

# A National Information Framework

## Its Potential in Formulating and Monitoring Urban Policy

CUPS 30<sup>th</sup> Anniversary  
Manchester - 4th June 2013

**Robert Barr**

**Ministry of Justice – Advisory Panel on Public Sector Information  
Cabinet Office – Open Data User Group  
Manchester Geomatics and University of Liverpool**

# Where I'm going.....

A National Information Framework

Why it matters

Haven't we been here before?

Components and principles

So what is stopping us?

Open Data White Paper

Funding Open Data

PAF

Shakespeare review

Conclusions



**ADVISORY PANEL**  
on Public Sector Information

# A National Information Framework for Public Sector Information and Open Data

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APPSI DISCUSSION PAPER  
October 2012

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# Core reference Data

# What needs to be recognised

## Core Reference Geographies:

- 1. Are definitive*
- 2. Should be collected and maintained once and used many times*
- 3. Are Natural monopolies*
- 4. Have variable value in different applications*
- 5. Have highly elastic demand*

# Principles - 1

Core reference data *must* support an existing Public Task

That task must be necessary and in the public interest

# Principles - 2

Core reference data *should* be definitive

Only one correct version should exist which can be verified at a canonical source. It should be collected once and used many times.

# Principles - 3

Core reference data *must* be sustainably financed

Normally from the budget allocated to the public task

Alternatively from registration charges on those who cause the data to change



# Principles - 4

Core reference data provision must be regulated through a lightweight regulatory or governance structure with clear responsibility and accountability

Normally from the budget allocated to the public task

Alternatively from registration charges on those who cause the data to change

# The INSPIRE Principles

- data should be collected once and maintained at the level where this can be done most effectively;
- it must be possible to combine seamlessly spatial data from different sources across the EU and share it between many users and applications;
- it must be possible for spatial data collected at one level of government to be shared between all levels of government;

# The INSPIRE Principles

- spatial data needed for good governance should be available on conditions that are not restrictive to its extensive use; and it should be easy to discover which spatial data is available, to...
- evaluate its fitness for purpose and to know which conditions apply for its use.

# The candidates (INSPIRE Annexe 1)

- Geodetic Framework ✓
- Topographic Mapping (including height) ✗
- Geographic Names ✓
- Addresses ✓
- Streets ✓
- Land and Property Ownership ✓
- Hydrology / Hydrography ✗
- Statistical Boundaries ✓
- Administrative Boundaries ✓

# Other elements of the framework

- Skilled analysts
- Open data
  - Sustainably funded
- Governance structure
  - Clear leadership
- Minimise Duplication
- Maximise use

Why it matters

# Censuses

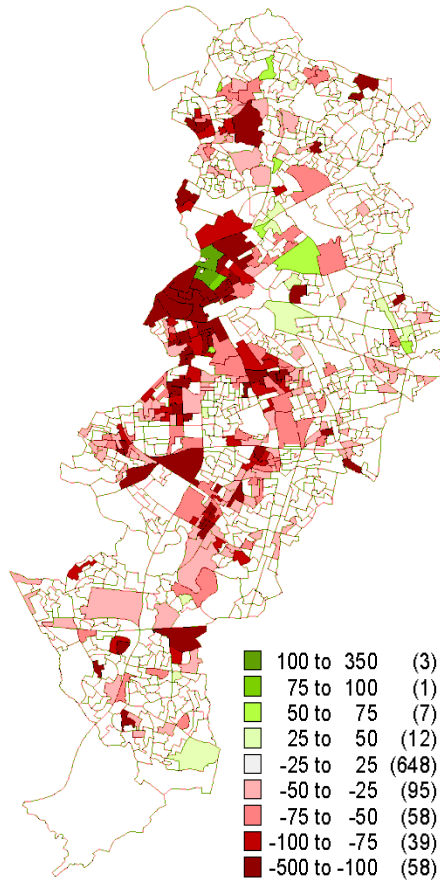
- 2001
  - Major Challenges from Manchester and Westminster as well as about 15 other Councils
  - Manchester undercount possibly as big as 40,000
  - Manchester estimate revised by 27,000
  - Worth £10 million per annum
  - Errors due to dated, incomplete address base and poor enumeration

