SMART GOVERNMENT= SPATIALY CONNECTED GOVERNMENT
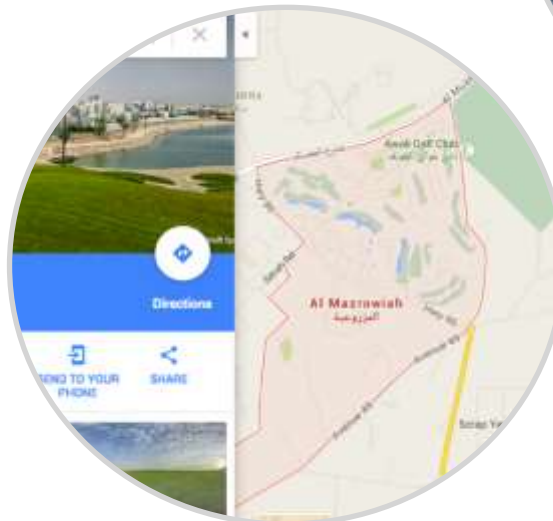
Andy Wilson
Ordnance Survey International
andy.wilson@osi.os.uk

Ordnance Survey

Geosmart Asia, Kuala Lumpur, Oct 18th, 2016

Mapping is everywhere…

Location- the vital component!

Location – a meeting point for information?
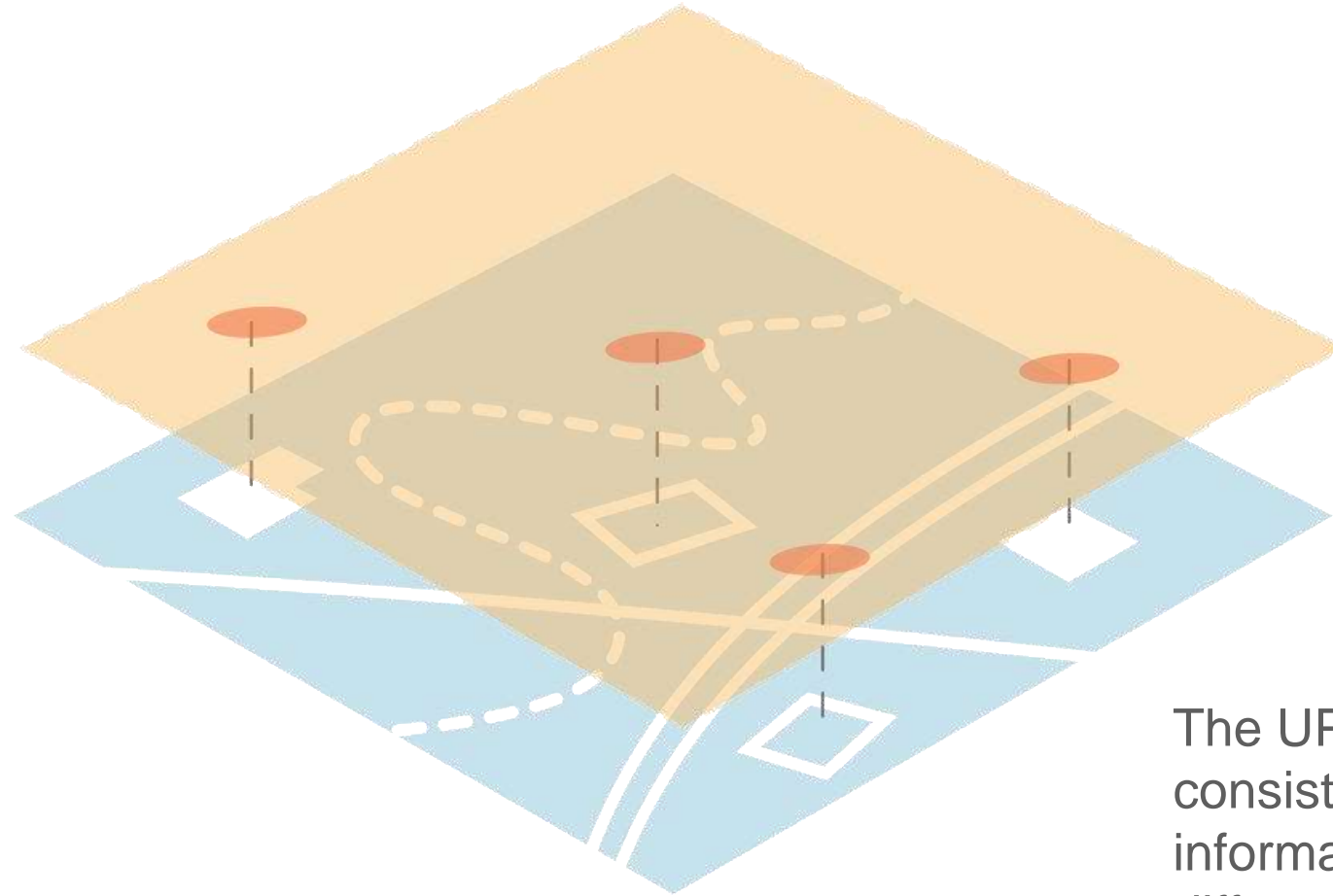

Postcode?

Place name?

Coordinates?

