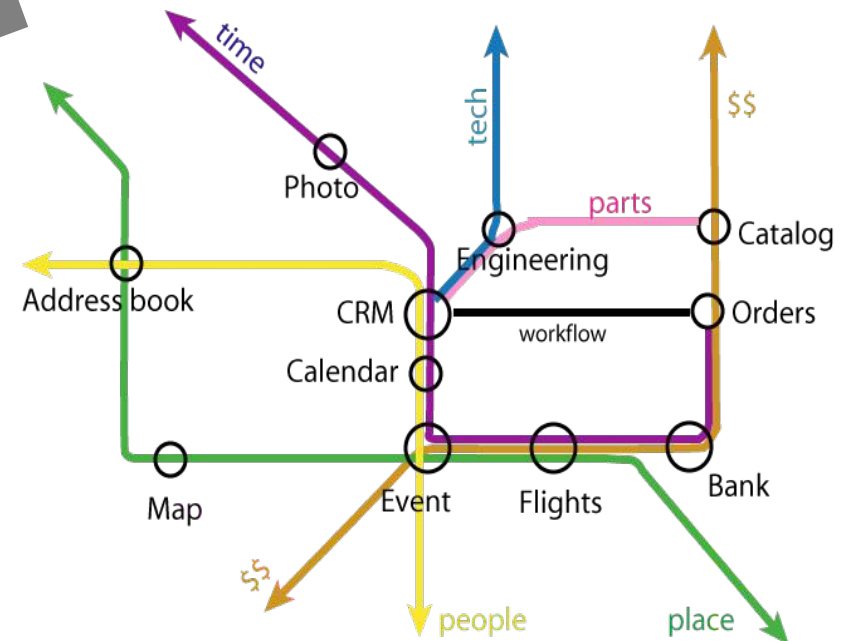
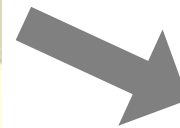
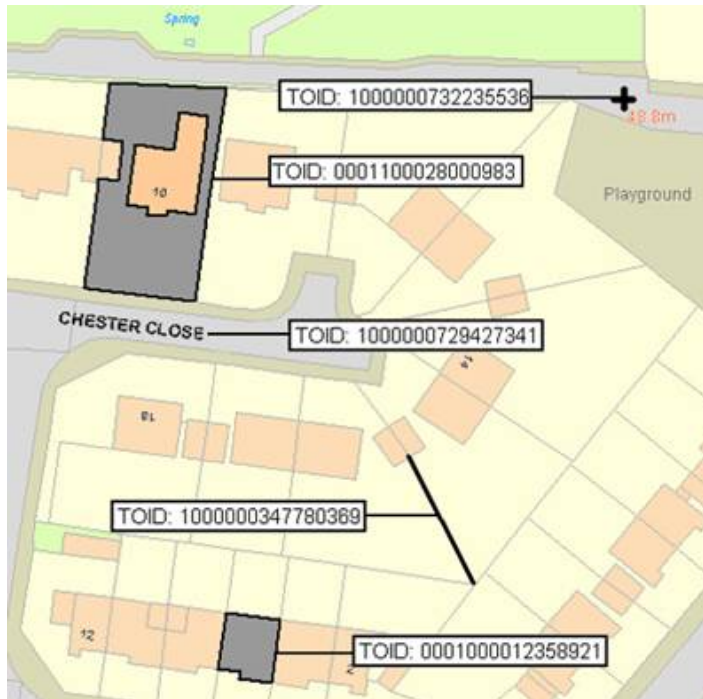
- The cost of not knowing precisely where pipelines and cables are buried is extremely high
- There are 4 million road excavations every year
- The Institution of Civil Engineers has recommended that all buried services should from now on be captured to DNF standards and principles



