

Enabling better decisions by authoritative geospatial data in support of COVID-19 planning and response

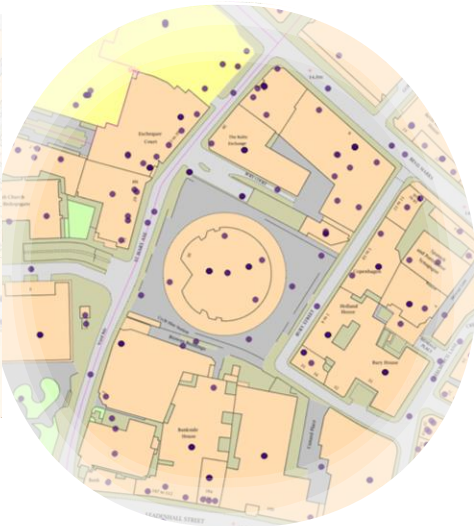
David Henderson, Chief Geospatial Officer

22 June 2020



Everything happens somewhere

Local decisions and effects are inherently geographic - populations, services, networks, economy, environment and processes within it.



Details	
NLPD BLPUK (533006,181108,533076,181380) Dpu:95511116	
UPRN	95511116
AUTH_NAME	CITY OF LONDON
AUTH_CODE	5000
ORGANISATION	NOTES
POSTCODE	EC3A 8BF
LIVE_LPIIS	"RETAIL UNIT 1, 30, ST MARY AVE, LONDON, LONDON, EC3A 8BF (LEVING L8 1, LANG ENG, KEY:5030,000017305, LUD:20100217)"
PROVISIONAL_LPIIS	
HISTORIC_LPIIS	
LPI_COUNT	1
BLPU_LOGICAL_STATUS	1
CLASS_CODE	CR07
CLASS_DESCRIPTION	RESTAURANTS AND CAFES
RPC	1
USRN	8100503
PARENT_UPRN	95505974
HUB_START_DATE	2010-03-09T00:00:00Z
bbox	533300,181269,533300,181269

Street and address reference data are foundation infrastructure – connecting people to place



