Being close to customers and their future requirements

David Henderson
ORDNANCE SURVEY
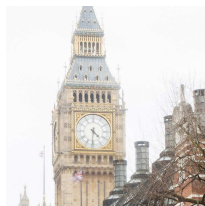

Great Britain's national mapping agency

Create geospatial data

We produce location data at levels of detail and accuracy considered to be a global exemplar, using ground based survey and remote imaging

Support government

Our data is trusted to support policy and the delivery of public services at every level of government

International expertise

We take our expertise and capability to support sustainable development and deliver efficient public services.

Innovation

We support research and innovation with our Geovation Hub which supports geospatial entrepreneurs.

Ordnance Survey

Everyday reliance on national infrastructure

GEOSPATIAL UNDERPINNING NATIONAL INFRASTRUCTURE

Energy & Infrastructure
- Increasing resilience, smart meter rollout, mains replacement programme, demand side management
- Supporting 4G/5G rollout
- Encouraging competition in non-residential water networks, private sewer/pump adoption, leakage reduction
- Connected Transport – environmental impacts, buried assets

Land & Property
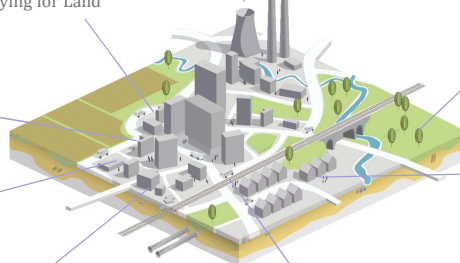- Built Environment portfolio management
- Accelerating new build programmes
- Promoting the creation of Digital and Smart economy
- Supporting Government strategy & legislation
- Land Registration and surveying for Land Registry

Natural Capital
- Land Use monitoring (RPA Farm Grants)
- GreenSpace access
- Flood defence management & planning

Financial Services
- Portfolio risk management
- New business management
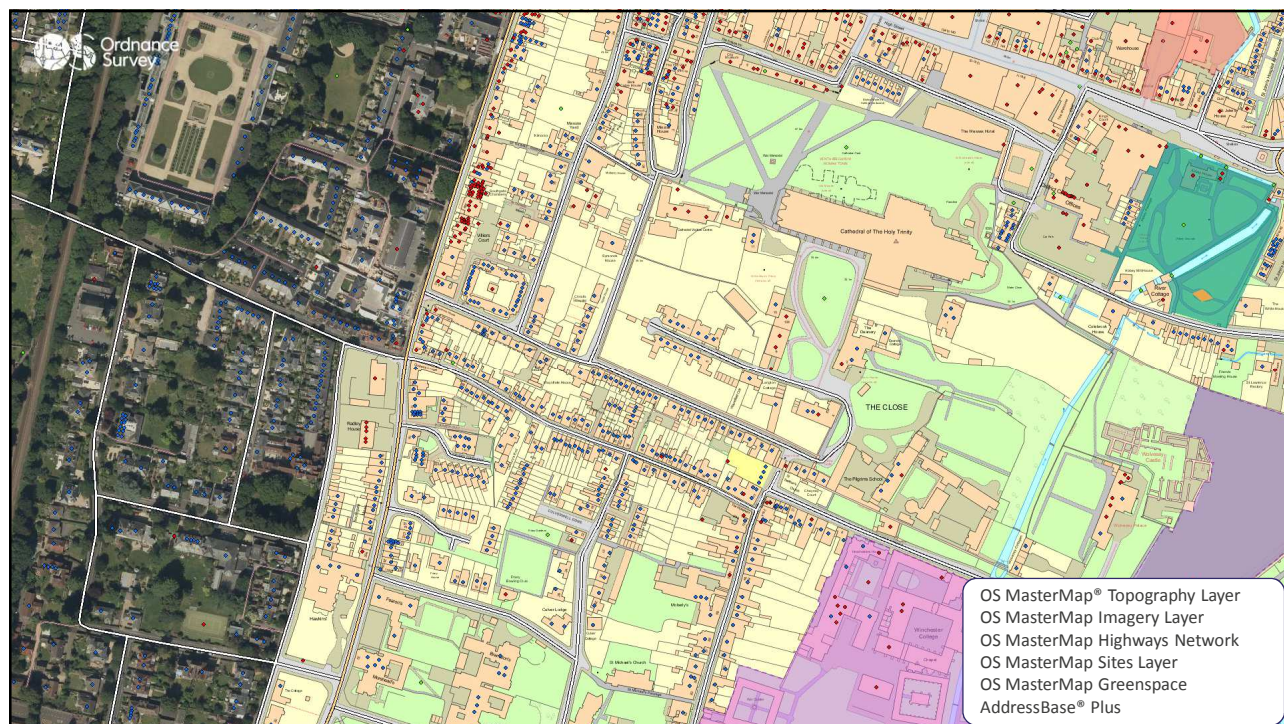- Fraud detection

Local Authority Services
- Street works planning
- Planning applications
- Boundary management
- Education services
- Waste management
- Citizen engagement
- Benefit fraud detection
- Asset Management