Georeferencing of Statistics

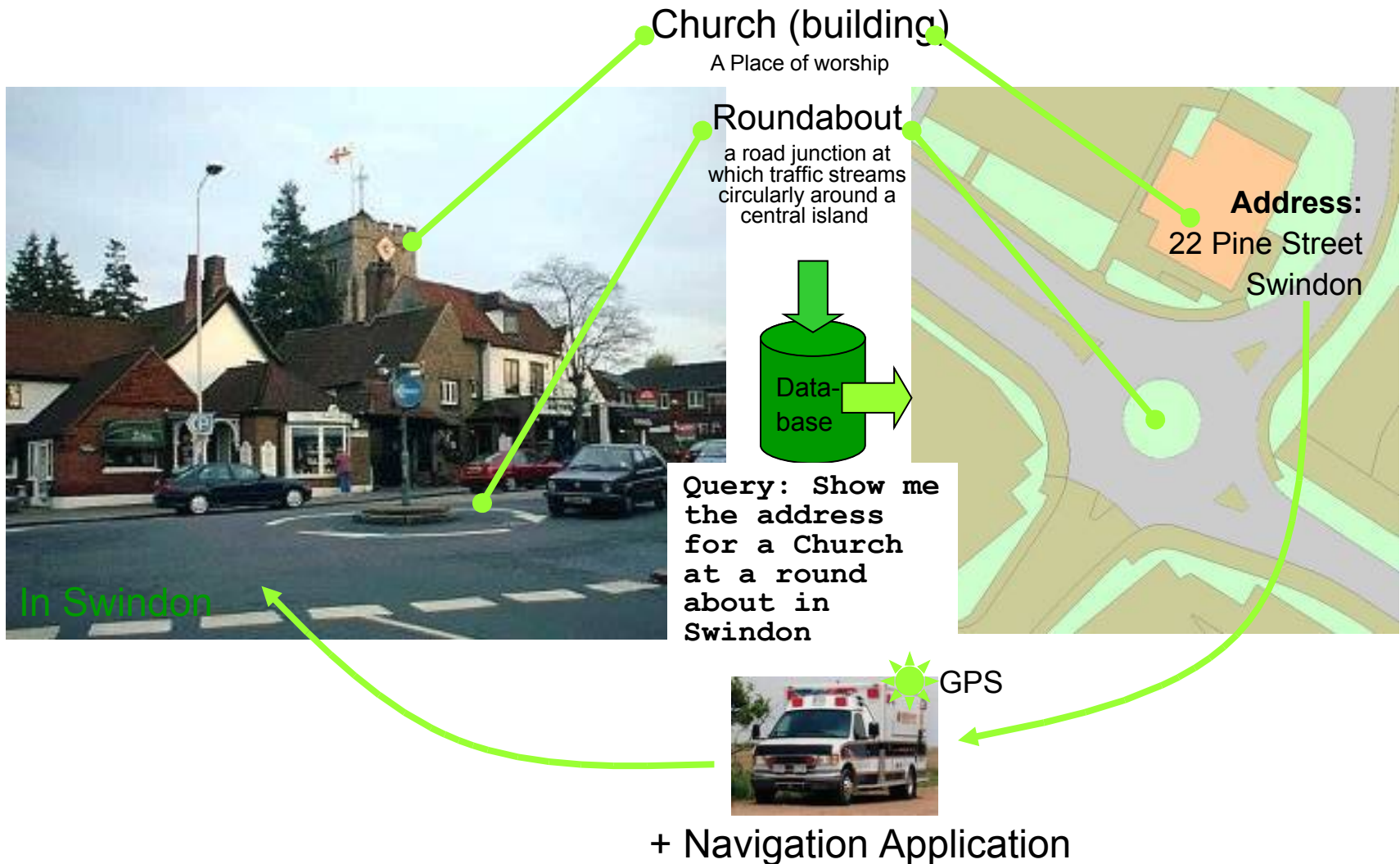


Evolving Information Management Frameworks

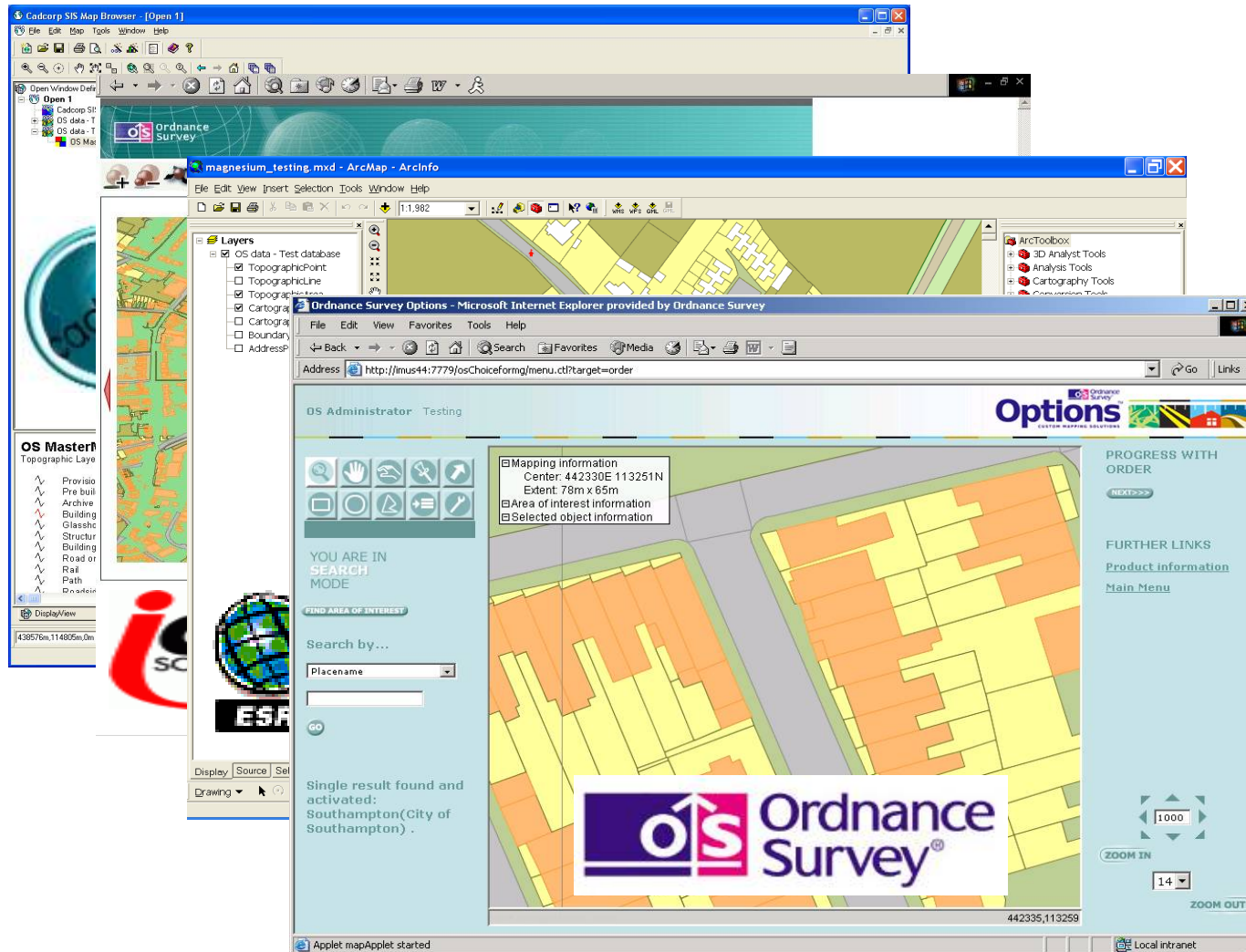


Tim Berners-Lee, Terra future, 2006

GeoSemantics: interoperability and semantic information



GI trends: Web services as a window



GI trends: Augmented reality

Managing service infrastructure by adding computer graphics to the engineers view of the real world