National Street Gazetteer
National Address
Gazetteer

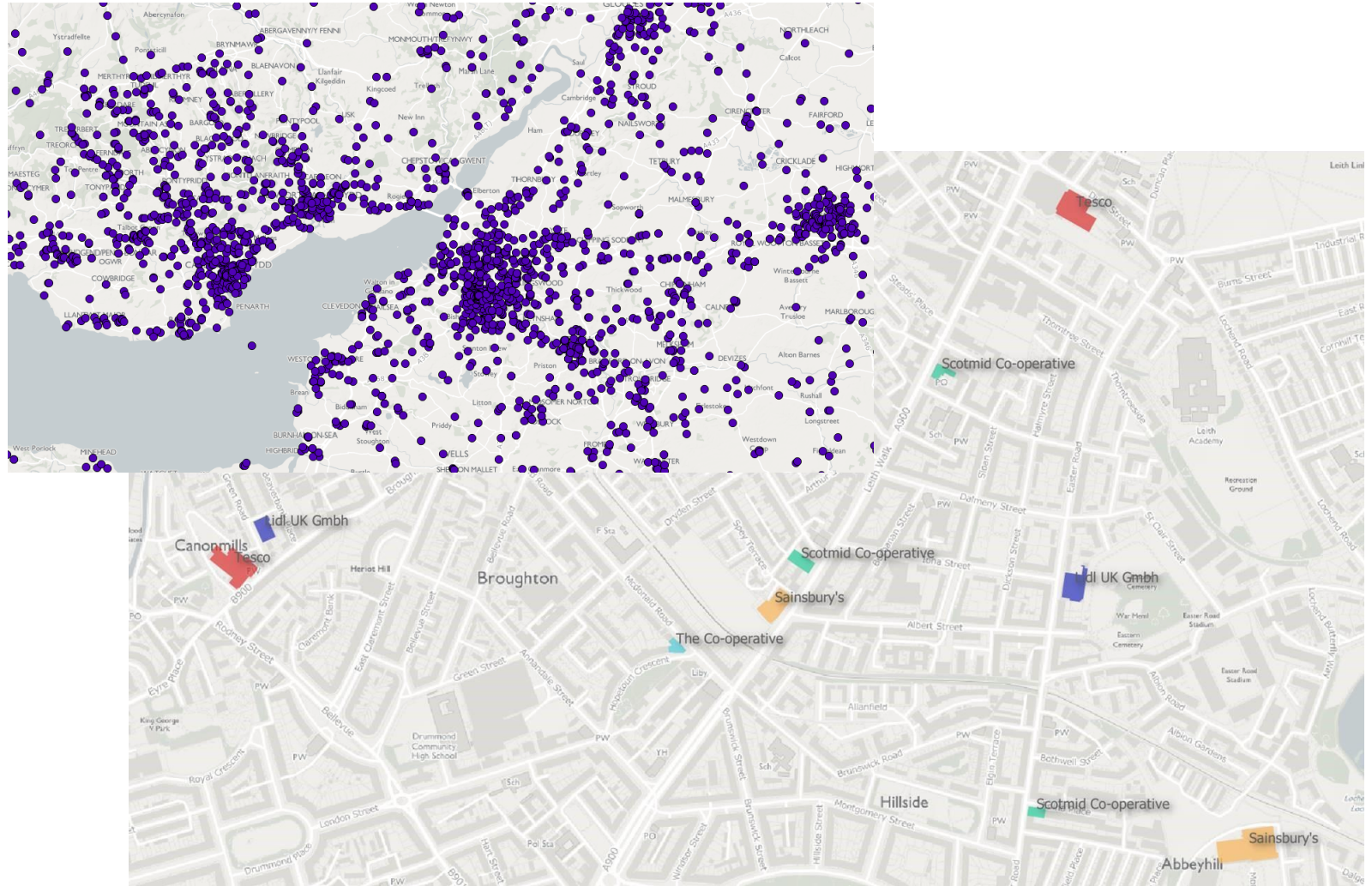
Enabling Foundational Data

Working collaboratively across multiple stakeholders in government and private sector – national geospatial data supporting national health organisations, Office of National Statistics and local decision making:

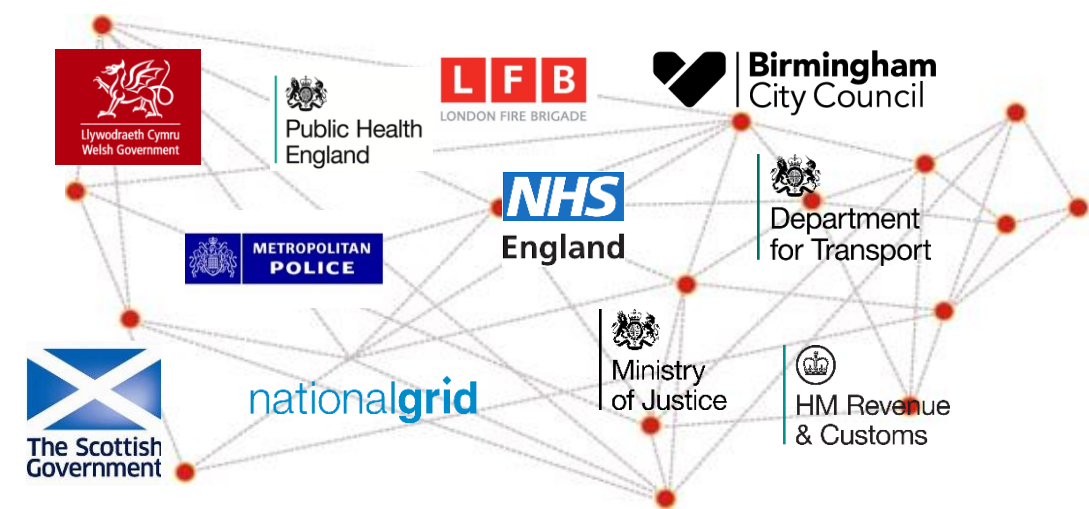
- Emergency access to data via licence and supporting data analysts
- Identification of key infrastructure – common operating picture
- Geospatial data analysis to locate new sites for temporary infrastructure and future infrastructure
- Data matching and interoperability – bringing new datasets together and enabling location analysis
- Data preparation for data science – geospatial inputs to new models