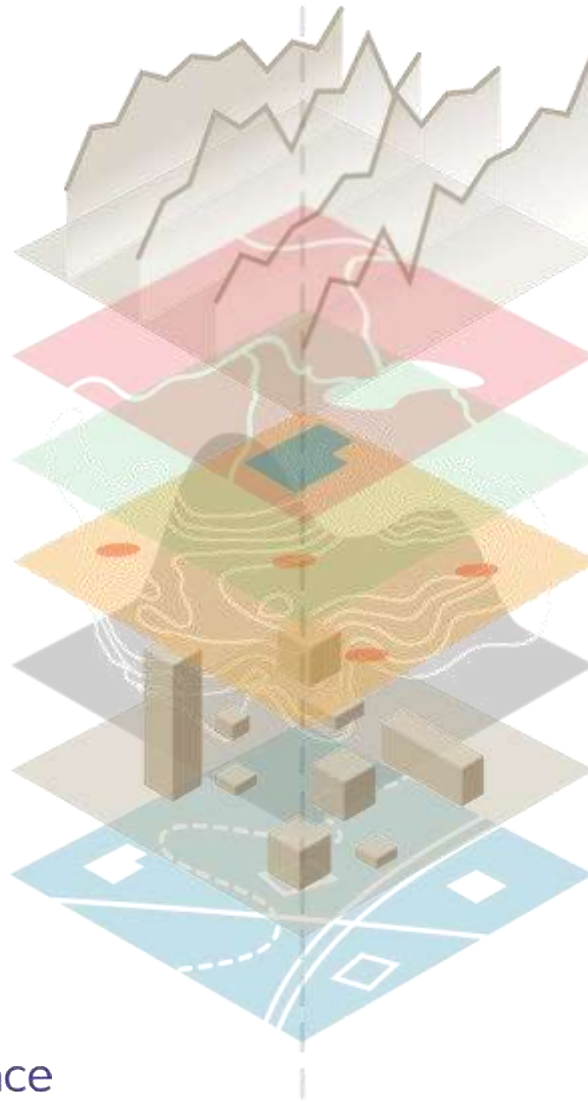Unique spatial code for every real world object

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A Unique Property Reference Number (UPRN)

The UPRN becomes a consistent point to join information from different organisations.

Ordnance Survey

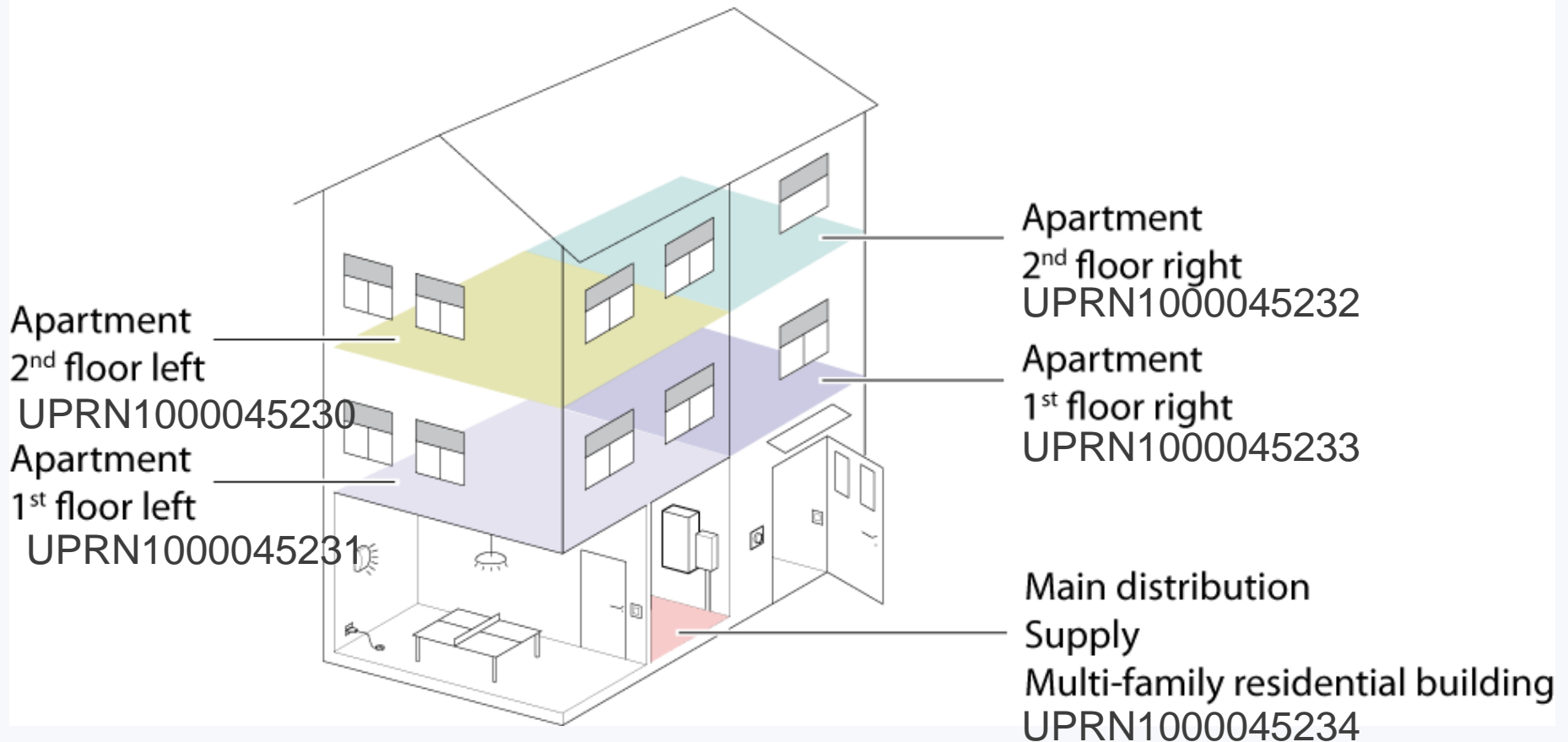# Unique Consistent Reference -Linking all government information

– Health records

– Flood plain

– Land ownership

– Utility supply/smart meters

– Topography

– Height of building? Floor levels?