Real v

GI trends: Participatory model

Address  <http://news.bbc.co.uk/1/hi/uk/4517962.stm#graphic>

bbc.co.uk Home TV Radio Talk Where I Live A-Z Index **Search**

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Last Updated: Monday, 12 December 2005, 01:08 GMT
 E-mail this to a friend  Printable version

Massive blaze rages at fuel depot

The man in charge of investigating the massive fires at a Hertfordshire oil depot on Sunday says the flames may have destroyed all clues to the cause.

Deputy Prime Minister John Prescott has visited the scene of the blasts which injured 43 people, two seriously.

The fire chief described the incident at the Buncefield fuel depot near Hemel Hempstead, after 0600 GMT, as possibly the largest in peacetime Europe.

The M1 finally reopened around 2200 GMT after being closed for 12 hours.

Hertfordshire's Chief Fire Officer Roy Wilsher said: "The damage a fire of this intensity will cause may, or may not, leave clues for the fire investigation team."

Junction 8 of the motorway, as well as some slip roads, however, remain closed. The Highways Agency said it would



Buncefield fuel depot
London
NOAA

Images of smoke and blasts
 **OPEN** In pictures

BBC NEWS: VIDEO AND AUDIO
Watch amateur footage of the explosion and aftermath
 **VIDEO**

BUNCEFIELD BLAST

KEY STORIES

- Explosion recalled one year on
- The legacy of Buncefield
- Buncefield tank 'was overflowing'
- Buncefield parallels abroad

PICTURES & FEATURES

 **Life one year on**
Disruption continues for residents rebuilding their lives
 **OPEN** Clearing up at Christmas
 **OPEN** Seen from space

► Your depot blast images
► Firefighters in action

FIRST-HAND ACCOUNTS

- 'Like something out of the Blitz'
- 'I don't feel safe any more'
- Your accounts of explosions

BBC – Buncefield Oil Depot Coverage

GI trends: Participatory model

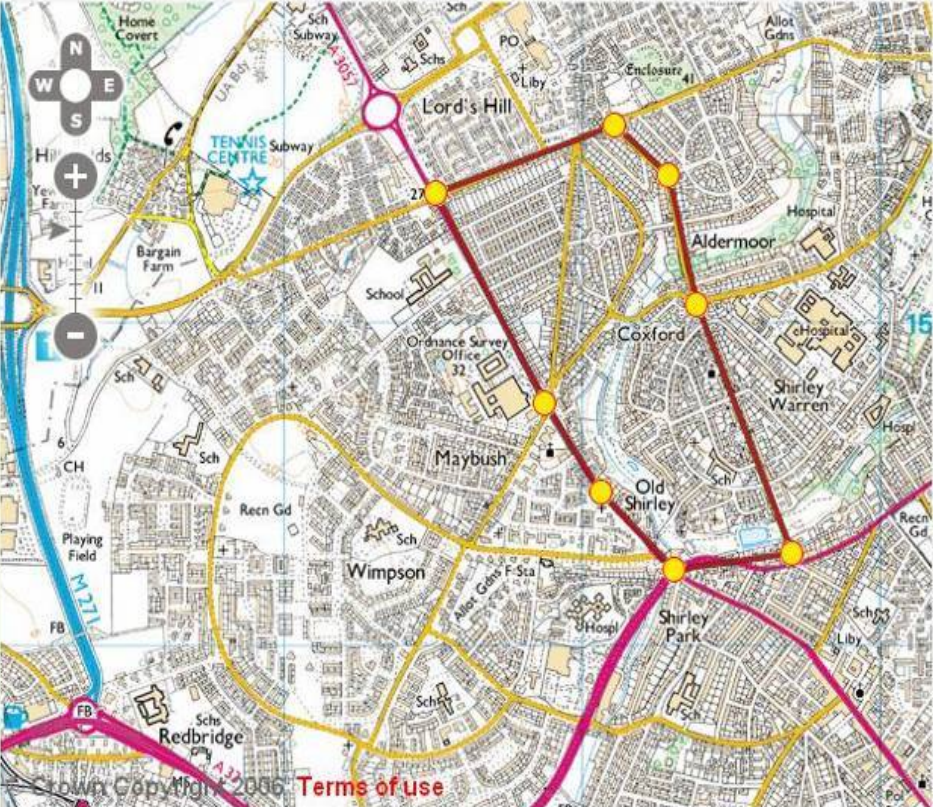
Borderline Southampton - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://magellan.ordnancesurvey.co.uk/BorderLineWebApp/BorderLineServlet#

Customize Links Free Hotmail Google Heat Self Service OS Web Site Outlook Web Access Spitfire Remote Acce... Sync Secure ID Token

borderline southampton Ordnance Survey



step 1 enter locality within Southampton

step 2 plot points

step 3 save

You can now refine your points by dragging them to get the shape just right. When you're happy with the shape you have drawn, hit 'save' below

SAVE

step 4 repeat or exit

Copyright 2006 Terms of use

Social trends: Social networking



Social trends: Social networking



Neighbourhood Fix-It *Beta*



10 DOWNING STREET



PRIME MINISTER	contact biography speeches
GOVERNMENT	cabinet guide to legislation gu
NEWSROOM	latest news media centre ema
DOWNING STREET	welcome history of the building
BROADCASTS	PM's Question Time PM's statem

Help You are here: [home](#) > [petitions](#)

Greetings: This is Brian, your friendly Philosc
launching the web's first social networking si
to see what we've been up to. In the meantime, I

right what I should be doing. I'm not a philosopher.