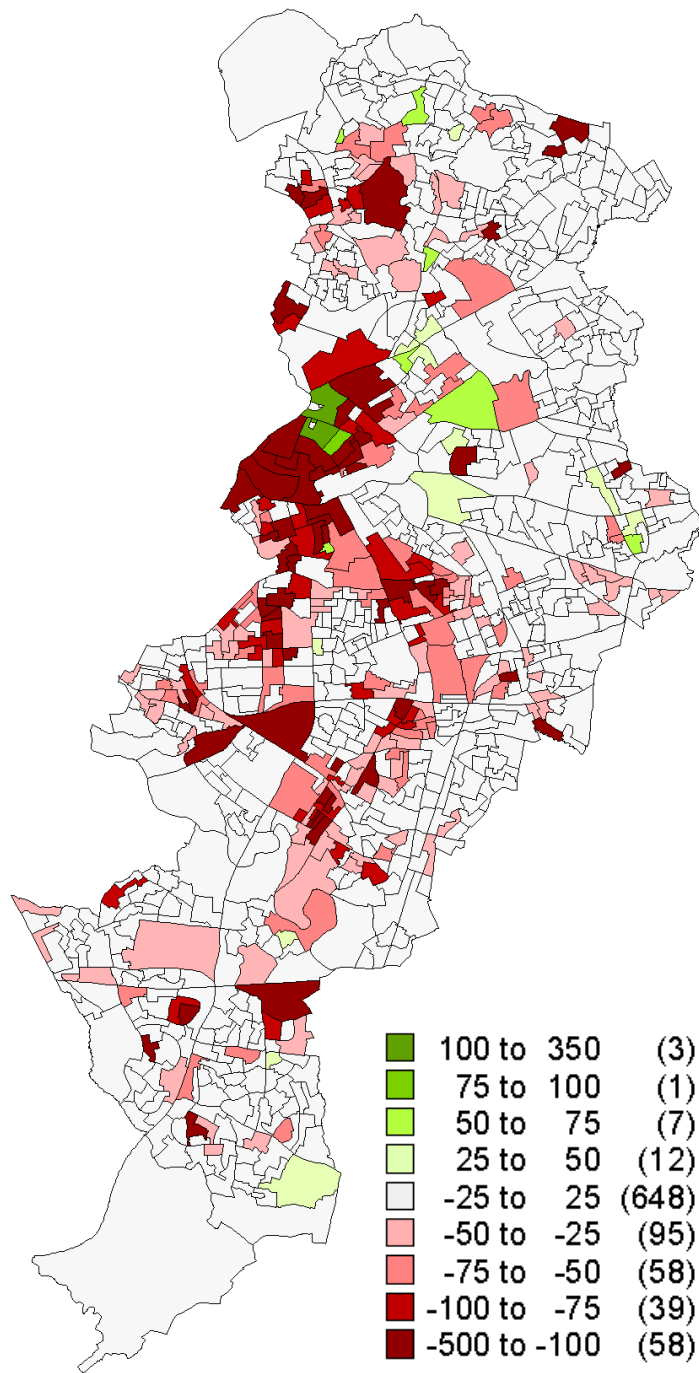
# Censuses

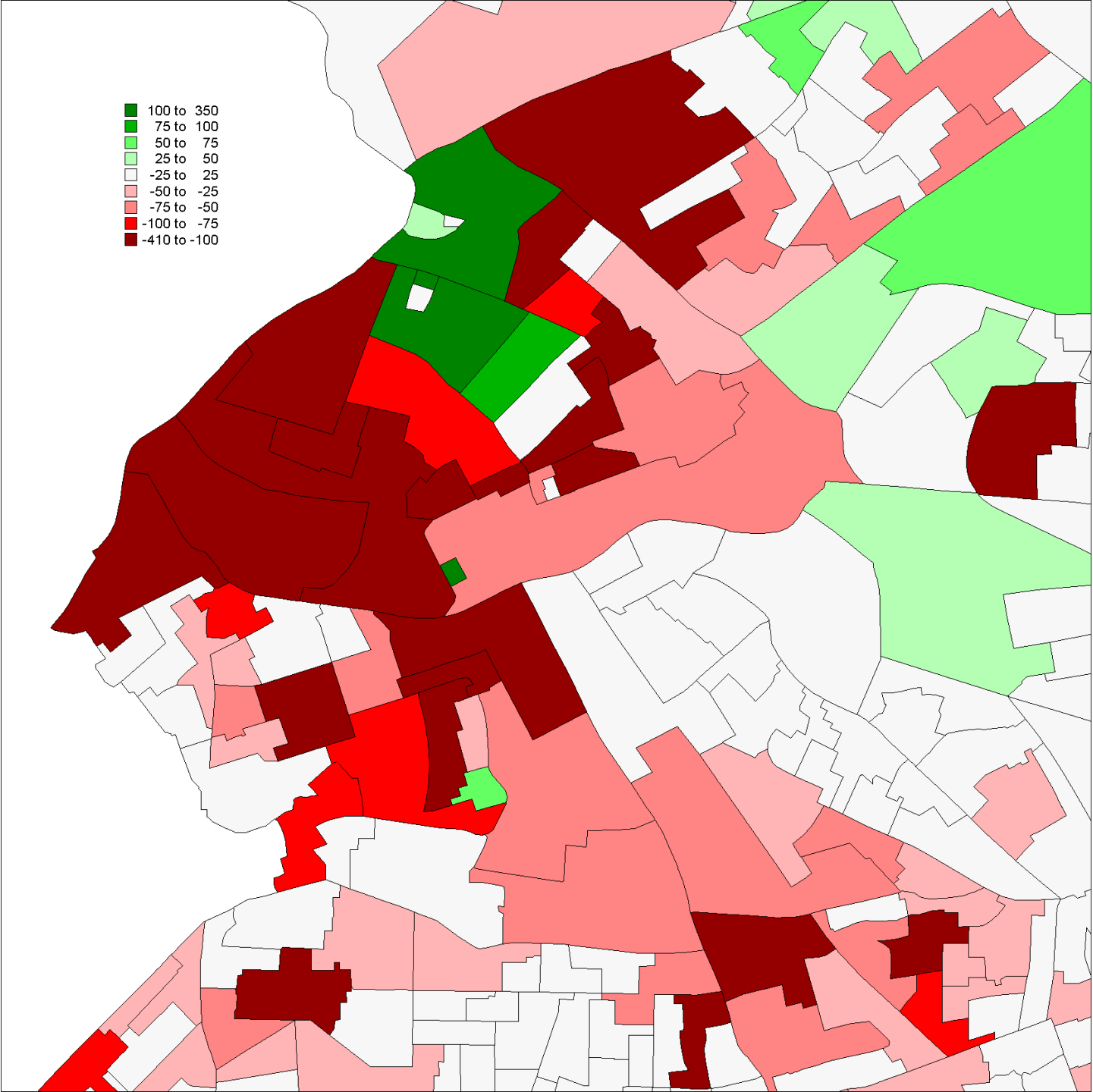
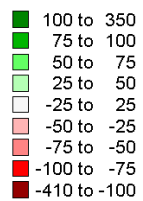
- 2010
  - National Address Register created at a cost of more than £10m
  - Governed by “Data sharing agreement”
  - Prevented exchange of data between Local Government, Ordnance Survey and Royal Mail
  - File destroyed after the Census (following reverse engineering by Geoplace)

