



Geospatial  
Commission



Ordnance  
Survey

# GEOSPATIAL COMMISSION PUBLIC SECTOR & PSGA EVENTS 2024

#GCxPSGA24



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Commission



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# **WELCOME TO THE GEOSPATIAL COMMISSION PUBLIC SECTOR & PSGA EVENTS 2024**

#GCxPSGA24



## MORNING PROGRAMME

TIME	SESSION	PRESENTER	
10:00	Welcome	Steven Sibbald Gemma McAusland	Geospatial Commission Ordnance Survey
10:10	The latest evolution of OS's product offer and its future roadmap	Dean Paulley	Ordnance Survey
10:40	ONS Geography: Looking to the future	Olive Powell	Office for National Statistics
11:10–11:40	Morning break		
11:45	OS National Geographic Database workshop	Nathan Davis James Armstrong	Ordnance Survey
12:45-13:35	Lunch break		

## AFTERNOON PROGRAMME

TIME	SESSION	PRESENTER	
13:40	Welcome back	Gemma McAusland	Ordnance Survey
13:45	Showcasing change over time (SCOTi)	Steve Campbell	Ministry of Housing Communities and Local Government
14:00	Aerial Photography for Great Britain (APGB) – what’s new?	Ralph Coleman	Bluesky International Ltd.
14:15	Introducing the new APGB web services	Dave Horner	Getmapping Ltd.
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14:45-15:15	Afternoon break		
15:20	Applying the OS NGD to public health	James Lewis	UK Health Security Agency
15:35	PSGA Future capabilities update	Andy Wilson	Ordnance Survey
15:50	Closing comments	Steven Sibbald	Geospatial Commission
16:00	Close		





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TECHNOLOGY

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**Cadcorp**<sup>®</sup>  
SPATIAL INSIGHT

**Collins Bartholomew**

A LEADING PROVIDER OF DIGITAL MAP DATA, SERVICES AND SOLUTIONS



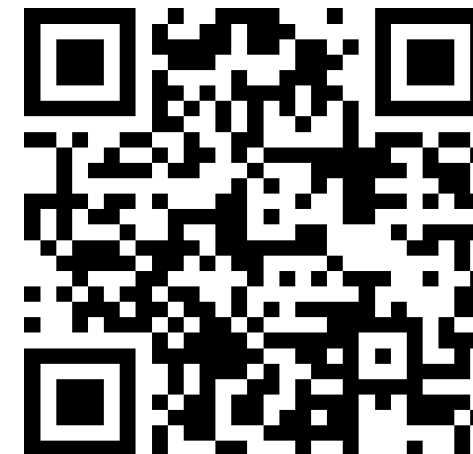
**esri** UK



**GEOXPHERE**

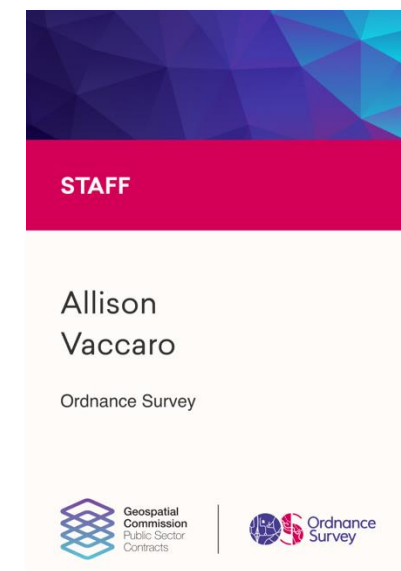


**Landmark**●  
Information Group



## HOW TO GET INVOLVED

- WiFi network: **Leonardo Guest Wi-Fi** No password required
- Ask questions on **Slido** using the code **#LOGCxPSGA2024**
- Come and find us during the breaks at the Ordnance Survey stand in the exhibition space
- Start a conversation on social media using **#GCxPSGA24**



# THE LATEST EVOLUTION OF OS'S PRODUCT OFFER, AND ITS FUTURE ROADMAP

Dean Paulley  
Head of Product



# Agenda



OS NGD – TWO YEARS ON



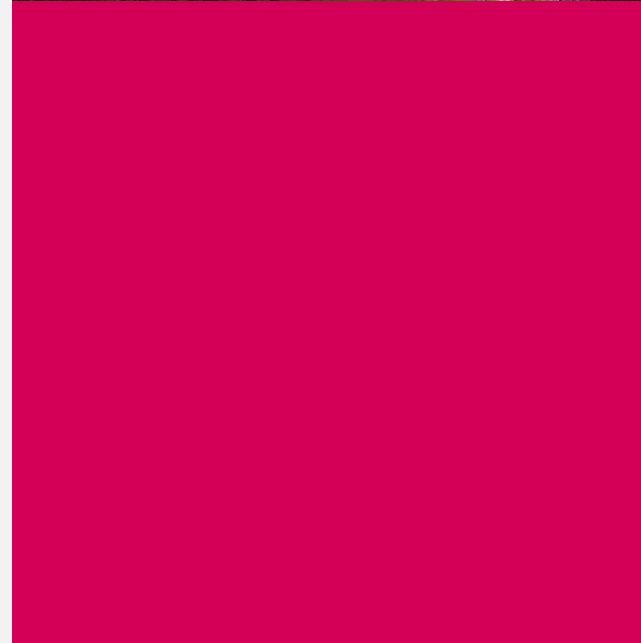
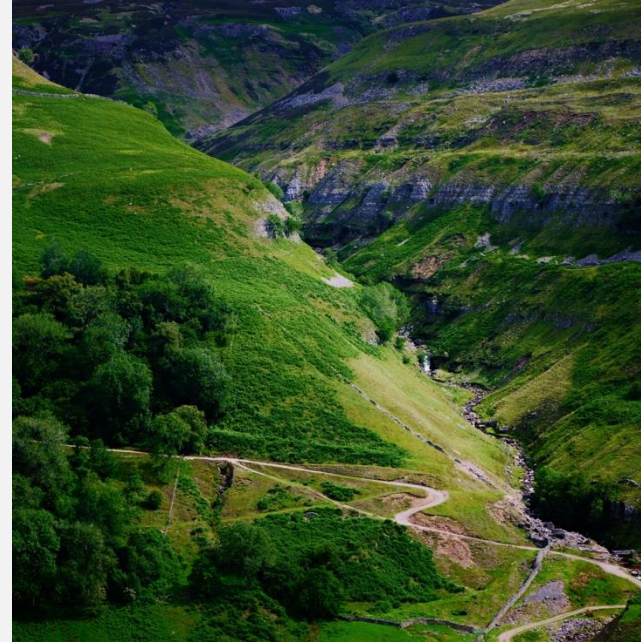
CUSTOMER EXAMPLES



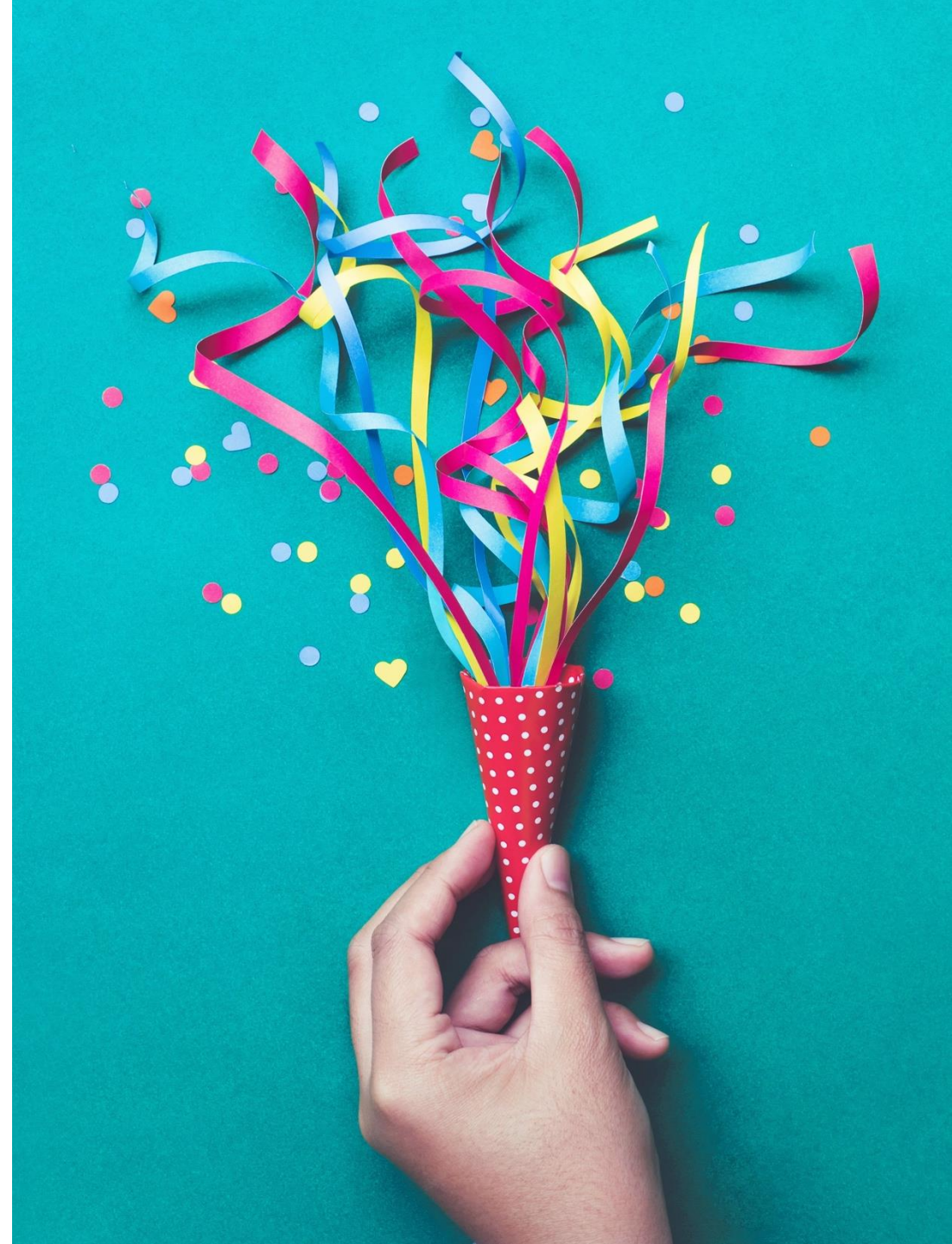
WHAT'S NEW?



WHAT'S NEXT?



2 years since  
launching OS NGD



# Previous releases

22/23



## OS NGD Launch!

September 2022

- + Redesigned data across 9 themes
- + New distribution services (OS Select+Build and APIs)



## OS NGD Address

- + Floor levels, business names, classifications
- + OS Places – daily currency



## OS NGD Transport

- + Average and Indicative Speed
- + GB road width data

Sept 23



## OS NGD Buildings

- + New geometry
- + Usage, connectivity and address counts
- + New Cross References



## OS NGD Transport

- + Rail Network
- + Pavements
- + GB Coverage of Tracks and Paths

March 24



## OS NGD Buildings

- + Age
- + Construction Material
- + Basement Presence



## OS NGD Structures

- + Field Boundaries



## OS NGD Land Cover

- + Habitat classifications and % coverage



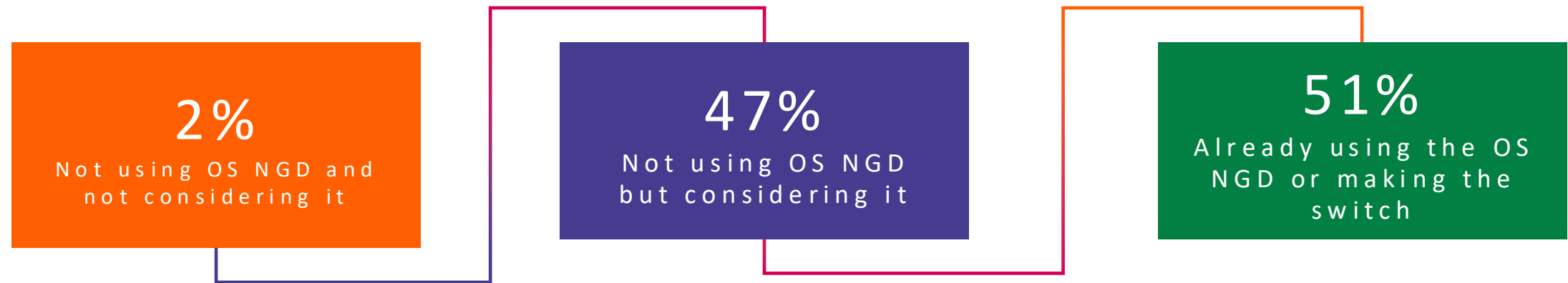
## Multi-Modal Routing Network



## Emergency Services Gazetteer

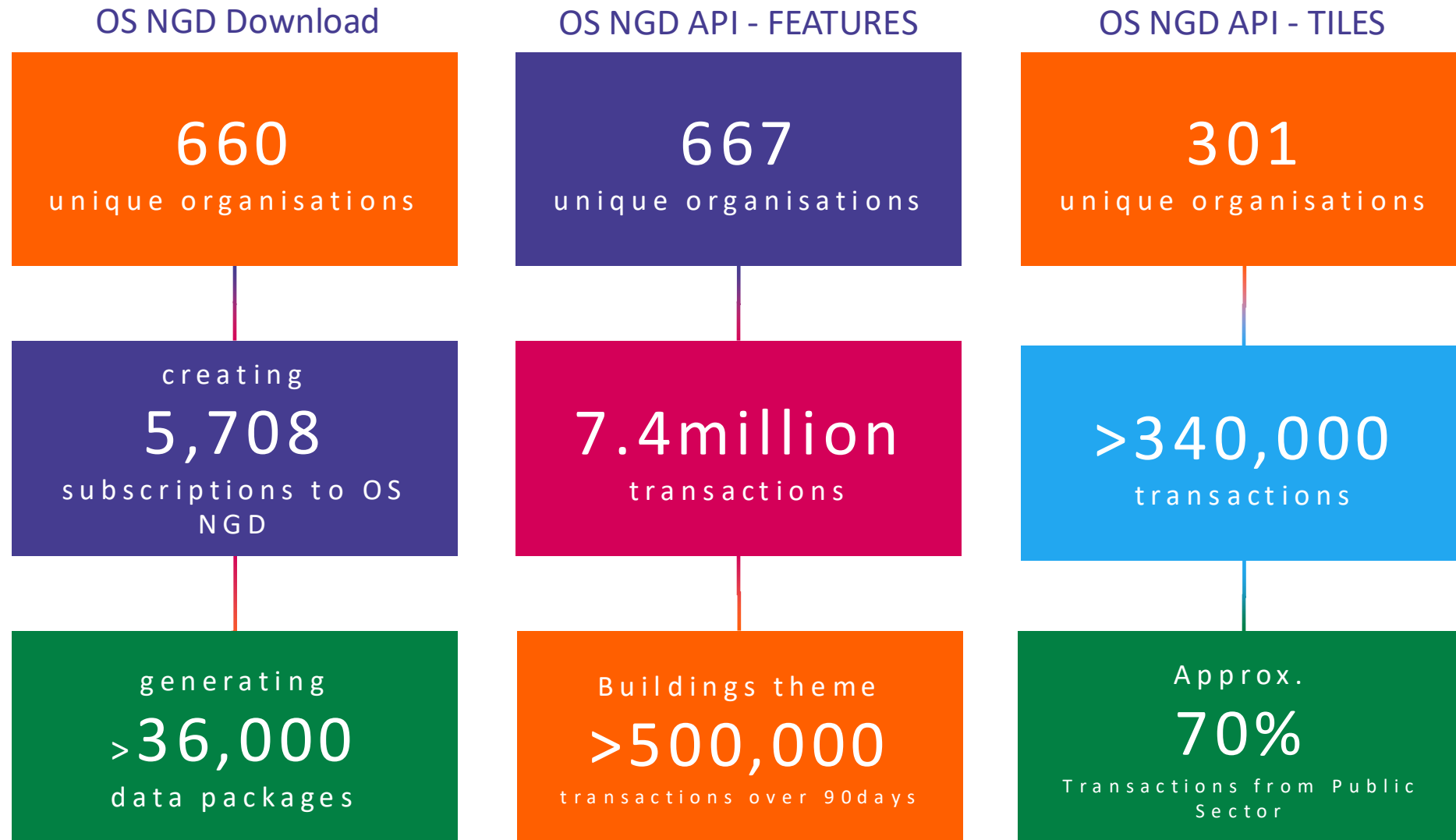
And so much more..!

# How much are YOU using the OS NGD



\*responses up to 22 Nov (348 responses)

# Usage of OS NGD Data







## Customer Examples

How are you using our latest offerings?





# Creating sports facility catchment areas



The new MRN will allow users of Active Places Power to **calculate drive, walk and cycle catchments from sports facilities.**



Using the MRN meant **less preprocessing** as speed data and the presence of pavements are included in the dataset.



Active Places Power and the catchment area tool **guide investment decisions and support strategic planning** for sports provision.



The MRN is **invaluable** for geospatial analysis, offering **excellent accuracy** and comprehensive coverage. The **reduced processing time and additional attribution**, when compared to previous products, allowed the fast development of new tools and will assist greatly in keeping the network inputs up to date in the future

– Liz Clarke, Head of GIS, Sport England



# Active Travel England's Scheme Tool



Active Travel England created a tool to **view active travel schemes** with important context, helping judge suitability for funding.



**OS NGD** data has been used to investigate the amount of **road space available, and average speeds and speed limits.**



This has allowed ATE inspectors to easily review proposed schemes.



Ordnance Survey's data on **carriageway and footway widths** is delivering valuable insights that enable Active Travel England to better understand our highways network. **This supports our mission to make walking, wheeling, and cycling more accessible for everyone.**

— Nicos Taylor, Inspector, Active Travel England



Active Travel England





# Analysing Vacant & Derelict Land



Defra is analysing “Vacant & Derelict land” to identify areas that have potential for increased levels of woodland.



**OS NGD Land, Sites and Address data** alongside 3rd Party datasets have been used to undertake the work



This work **supports planning and decision making for Government's** aim to increase woodland cover in England to 16.5% by 2050.

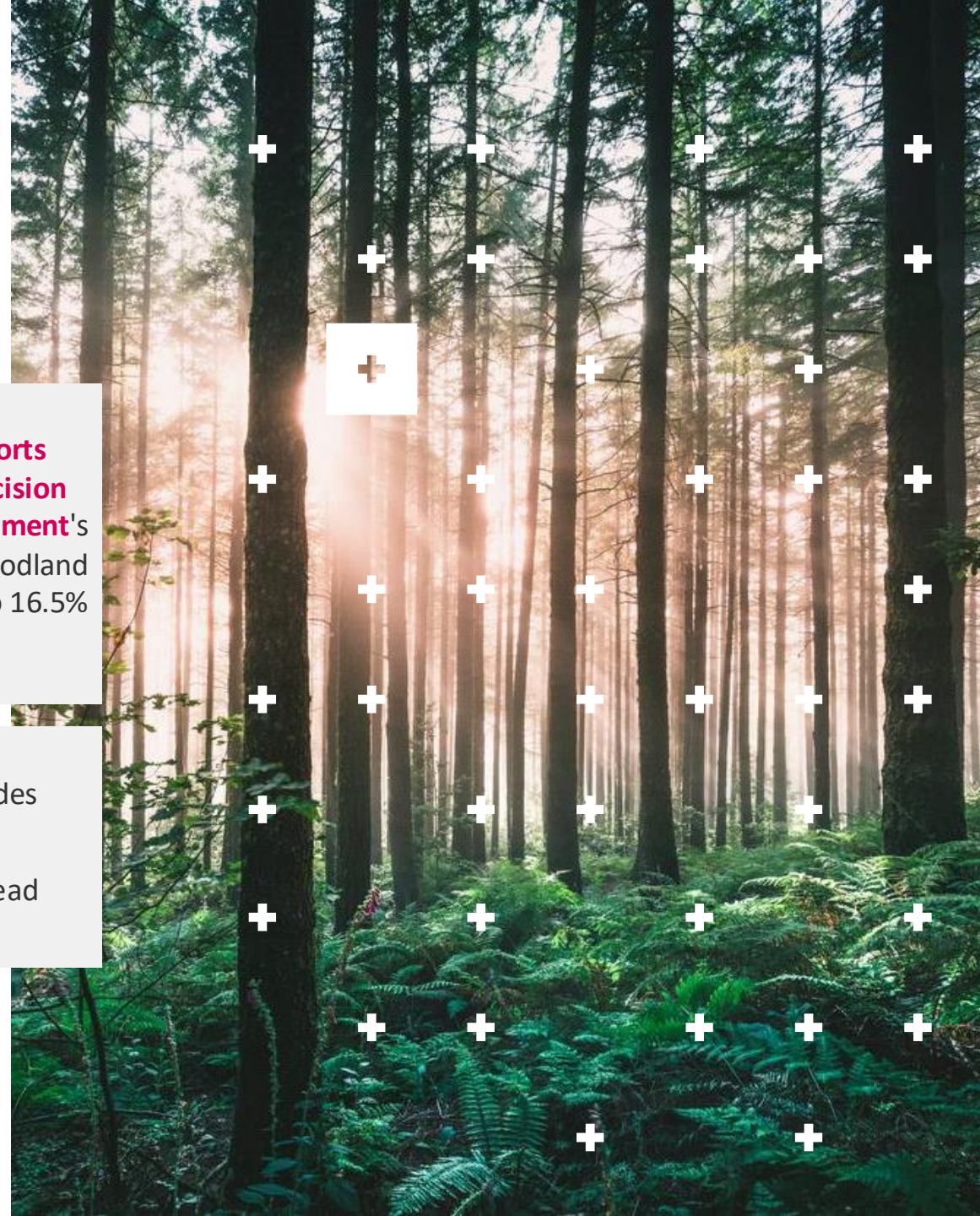


With increasing pressures on land use, the timely delivery of this project provides the **solid evidence base** that's necessary to **underpin developing policy**.

– Edward Matthews, Defra Vacant and Derelict Land lead



Department  
for Environment  
Food & Rural Affairs



# Customer Sentiment

“

A **huge improvement** on previous method of ordering... OS NGD is a **huge step forward**

“

Easy process, decent instructions. **Excellent data** which is straightforward to manipulate and interpret in GIS

“

OS NGD is an **incredible tool** that can only get better! My imagination runs wild with all the recipes I can think of, and it takes no time at all to do! **Game changer!**

“

The NGD will provide us with a **flexible way** for our customers to access and use data

“

**NGD is the go-to for accessing OS data** and data extracts are widely used across the council

“

The NGD allows me to get **much more refined data, much quicker**. Everything is slicker, smoother, and easier to access. I can **run analysis quicker** because I don't have to include tons of extra data that I don't need.