HearFromYourMP *Beta Test*

"seed" to actualization would be pretty power

Our Mission. That's easy. We're gonna change

E-Petitions

- 1 Petitions home
- 2 View petitions
- 3 Create a petition
- 4 About e-petitions
- 5 Step-by-Step Guide
- 6 FAQs
- 7 Terms and Conditions
- 8 Privacy Policy

E-Petitions



Create a Petition



View Petitions

Search petitions:

E-Government: the landscape has changed

- Information is now generated, mashed up and consumed in the:
 - Public sector
 - Private sector
 -and the community....where users create and use content to generated services useful to that community
- There is huge potential for government and society to utilise all three sectors to address grand challenges
 - for eg: Climate change – being addressed by global, regional, national, local, governments, private sector, communities and individuals
 - for eg: Neighbourhoodfixit.com addressing community based issues

E-Government and Social Networking

Neighbourhood Fix-It *Beta*

[Report a problem](#)[All reports](#)[Help](#)[Contact](#)

Click on the map to report a problem

If you cannot see a map – if you have images turned off, or are using a text only browser, for example – and you wish to report a problem, please [skip this step](#) and we will ask you to describe the location of your problem instead.

Recent problems reported on this map

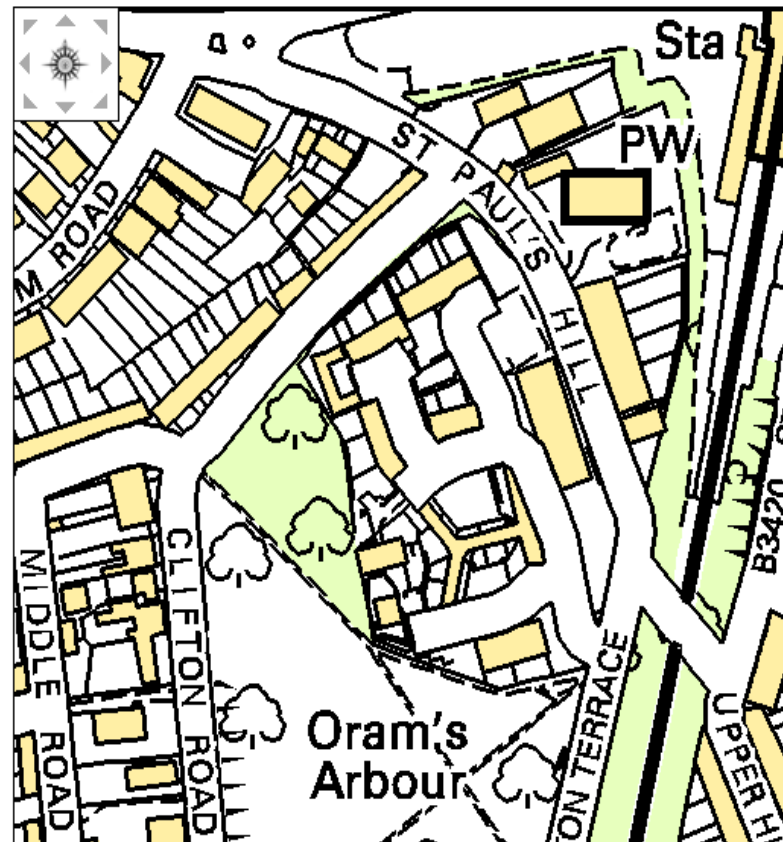
No problems have been reported yet.

Closest problems within 10km

1. [pothole \(c. 0.7km\)](#)
2. [Overgrown footpath \(c. 0.8km\)](#)
3. [Abandoned and vandalised supermarket trolley \(c. 0.8km\)](#)
4. [Illegal Parking \(c. 1.1km\)](#)
5. [Bird droppings at Bishops Mill, Winchester \(c. 1.4km\)](#)
6. [broken drain cover in main road \(c. 7.9km\)](#)
7. [Pothole \(c. 8km\)](#)

Recently fixed problems within 10km

1. [Hole in road \(c. 6.2km\)](#)



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Consumer Web Channel

Ordinance Survey – the national mapping agency of Great Britain

See all our sites | Logout

 Ordinance Survey

leisure

Search

Product or location

GO

home

business

leisure

about us

OS Leisure home

my account | view basket | browse catalogue | explore! magazine

search shop for a place or product (or click on map)

[back to top search](#)



N

W

E

S

+

-

Zoom in

Zoom out

Re-centre

© Crown Copyright 2005

Window width - 1300 km | Grid reference at centre - NS 500 000

Source data - 1:150,000 Scale Colour Raster

welcome

...to the Ordnance Survey leisure map shop. Lorem ipsum dolor sit amet, consectetur **adipiscing elit**. Sed at risus vel elit bibendum consequat. Donec consectetur.

Nullam adipiscing bibendum sapien. Suspendisse a odio kandes flo rummes. Pellentesque habitant morbi tristique et netus.

winter walks



walk your way to a healthier new year in 2006

featured products...