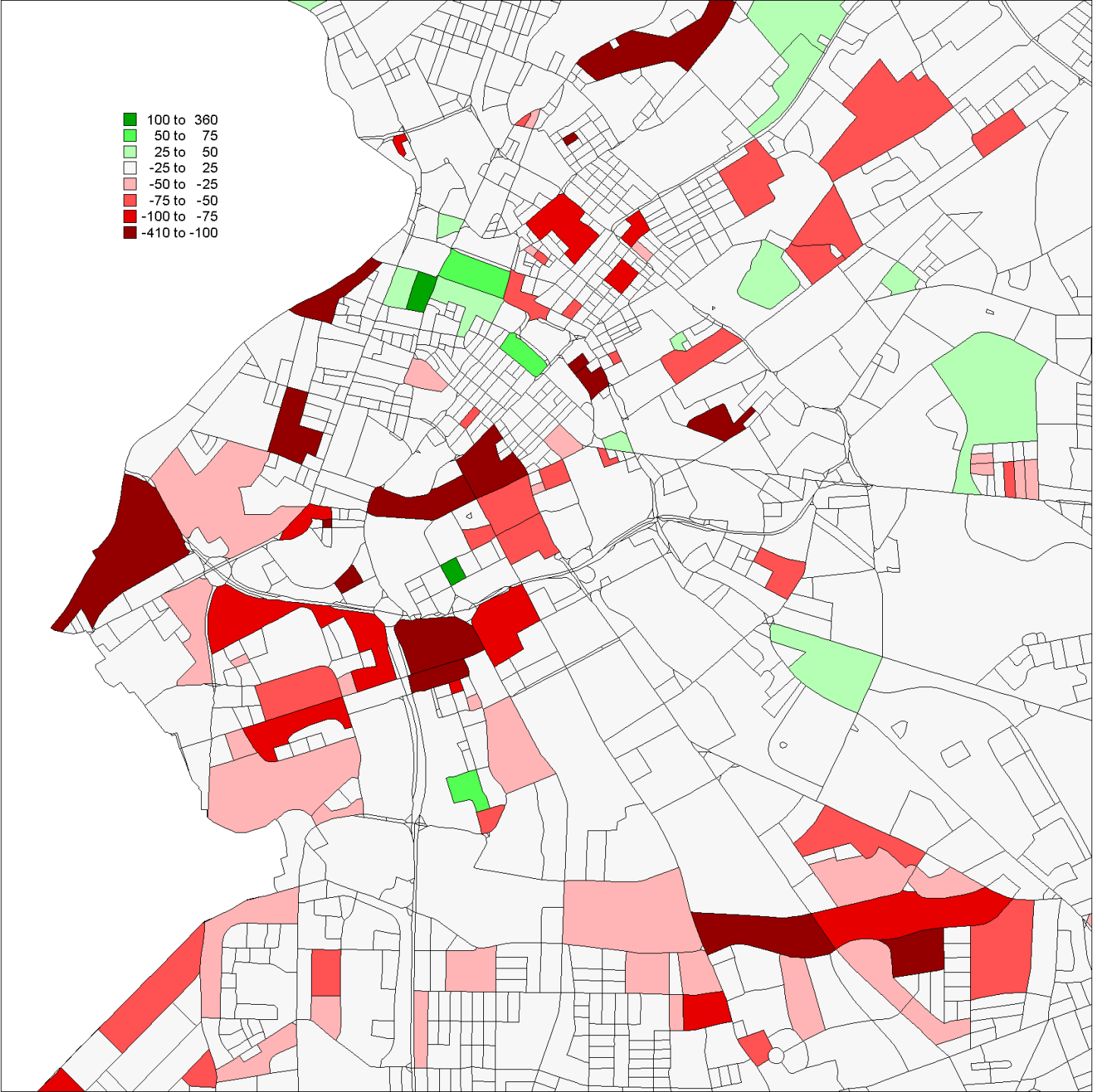
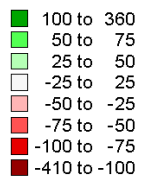


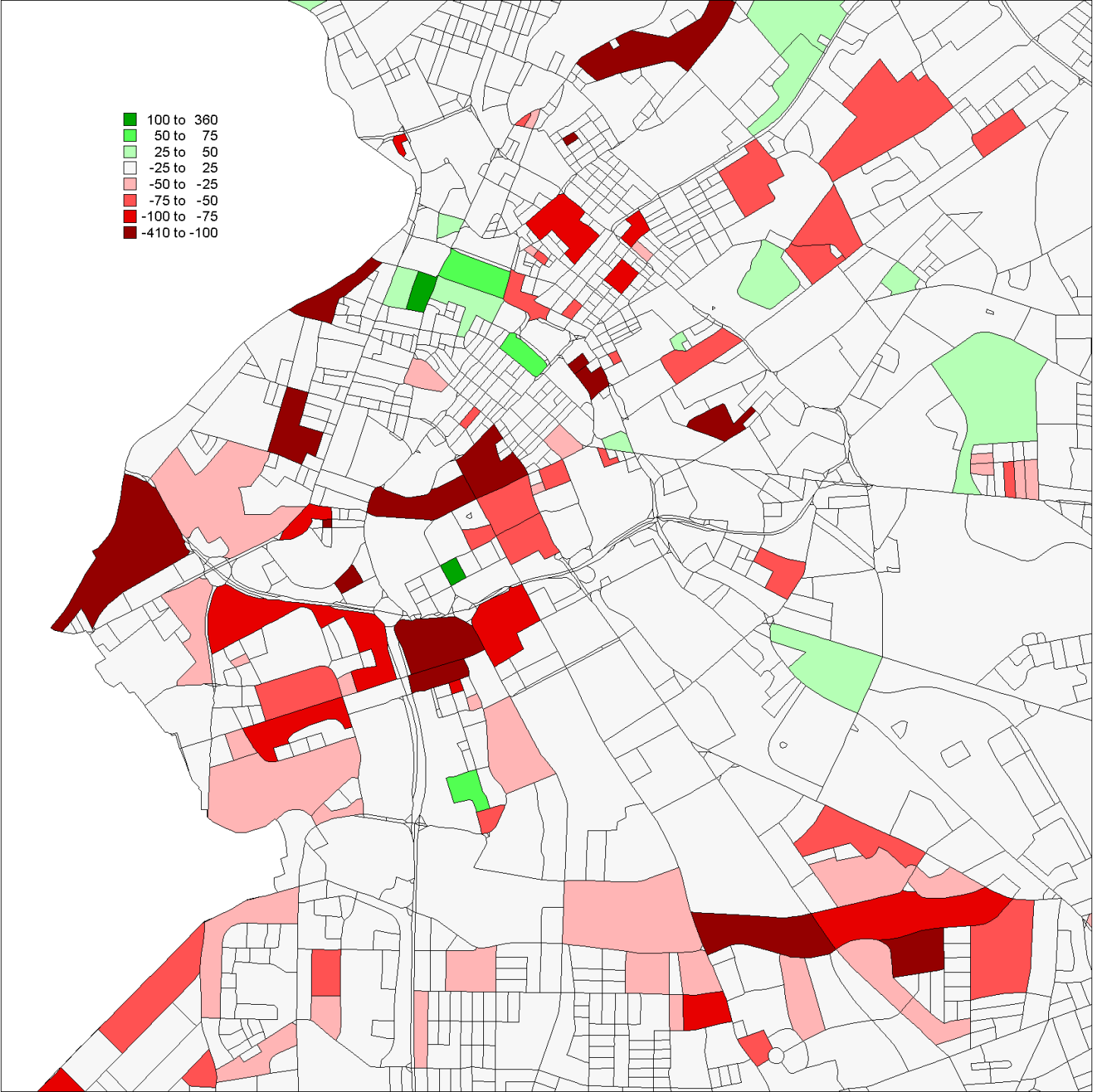
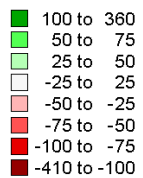
# Discrepancy map