# WHAT'S NEW AND NEXT?

Recent and short-term  
enhancements





# September 24: What's New?

## OS NGD LAND USE



Enhanced Land Use Attribution



Enhanced topographic features attribution



Bridge Interactions



Number of Floors



Increased Completeness



# September 24: What's New?

## OS NGD LAND USE



### Enhanced Land Use Attribution

- + New classification schemes



### Increased Completeness

- + Greater coverage for both Residential and non-residential sites



### Enhanced topographic features attribution

- + Land Use attribution now present on component parts

## OS NGD STRUCTURES



### Bridge Interactions

- + Attribution identifying the network passing over and under a bridge

## OS NGD BUILDINGS















### Number of Floors

- + The maximum number of occupiable floors at or above ground level



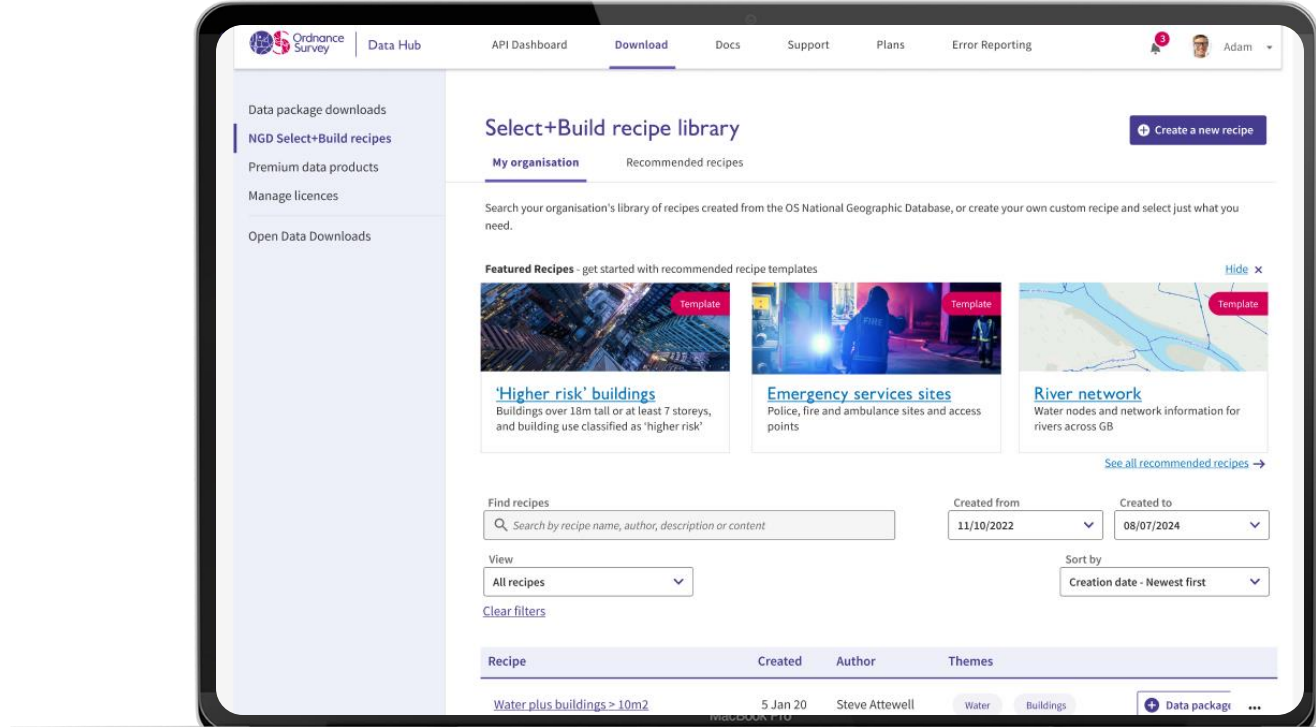
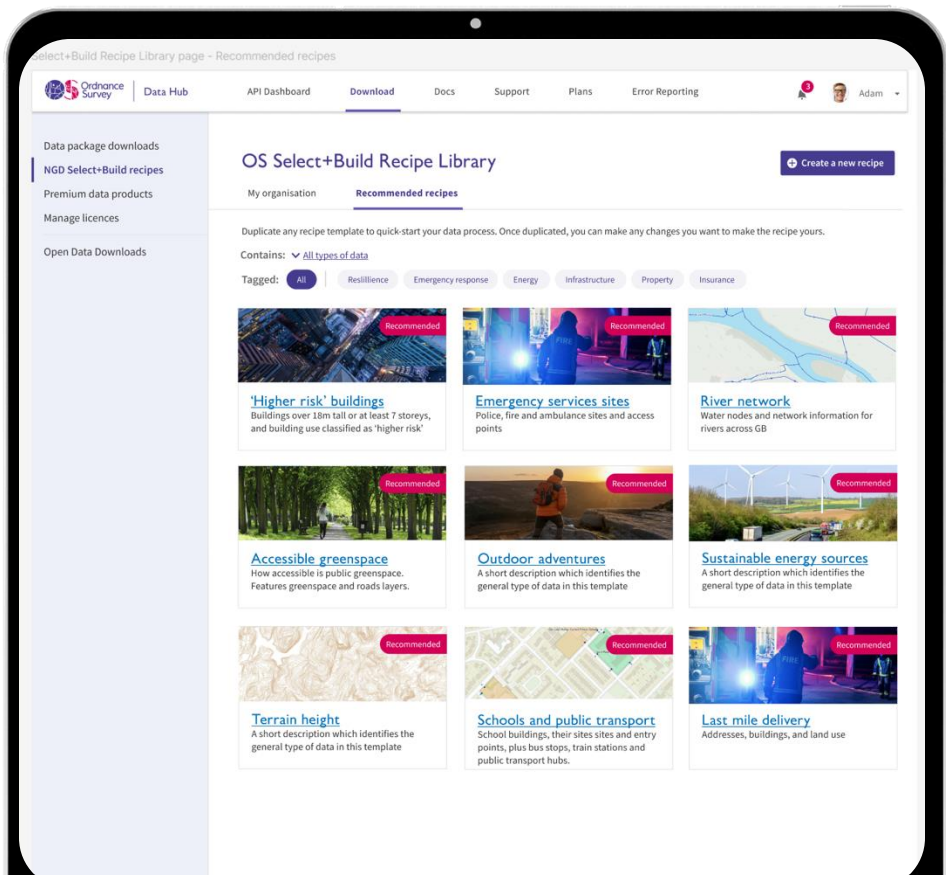


# March 25: What's Next?

OS NGD BUILDINGS		OS NGD LAND USE	OS NGD GEOGRAPHICAL NAMES	EMERGENCY SERVICES GAZETEER
 Roof Shape	 Roof Aspect	 Increased Coverage	 Vernacular Names	 Tunnels
 Roof Material	 Presence of Solar Panels	 Increased Access Points	 Tunnels	
 Presence of Green Roofs	 Access to Public Buildings			
 Building Height				

# OS Recommended Recipes

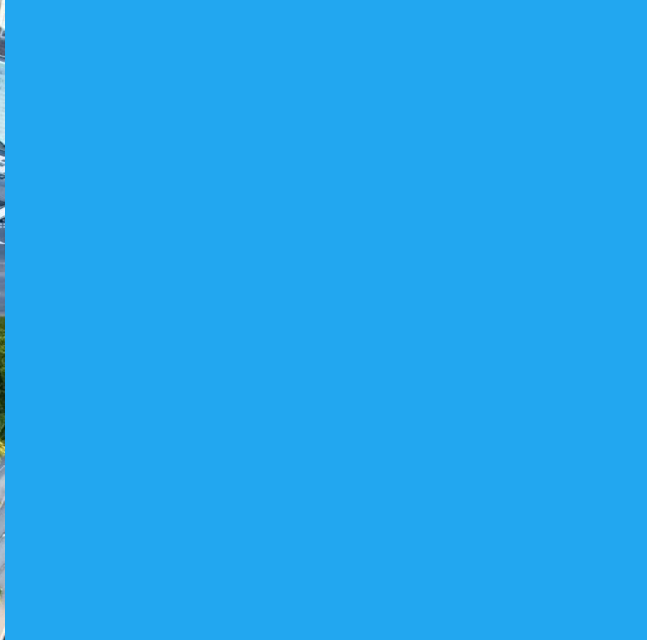
- + Pre-selected OS NGD data which meets your requirements and allows you to subscribe to updates. Making it even quicker and easier to get going.



Be Part of the Design Team →







THANK YOU

Dean Paulley  
Head of Product





# ONS GEOGRAPHY: Looking to the future

**Olive Powell**

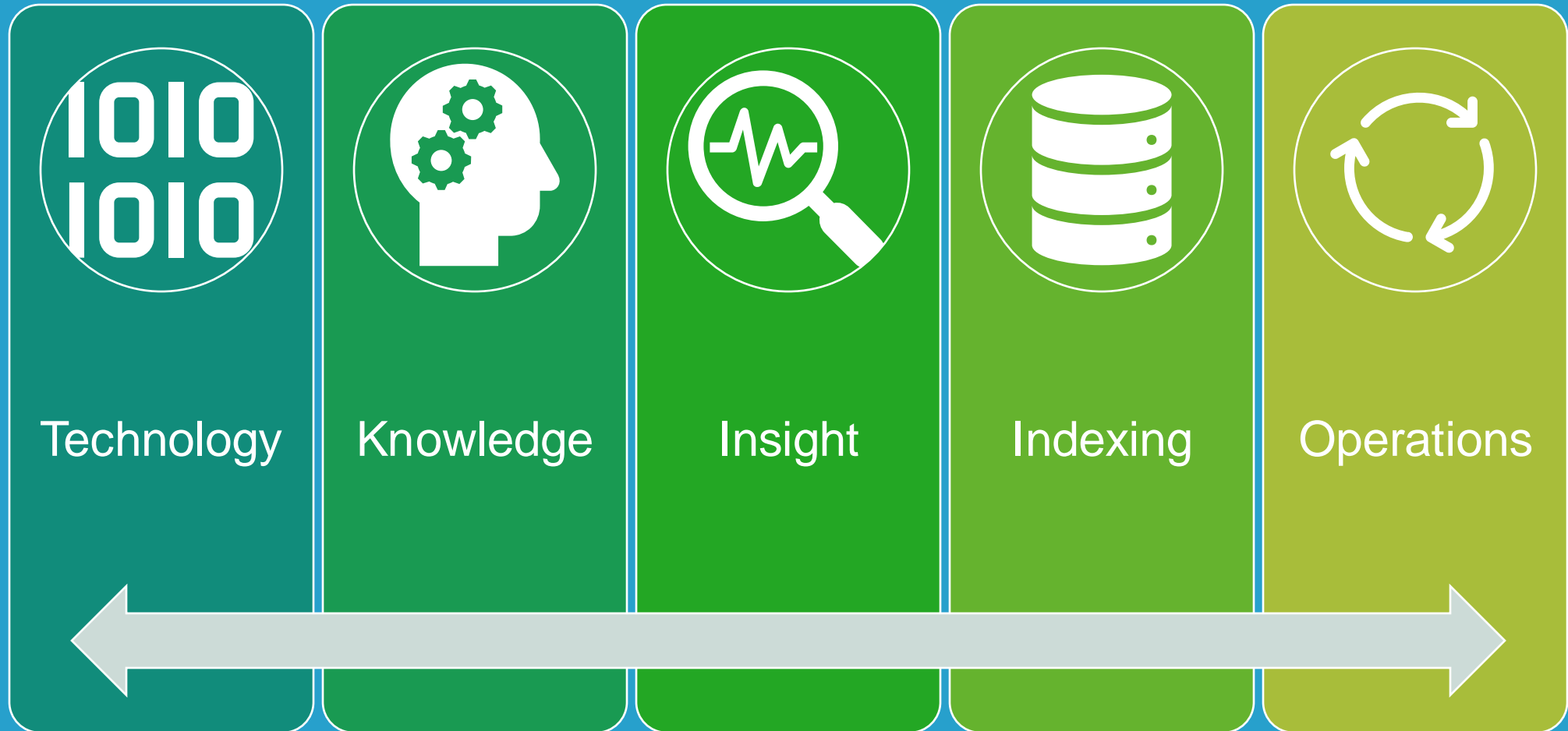
Head of Geography / Geospatial

# Statistics for the public good

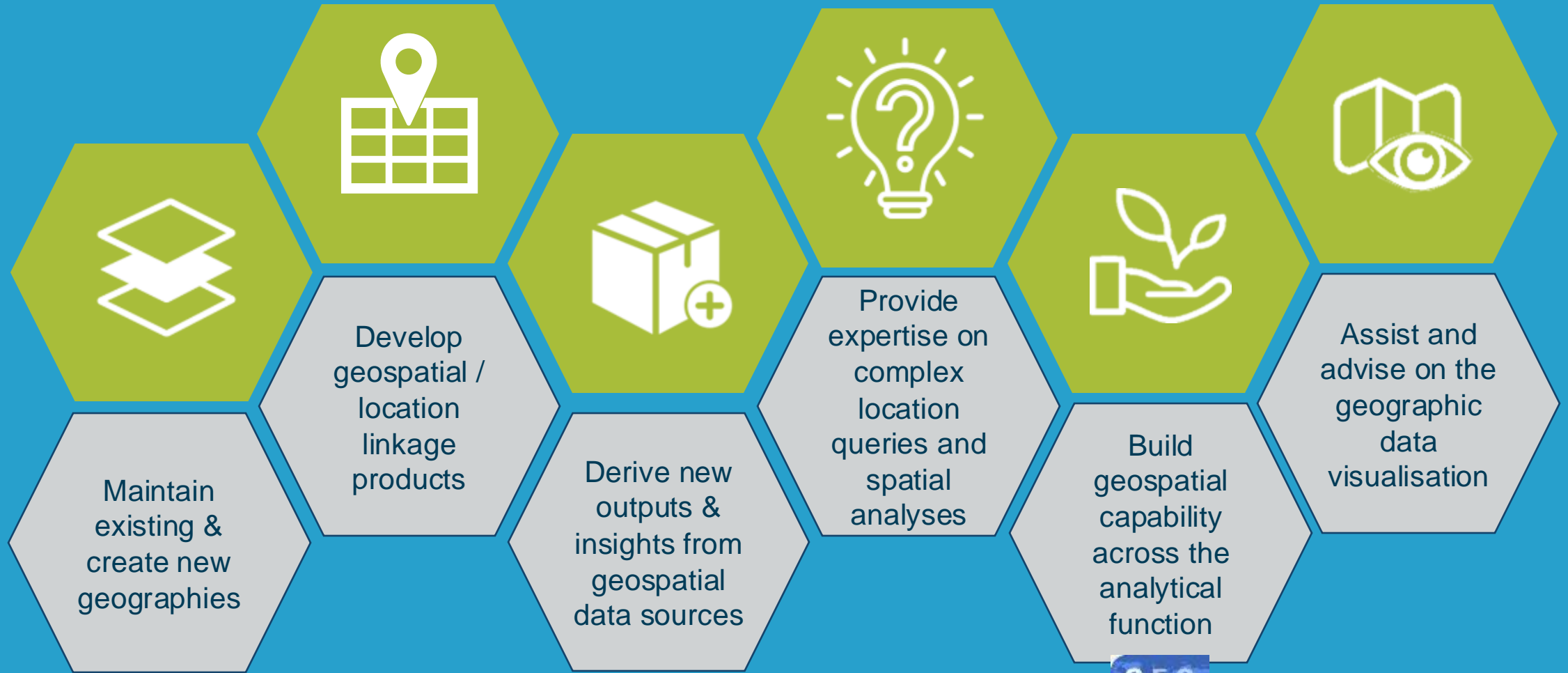
Informing the UK.  
Improving lives.  
Building the future.

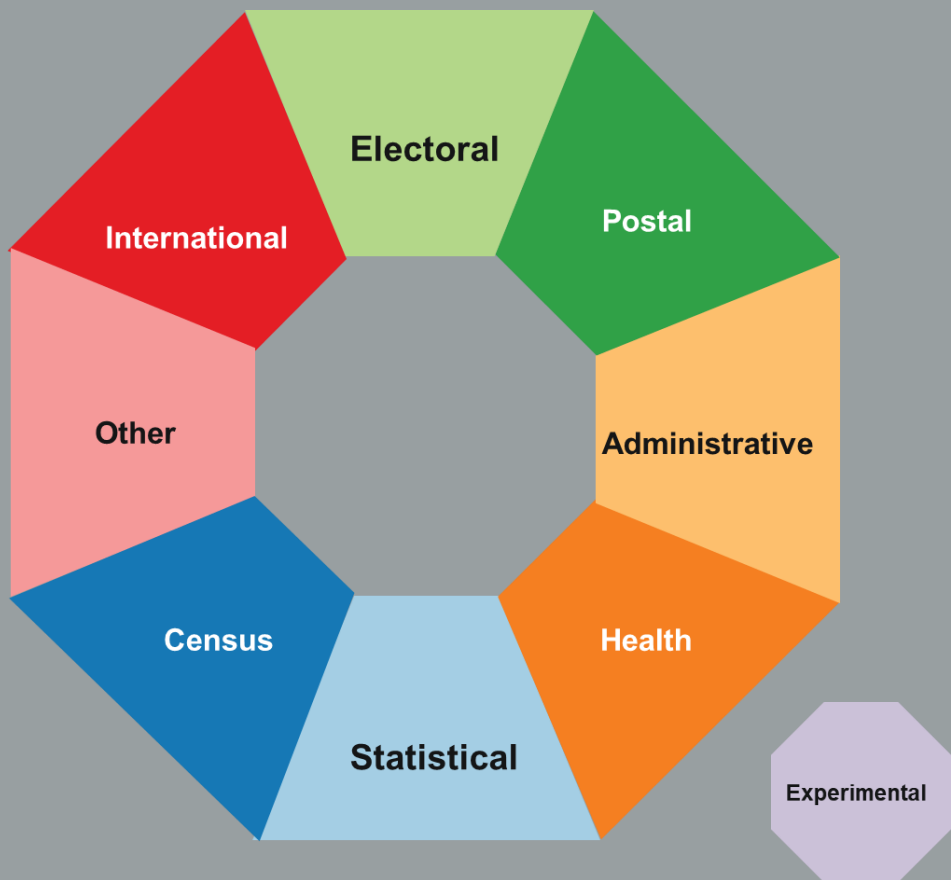


# ONS Geospatial & Geography Teams



# What do we do?





<https://geoportal.statistics.gov.uk/documents/ons:hierarchical-representation-of-uk-geographies-december-2023/explore>

# 123

Geographies  
operative in the UK

<b>Electoral:</b>	10 Products (6)
<b>Postal:</b>	4 Products
<b>Administrative:</b>	18 Products (14)
<b>Health:</b>	13 Products (5)
<b>Statistical:</b>	11 Products (6)
<b>Census:</b>	7 Products (4)
<b>Other:</b>	55 Products (13)
<b>International:</b>	4 Products (4)
<b>Experimental:</b>	1 Product (1)

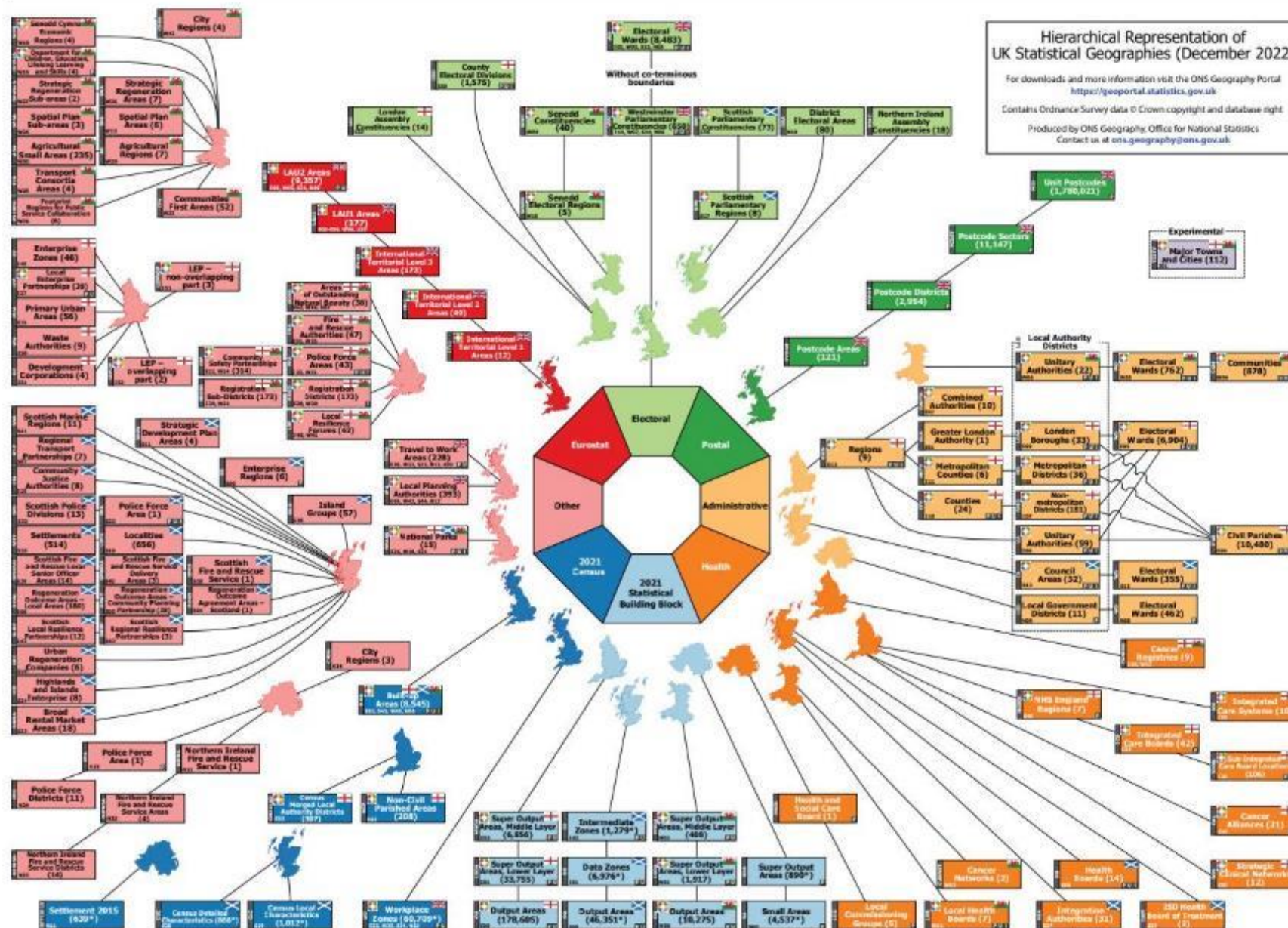


ONS  
Geo Portal

**53**  
Boundaries

**132**  
Lookups





## Key

This diagram shows the statistical geographies of the UK in a hierarchical way, divided into different geography types or groups. The main groups are shown in the central octagon, with geographies in each group colour-coded accordingly.