Ordinance Survey
OS Explorer Map
Edge Hill & Fenny Compton
(2001)



Jarrod Publishing
Short Walks Series
The Lake District



Ordinance Survey
OS Landranger Map
Nottingham & Loughborough



Ordinance Survey
OS Landranger Map
Ashford & Romney Marsh
(189)



Philip's
Philip's OS Superscale Atlas
Britain



Summer spectacular!

free postage & packing
on all products in the leisure map shop

explore! Ordnance Survey's online magazine

walking + cycling



motoring



holidays + days out



map facts



historical mapping



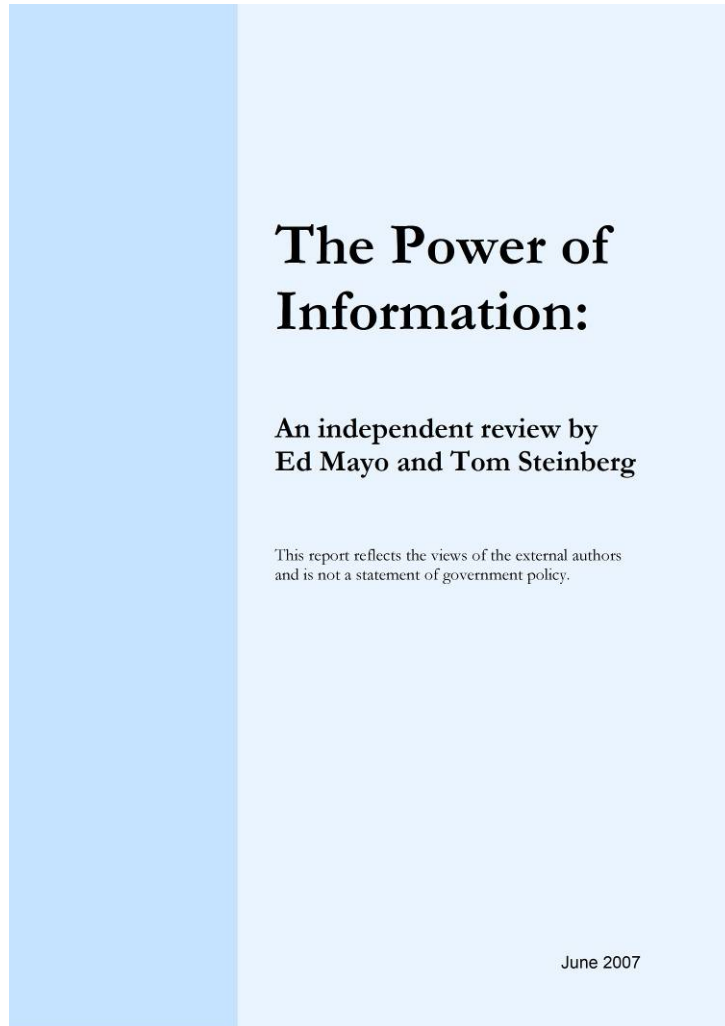
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You too can participate...



The Power of Information



Independent review, under consideration by UK Government

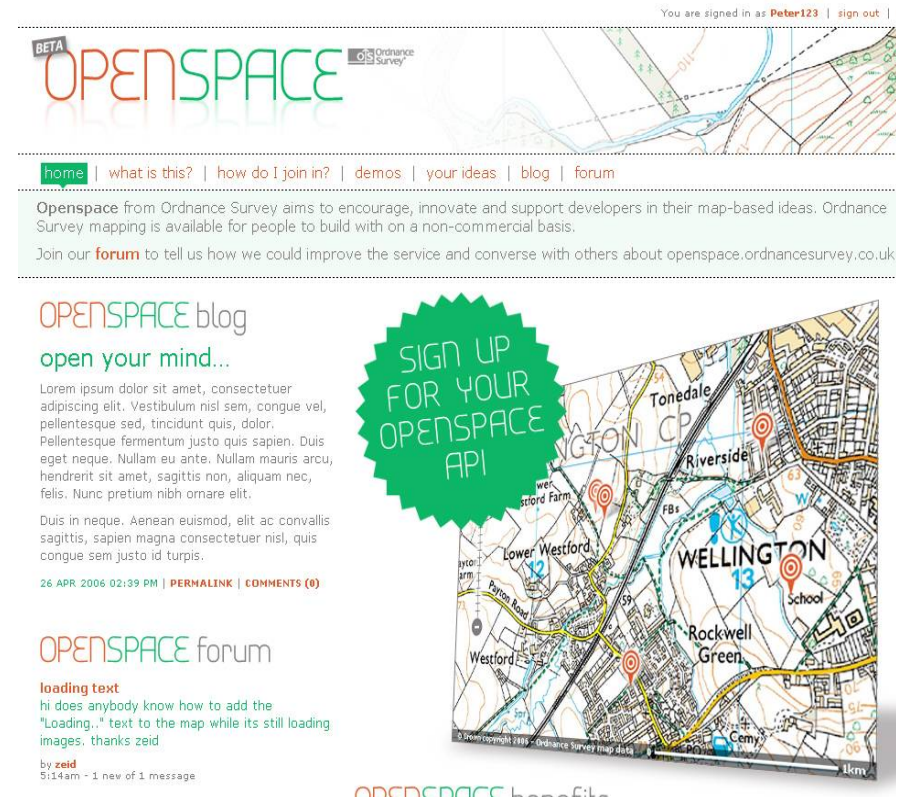
The report calls for openness and ease of access to public sector information to stimulate interaction between the Government and the Citizen

“Recommendation 5. To promote innovation, Ordnance Survey should, by the end of December 2007, launch its OpenSpace project to allow non-commercial experimentation with mapping data.”