– Crime, education, vulnerable persons

Ordnance Survey

A managed land and property lifecycle of 40m addresses

UNIQUE IDENTIFIERS FOR [EVERY]{.underline} LOCATION/APARTMENT

Apartment
2nd floor right
UPRN1000045232

Apartment
1st floor right
UPRN1000045233

Main distribution
Supply
Multi-family residential building
UPRN1000045234

Apartment
2nd floor left
UPRN1000045230

Apartment
1st floor left
UPRN1000045231

Ordnance Survey

Feature Attributes

pao_end_number	0
street_description	GERVIS PLACE
town_name	BOURNEMOUTH
postcode_locator	BH1 1LG
descriptiveterm	
featurecode	10021
descriptivegroup	Building
voandattrib	8101000
primary_description	ADVERTISING RIGHT AND PREMISES
fulladdress	OUTSIDE 26 (ADSHEL 2201 0444), GERVIS PLACE,

Sensors Everywhere
(Things or Devices)
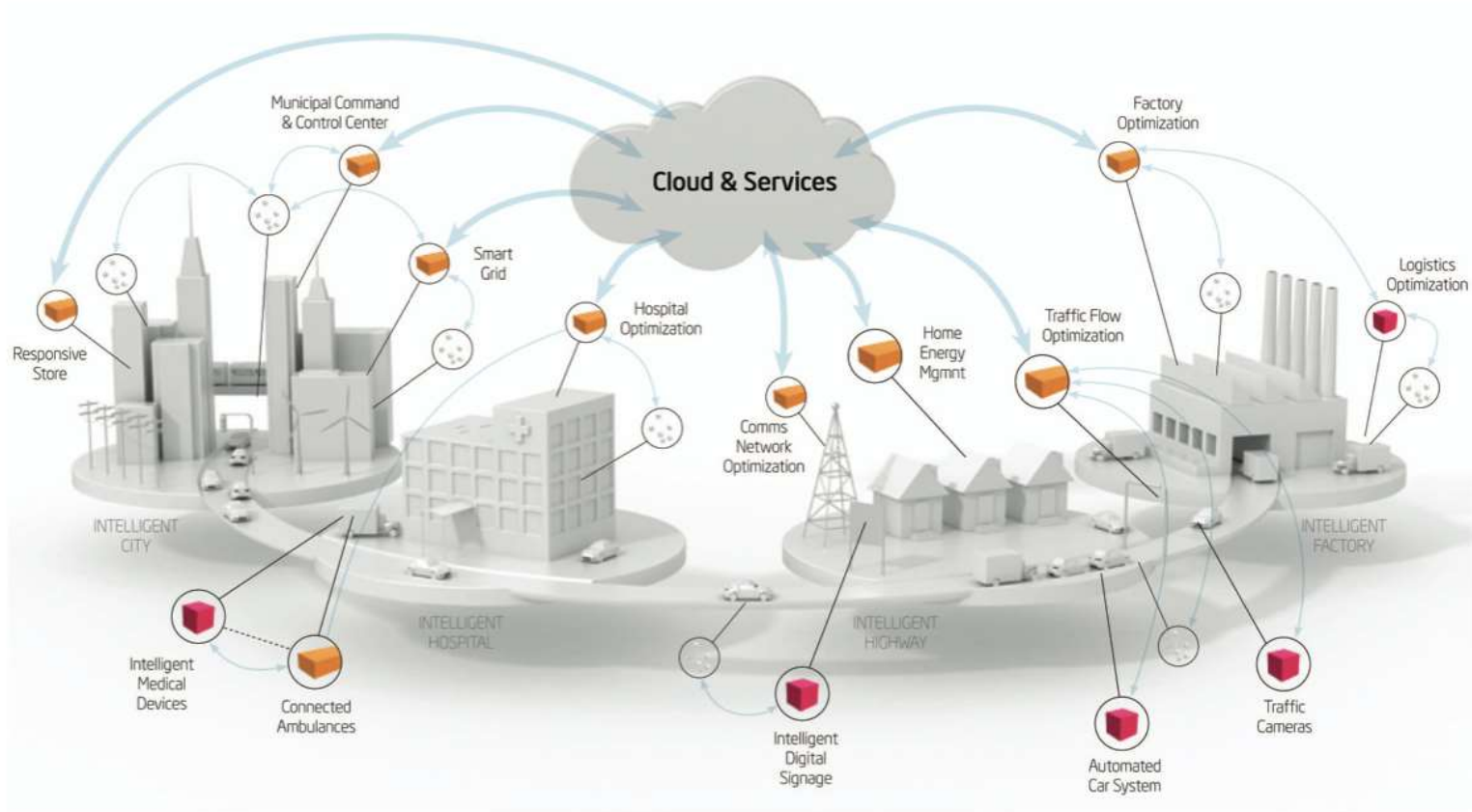
# Cityverve- Manchester

The Corridor

Project Atlas: Navigation for Autonomy

- OS are leading on the UK Government funded Project Atlas.