### Geography Groups

- 2021 Census\*
- 2021 Statistical Building Block\*
- Health
- Administrative
- Postal
- Electoral
- Eurostat
- Other
- Experimental

\* The 2011 Census count is shown where the 2021 count is not yet available.

Higher level geographies are shown towards the centre of the diagram, with increased granularity moving down the hierarchy or away from the central octagon.

Some geographies are UK-wide, while others are specific to individual nations or groups of nations.



Where applicable, GSS entity codes are shown for each geography. A full list of these can be found in the Register of Geographic Codes (RGC).

### Geography Entity Code

- E: England
- S: Scotland
- W: Wales
- N: Northern Ireland
- K: Cross-border instance
- J: Experimental

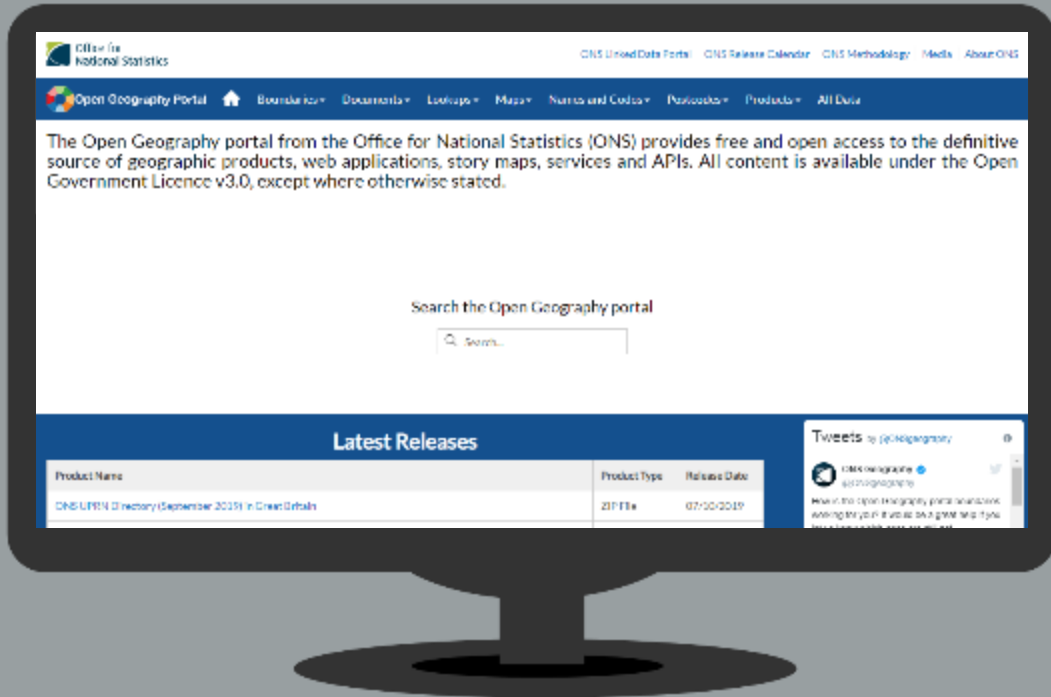
Digital boundaries are available for many geographies and can be downloaded freely from the Open Geography portal at <https://geoportal.statistics.gov.uk>

These are shown with this symbol

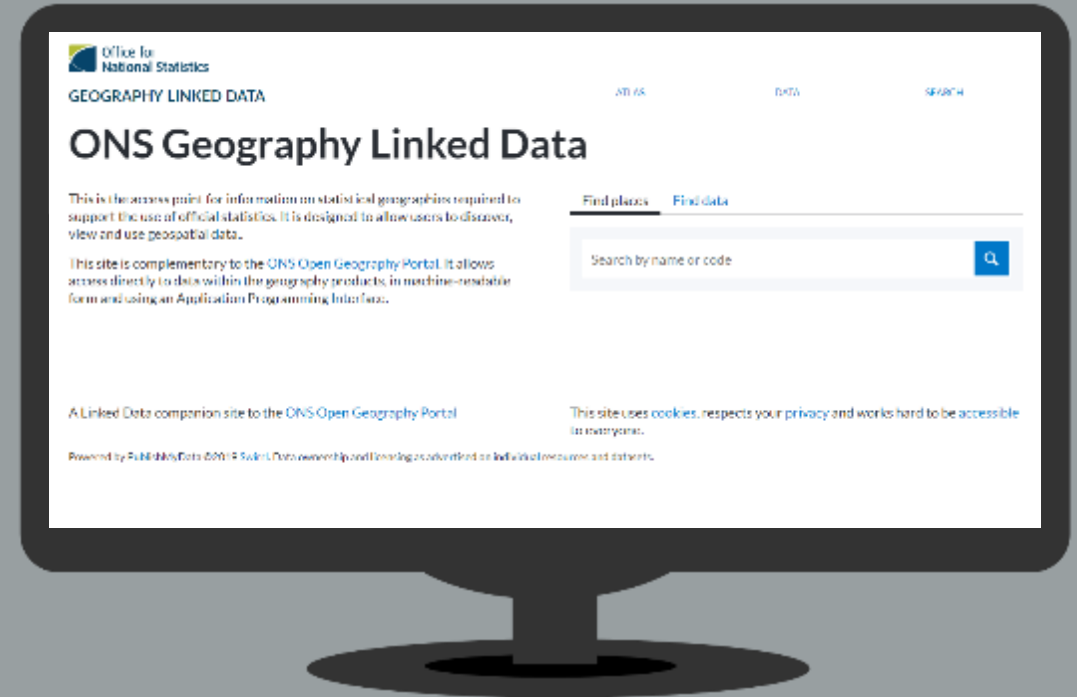
Geographies referenced on postcode and LPRN lookups and directories, and on the Index of Place Names, are marked with these symbols:

- NSPL and ONSPD
- ONSPO
- NSUL and ONSUD
- ONSUD
- IPN

# How to access



[Open Geography Portal \(statistics.gov.uk\)](https://statistics.gov.uk)



[ONS Geography \(data.gov.uk\)](https://data.gov.uk)



# Our World





# Vision

“ Support outcomes for the UK public good through the smarter linking and integration of our physical and human geographies. ”



# Four areas of focus

1



National  
Geographic  
Database

2



Cross-Organisation  
Systems  
Integration

3



Strategic  
Alignment  
of Data Strategies

4



Joint Data  
products for better  
analytical outputs

# Benefits

- Cross government efficiencies
- Standardised data practices
- Increased data quality & timeliness
- Greater geospatial products for granular / targeted interventions





# One Geo Marketplace

- Greater quality & consistency across datasets & documentation
- Improved comparability & usability through aligned metadata standards
- Greater functionality & flexibility in building geospatial datasets
- Saved time & resources!



# We need...

# ...YOU!



Slido:  
#LOGCxPSGA2024



<https://app.sli.do/event/2BUdrLqiUsudxUePWNm1ck>

ONS.Geography@ons.gov.uk

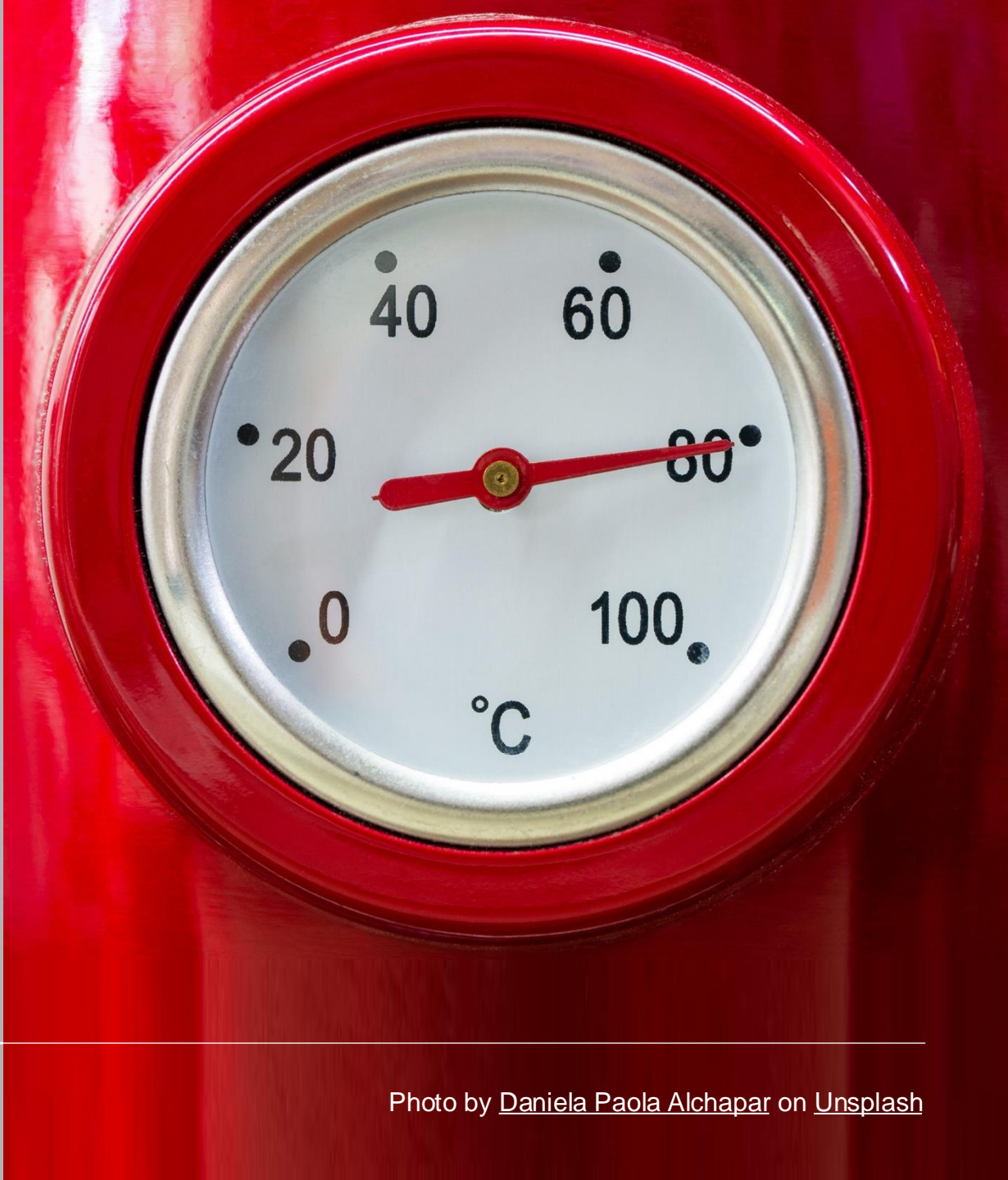


Photo by [Daniela Paola Alchapar](#) on [Unsplash](#)

# Thanks!

ONS.Geography@ons.gov.uk



Geospatial  
Commission



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**THE NEXT SESSION  
WILL START AT 13:40**



## AFTERNOON PROGRAMME

TIME	SESSION	PRESENTER	
13:40	Welcome back	Gemma McAusland	Ordnance Survey
13:45	Showcasing change over time (SCOTi)	Steve Campbell	Ministry of Housing Communities and Local Government
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15:35	PSGA Future capabilities update	Andy Wilson	Ordnance Survey
15:50	Closing comments	Steven Sibbald	Geospatial Commission
16:00	Close		



# Showcasing Change Over Time (SCOTi)

Steve Campbell

Ministry of Housing, Communities and Local Government

November 2024



*Study the  
past, if you  
would divine  
the future*

- Confucius



(© Getty images)



# Background

Traditional longitudinal studies

- Time Consuming to compile

- Small scale (Geographically speaking)

- Single policy focused

True story of Funding/Interventions/Incidents

- Hard to draw rapid conclusions

- Hidden by scale

- Siloed conclusions

# Initial Proposal



Making use of new  
APIs from OS



Look at how places  
have evolved over time



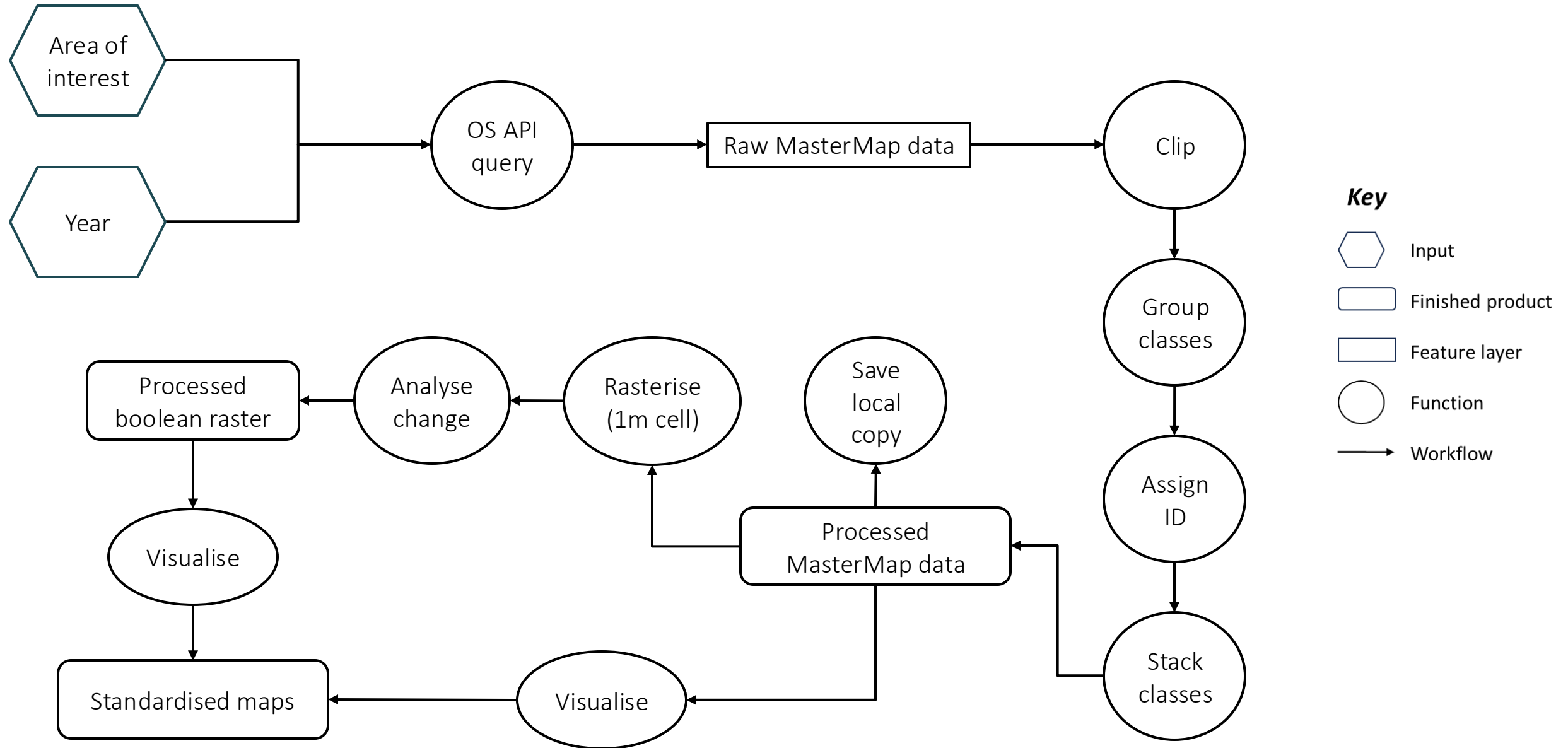
Overlaying multiple  
timeseries datasets to  
show detailed change



Conversation Starter



Causality Exploration

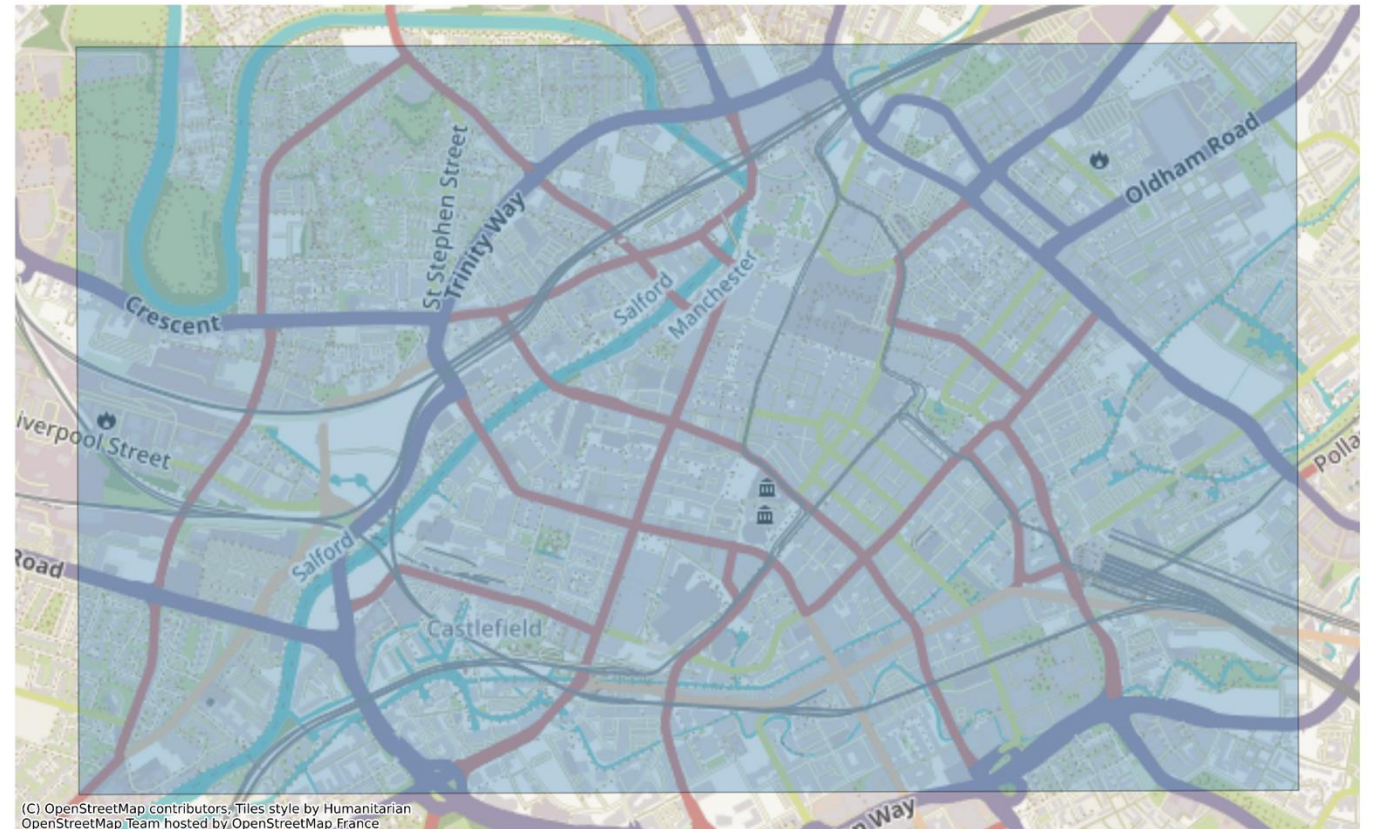




# Manchester

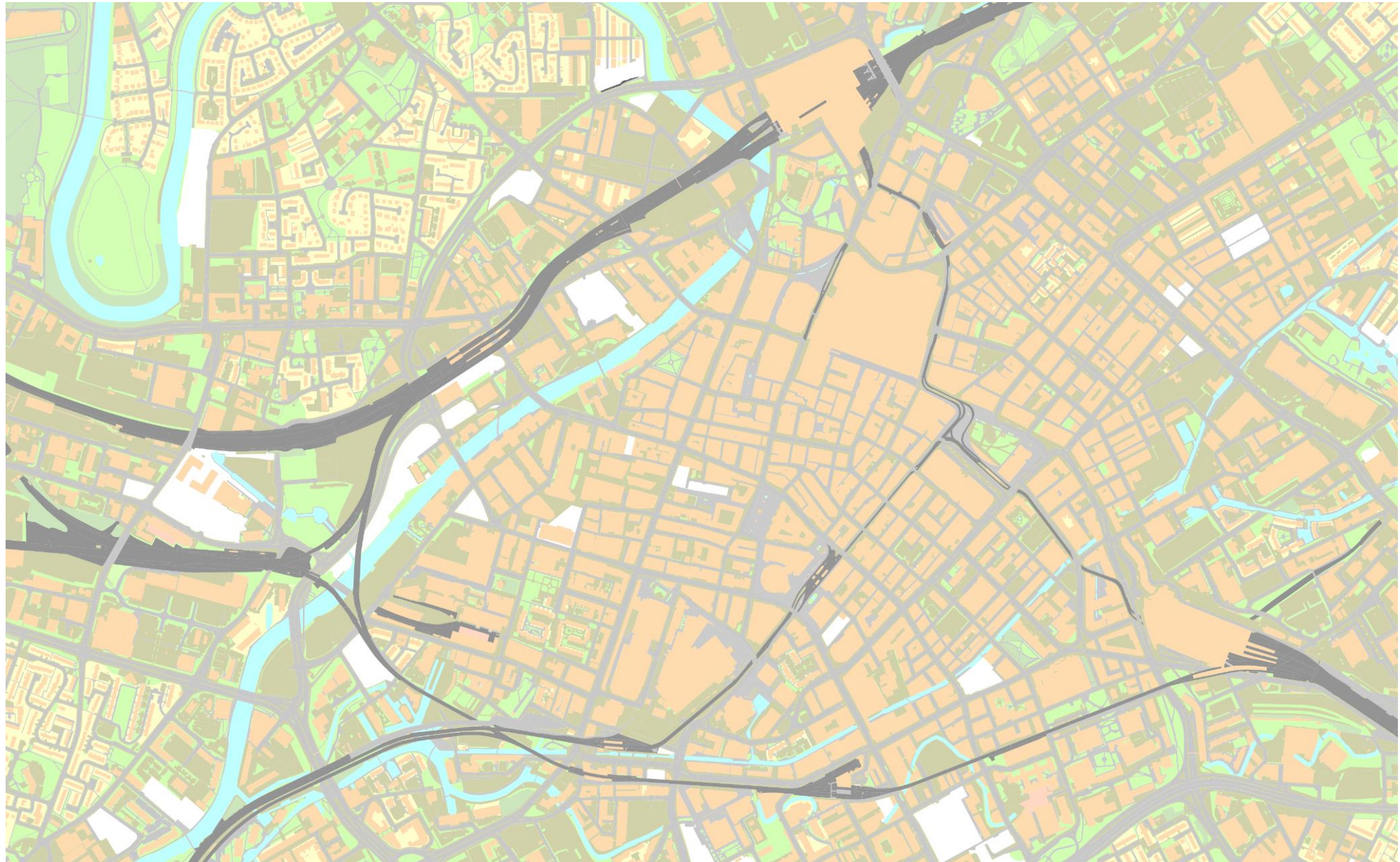
OFFICIAL

- City centre region
- Roughly 19km<sup>2</sup>
- Analysed a 15-year period (2008 – 2023)
- ~25k polygons per year
- Entire end-to-end process ~1 hour