Location and availability of key infrastructure

- Hospitals
- Care homes
- Mortuaries
- Schools
- Supermarkets
- Doctors Surgery
- Pharmacies
- Vulnerable Citizens
- Hotels
- Car Parks
- Places of Worship



Definitive street, address, identifier and geometry data are fundamental enablers of strong business, government and society



The **Unique Property Reference Number (UPRN)** is the unique identifier for every location with an address in the UK and provides a ‘*golden thread*’ to connect organisations, decisions and processes

Value

- Accuracy
- Consistency
- Certainty
- Coverage
- Efficiency

- Improve
- Validate
- Link
- Reference
- Index

Enhanced Internal / external processes

Streets / USRN				Address / UPRN				
Street Name	Locality	Town	Status	UPRN ID	Language ID	Address	Status	Local Authority ID
ABBY LANE	MANCHESTER	NORTHCH	NORTHCH	100000000	ENG	CLARENCE TERRACE 10-15 CLARENCE ROAD NORTHCH	MANCHE (1)	NORTHCH
ABBY ROAD	TOWN CLARE	NORTHCH	NORTHCH	100000000	ENG	CLARENCE TERRACE 1-15 CLARENCE ROAD NORTHCH	MANCHE (1)	NORTHCH
ABBYWAY COURT		NORTHCH	NORTHCH	100000000	ENG	CLARENCE TERRACE 1-15 CLARENCE ROAD NORTHCH	MANCHE (1)	NORTHCH
ABBYWAY	CLARE	NORTHCH	NORTHCH	100000000	ENG	CLARENCE TERRACE 1-15 CLARENCE ROAD NORTHCH	MANCHE (1)	NORTHCH
ABBYWAY FOOTPATH BETWEEN 10 AND 15 TO CLARE FOOTPATH		NORTHCH	NORTHCH	100000000	ENG	CLARENCE TERRACE 1-15 CLARENCE ROAD NORTHCH	MANCHE (1)	NORTHCH
ABBYWAY FOOTPATH BETWEEN 10 AND 15 TO CLARE UP		NORTHCH	NORTHCH	100000000	ENG	CLARENCE TERRACE 1-15 CLARENCE ROAD NORTHCH	MANCHE (1)	NORTHCH