General Commercial
- Logistics planning
- Journey management

Resilience & Security
- Civil Contingencies Secretariat
- MOD and Security Agencies
- Critical National Infrastructure (road, rail, flood defence)
- Emergency Response Services and planning

Health & Social Services
- Asset management & patient care optimisation
- Social Care spectrum
- Community First Responder App

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OS MasterMap® Topography Layer
OS MasterMap Imagery Layer
OS MasterMap Highways Network
OS MasterMap Sites Layer
OS MasterMap Greenspace
AddressBase® Plus

But increasingly challenged by themes common to most National Geospatial Organisations

- AI, IoT, automation, big data tech
- Maintenance – currency, accuracy, model detail
- Large amounts of raw data are available. Needs to be 'processed/managed' to be actionable - insights
- Pace of change in geospatial technologies
- Competition – platforms, crowd, new sensors - there is no unsurmountable barrier to entry
- Public task v open data v commercial business
- Access to political and fiscal investment
- Capacity to change
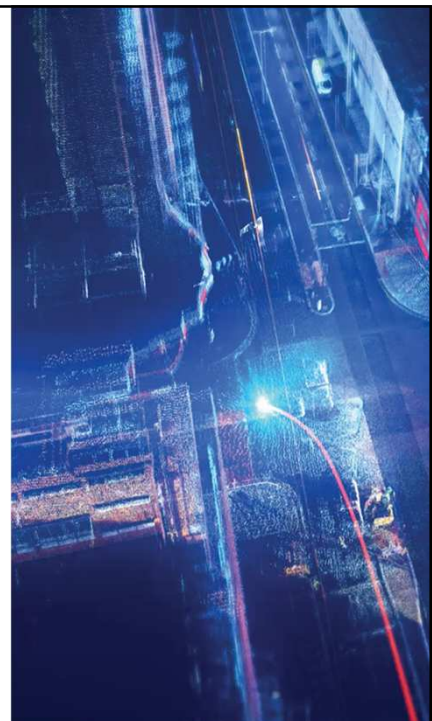
CityVerve

IoT demonstrator, Innovate UK part-funded,
20 strong consortium MCC leading
24 months duration, from 1st July 2016

Providing the **geospatial glue**
Capturing new and **enhancing** existing content
API suite and **web services**
Research and analysis of content requirements, emerging technologies and systems
Geospatial platform of CityVerve activity, services and assets

Atlas/E-CAVE

Connected and Autonomous Vehicles
feasibility study

Determine if mapping content is required to support autonomy and if so, the data model
How best will data be **served and shared**
Cloud based?
Onboard?
Vehicle to vehicle?
Evaluating the **creation of mapping** from on-board technology

5G Planning

Planning tool to aid network operators to plan 5G rollout

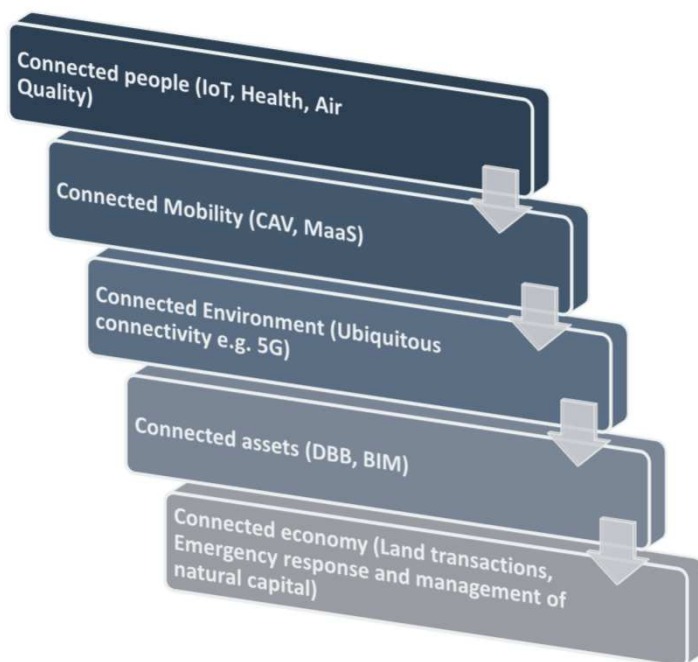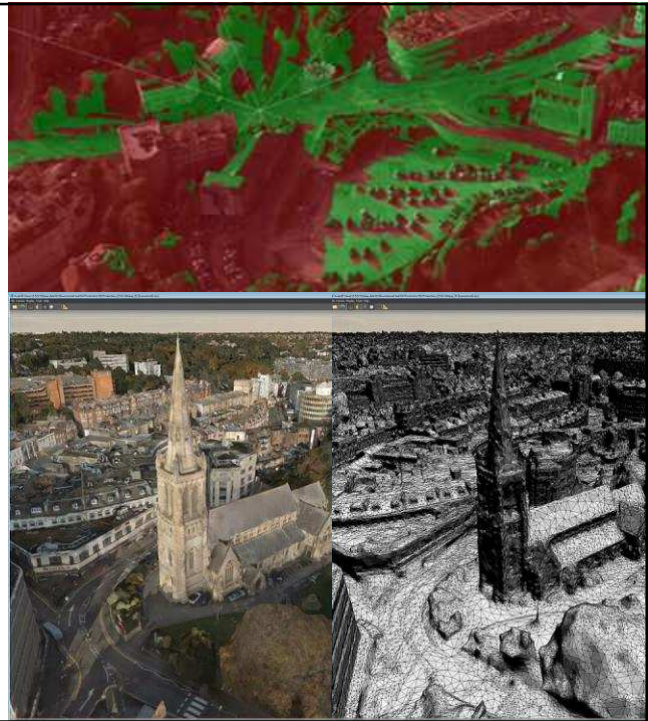5G is essential to enhance and support a **connected environment**
Develop a **3D test bed to** help simulate radio propagation
High frequency 5G can be affected by leaves on trees and atmospheric changes
Smart map of the future
OS data, meteorological data and radio spectrum data will be **interoperable**
Develop standards for future network planning