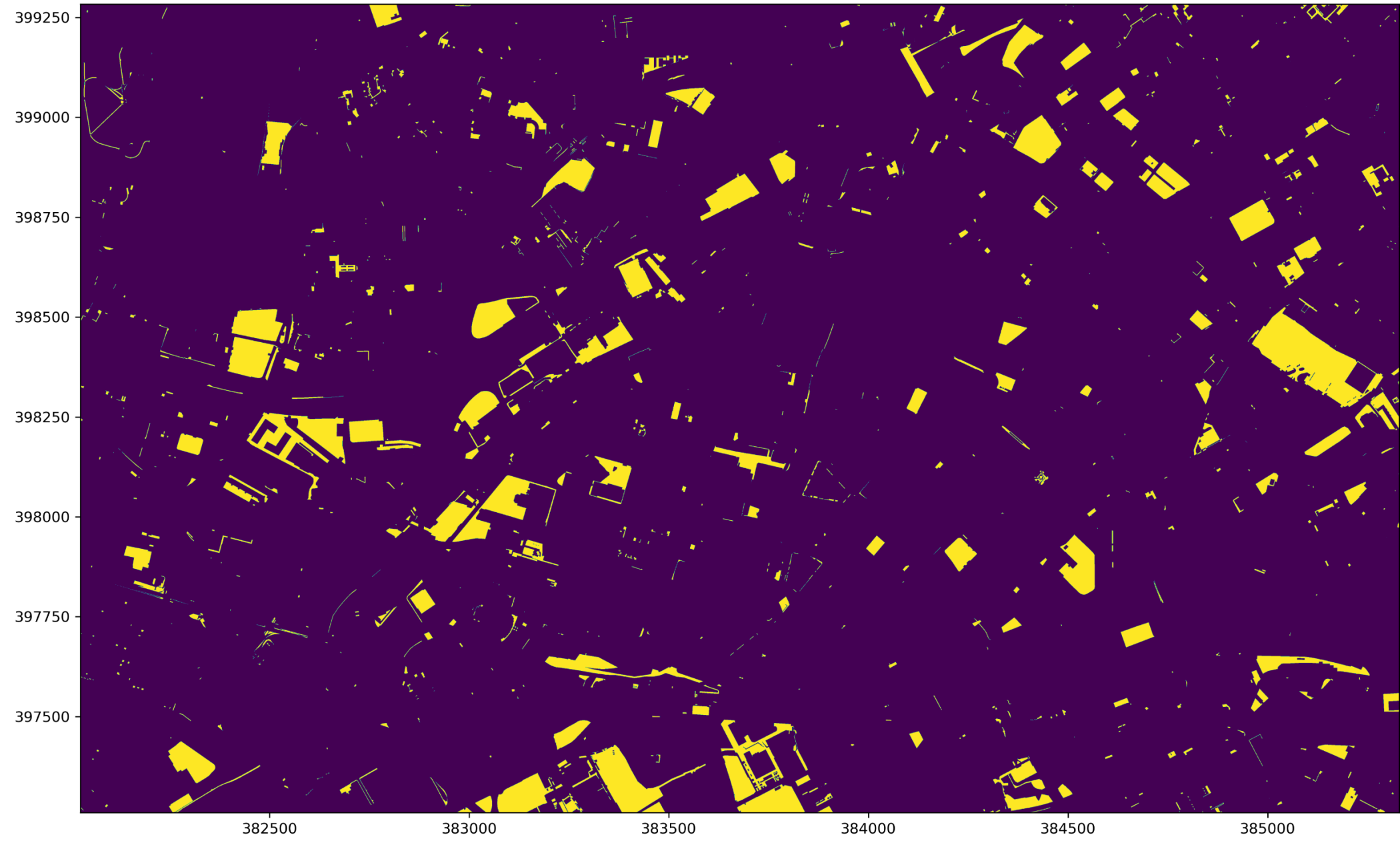
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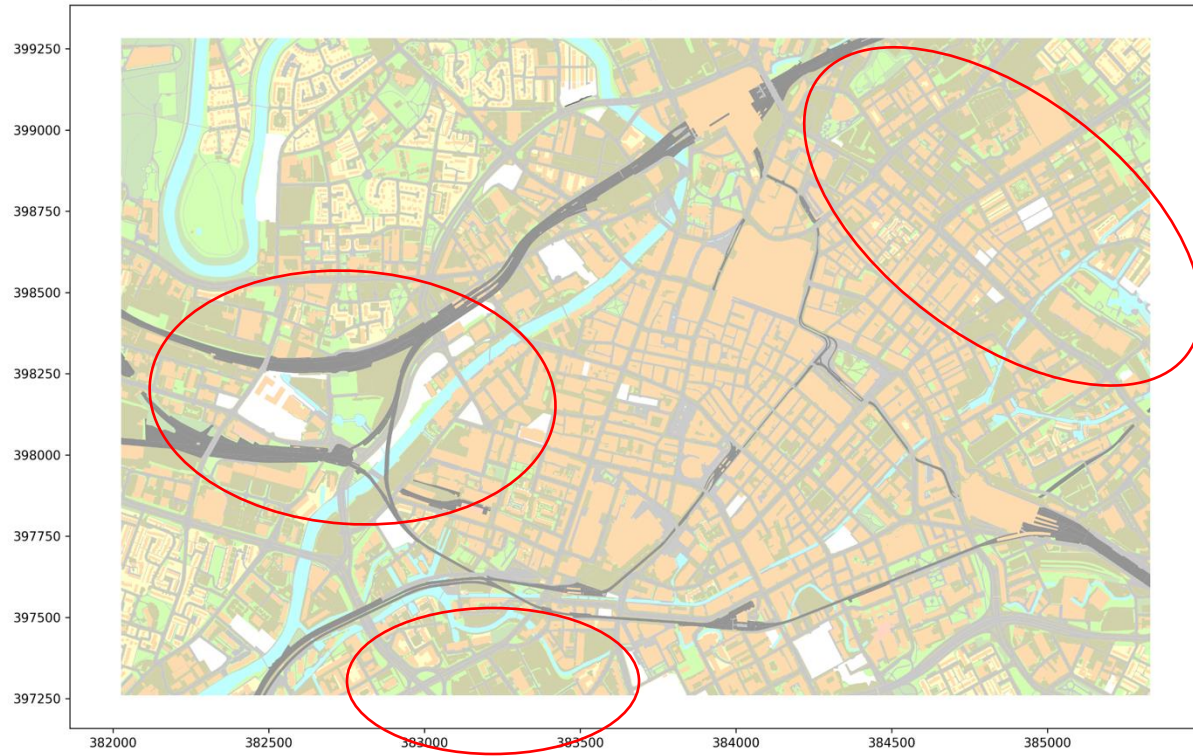
OFFICIAL

Change

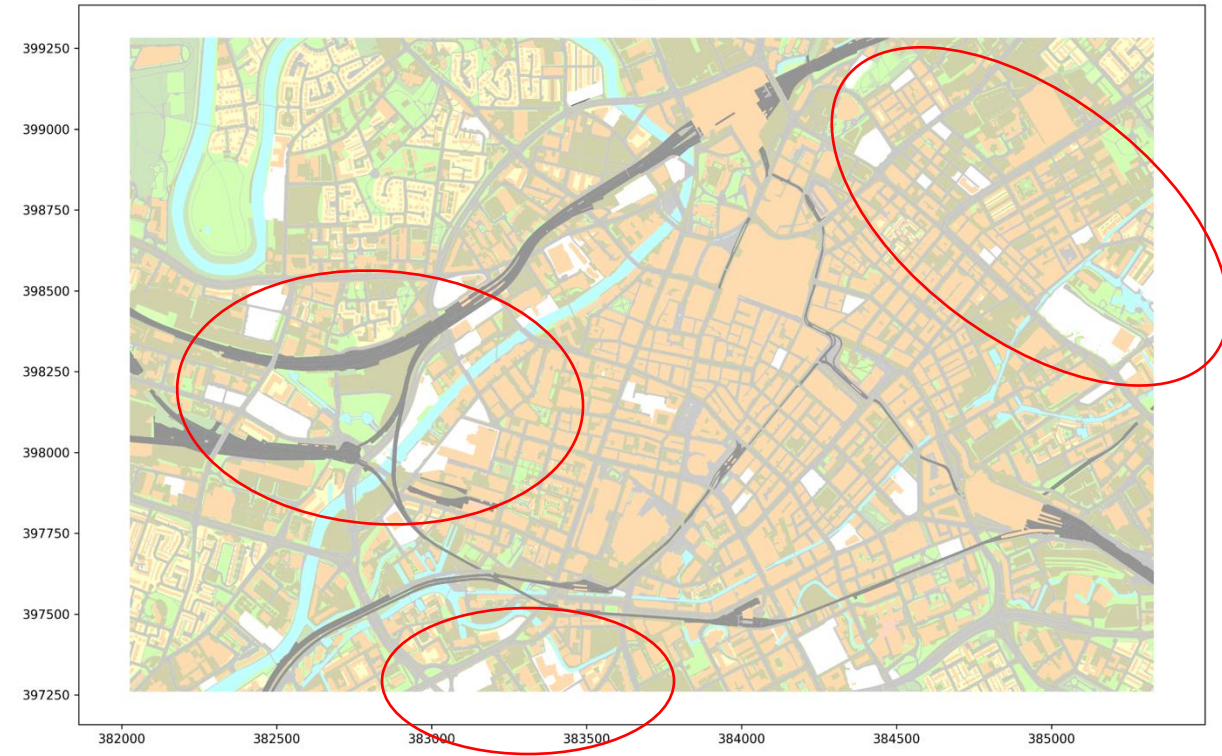




2018



2019





2008



**A FEW  
MINUTES  
LATER...**



# Vision & Strategy

## **Our Vision:**

To build capability within the DPM DU and more broadly to inform place-based decisions. This will ultimately address key priorities such as housing, planning, new settlements, and child poverty.

## **Our Strategy:**

- To continuously collaborate with the DPM DU and stakeholders to enhance departmental capabilities.
- Additionally, shape and refine SCOTi to support the department's priorities by improving place-based insights.
- The data, techniques and skills developed on SCOTi will help further analytical techniques across DLHUC, X-Gov and the wider public sector (Devolved Administrations)

# User Feedback

## What has user feedback said about SCOTi:

To date, we have collaborated with GMCA to further develop SCOTi. Based on user feedback from GMCA, we have received positive feedback about developing SCOTi further for the purpose of supporting policy objectives.

## What we have found:

Place-based data has been static to date:

- When comparing spatial data, GMCA have been doing this by layering.
- GMCA do not use much place-based data to inform policy, but there is a demonstrated need to improve this
- They hold over 400 datasets, but do not have the capability or capacity to combine any of this into single data bases.

GMCA have highlighted ways in which SCOTi could help inform policy:

- There has been specific demonstrated value for using SCOTi with EPC data to inform energy policy.
  - Fuel poverty is a big policy focus but have struggled with getting this at a granular level.
  - Interest in IMD/eligibility factors for grants and properties still below a certain energy threshold.
- Benefits for the application of SCOTi with land registry data has also been highlighted.
  - Residential spillover effects.
  - Track movement with EPICC going up.
  - Pushing domestic retrofit.

# Use Cases

WHAT WE ARE CURRENTLY WORKING ON	WHAT DOES THIS DELIVER
Analysis on EPCs and Energy Efficiency within Manchester	Improved insight and understanding for GMCA to deliver more effective policy
Analysis on built environment on two specific sites in Manchester	
Partnership development with Ordnance Survey to refine and develop new ways of data sharing.	Improve OS knowledge and expertise using new geospatial datatypes. This will prove beneficial to all public sector, and UK PLC over the coming years, through quicker data analysis speeds and more flexible data storage.
Building connections across government and education with similar interests in SCOTi	Delivering further use cases and benefits from SCOTi



# User Feedback

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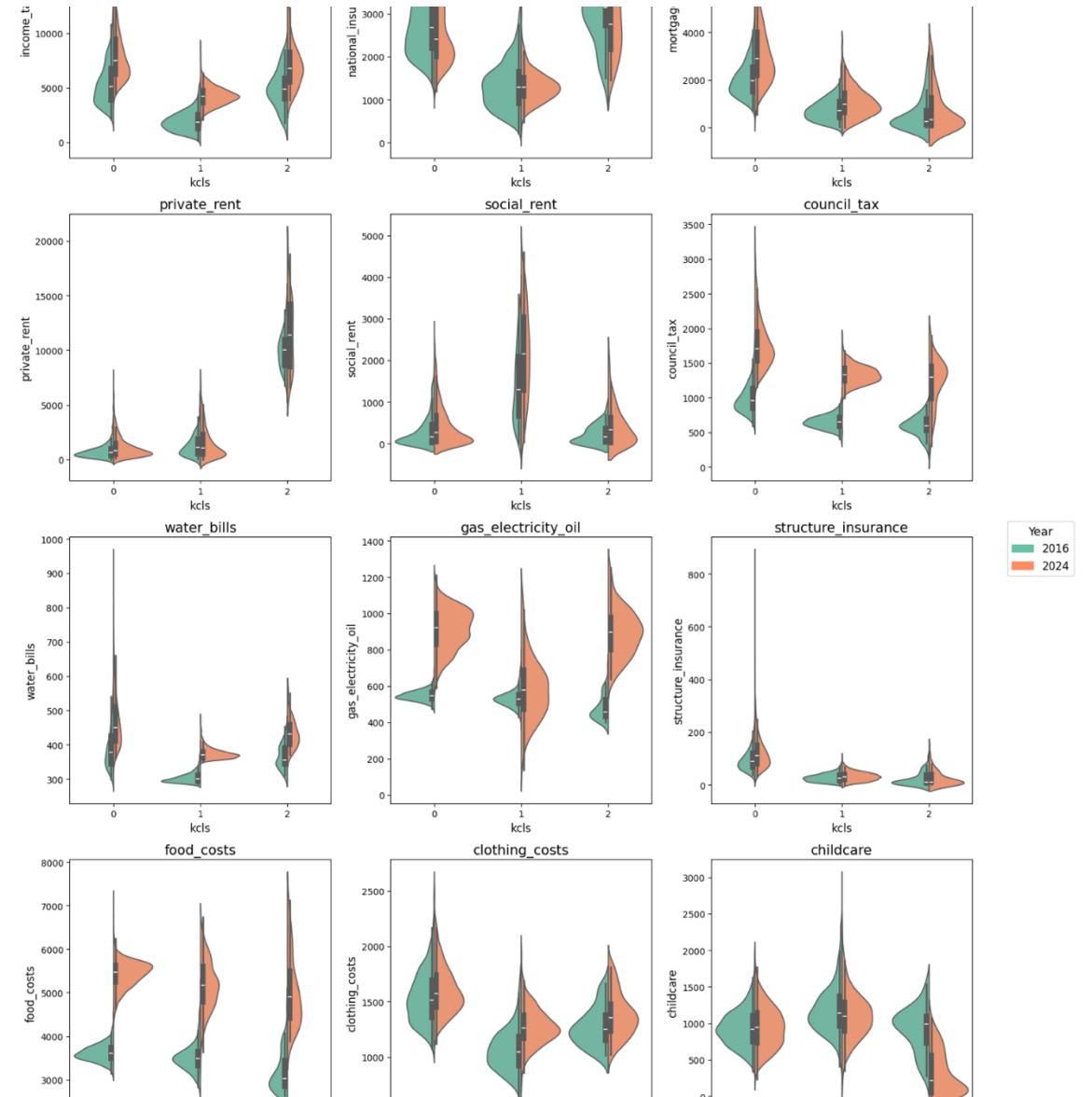
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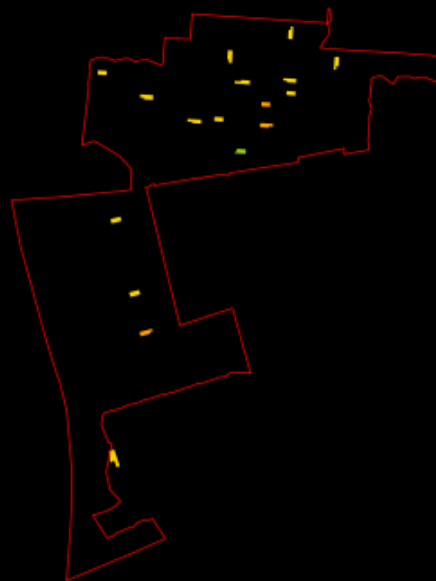
# Sample Results



2016: Owner-occupied



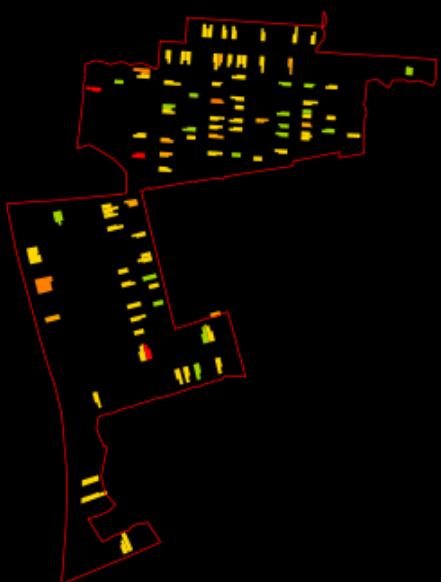
2016: Rental (social)



2016: Rental (private)



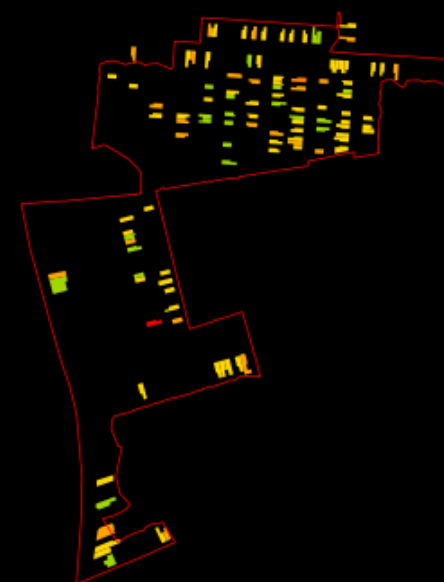
2024: Owner-occupied



2024: Rental (social)



2024: Rental (private)





# How SCOTi is Adding Value

## There are 3 main ways that the development of SCOTi is currently adding value

### 1. Access to new data

- We now have access to, and better understanding of, datasets we did not have access to before
  - The SCOTi archive
  - Energy Performance Certificates
  - Income based data, plus connections to more organisations with data relating to energy retro fitting and smart meters

### 2. Value through partnerships:

- Working on SCOTi has strengthened our partnership work
  - Working directly with Ordnance Survey has led to greater understanding of their content, and for Ordnance Survey greater insight in their forward direction for product and data delivery.
  - Gained further insight into GMCA's policy priorities and how we can support them, as well as potentially other devolved administrations.

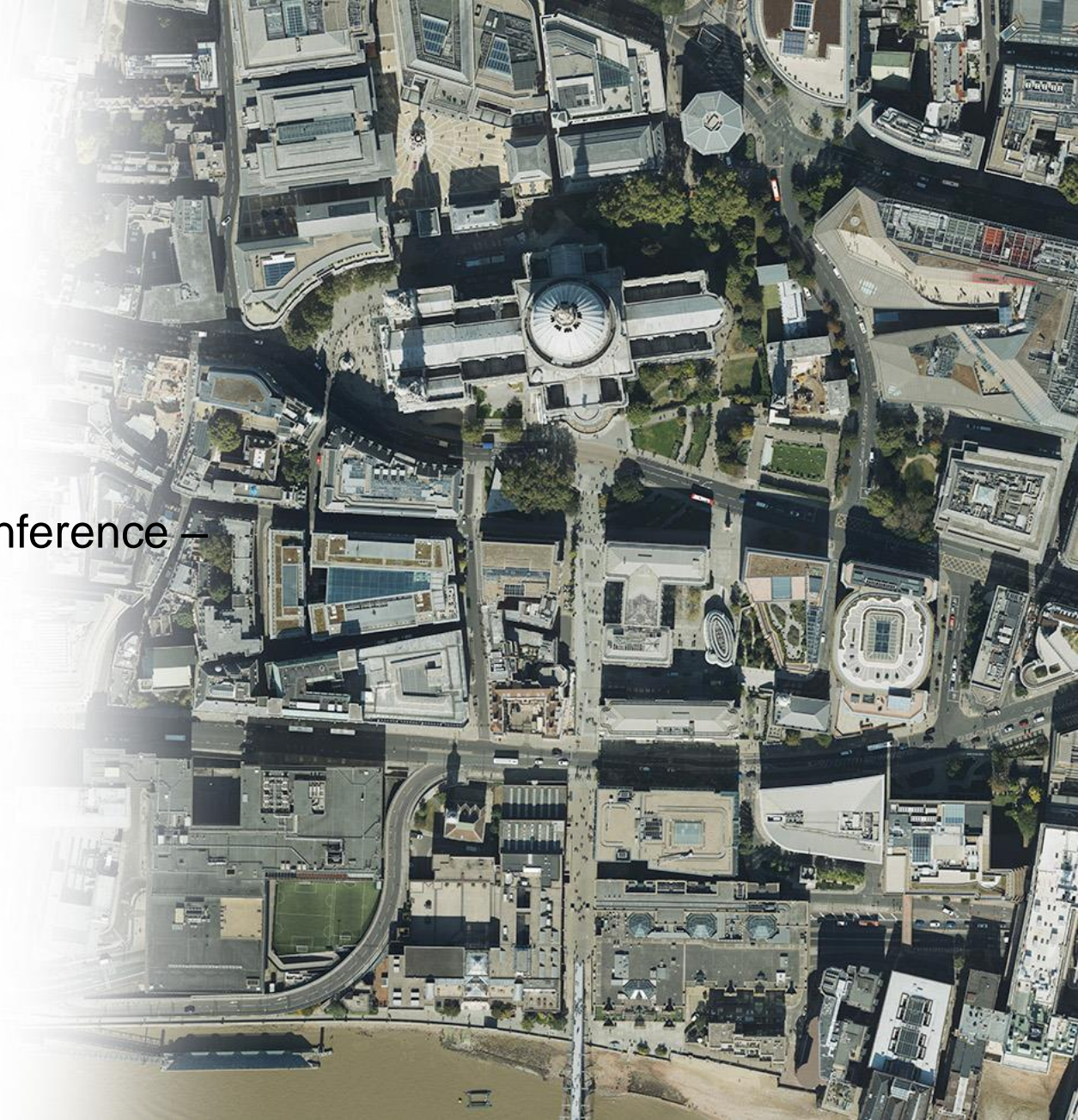
### 3. Building capabilities:

- Improving capabilities across DPM DU
  - Work on SCOTi has pushed the team's knowledge and understanding across multiple datasets
  - Learning and development on models and statistics have been transferable to other applications across DPM DU, supporting the work on new towns and ATLAS

# APGB Presentation

Geospatial Commission Contracts Regional Conference —  
London 2024

Ralph Coleman, Bluesky International Ltd.