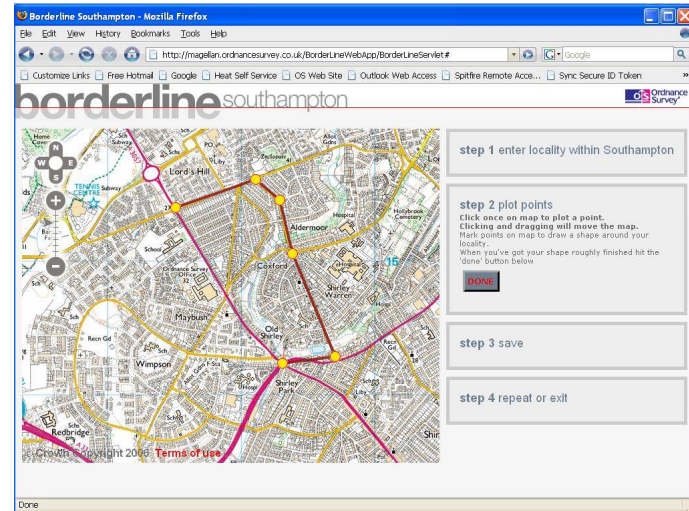
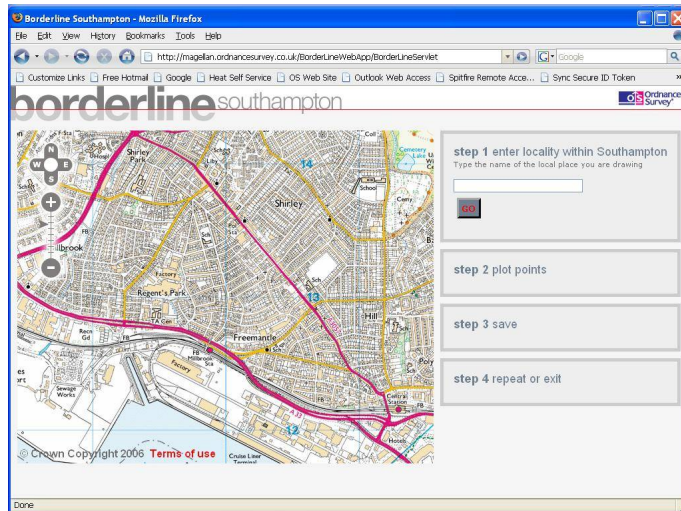
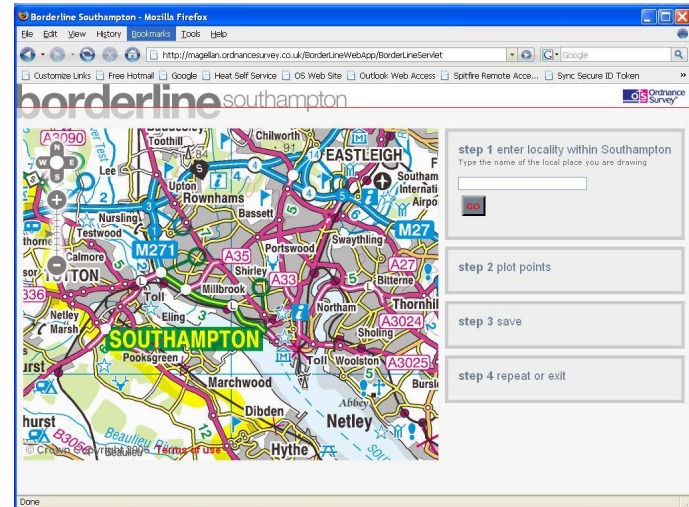
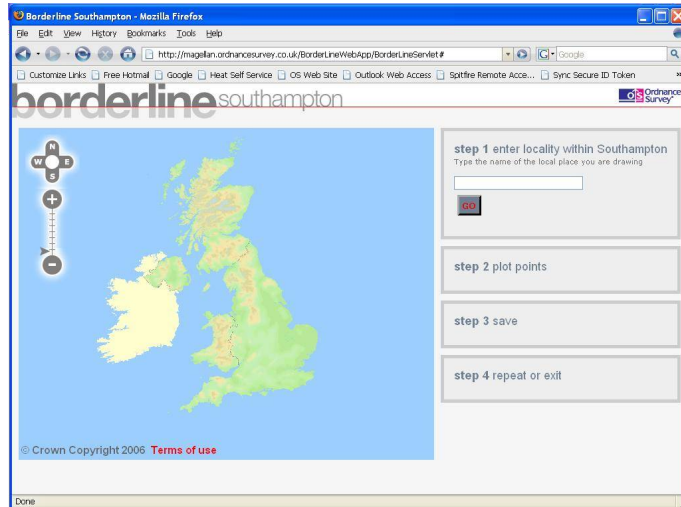
OpenSpace: platform for innovation

OpenSpace aims to encourage, innovate and support users with map-based ideas to build non-commercial sites

- The focus is on innovation
- There will be an Open API for 'Mash Up' websites
- Ordnance Survey data will be available to OpenSpace users
- Non-commercial use only
- Commercial use of API will be possible