Connected people (IoT, Health, Air Quality)

Connected Mobility (CAV, MaaS)

Connected Environment (Ubiquitous connectivity e.g. 5G)

Connected assets (DBB, BIM)

Connected economy (Land transactions, Emergency response and management of natural capital)

The 'Geo needs' of CAV, Smart, BIM, 5G, IoT?

Our participation and engagement demonstrates a need to:

1. Capture and consume more accurate, detailed and current data

2. Develop a data model which is authoritative, federated, fully integrated, extensible and secure.

3. Enable the overlaying and integration of alternative interpretations of the real world

4. Produce machine readable and machine driven environments

'Downstream' data usage

'Upstream' data governance, capture & production
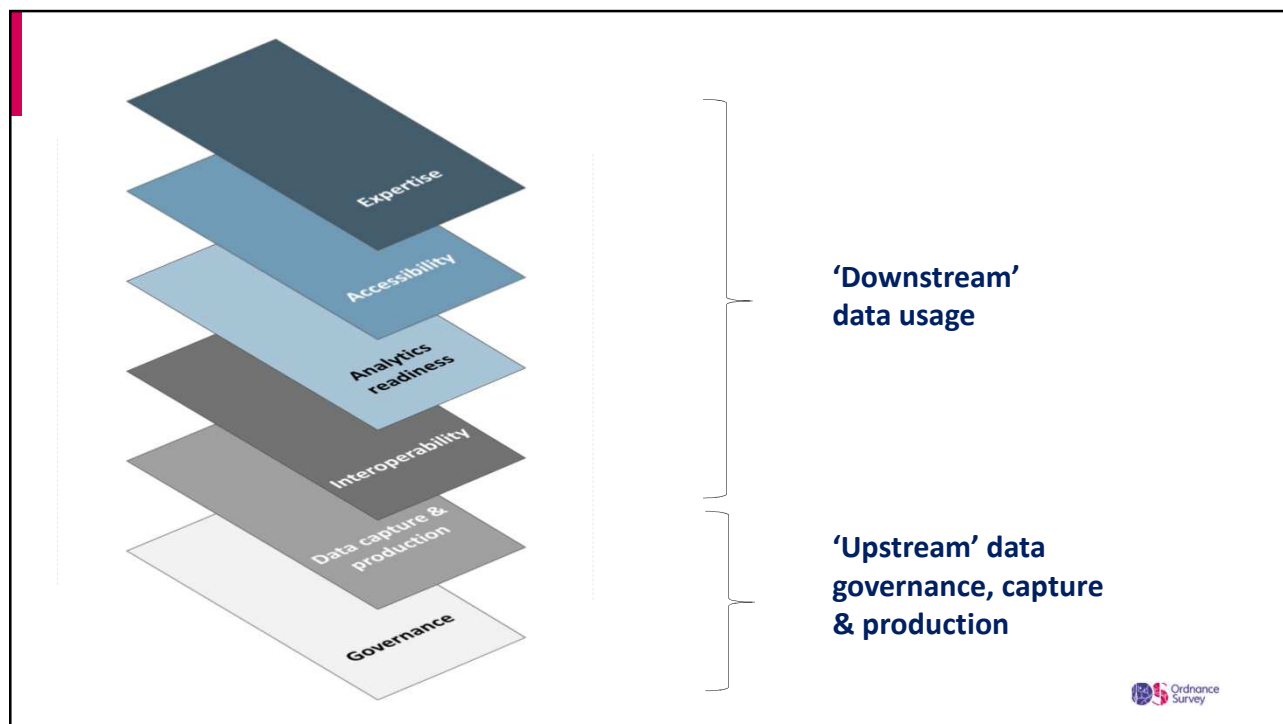
ENTREPRENEURS - GEOVATION

Britain's pioneering location-data lab and geospatial accelerator programme.

Collaborate, exchange ideas, innovate and be inspired by access to world-leading geospatial data.

imagine. explore. create. discover.

https://geovation.uk

Thank You!

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