# APGB Introduction

- What is APGB?
- Core Products
- Case Study
- What's new?
  - 5cm
  - 25cm DSM
  - Lot 3
  - Moving toward a 2 year update programme



# Core Products

12.5cm Aerial Photography (RGB) | Location: Essex





# Core Products

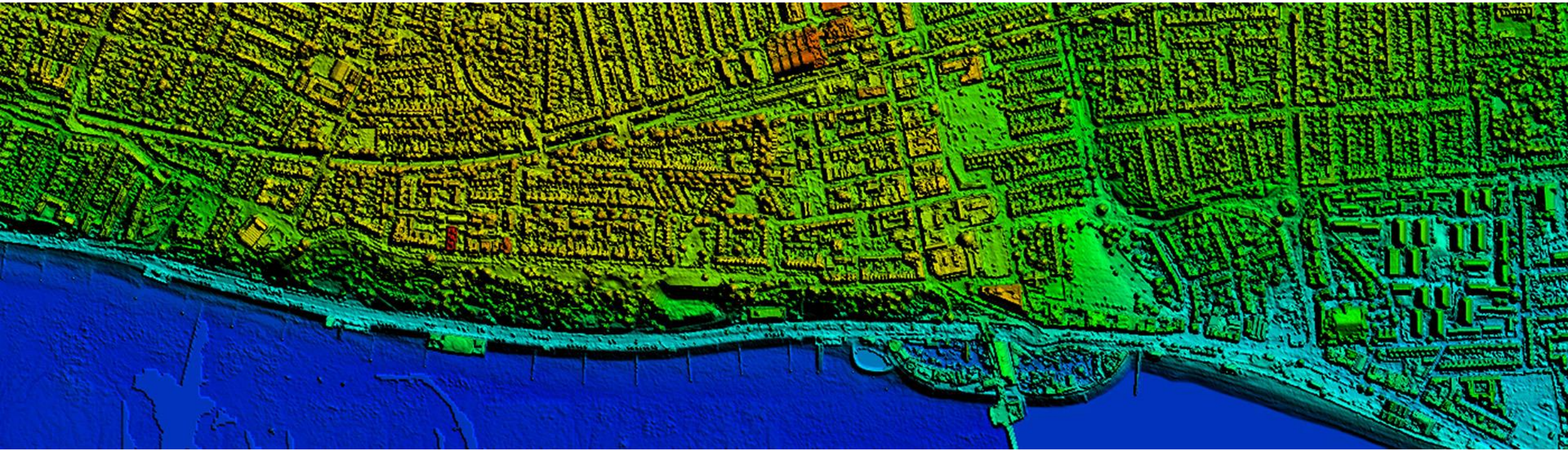
50cm Colour Infrared (CIR) | Location: Essex





# Core Products

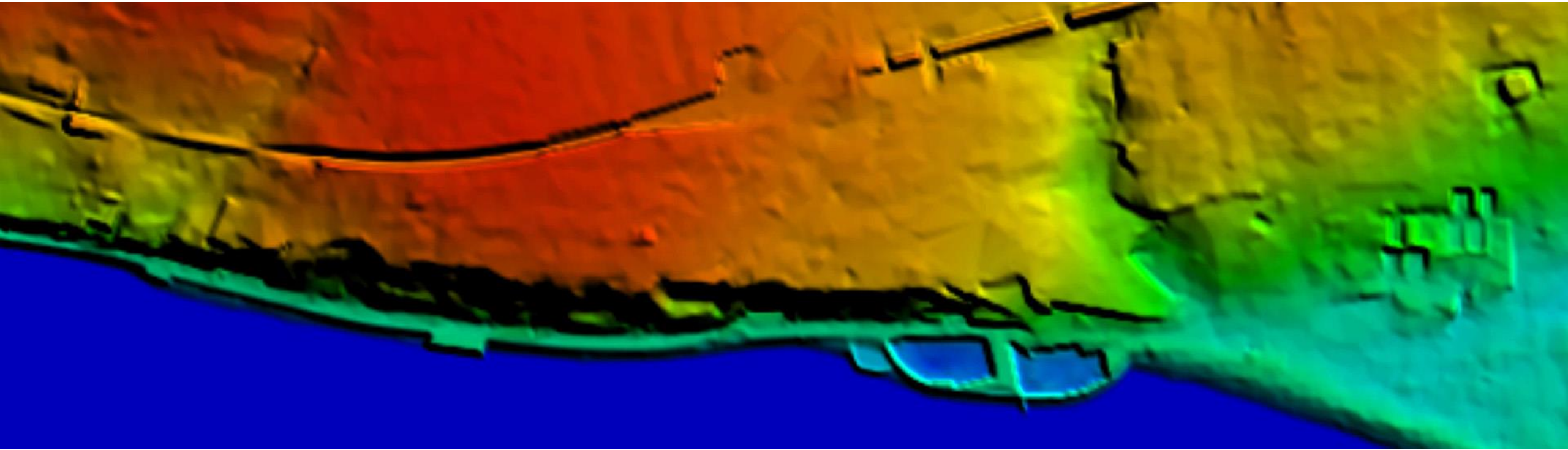
2m Digital Surface Model (DSM) | Location: Essex





# Core Products

5m Digital Terrain Model (DTM) | Location: Essex



# APGB Case Study

## The Mersey Forest Partnership



**Client:** The Mersey Forest is created from a partnership of local authorities (Cheshire East, Cheshire West and Chester, Knowsley, Liverpool, Sefton, St.Helens, Halton and Wirral), landowners, the Forestry Commission, Natural England, Environment Agency, businesses, and local communities.

**Summary:** The Mersey Forest's Natural Flood Management (NFM) team are working to create effective and sustainable flood prevention and reduction measures. Their ethos is to protect what is there, to restore and to mimic nature. Additionally NFM should improve water quality, biodiversity, habitats and climate resilience.

**Challenge:** Over the past decades and centuries, people have changed the course of river paths. In UK cities in particular we have a heavily modified water network. This was primarily due to the need in the post-war era to make the land more productive. However, it is now apparent from these historic changes coupled with the effects of climate change, that there is a need to slow down water flow and store water in upper catchment areas.

Hard engineering is incredibly expensive and not particularly aesthetic so natural flood management solutions need to be found.



# APGB Case Study

## The Mersey Forest Partnership



**Solution:** Using Bluesky's 12.5cm aerial imagery and Height data via the APGB download portal, the Mersey Forest are able to create flood management interventions that can then be introduced to land owners and community groups.

The aerial data enables clear plans to be shared with contractors and land owners for cost effective flood management solutions that are sympathetic to the natural environment.

**Results:** Using Bluesky's data has enabled a time and resource efficiencies, saving time and cost because the team are able to assess exactly what materials contractors need for natural flood management projects.

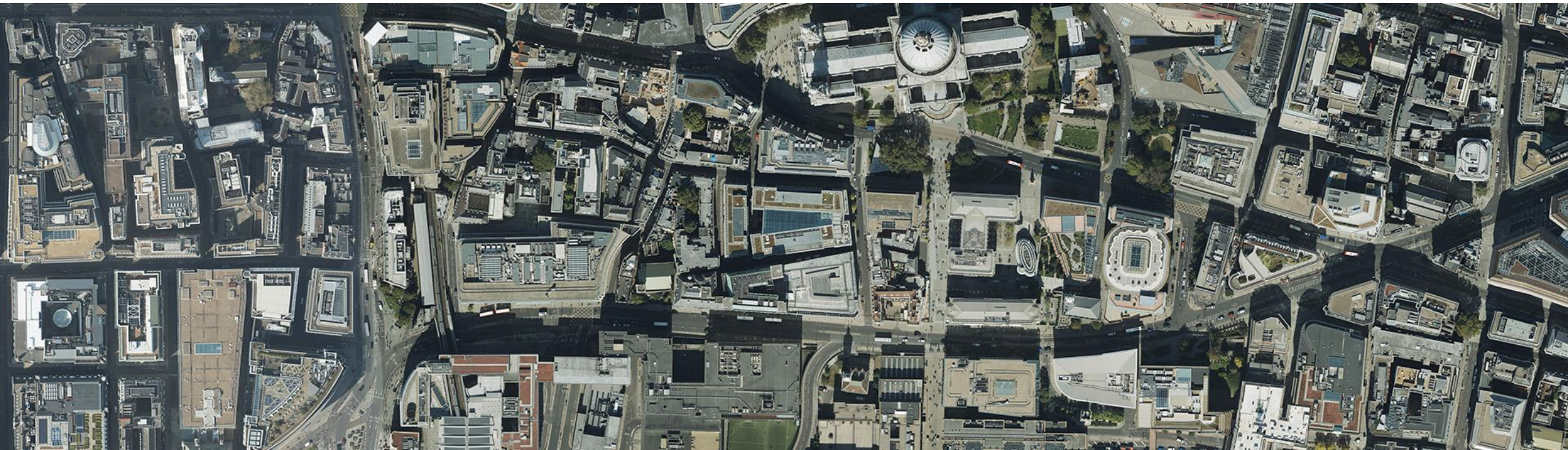
They can see where there is a need to intercept water and slow it down by knocking the peak flow off meaning there is lower water levels.

The data has resulted in the team being able to provide comprehensive end-to-end reviews from the initial appraisal through to the design and delivery on-site and future monitoring.



# 5cm Aerial Photography

5cm aerial photography of 25 cities is available to APGB Members via the Mapshop and Web Services. More to come!





# 5cm Aerial Photography

- Clearer, sharper, richer
- Increased accuracy
- Applications:
  - Planning enforcement
  - Asset inventories
  - AI/ML
  - Event planning
  - Security
  - Urban greening/BNG



# 5cm/12.5cm Aerial Photography Comparison



5cm



12.5cm





5cm RGB



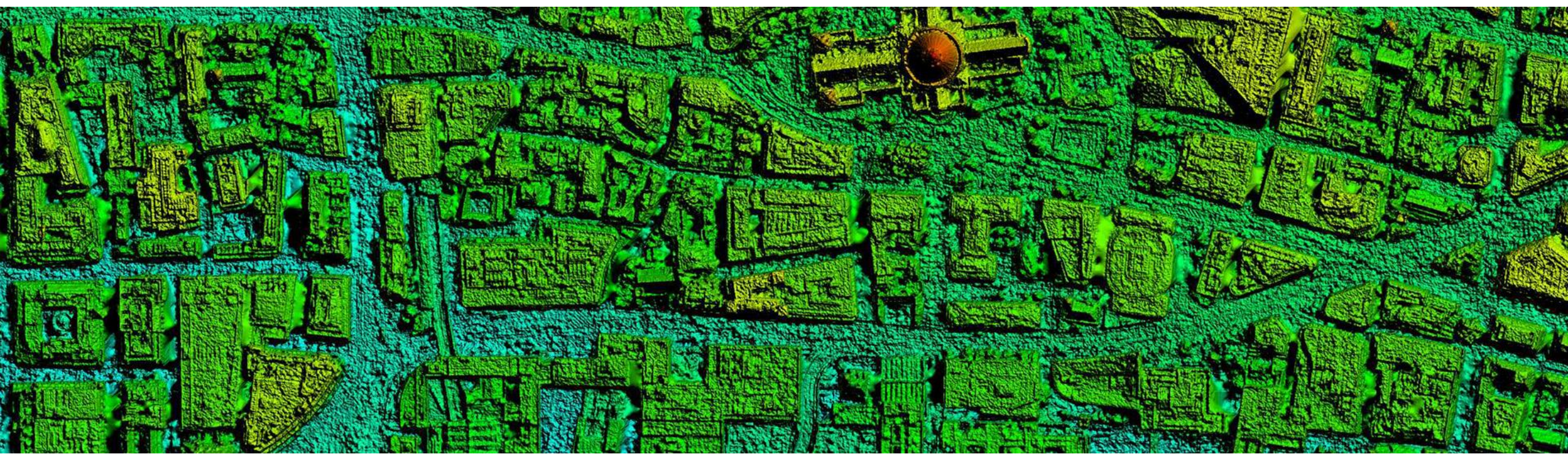


12.5cm RGB



# 25cm DSM

25cm DSM for Great Britain is available to APGB Members  
by request





# 25cm DSM

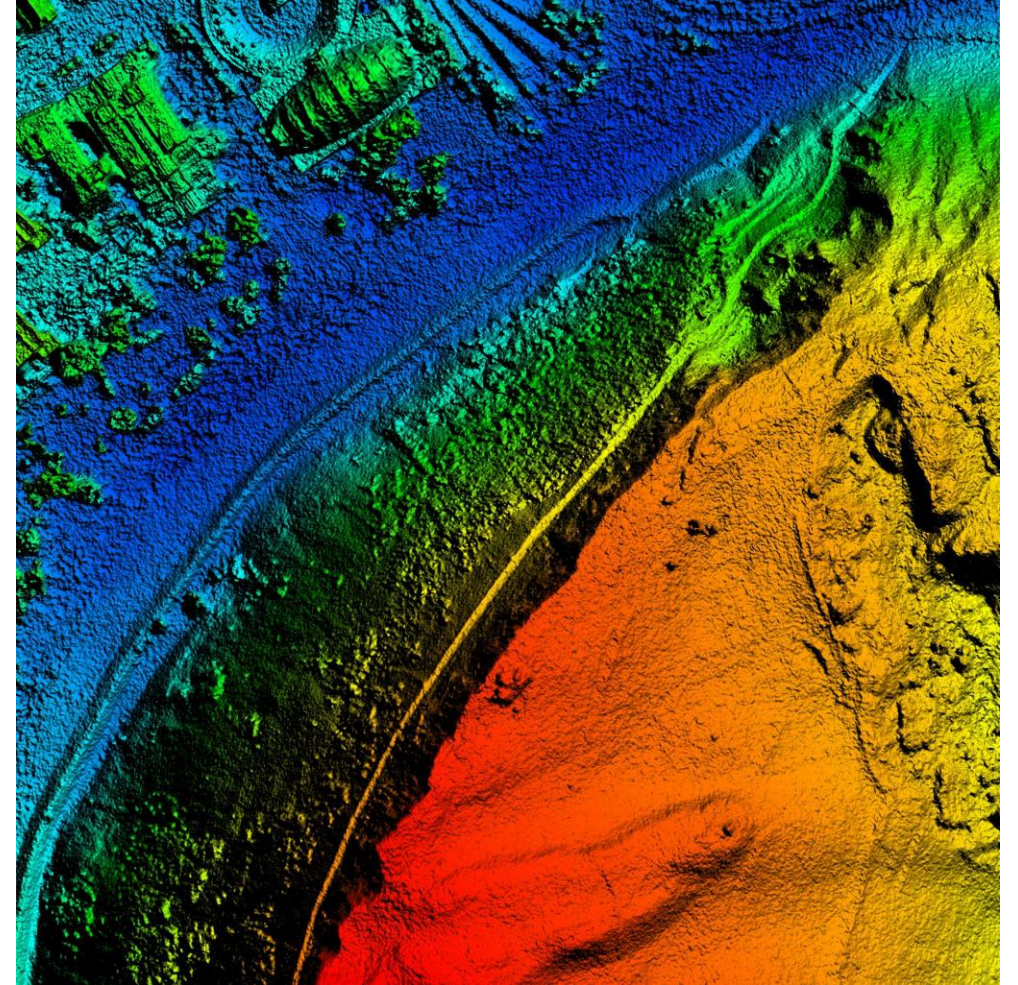
25cm DSM for Great Britain is available to APGB Members  
by request





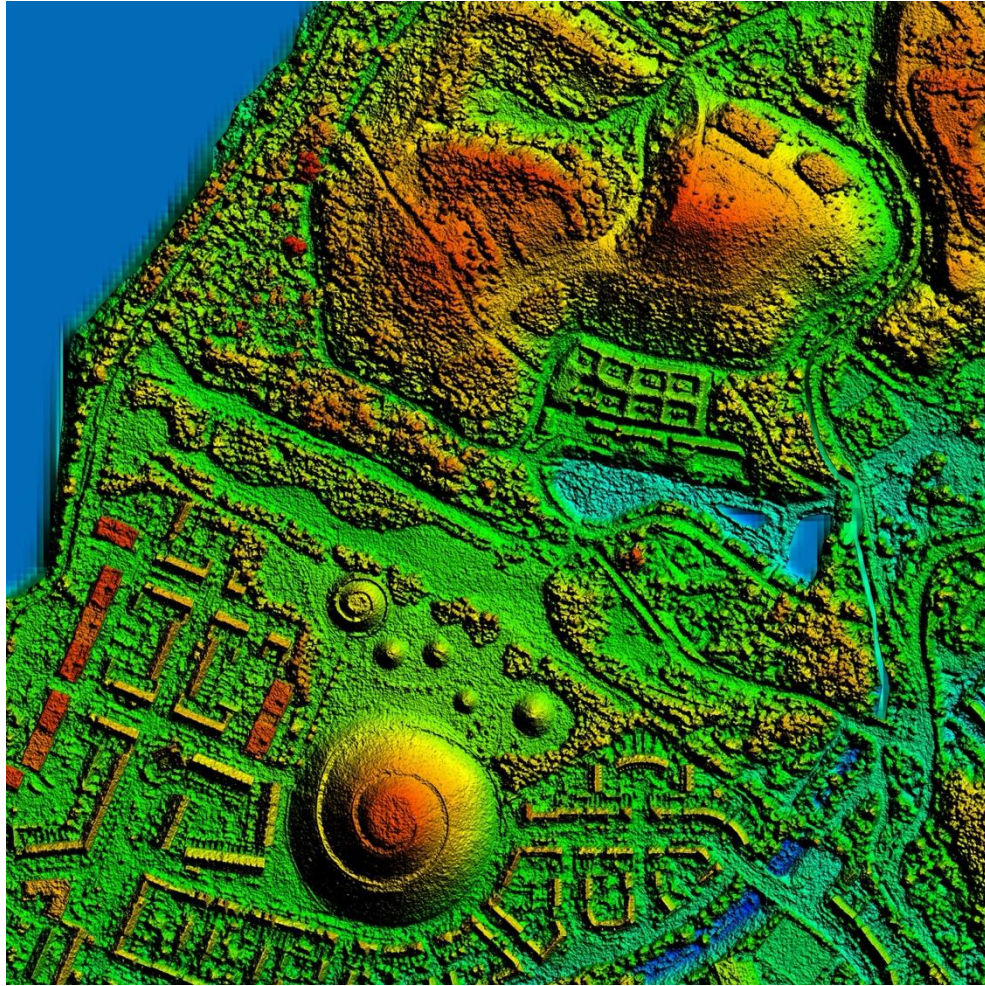
# 25cm DSM

- Denser, more detailed surface
- Feature rich
- Increased accuracy
- Increased number of applications for:
  - LoS/ZVI analysis
  - Visualisations/Public engagement
  - Change detection
  - Land use analysis
  - Infrastructure/Urban planning