Open Space

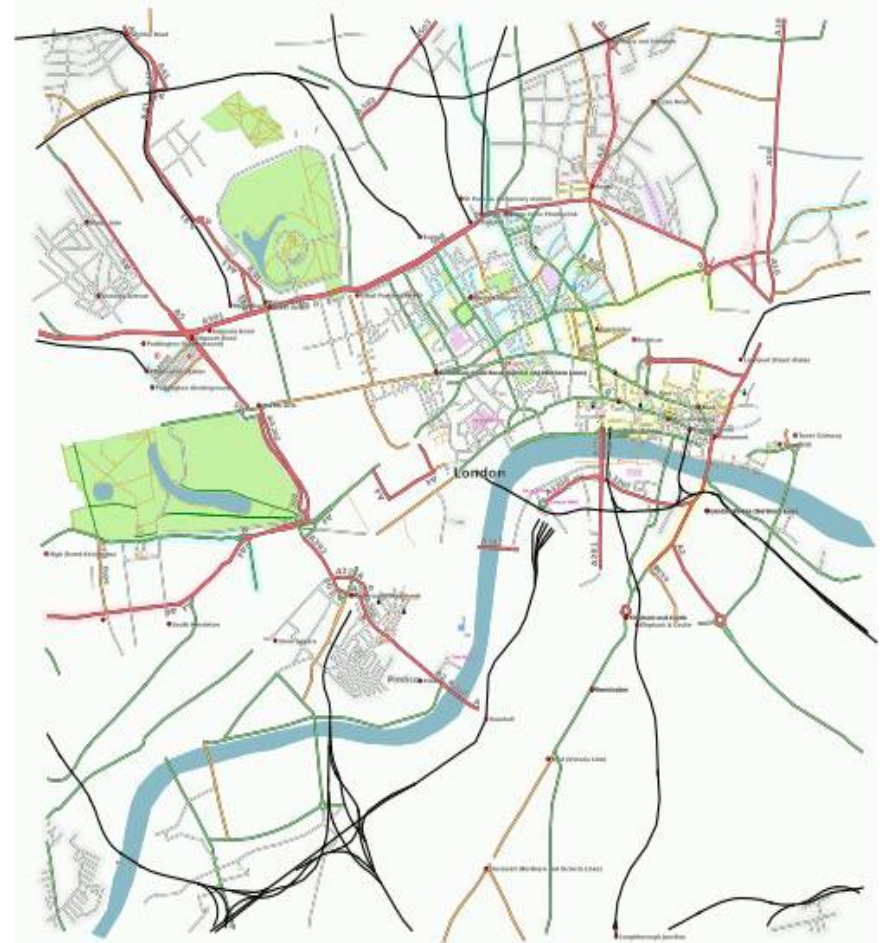


A weekend's work:

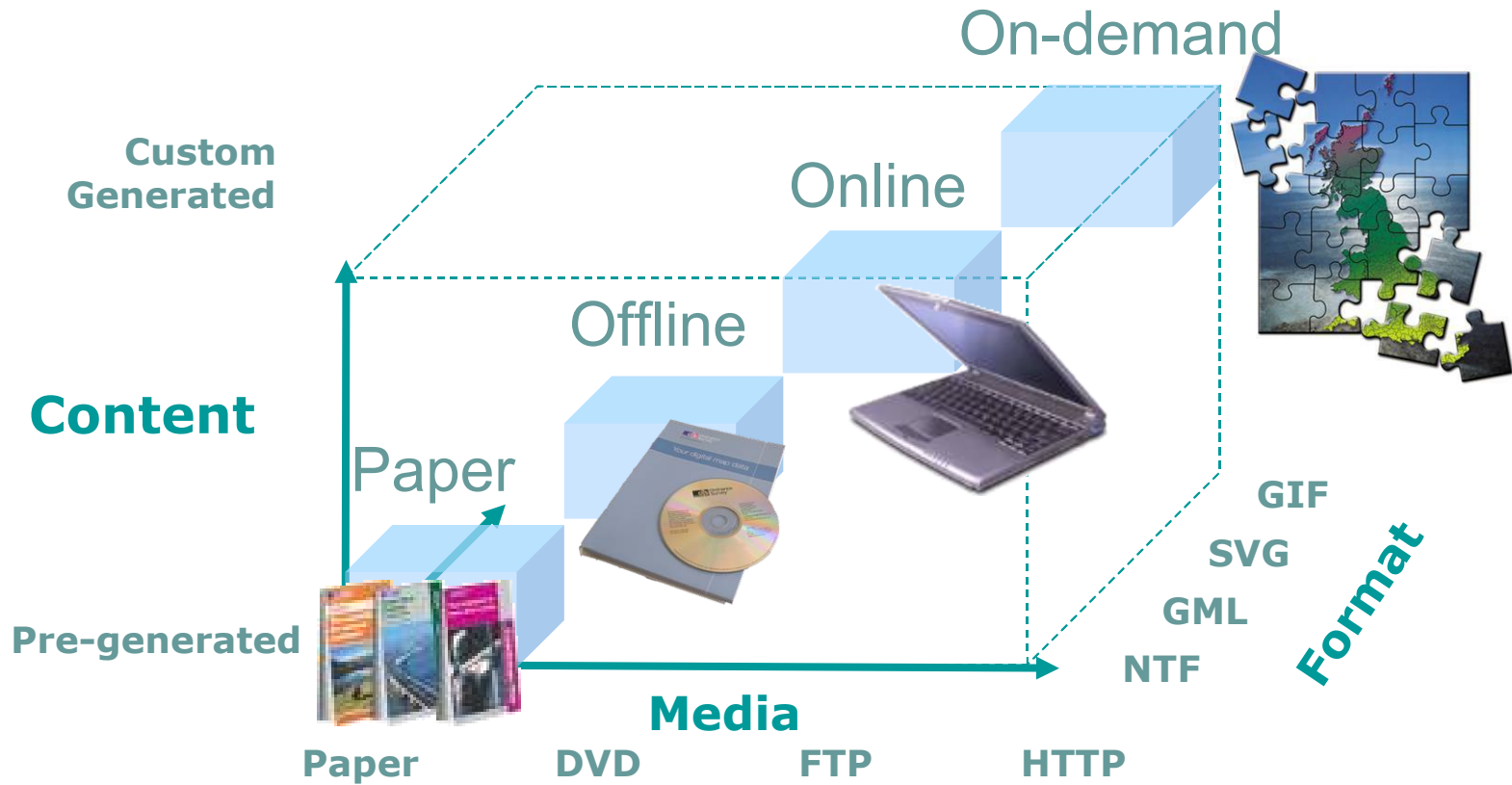
Just good enough is good enough.....

but ...