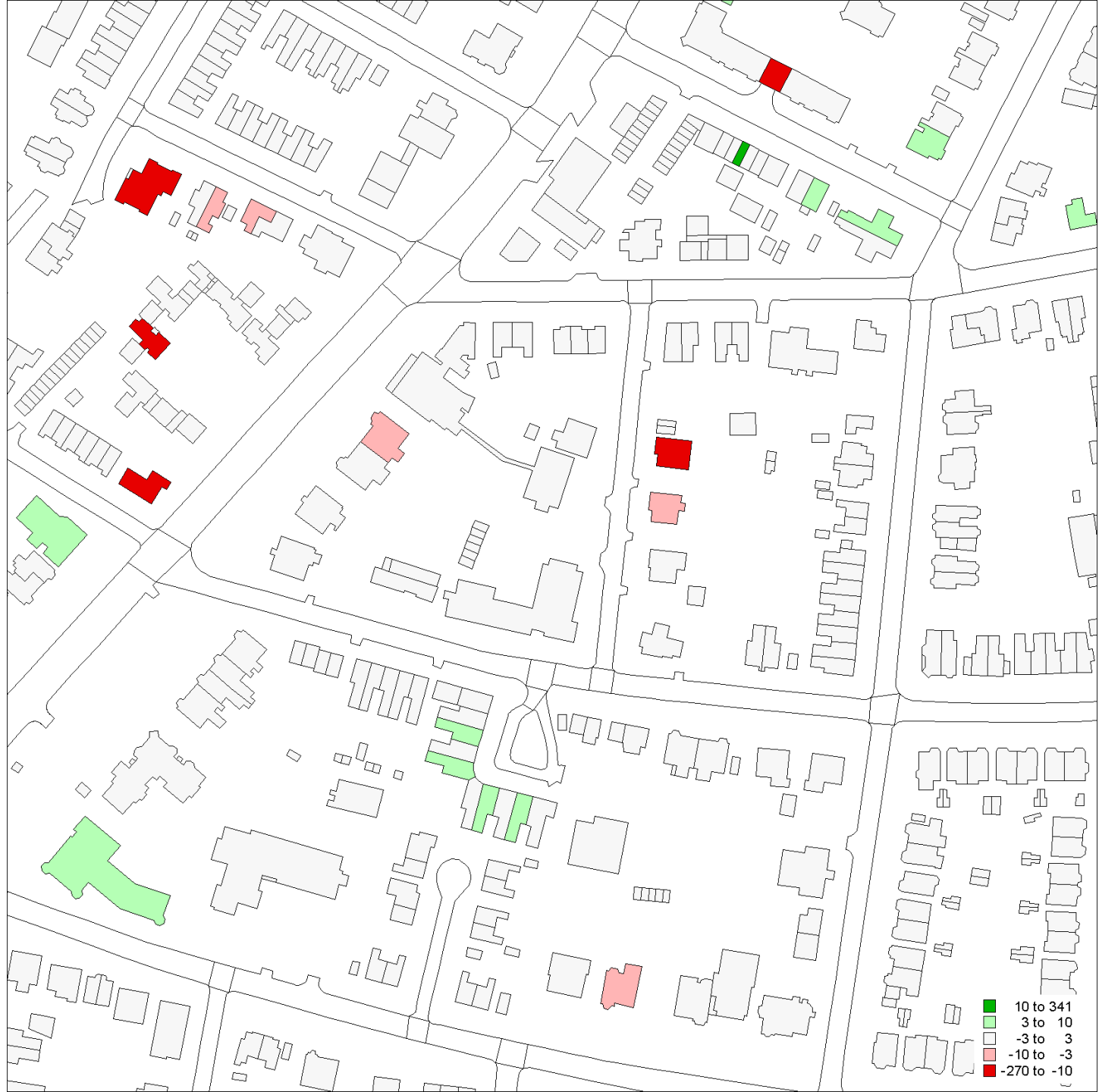






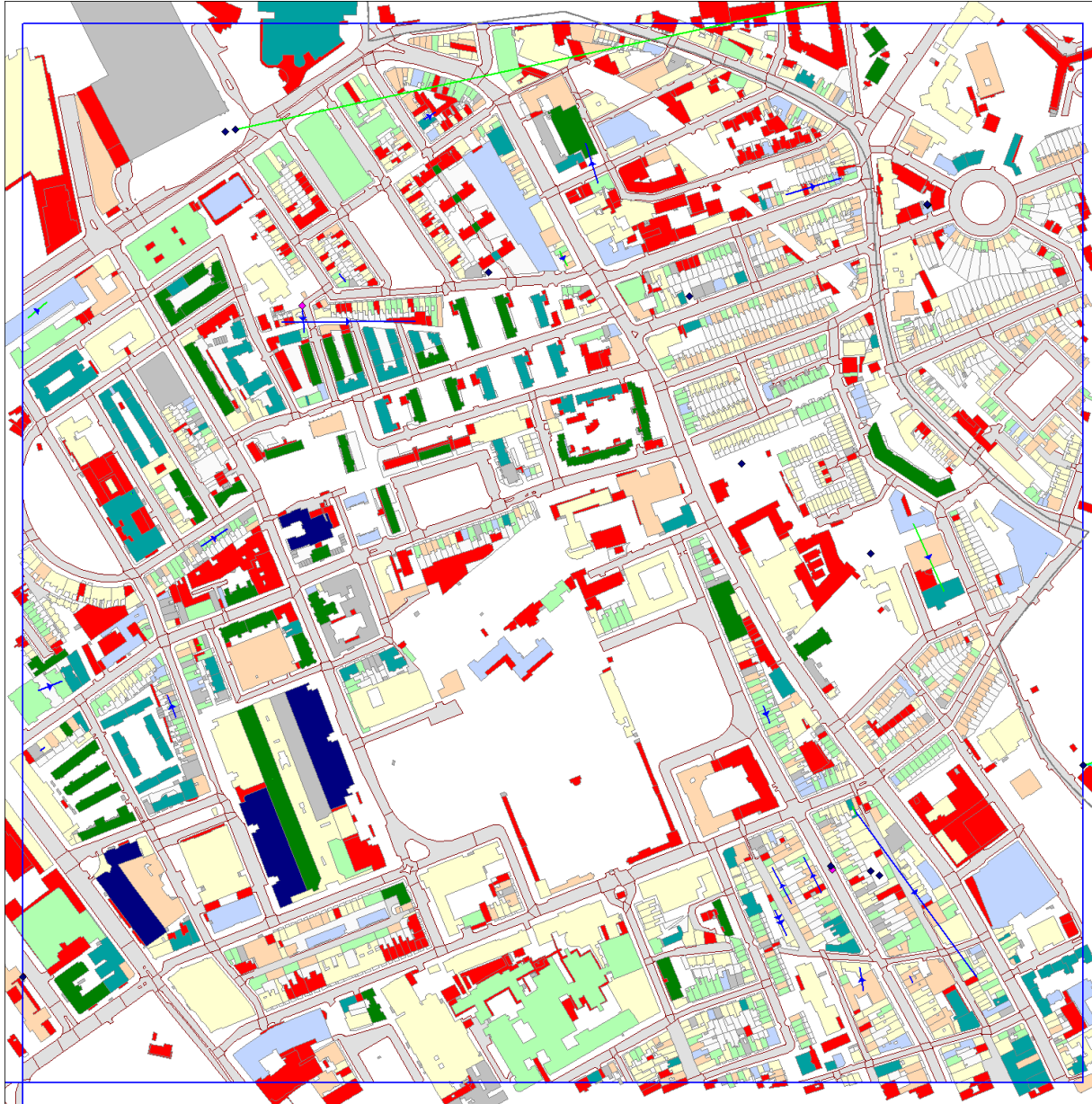








# Random grid square Central London



# Central London Map

- The previous map represents a typical inner city grid square, in this case part of Central London. There are a total of 2782 building features in the square of which 1127 do not have an AddressPoint. Of these 557 are larger than 20 sq metres. A significant number of the larger buildings have over 10 AddressPoints and the three largest exceed 100. Very few AddressPoints in this area fall outside building footprints.



# Fire Control

- Regional centres
- National Emergency gazetteer
- Lack of cooperation between Local Govt and Ordnance Survey
- Lack of cooperation from local Fire and Rescue Services
- Public Accounts Committee slammed 'waste' of over £400 million

# Planning

- Maps
- Alerts
- Portal
- Tracking development

Signup FAQs Get involved API About



# PlanningAlerts.com

BETA

Email alerts of planning applications near you

38521 alerts sent for 220 local authorities

- 1 Enter your email address
- 2 Enter a postcode

What size area would you like to receive alerts for

- ☐ My street (approximately 200 m) [view on a map \(new window\)](#)
- ☒ My neighbourhood (approximately 800 m) [view on a map \(new window\)](#)
- ☐ Wider area (approximately 2000 m) [view on a map \(new window\)](#)

Create alert >> This site is in Beta (test) mode, so all local authorities near you may not be included in alerts.

Planning Alerts has sadly closed

**...but will be coming back as part of OpenlyLocal.**

We're currently incorporating all the existing data in to OpenlyLocal and will start writing the scrapers soon.

Follow [PlanningAlert](#) or [OpenlyLocal](#) to be alerted to the latest news.