- identify and define the navigation, communication, processing and mapping requirements for the reliable and safe operation of Autonomous Vehicles anytime, anywhere.

THE UK PUBLIC SECTOR MAPPING AGREEMENT (PSMA)

- A centrally funded single agreement and contract between Government and Ordnance Survey

- Enables Ordnance Survey data to be used by the whole public service in Britain- including Central Government, Municipalities, Emergency Services and Health Bodies

- Provides most of the digital products from Ordnance Survey at national geographic coverage

- A 10 year agreement

- An enabler for more effective joint working between public sector bodies

- A basis for creating a collaborative partnership between public sector users of geographic information and Ordnance Survey

Ordnance Survey
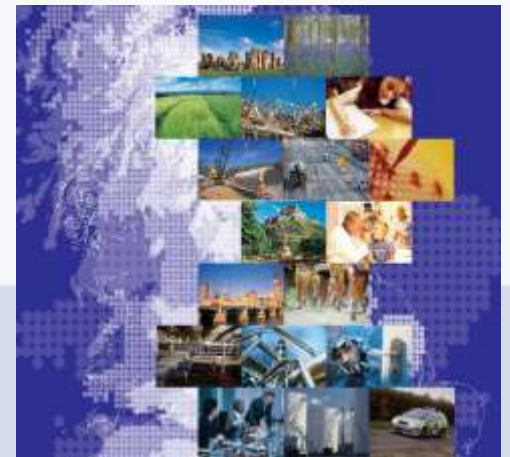
Definitive Spatial Reference
As used by UK government initiatives

Ordnance Survey
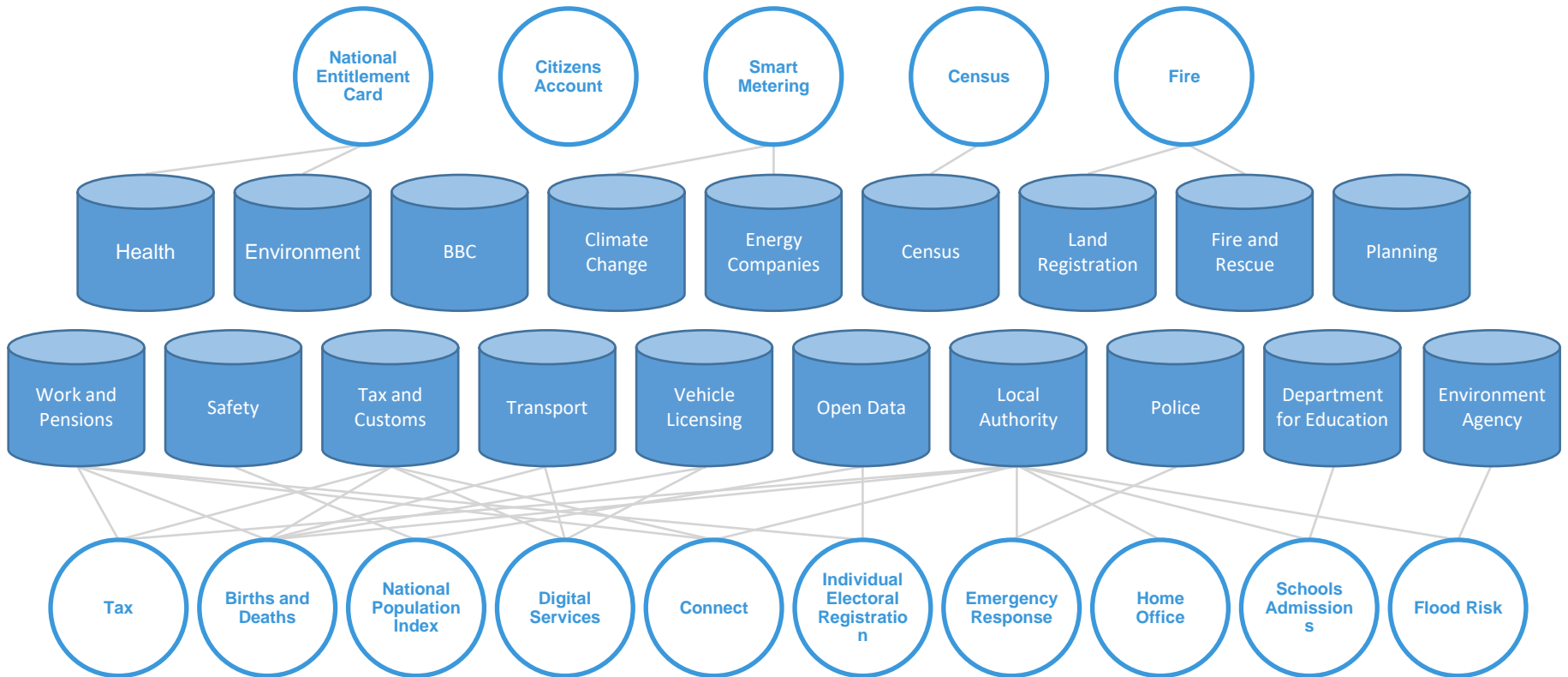
Allocation of school places