In a world where everybody can create information, who do you trust?

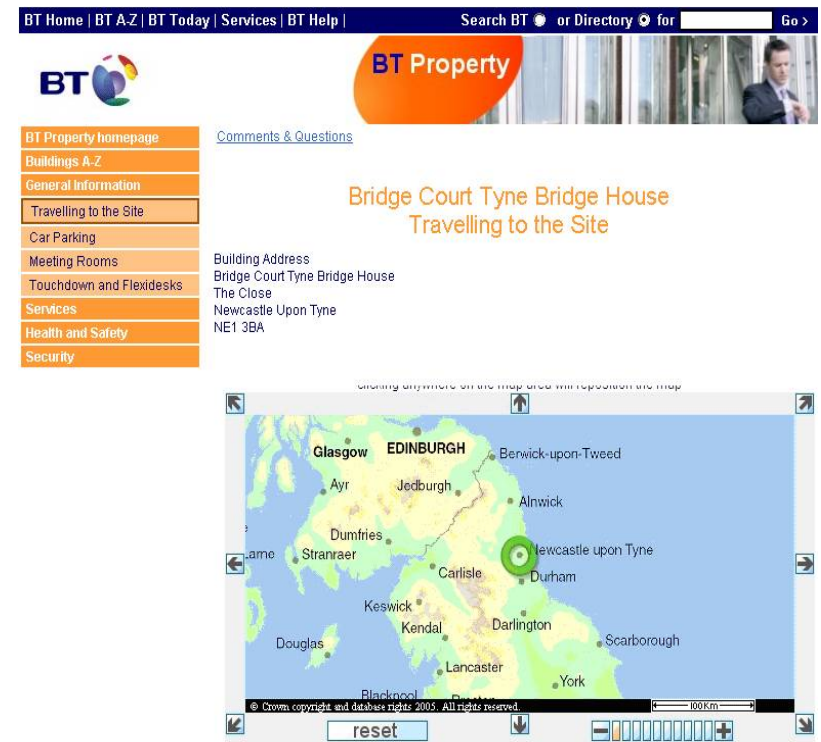


Customer Focused Supply Models



Ordnance Survey – on demand

- 96,000 potential users.
- Application sent between 60,000 and 74,000 requests per month and often more than 5,000 requests per day for map images from the products available.
- Service available for 100% of this time - no single request failed as a result of our servers being unavailable when a user needed a map.
- Average response time for a map image to be returned to a user was less than 0.6 seconds with even the most detailed OS MasterMap images returned in little over a second.



“Data is the new Intel Inside” (Tim O'Reilly)

Products



OpenStreetMap

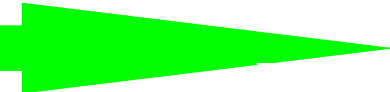


DNF compliant database



OS MasterMap

Increasing value/trust



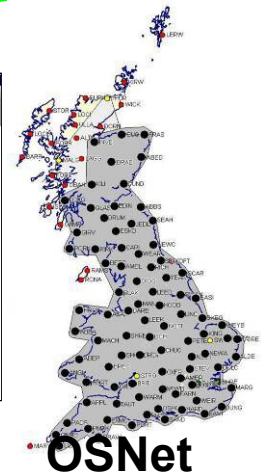
Services



Google Maps



OS On Demand



OSNet

Geographic Information Panel: aims



- To give high-level advice to Ministers on geographic information issues of national importance for the United Kingdom, in particular to:
 - Identify the key medium to long-term geographic information issues and advise Government through regular short reports to Ministers;
 - Encourage more effective, extensive and systematic use of geographic information, led by the example of Government Departments and other public bodies where appropriate;
 - Facilitate a co-ordinated position on potential legislation, both national and international, that might impact on the geographic information market ;
 - To promote a coherent approach to the management of geographic information in the United Kingdom.



Location strategy for the United Kingdom: the results



- A document is being finalised entitled 'A Location Strategy for the United Kingdom – Why Place matters'. It will be the submission for the Transformational Government Agenda
- Will assist the analysis to support the 'place-based' agenda
- Will meet the needs of the data users as there will be increased knowledge on the collection standards, the maintenance standards and the availability of the data
- Will drive interoperability standards throughout the wider public sector; every indication is that these in turn will ensure these standards are adopted by the private sector
- Will drive cost out of the collection and maintenance of data collection by reducing duplication across and within departments
- Will ensure that the United Kingdom can implement the INSPIRE Directive appropriately and within timescale



A strategic approach to location for Great Britain: Ordnance Survey's role

- Department of trusted relied upon information on location and place
- Location Information is similar to a nation's insurance policy as it underpins the planning process, the land registration process, the emergency services, the security services etc
- Delivering solutions through over 500 partners
- Actively encourage community participation and, social networks to build communities, social value and deliver community to community, citizen to citizen information and services
- An essential ingredient to tackling the (Government's) Grand Challenges e.g. criminal justice, climate change
- Underpinning the semantic web and data integration

A strategic approach to location for Great Britain: why place matters



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Thank you

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