See also PlanningAlerts Australia

# Energy efficiency

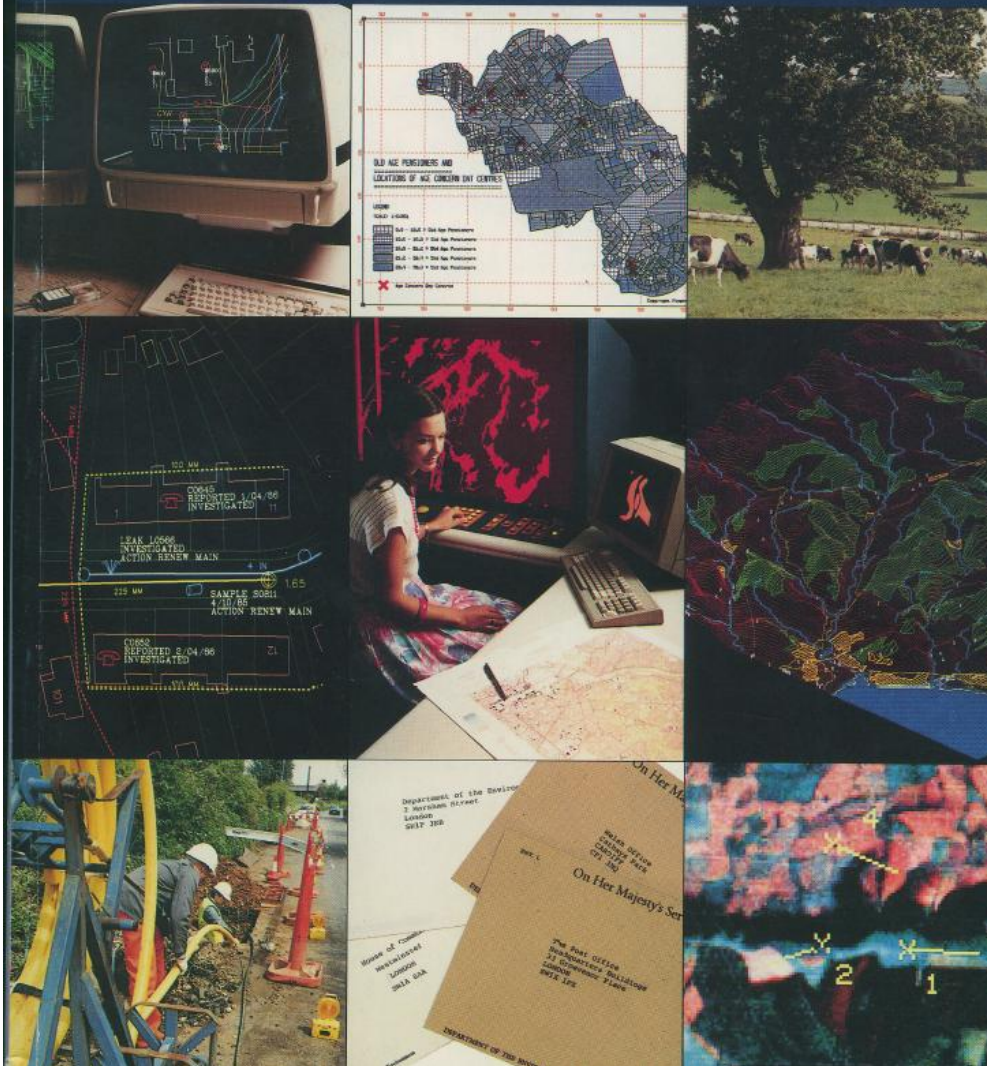
- DECC requires
  - Identification of households likely to suffer from 'energy poverty'.
  - Concentrated in social housing and among the elderly
  - National Register of Social Housing
  - EPC Certificates
  - Meter records

Haven't we been here before?

Department of the Environment

# Handling Geographic Information

Report of the Committee of Enquiry chaired by Lord Chorley



Chorley Report

Department of the  
Environment 1987

# Establishing the UK National Geospatial Data Framework

## Strategic Plan - 1998

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### Overview

#### **National Geospatial Data Framework (NGDF)**

The National Geospatial Data Framework (NGDF) is the name given to the UK Spatial Data Infrastructure (SDI). This Initiative will improve awareness and access to Geospatial Information and generally encourage its wider use.

NGDF will not create a physical framework or deliver datasets, applications or products, but its use will help to facilitate value added services by enabling the combination of data from multiple sources.

# National Strategy for Neighbourhood Renewal

## Report of Policy Action Team 18: Better information





# Gridlink®

Gridlink® is the brand name for the joint approach to creating postcode location products. These products relate unit postcodes to geographic areas such as electoral wards and Primary Care Trusts, and also provide postcode grid references.

***The Gridlink® consortium comprises the Office for National Statistics (ONS), Ordnance Survey, Royal Mail, the General Register Office for Scotland and the Ordnance Survey of Northern Ireland.***

***In the past, competition between different organisations had led to duplication of effort on postcode products and also to variation in method and inconsistency of the actual outputs. Gridlink® now ensures a standard and consistent approach to postcode referencing products in the UK. It is a good example of an initiative to join up geography.***



Office of the  
Deputy Prime Minister  

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Creating sustainable communities

*Towards the  
National Spatial  
Address Infrastructure*

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# Statement on the National Spatial Address Infrastructure (NSAI)

*Statement by Communities and Local Government on 1 June 2007.*

The Department has been considering its role in the proposed National Spatial Address Infrastructure. During last year we consulted government departments on the core specification for addressing and continued to discuss this with Ordnance Survey and the Improvement and Development Agency (IDeA).

The Department has noted that there have continued to be improvements in the main address products produced by the Ordnance Survey and the IDeA and we expect this to continue. We also note that, although there are still challenges posed by addressing, local authorities are able to deliver efficiencies and government departments are able to deliver their business without the NSAI. On balance, considering the competing demands on departmental resources, we have concluded that we should not carry out any further work on the NSAI at this time.

In the meantime we will continue to encourage Ordnance Survey and IDeA to further their improvements, and would support new initiatives to improve addressing infrastructure that might arise through the Transformational Government agenda.