Connection of utility services

Delivery of social care

Register to vote

Streetworks

UPRN

Emergency situations

Collection of waste

Delivery of packages

Payment of taxes

Quotation for insurance

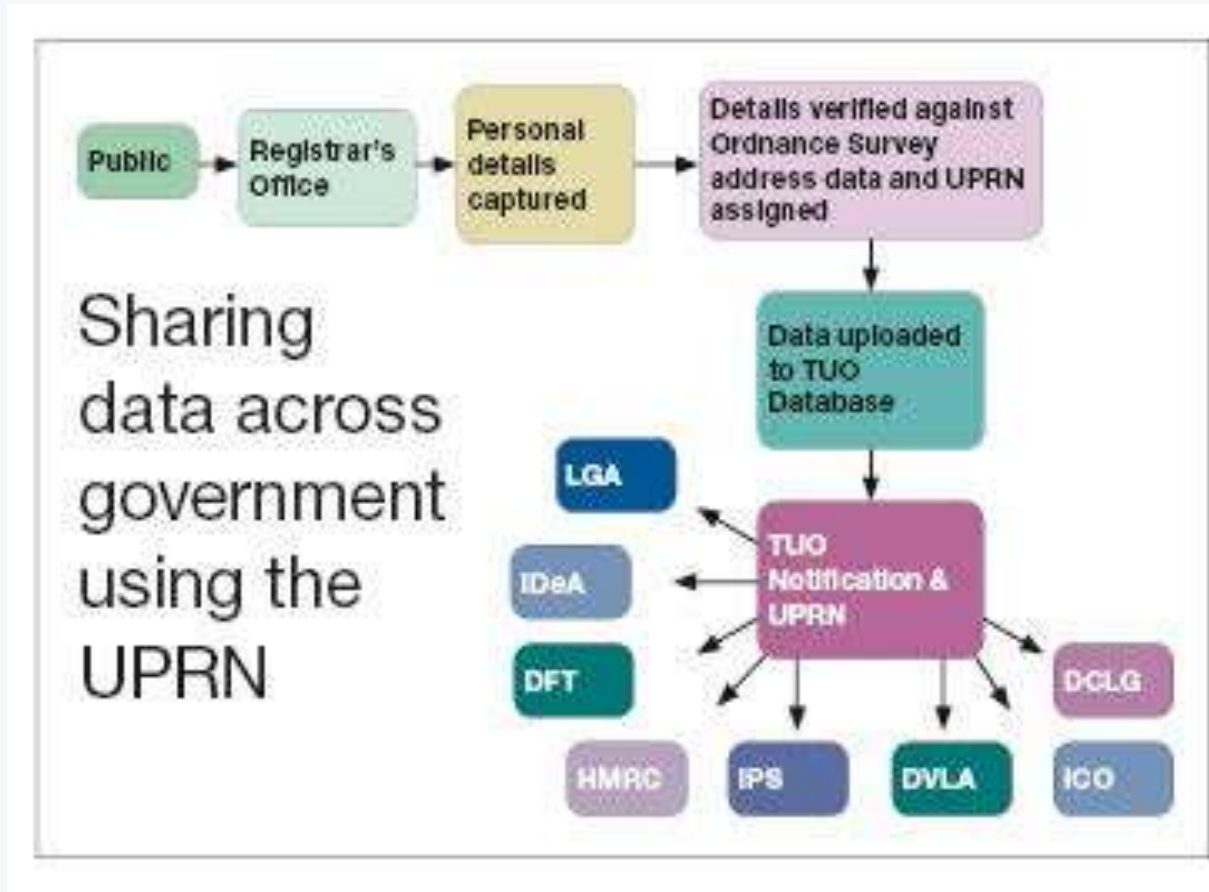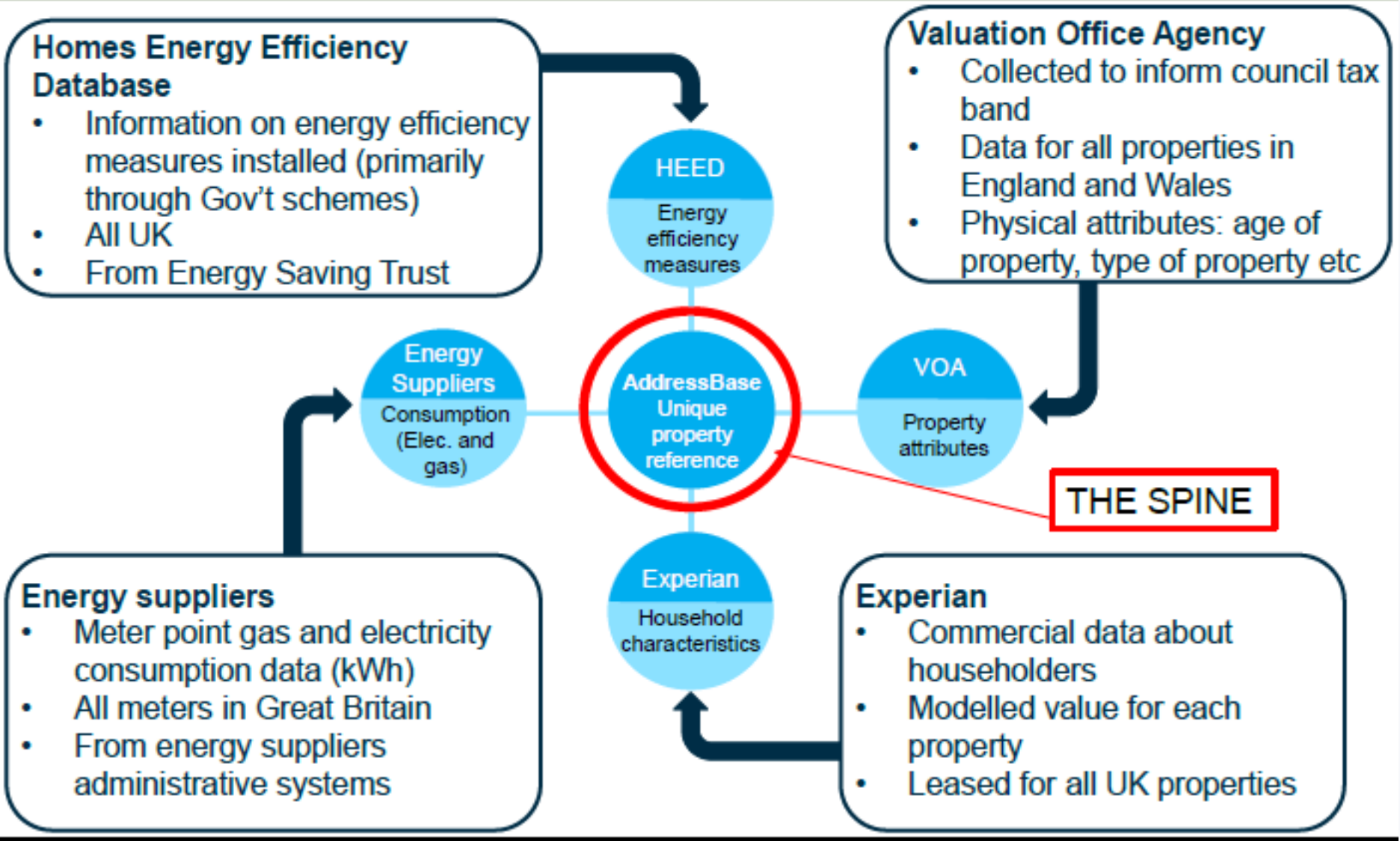Ordnance Survey