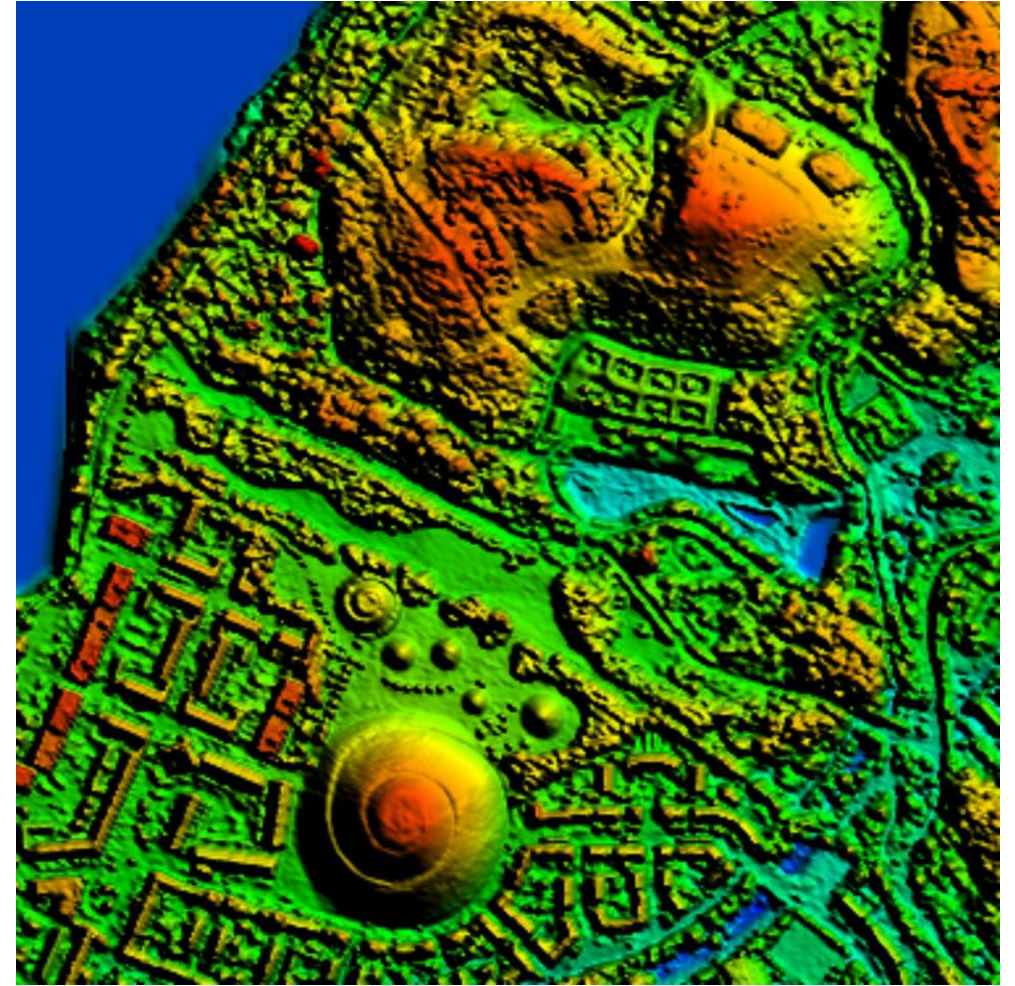




# 25cm/2m DSM Comparison



25cm



2m



# 25cm/2m DSM Comparison

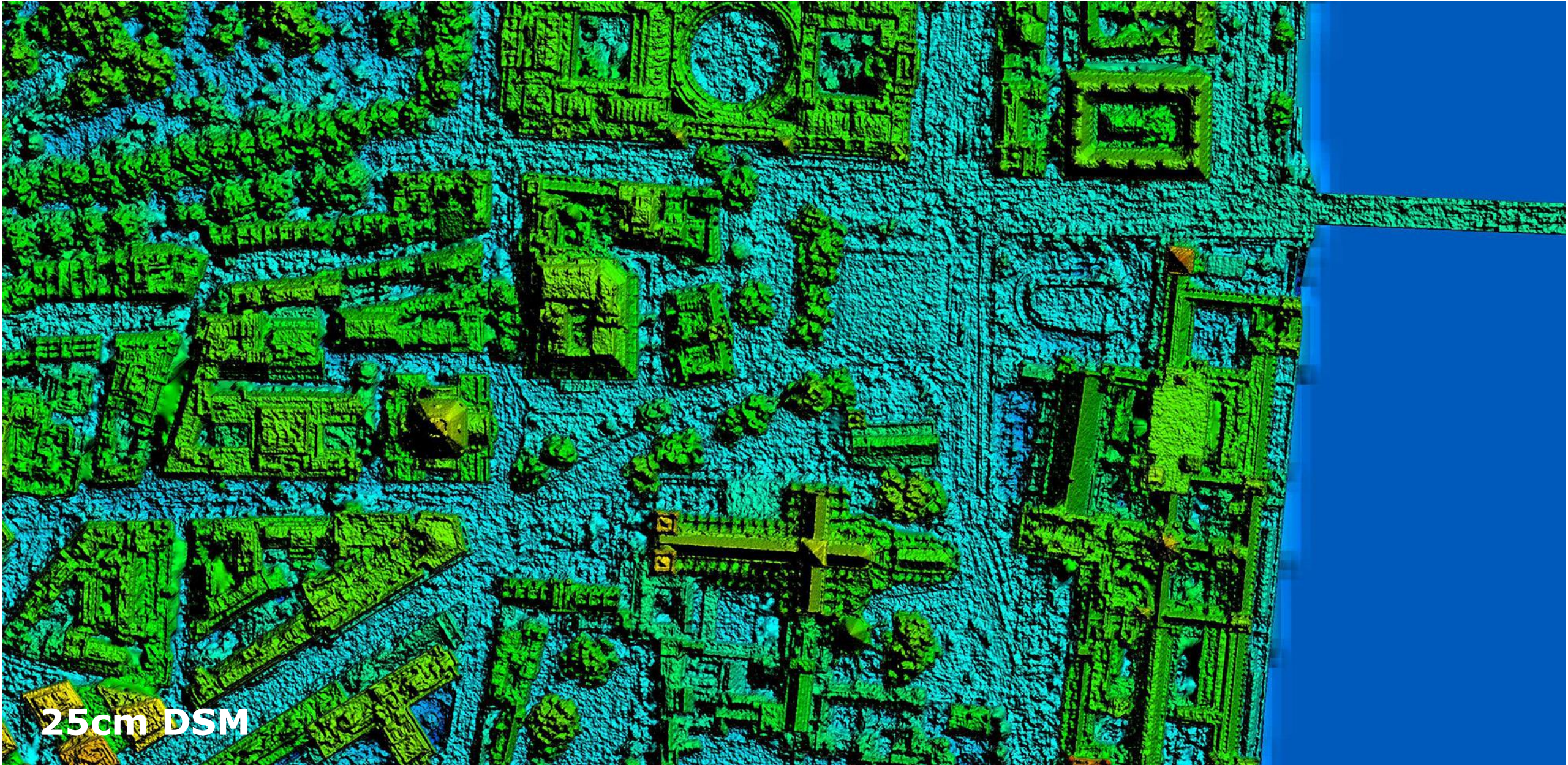


25cm



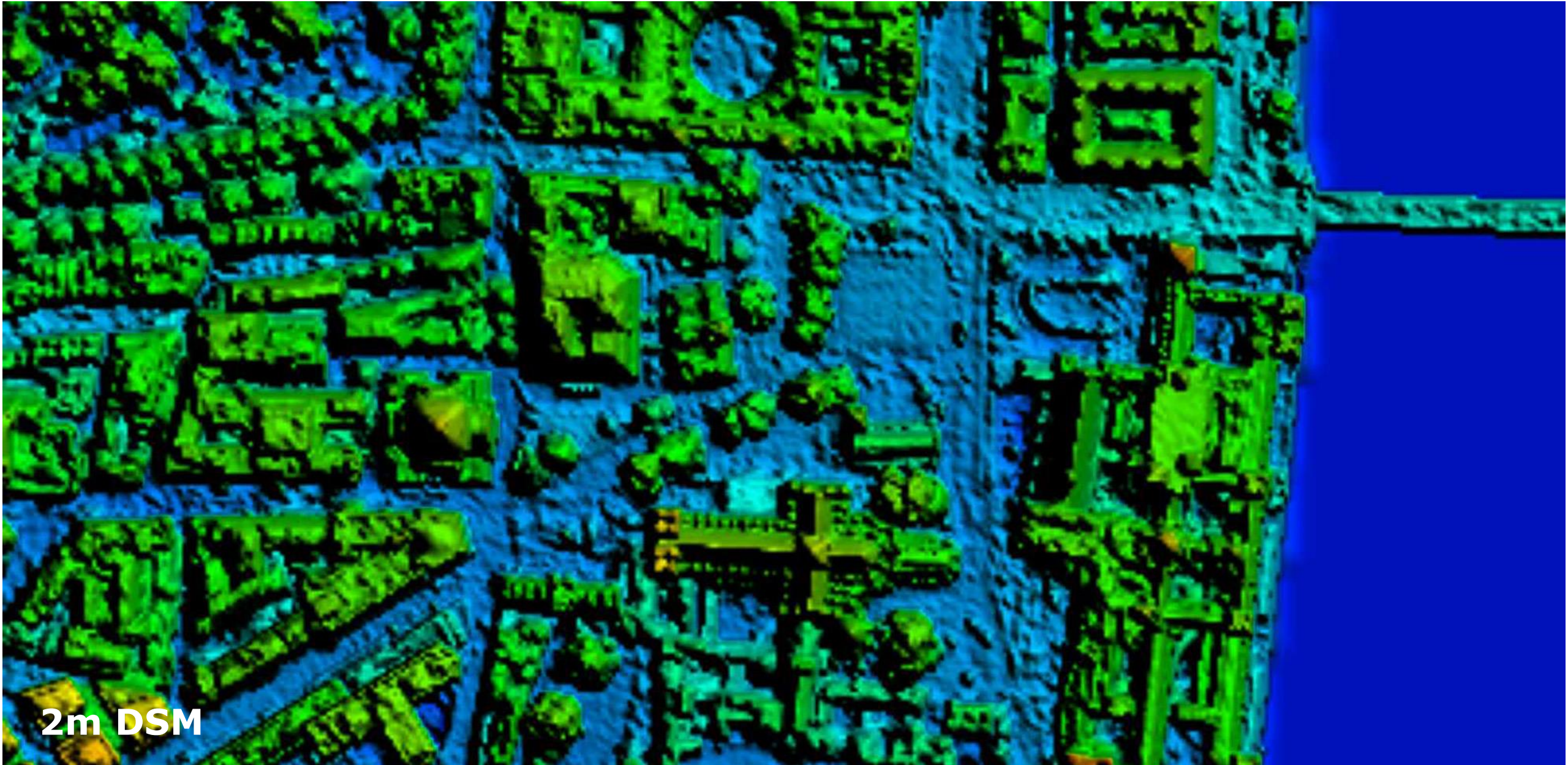
2m





25cm DSM





2m DSM

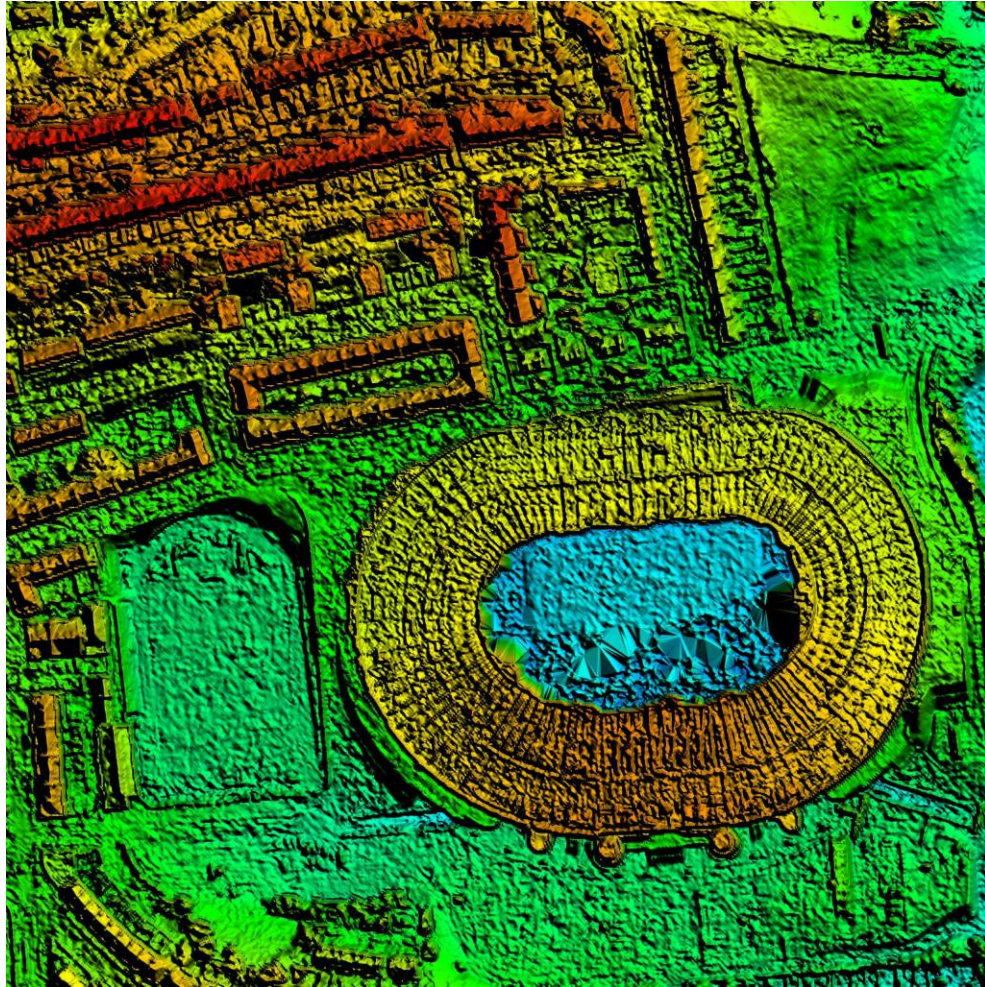




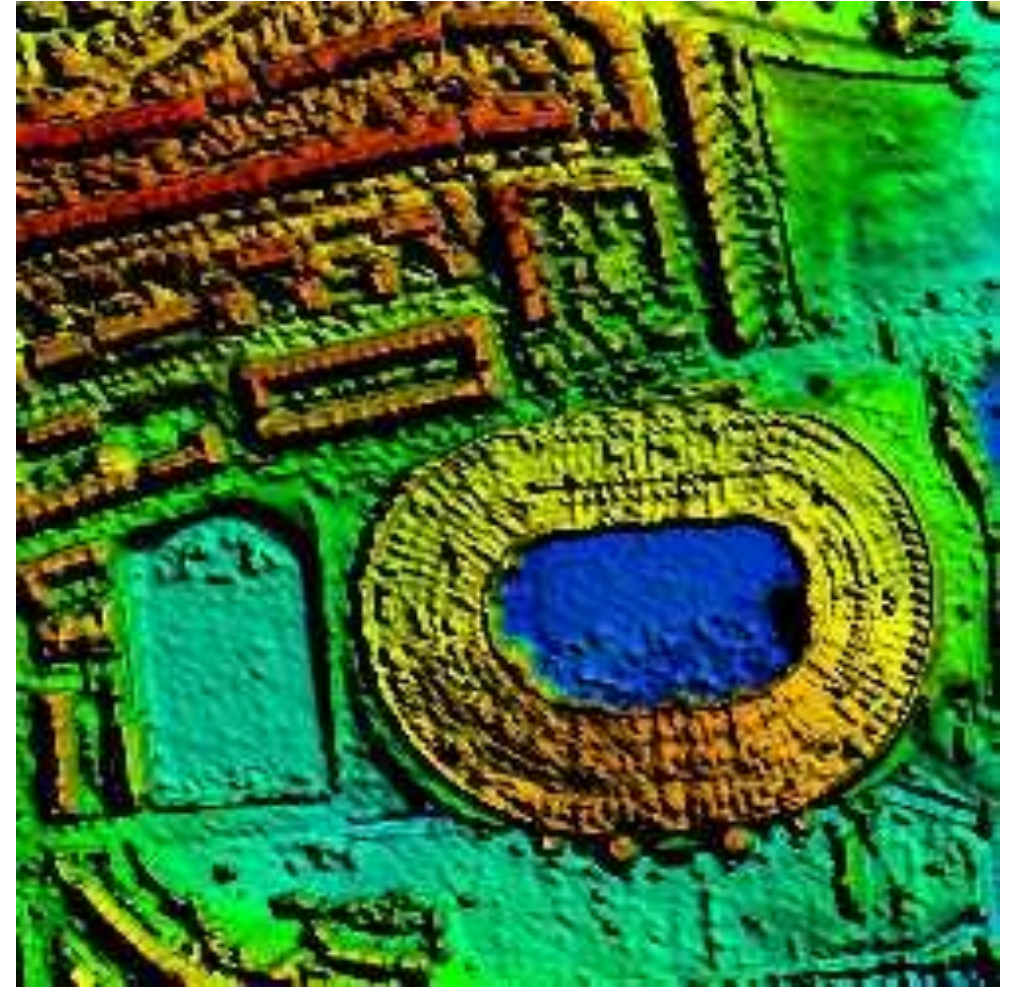
12.5cm RGB



# 25cm/2m DSM Comparison



25cm



2m



# 25cm/2m DSM Comparison



25cm

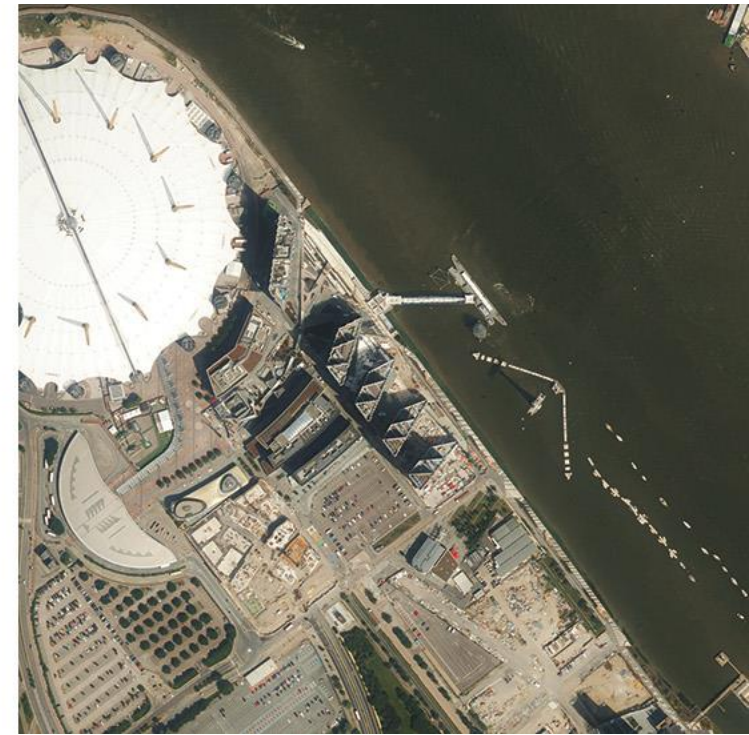
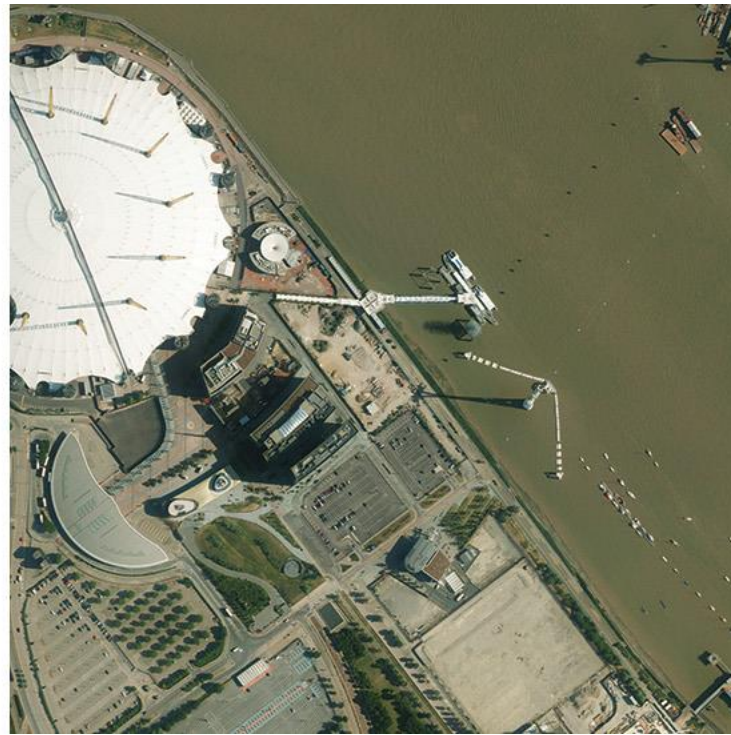
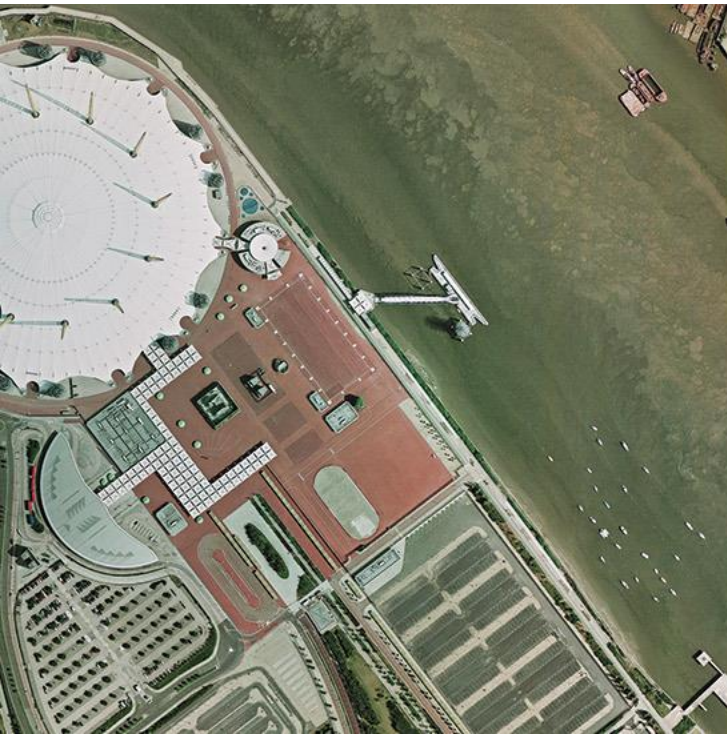


2m



# Historical Aerial Photography

Historical Photography dating back to 1999 is available to all members via the Mapshop & Web Services.