# Place matters: the Location Strategy for the United Kingdom

November 2008



# Open Data White Paper

Unleashing the Potential

#opendata

*@uktransparency*

*@cabinetofficeuk*



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# Postcode Address File

Review

This is a non-confidential version  
of the consultation. Redactions are  
indicated by [X]

**Figure 4.2: 2011/12 PAF cost stack**

Costs allocated to PAF	£m
AMU direct costs	[X]
Customer services	[X]
Frontline costs	[X]
Delivery management	[X]
Legal, property, billing and IT	[X]
<b>Total</b>	<b>24.5</b>



# **SHAKESPEARE REVIEW**

**An Independent Review of  
Public Sector Information**

**MAY 2013**

Stop Press! Published by the UK Data Strategy Board 09.30 BST 15<sup>th</sup> May 2013

So what is stopping us?

# AGI Mission

'The Mission of the AGI is to maximise the use of geographic information (GI) for the benefit of the citizen, good governance and commerce.'

# PSI Mission

'The Mission is to maximise the use of public sector information (PSI) for the benefit of citizens'

# Cost Recovery Mission

To maximise the revenue from high value customers for geographic information (GI) in order to achieve earliest cost recovery and additional required trading surplus

# Cost Recovery Mission-implications

- Initial high pricing
- Aggressive protection of IPR
- Cost reduction threatens cost recovery
- Low value markets exploited through “value subtracted” offerings
- Use maximisation cannot be guaranteed and is unlikely

# Open Data White Paper

# Unleashing the potential

1. Building a transparent society
2. Enhanced access
3. Building trust
4. Making smarter use of data
5. The future – a truly transparent society



An idea who's time has come?

# What should be open?

- Core reference data
  - Data which is used to link data sets together
  - Data which is used to identify individuals, places, organizations
    - e.g. NI numbers, Company numbers, Addresses
- Data which is part of a statutory register
- Data which has to be collected to complete a *Public Task*, regardless of whether it is re-sold or re-used

# What do we have to gain?

- Economic growth
  - Businesses can be built on the back of Open Data
- Efficiency gains
  - Data is more likely to be used if it is Open
  - Many interactions are simply meeting a request for data or information
- Reduced duplication
  - *Collect once use many times* (Inspire principle)
- Simplicity



# Open Government Licence

for public sector information

delivered by  
**The National Archives**

[Back to The National Archives](#)

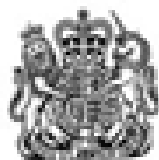
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for public sector information

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- ✓ adapt the Information;
- ✓ exploit the Information commercially for example, by combining it with other Information, or by including it in your own product or application.

## You must, where you do any of the above:

- ⚠ acknowledge the source of the Information by including any attribution statement specified by the Information Provider(s) and, where possible, provide a link to this licence;

# Funding Open Data

# Funding Open Data

- Registration charges
- Existing *public task* expenditure
- Volunteered information
- Sponsors

# Funding Open Data

*Avoiding the data use prevention costs:*

- Complicated licensing and legal protection
- Marketing
- Distribution
- Invoicing
- Pricing



# Open Successes

# OpenStreetMap

## ...a map for the community!

Ever wondered how a map is created? Well now you can get involved in creating one with [www.openstreetmap.org](http://www.openstreetmap.org) - a free editable map available for all to use.

If you enjoy walking you can get out into town and map points of interest or you can visit some of the superb countryside in Surrey Heath and map your footpath route.

If you're a cyclist you may want to use OpenStreetMap (OSM) to plan your route by using websites like [www.cyclestreets.net](http://www.cyclestreets.net) or [www.opencyclemap.org](http://www.opencyclemap.org)

Surrey Heath Borough Council became involved with the OSM project so it could build high quality maps for its own use while at the same time making the maps, and the data behind the maps, available for public use.

With OpenStreetMap you can get hold of the underlying data that isn't available on the many well-known street map websites.

Earlier this year a project pioneered by the council has seen nine Surrey

authorities purchase a highly detailed air survey for Surrey. We have arranged an 'open' license for its use, making it available for public to 'trace' map features from. Why not add your house and boundary on to the map! There is a huge community behind the OSM project...you can join them and start adding things that you or your community want to see on the map!

### **A few resources to get you started.**

<http://www.openstreetmap.org> - the main online map site (you can edit the map online here too)


<http://wiki.openstreetmap.org> - learn how to do mapping.

<http://wiki.openstreetmap.org/wiki/surrey-air-survey> - how to access the Surrey air survey



For further information contact the council's GIS manager:  
[james.rutter@surreyheath.gov.uk](mailto:james.rutter@surreyheath.gov.uk)





**OpenStreetMap**  
The Free Wiki World Map

Search

examples: 'Alkmaar', 'Regent Street, Cambridge', 'CB2 5AQ', or 'post offices near Lünen' [more examples...](#) [Where am I?](#)