Enhanced Internal / external processes

Geocode



Internal / external geospatial processes

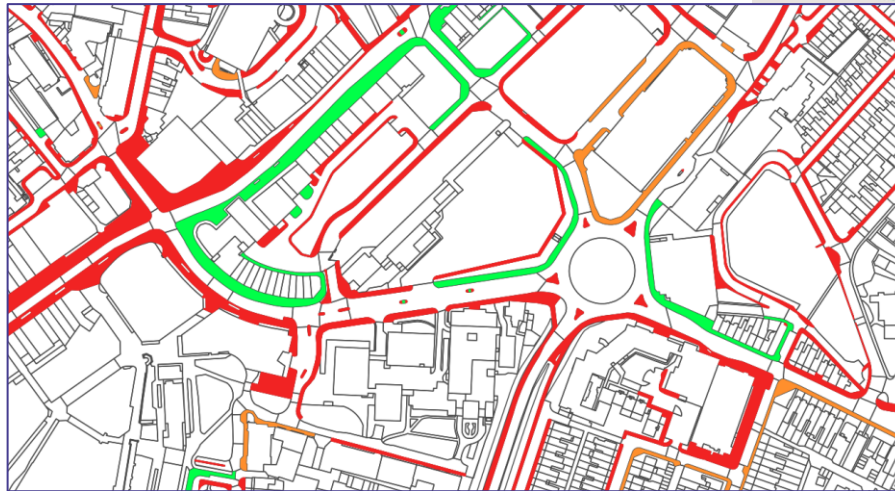
Common Uses



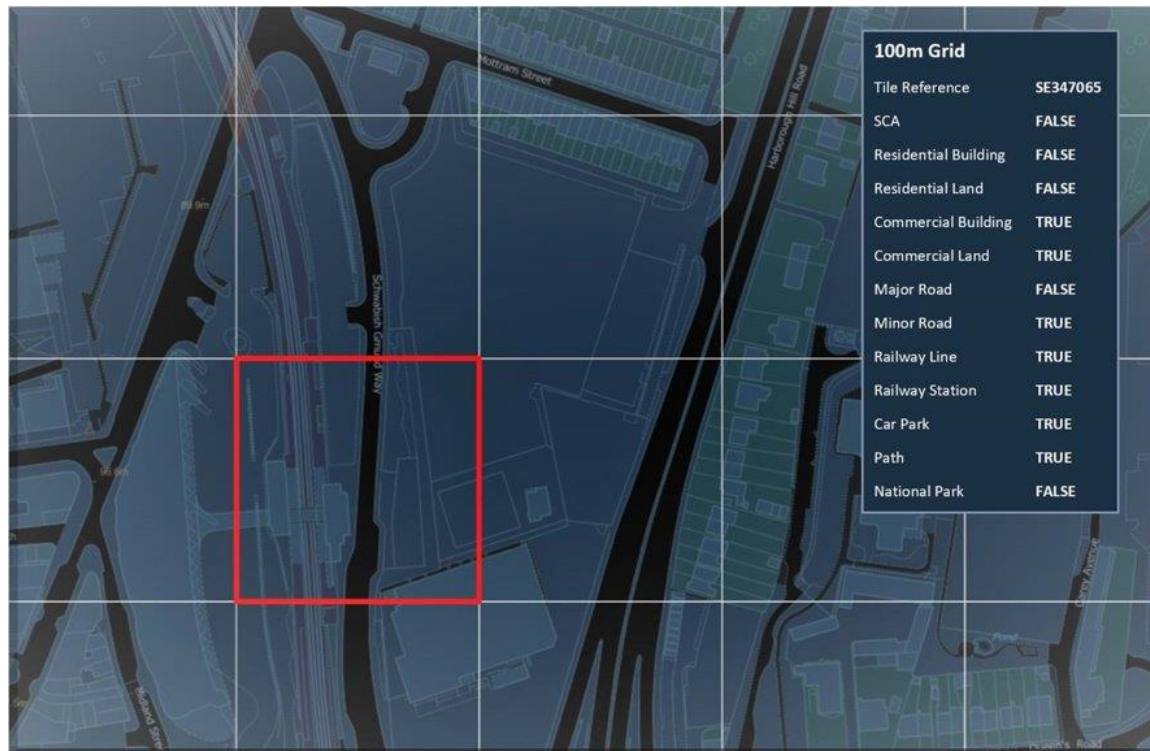
Informing key decisions

For example – social distancing impacts

- Assessing which residential properties front directly on to pavements
- Assessing narrow pavements and the effect on the road routing network of widening these pavements



Data Science & Analytics



The grid data underpins a data science model that considers lockdown mobility statistics. This provides a way of running geospatial disease spread (SEIR) models accounting for different levels of lockdown.

A 100m contains approximately 50 attributes ranging from a flag determining presence of a Care Home, GP or Pharmacy through to the percentage of land use attributed to residential use.

Facilitating the production of a network where cells are linked according to known mobility patterns, such as supermarket trips and commuting patterns.