2014





2017





2023



# APGB Stats

- Nine new Unique Members in this contract:  
***Crown Estate Scotland, East Suffolk District Council, South Derbyshire District Council, The North East of Scotland Transport Partnership, Worcester City Council, Crofting Commission, Clackmannanshire Council Oadby & Wigston Borough Council***
- **492** Members have signed the new licence
- **2,414,802 sqkm** sqkm already delivered. 14% increase on the same period in 2023
- **16** orders of 5cm Aerial Photography



# APGB FAQs

- Can my sub-contractors access the Products?  
***Yes, as long as a signed Sub-contractor Licence is in place they can access the Mapshop and Web Services***
- What copyright statement needs to be used?  
***Lot 1: © Bluesky International Ltd***  
***Lot 3: © Bluesky International Ltd and Getmapping Ltd***
- How do I see if my area has been updated?  
***The planned flying, capture updates and currency shapefiles of all products are available at [APGB.co.uk](http://APGB.co.uk)***



# Thank you

Bluesky International Ltd  
Ralph Coleman





# Introducing the NEW APGB Web Services

## APGB Lot 2

---

GC Public Sector & PSGA event

# Aerial Photography and Height Data Web Services

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- OVERVIEW OF SERVICES
- MEMBER USAGE
- PERFORMANCE DATA



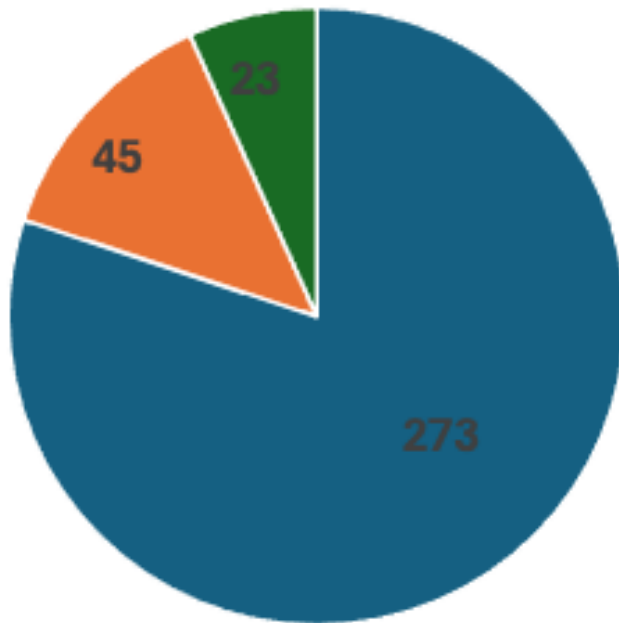
# APGB WEB SERVICES OVERVIEW

---

- SERVICES
  - WMS / WMTS
  - WFS
- DATA
  - AERIAL PHOTOGRAPHY (RGB) 12.5CM
  - COLOUR INFRARED AERIAL PHOTOGRAPHY (CIR) 50CM
  - DSM / DTM AS SHADED RELIEF
  - HISTORIC AERIAL PHOTOGRAPHY GOING BACK TO 1999
  - INDEX OVERLAY LAYERS FOR CURRENT AND HISTORIC DATA

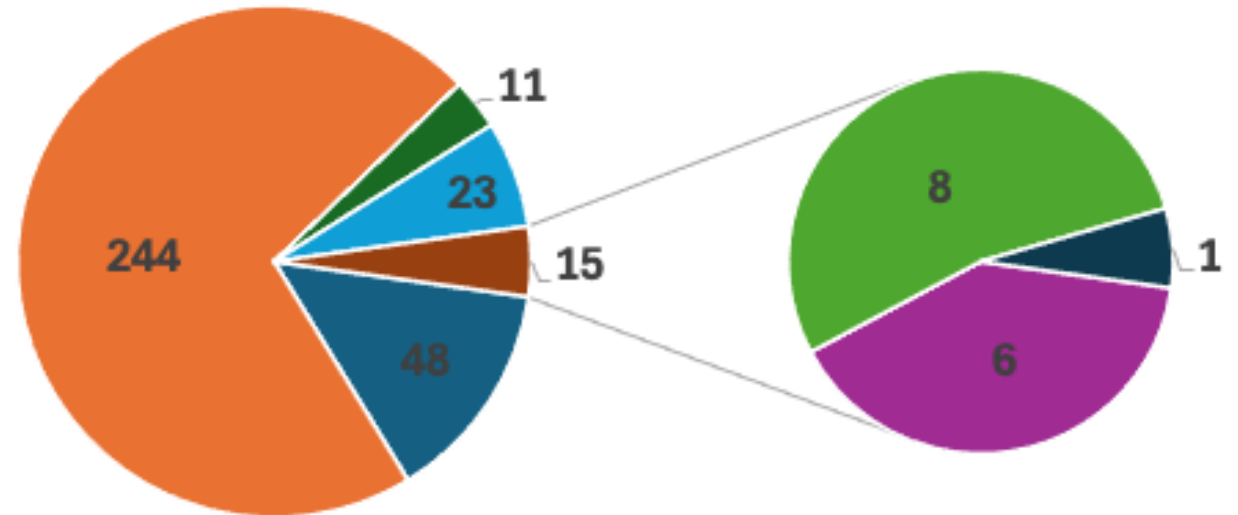
# APGB USAGE BY MEMBER

MEMBERS BY REGION



■ England ■ Scotland ■ Wales

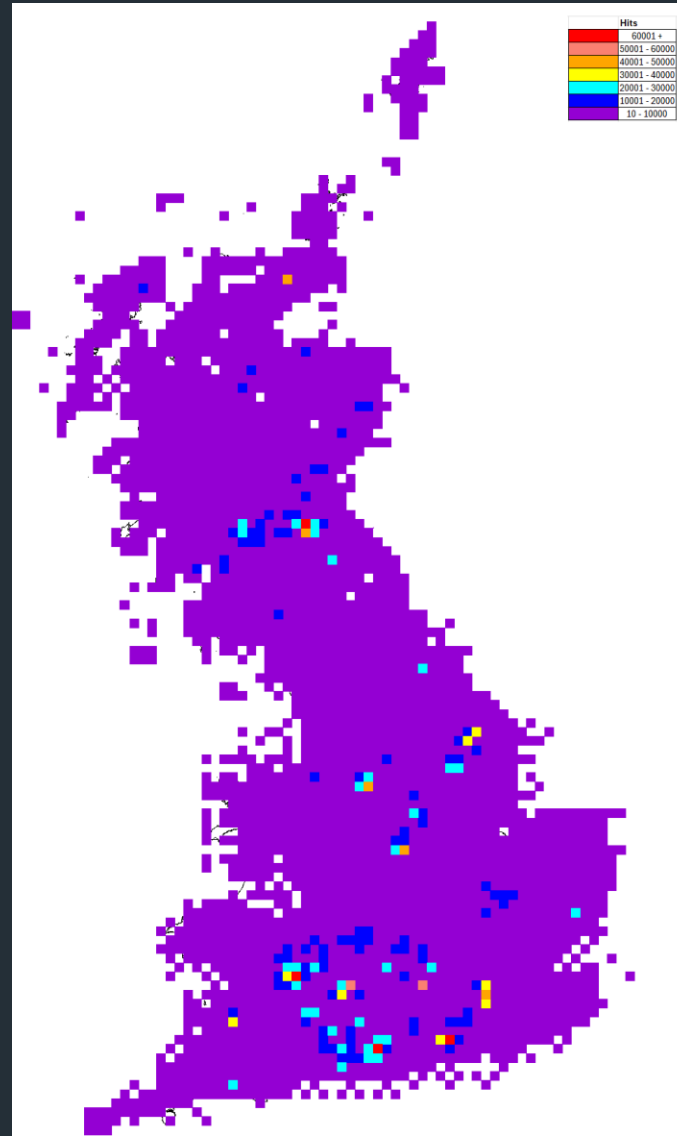
MEMBERS BY SECTOR



■ Central government ■ Local government ■ National Park  
■ Emergency service ■ Other organisation ■ Local council  
■ NHS

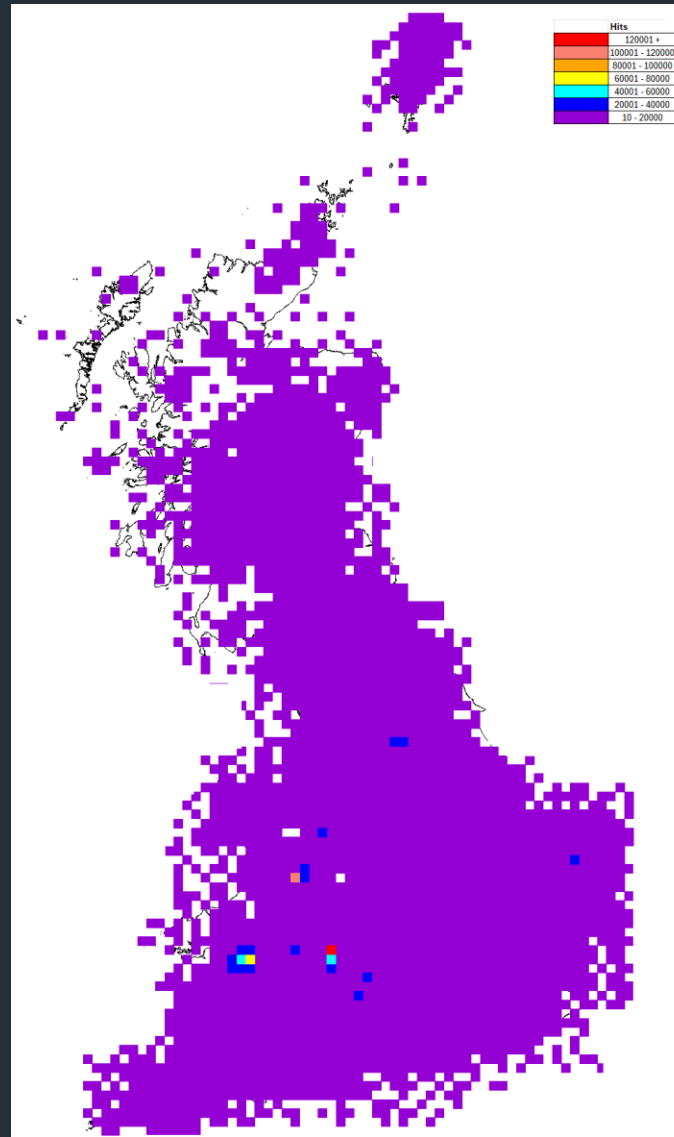


# APGB MEMBER USAGE – WMS HEAT MAP



	Hits
	60001 +
	50001 - 60000
	40001 - 50000
	30001 - 40000
	20001 - 30000
	10001 - 20000
	10 - 10000

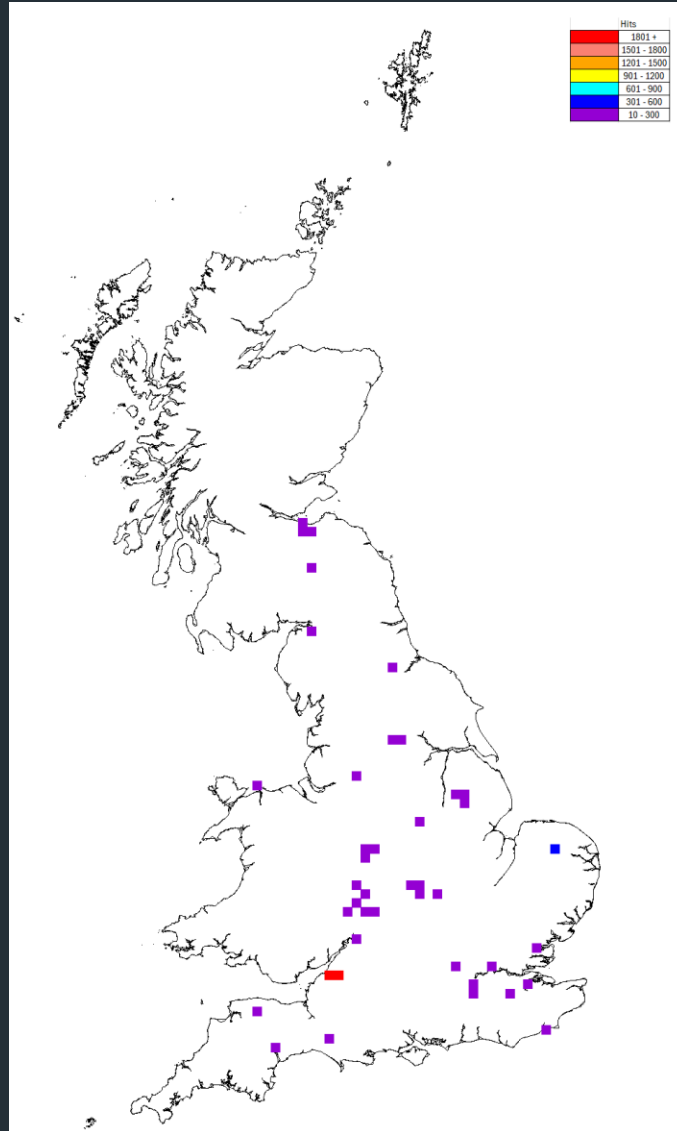
# APGB MEMBER USAGE – WMTS HEAT MAP



	Hits
	120001 +
	100001 - 120000
	80001 - 100000
	60001 - 80000
	40001 - 60000
	20001 - 40000
	10 - 20000



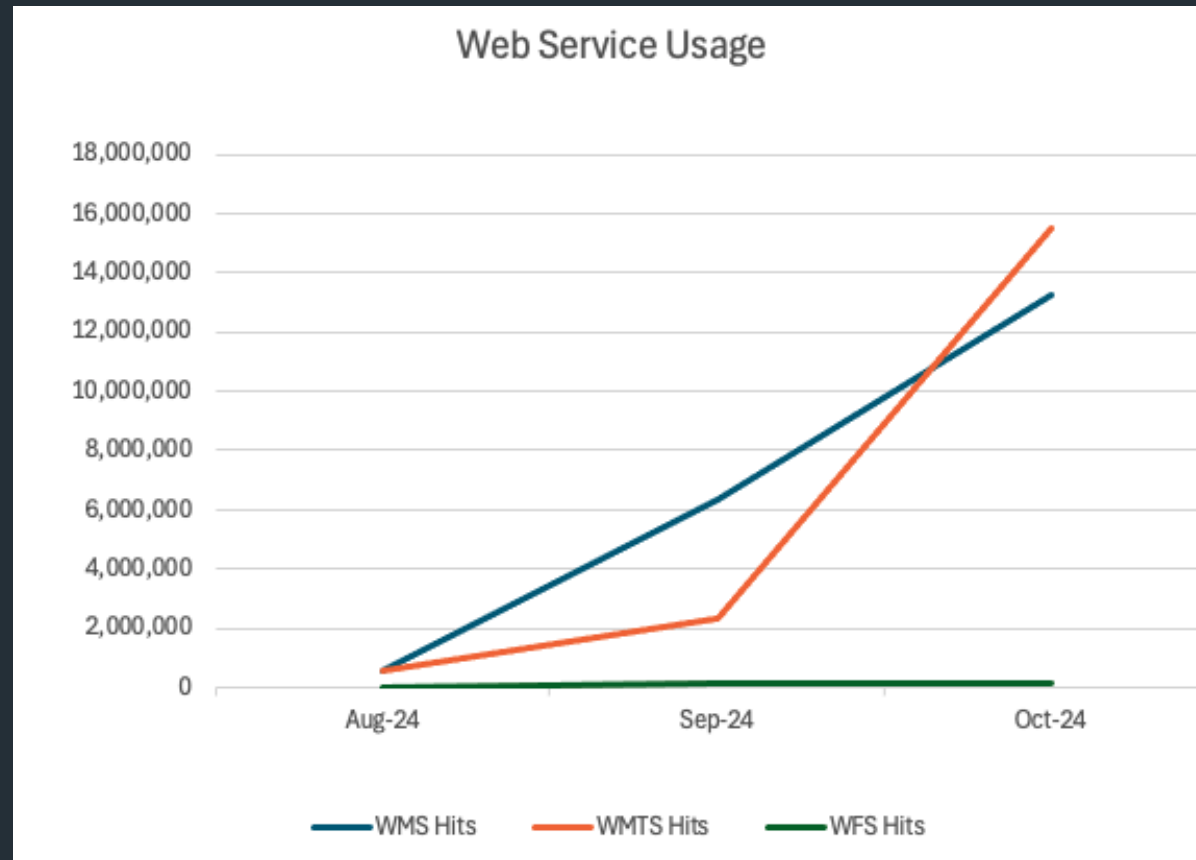
# APGB MEMBER USAGE – WFS HEAT MAP



	Hits
	1801 +
	1501 - 1800
	1201 - 1500
	901 - 1200
	601 - 900
	301 - 600
	10 - 300

# APGB MEMBER USAGE – TOTAL HITS

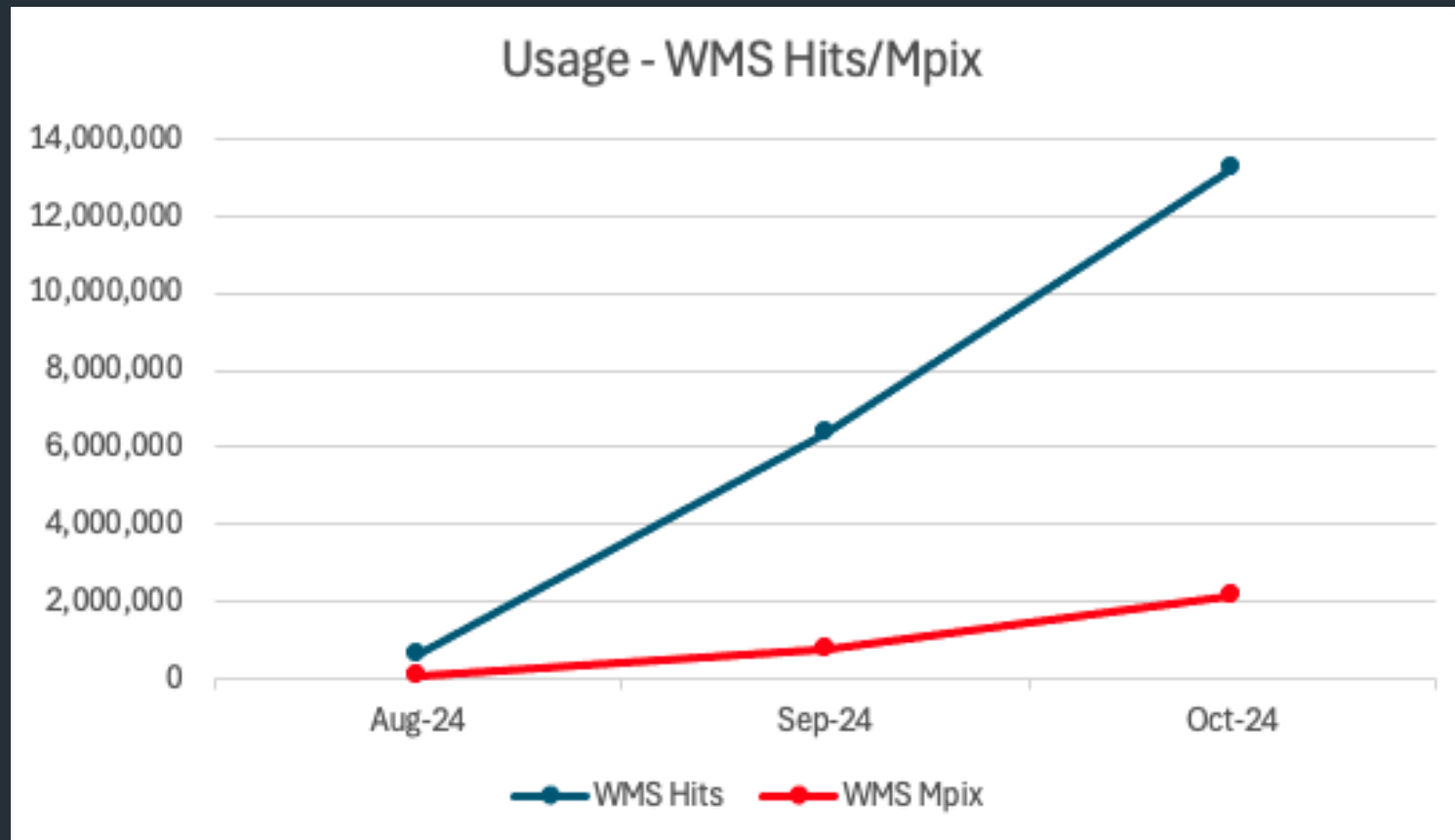
MEMBER SERVICE REQUESTS (HIT COUNT BY MONTH)





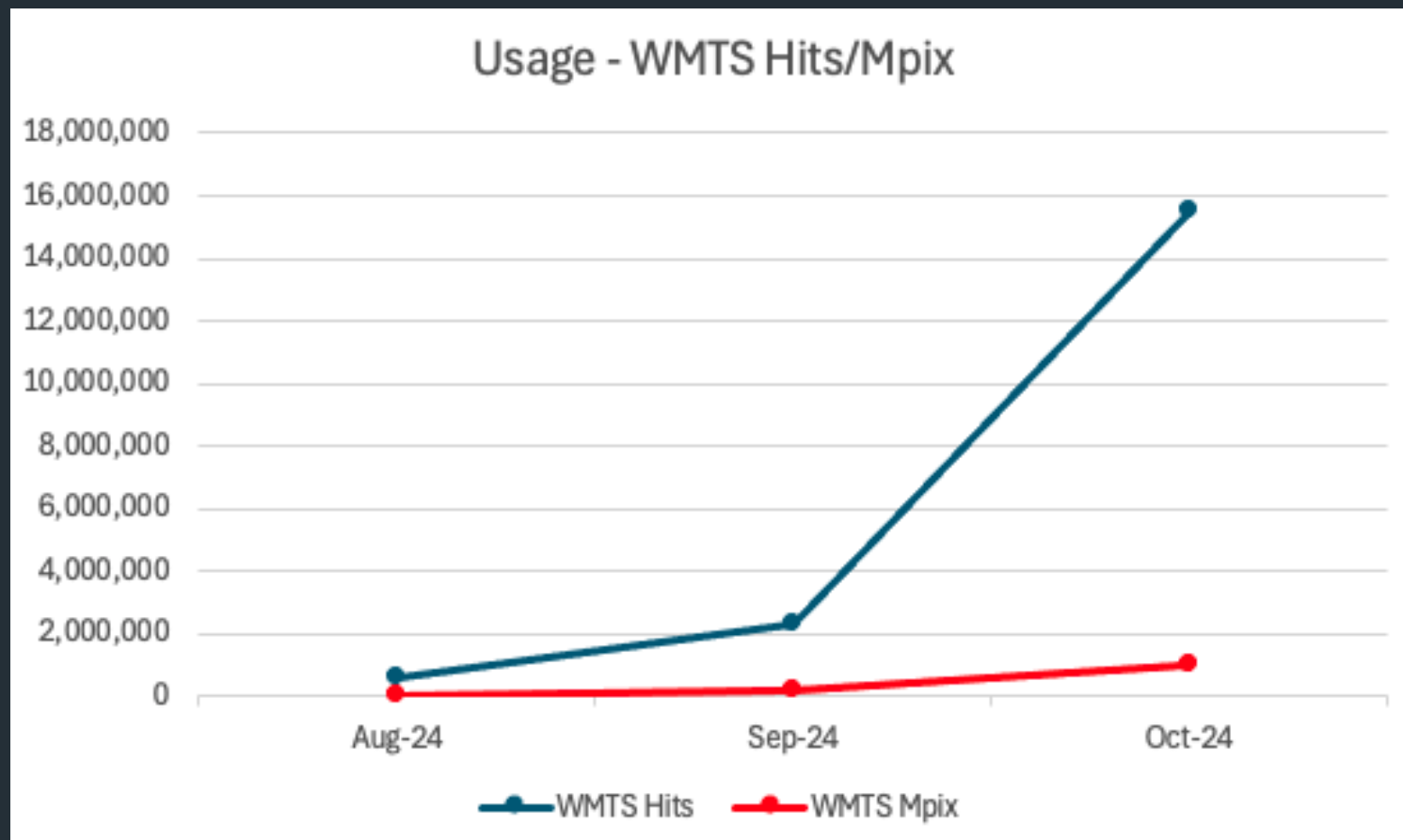
# APGB MEMBER USAGE – WMS HITS/MPIX

MEMBER WMS SERVICE REQUESTS (HIT COUNT BY MONTH)