Tell Us Once- UK Department for Works and Pensions

Over 10 years, **$400 m** in savings is predicted – based on evidence-based pathfinders and trials.

$100 m of savings for families over the next 10 years, resulting from the money saved on fuel or parking charges.


Sharing data across government using the UPRN

Homes Energy Efficiency Database
- Information on energy efficiency measures installed (primarily through Gov't schemes)
- All UK
- From Energy Saving Trust

Valuation Office Agency
- Collected to inform council tax band
- Data for all properties in England and Wales
- Physical attributes: age of property, type of property etc

HEED
Energy efficiency measures

Energy Suppliers
Consumption (Elec. and gas)

AddressBase
Unique property reference

VOA
Property attributes

Experian
Household characteristics

THE SPINE

Energy suppliers
- Meter point gas and electricity consumption data (kWh)
- All meters in Great Britain
- From energy suppliers administrative systems

Experian
- Commercial data about householders
- Modelled value for each property
- Leased for all UK properties

Ordnance Survey

Incident location sharing for Emergency Services

Saving 18,000 hours per annum

4 minutes per call reduced to milliseconds of data transfer

1000045234

1000045234

1000045234

1000045234

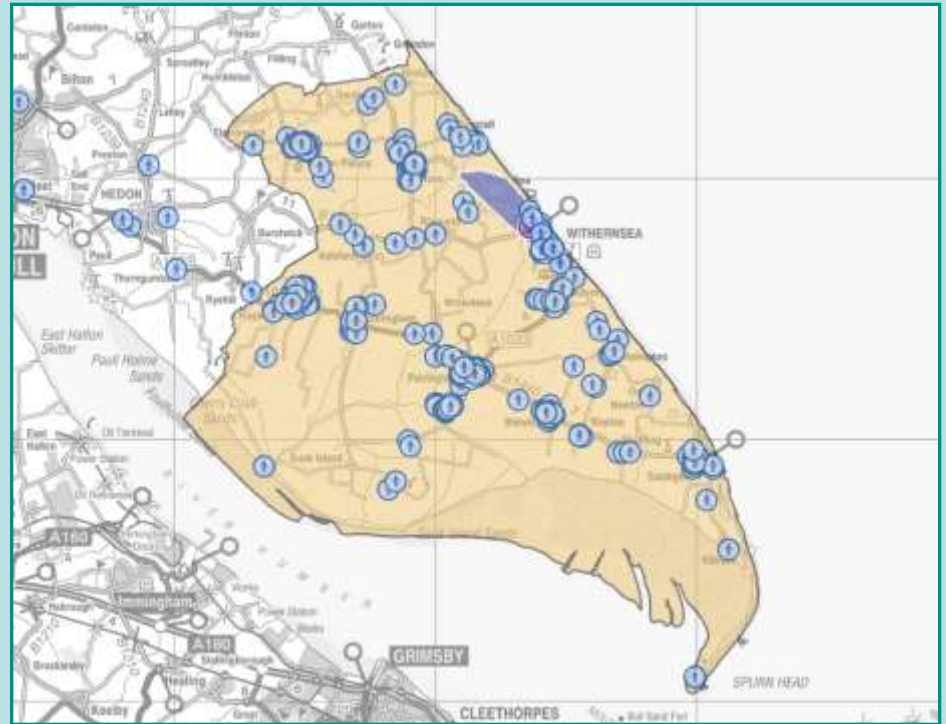Unique reference code database (UPRN)
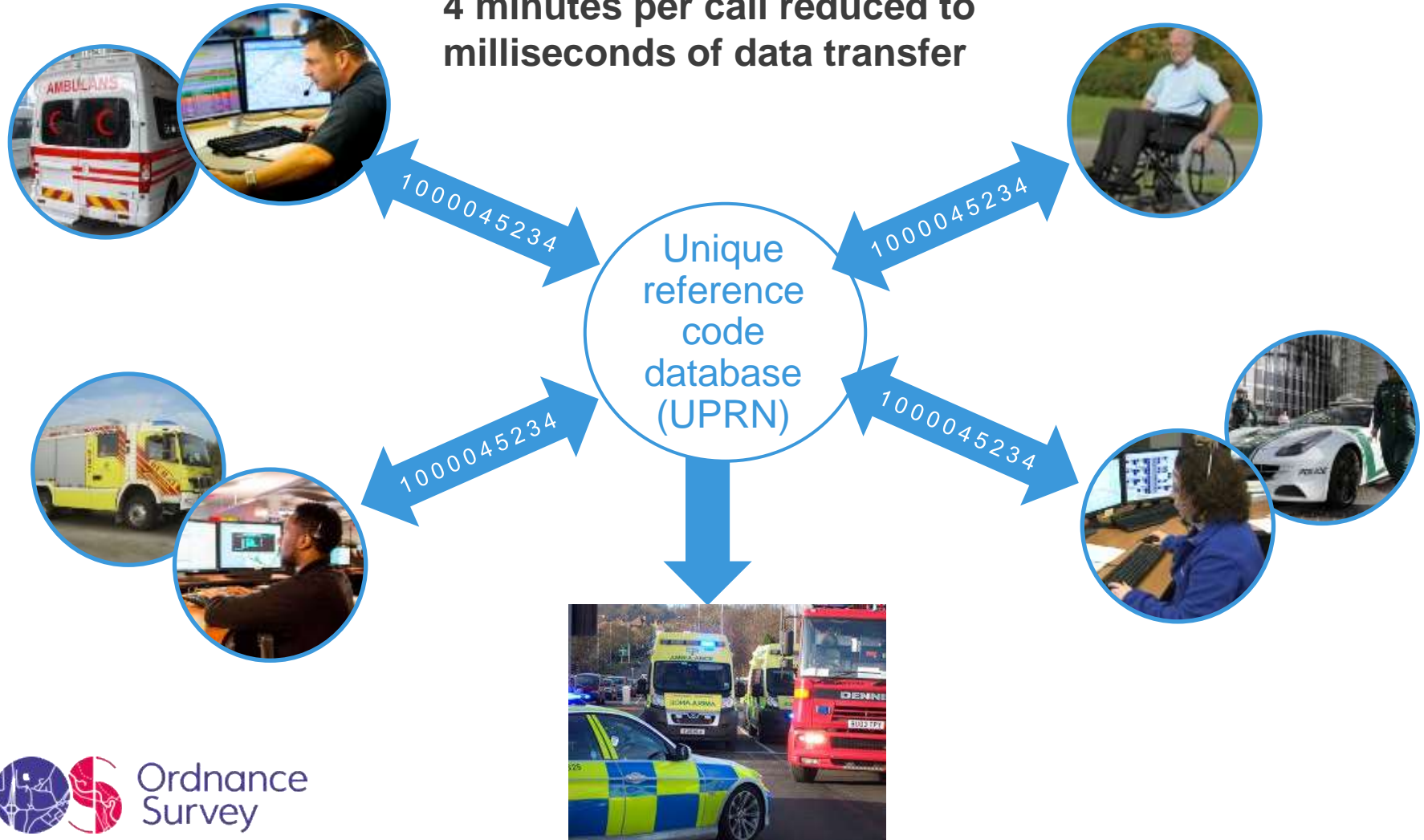
Ordnance Survey

Withernsea School: Before and After

• 550 pupils using 14 school buses

After optimisation?