**Help**

- Help Centre
- Documentation
- Copyright & License

**Community**

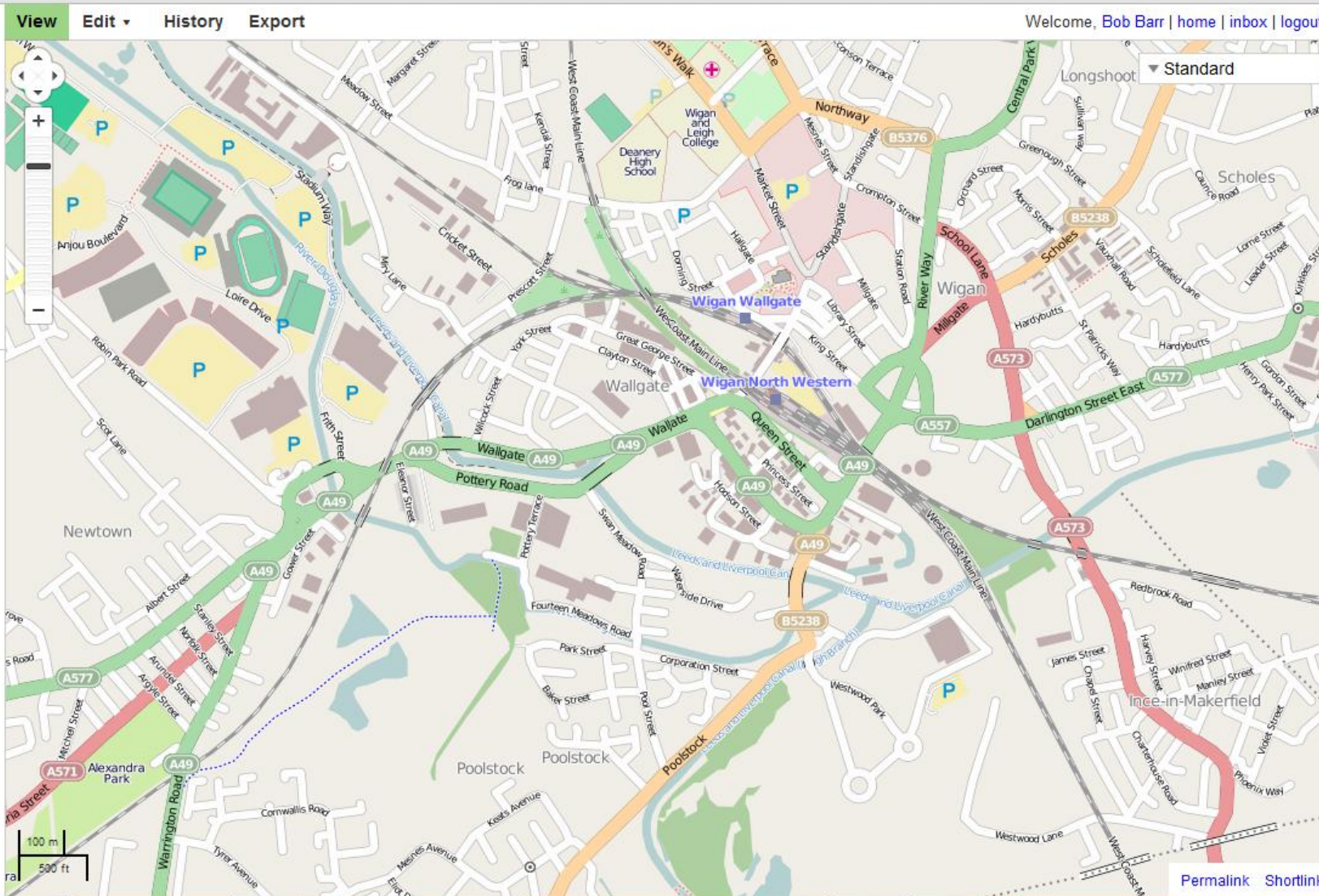
- Community Blogs
- Foundation
- User Diaries

**GPS Traces**

**Map Key**

Make a Donation

Hosting is supported by [the UCL VR Centre](#), [Imperial College London](#) and [Bytemark Hosting](#), and other [partners](#).



A breakthrough

**Tuesday 17 November 2009**

## Ordnance Survey to open up data - PM

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The Prime Minister has announced that the public will have more access to Ordnance Survey maps from next year, as part of a government drive to open up data to improve transparency.

- [Communities and Local Government](#) website
- Read more about the [Make Public Data Public](#) project

Gordon Brown said the government and Ordnance Survey, Great Britain's national mapping agency, will open up the data relating to electoral and local authority boundaries, postcode areas and mapping information.







Policy evaluation

Evidence based policy making

Open Policy making

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# Shakespeare Review Recommends

## Recommendation 1

The government should produce and take forward a clear, predictable, accountable 'National Data Strategy' which encompasses PSI in its entirety.

# Shakespeare Review Recommends

## Recommendation 2

A National Data Strategy for publishing PSI should include a twin-track policy for data-release, which recognises that the perfect should not be the enemy of the good: a simultaneous 'publish early even if imperfect' imperative AND a commitment to a 'high quality core'.

# Shakespeare Review Recommends

## Recommendation 3

There should be clear leadership for driving the implementation of the National Data Strategy throughout the public sector.

# Shakespeare Review Recommends

## Recommendation 4

One would be hard-pressed to find any expert who, asked to create new structures for core reference data from scratch, would advocate the current Trading Fund model (for Companies House, Land Registry, the Met Office and Ordnance Survey) in today's world of open data....

# Shakespeare Review Recommends

## Recommendation 4

....To promote and support a more beneficial economic model for Trading Fund data government should review how the Trading Funds are recognised and rewarded for their activities to stimulate innovation and growth in the wider markets they serve

# Shakespeare Review Recommends

## Recommendation 5

We should have a clear pragmatic policy on privacy and confidentiality that increases protections for citizens while also increasing the availability of data to external users.

# Shakespeare Review Recommends

## Recommendation 6

Building on existing activities around capability, there should be a focused programme of investment to build skill-sets in basic data science through our academic institutions, covering both genuinely unfettered 'basic research' and research of 'practical immediate value' to the national data strategy.

# Conclusions

- Interplay
  - Geographic Information technology
  - Public Policy
  - Persons
    - Individual
    - Corporate
  - MONEY



# Conclusions

- Will it be different this time?
  - NO a compromise as usual
  - Best case scenario
    - Freemium model
      - Basic Address Register available as Open Data
      - Enhanced and value added products commercial
  - However Open data and VGI communities will enhance the free offering and put value added products under pressure

# Conclusions

- Worst case scenario
  - Royal Mail IPR and rights to exploit it remain intact
  - GeoPlace remains an expensive Value Added Reseller
  - Local Authorities start to withdraw cooperation
  - Open data alternatives challenge the 'authoritative address register'
  - A state of permanent war

# That's it

Bob Barr

@DrBobBarr

robert.barr@liverpool.ac.uk