- **11buses**
- **Savings of $1.4m in 3 year contract**
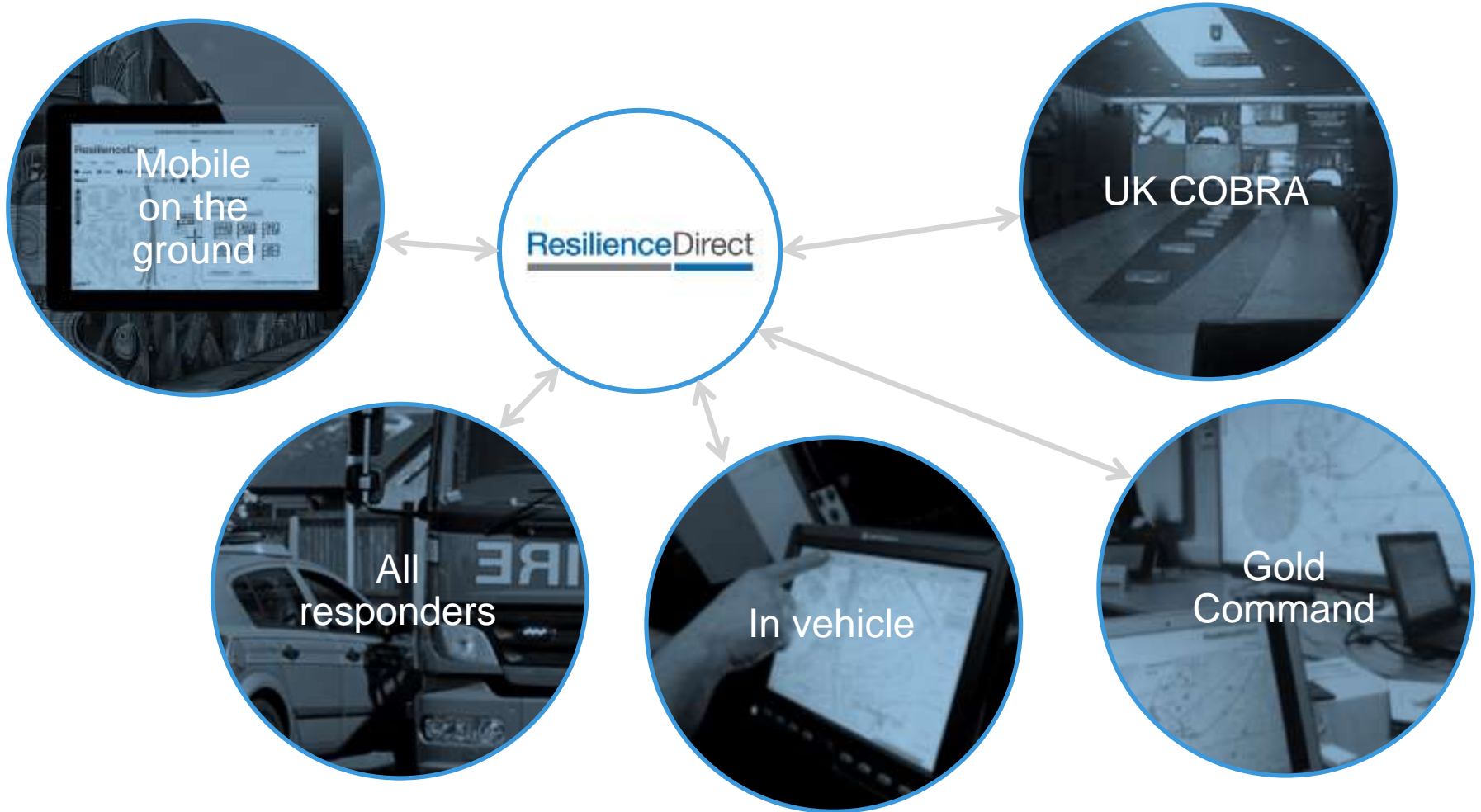- Reduction in Carbon Footprint by **5.1 tonnes CO_2**

Resilience Direct
Everyone seeing the same information at the same time

Mobile on the ground

ResilienceDirect

UK COBRA

All responders

In vehicle

Gold Command

Ordnance Survey

Waste management

12 UK Local Authorities achieving cost savings of **$5.5m** (£3.8m) per year through optimising their waste management processes

- Saving between 50-120 tonnes each of CO_2 per annum
- Cutting fuel consumption by 12-15%
- Some showing a recycling rate doubled to 65%

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Coordination of utility roadworks

Savings made UK public sector using spatial data

Gloucestershire County Council saves $3m on tendered bus services

East Riding of Yorkshire saves **$1.5m** on school transport

Harrow Council's waste project saves $4.8m over 10 years

Automated bus pass allocation project saves Liverpool **$75k**

The Suffolk Waste Partnership saves St. Edmundsbury **$27k**

North Somerset District Council saves **$1m** on school transport

Lee Valley Regional Park Authority saves **$150k** on grounds maintenance

From 2002, London Borough of Sutton saves **$70k** yearly on SEN transport

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Economic Benefits of Spatially Connected Government

- Ordnance Survey data underpins **$113bn** of Great Britain's economy
  Source- OXERA

- For every **$1** spent on address and street spatial data **$4** is saved
  Source- Geoplace

- Across the 15 most commonly built applications using data from the UK single data framework, research shows that UK local authorities, police forces and fire services are already saving over **$187 million** every year

- If a majority (75%+) of local authorities and emergency services were to implement just these 15 most popular applications, savings would rise to over **$0.7 billion** each year.

- **0.2 to 0.6 GDP growth** in UK   *Source- Mindmetre 2015*

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Ordnance Survey International

OS International is a wholly-owned subsidiary of Ordnance Survey (OS) Britain's National Mapping Agency- mapping Great Britain since 1791.

Services ranging from strategy formulation to geodesy, geospatial data capture, to product development and data policies and standards.

We are here to assist organisations to benefit from accurate geographic information (GI) and its multi-million pound potential.

Strategic Member of the Open Geospatial Consortium (OGC)

UK Government owned and vendor neutral

Ordnance Survey

Who we are

Head office, UK

Registered office, Bahrain

Registered office, Abu Dhabi

Registered office, Dubai

Registered office, Singapore

Abu Dhabi
Australia
Bahrain
Brazil
Brunei
Dubai
Ethiopia
Hong Kong
Japan
Jordan
Malaysia
Norway
Oman
Philippines
Rwanda
Saudi Arabia
Singapore
South Africa
Tanzania
Thailand
Vietnam

Ordnance Survey International
Geospatial expertise. Worldwide.

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KEY BENEFITS OF SPATIALLY CONNECTED GOVERNMENT

- Easy exchange of information and open data between organisations and users through single location reference

- Best evidence for best policy creation and optimised (smart) resilience

- Easier interaction with citizens- better public services and happier citizens

- Cost, time and environmental savings

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THANK YOU

Please come and meet with us or contact us to find out more about how we could support you?

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