# APGB MEMBER USAGE – WMTS HITS/MPIX

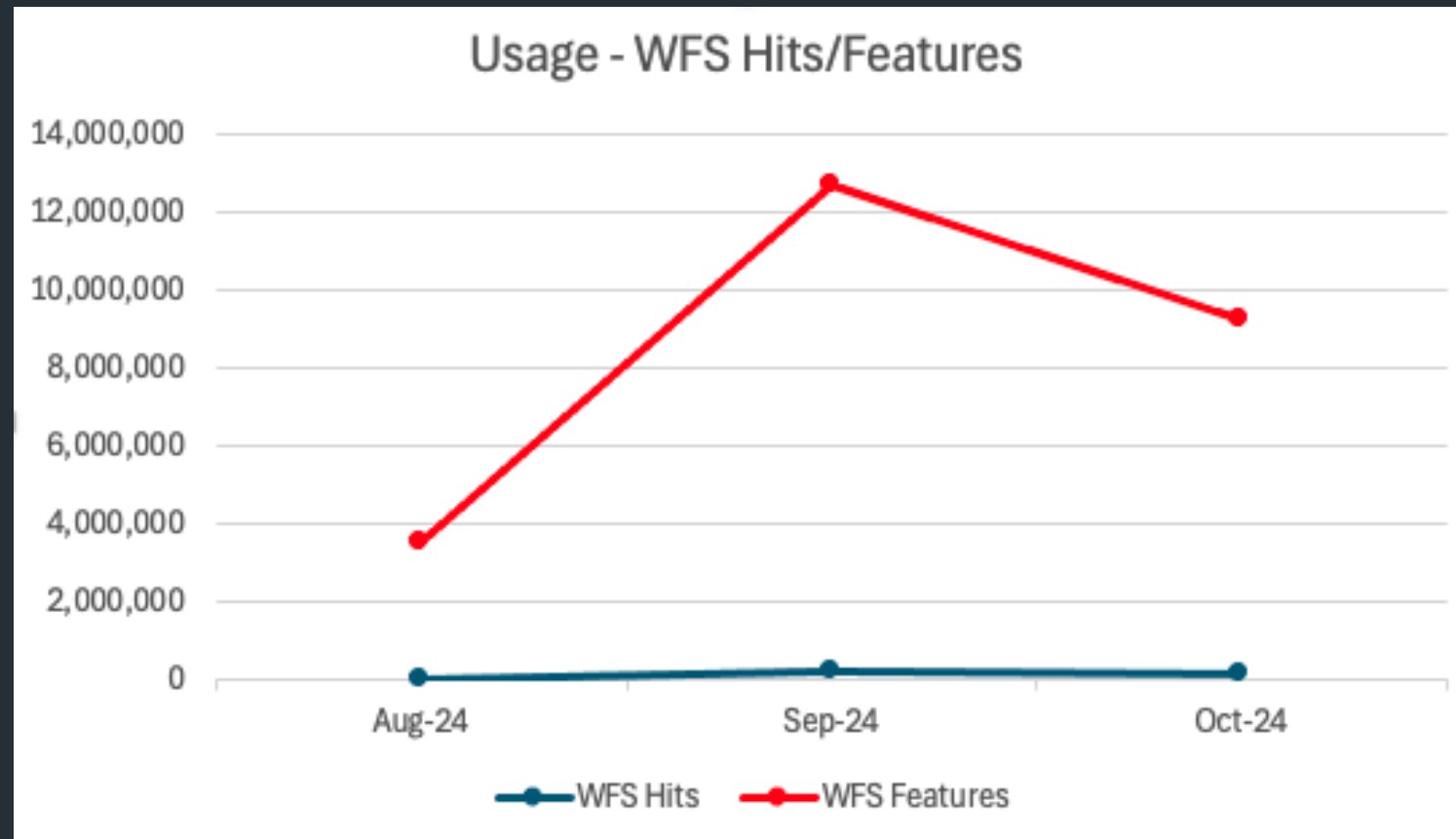
MEMBER WMTS SERVICE REQUESTS (HIT COUNT BY MONTH)





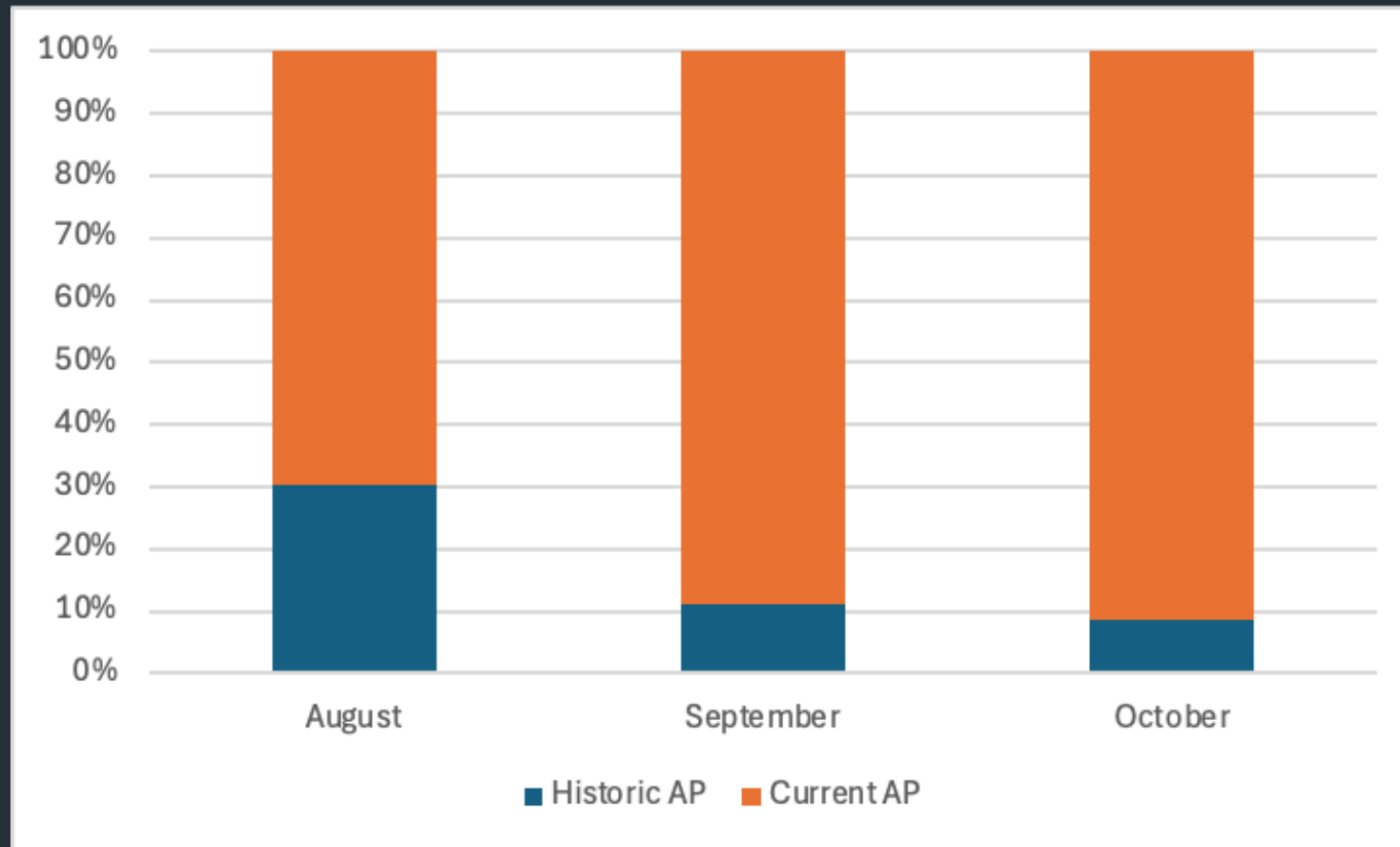
# APGB MEMBER USAGE – WFS HITS

MEMBER WFS SERVICE REQUESTS (HIT COUNT BY MONTH)



# APGB MEMBER USAGE – HISTORIC AP USAGE

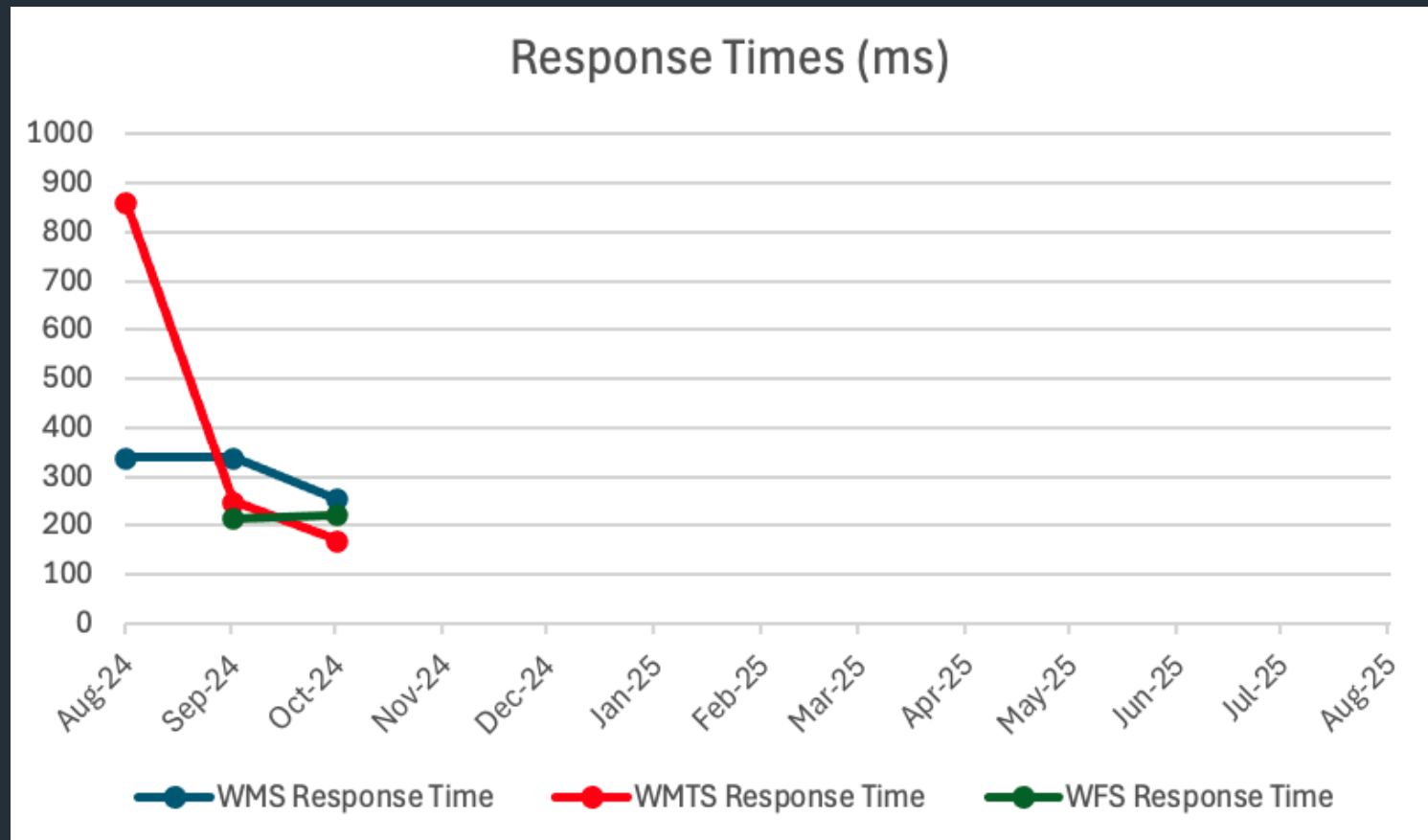
MEMBER HISTORIC / CURRENT SERVICE REQUESTS (AS PERCENTAGE OF TOTAL)





# APGB PERFORMANCE DATA

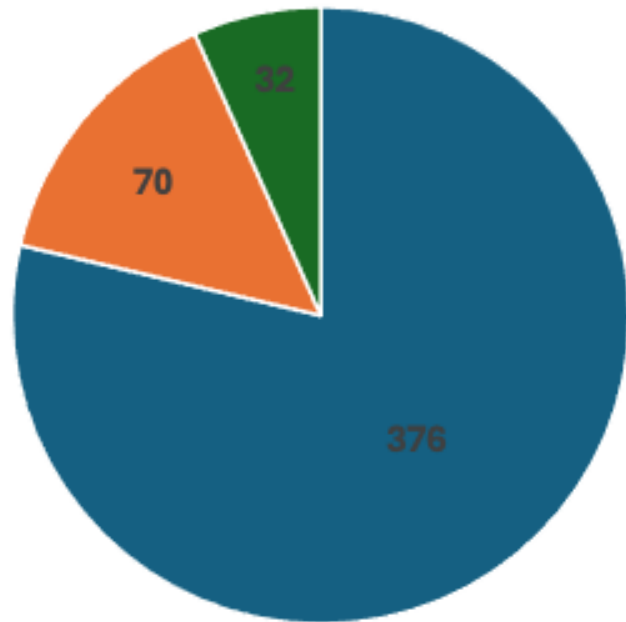
## SERVICE PERFORMANCE BY MONTH



# APGB LOGGED TICKETS

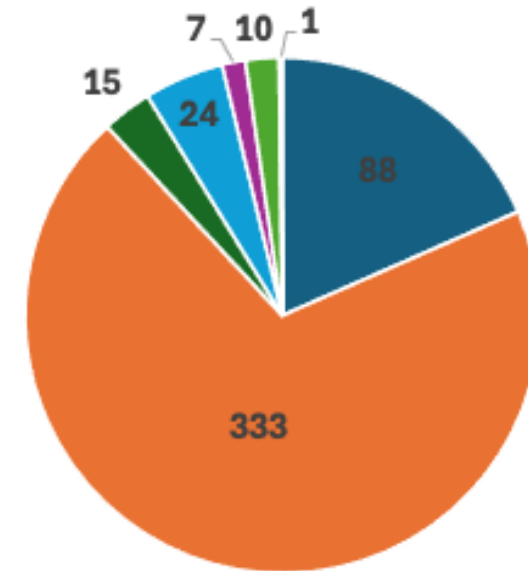
TICKETS LOGGED BY MEMBERS FOR THE REPORTING PERIOD

Number of support tickets by region



■ England ■ Scotland ■ Wales

Number of Support tickets by sector



■ Central government ■ Local government ■ National Park ■ Emergency service  
■ Other organisation ■ Local council ■ NHS



# APGB LOGGED TICKETS

---

TICKETS LOGGED BY MEMBERS FOR THE REPORTING PERIOD

79% tickets are New feed requests

# THANK YOU

---

Dave Horner/ [dhorne@getmapping.com](mailto:dhorne@getmapping.com)



# PSGA DEVELOPMENTS AND UPDATE

Nathan Davis

James Armstrong

EVERYTHING YOU SHOULD HAVE  
READ IN THE PSGA NEWSLETTERS,  
BUT PROBABLY DIDN'T HAVE TIME TO



# PSGA Communications

- **Newsletters** for regular updates on the PSGA
  - latest data releases
  - webinars and events
  - latest case studies and blogs
  - product and service updates
  - sign up at [os.uk/psganews](https://os.uk/psganews)
- **OS website** for latest PSGA news, blogs and over 20 case studies published so far this year for inspiration on use cases
- **Webinars** delivered by OS product, data and licensing experts
  - 13 PSGA webinars hosted in 2024
  - webinar recordings available on the PSGA members area
- **Social media** follow Ordnance Survey on X, LinkedIn and YouTube

View in browser

Geospatial Commission Public Sector Contracts

AP GB

PSGA

Ordnance Survey

Geospatial Commission  
PUBLIC SECTOR & PSGA  
EVENTS 2024

#GCxPSGA24

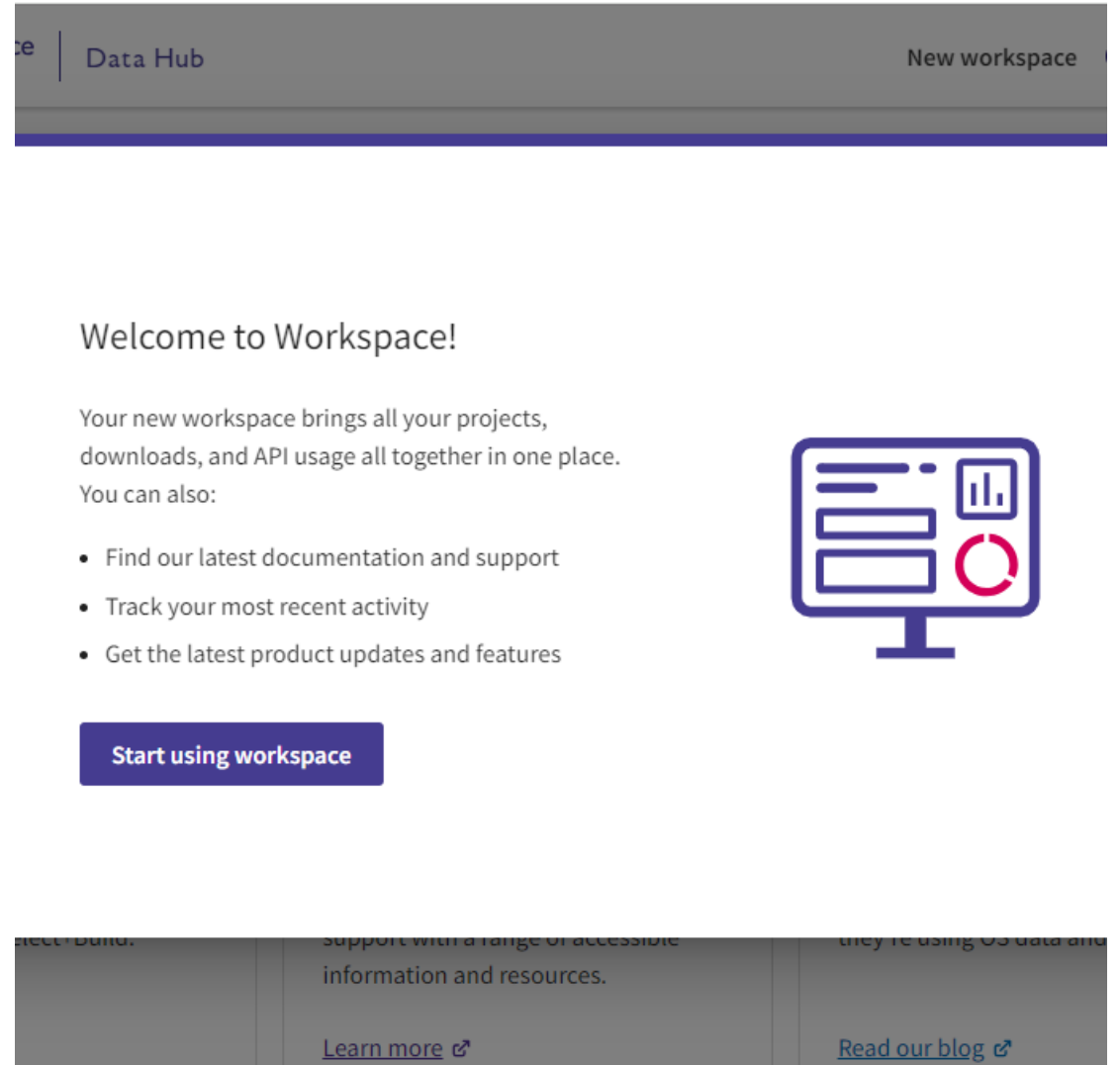
Registration for this year's annual regional events is open!

The Geospatial Commission and Ordnance Survey (OS) are hosting in-person events this autumn. Discover the value of geospatial to the public sector and get the support you need from OS and Aerial Photography data experts and OS Channel Partners.

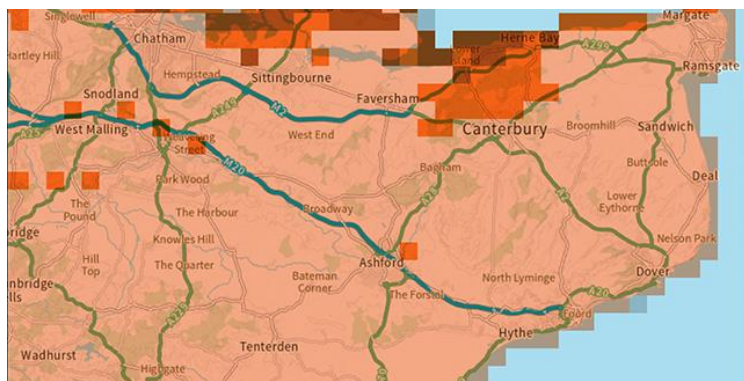
Places will be awarded on a first come first served basis, so sign up today!

# OS Data Hub

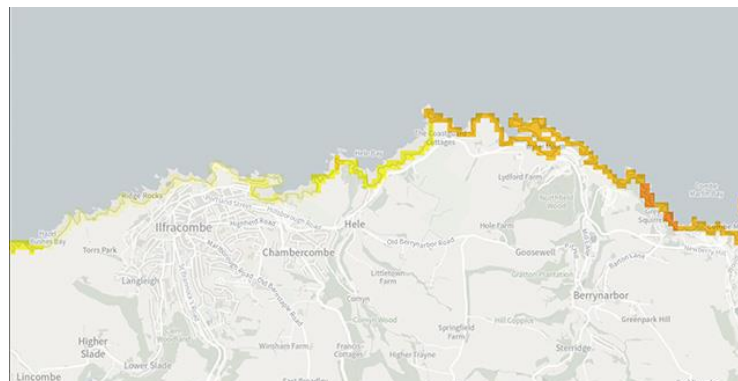
- Delete and edit recipe name now available in OS Select+Build
- BGS Open datasets available via the OS Data Hub
- New OS Data Hub workspace functionality



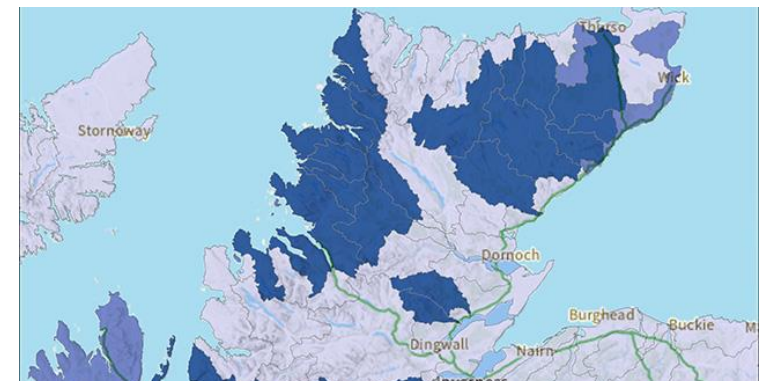




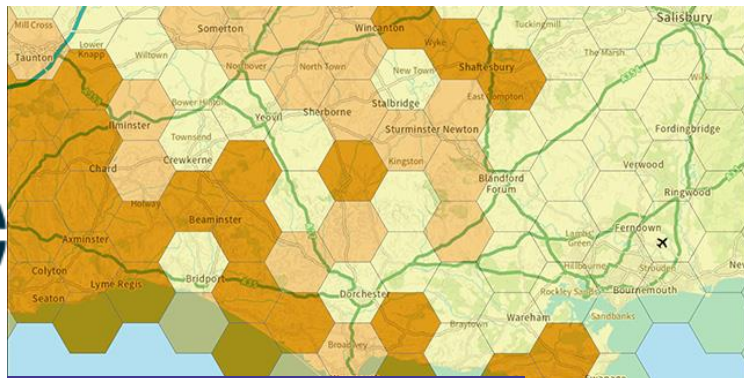
Geoclimate – shrink/swell



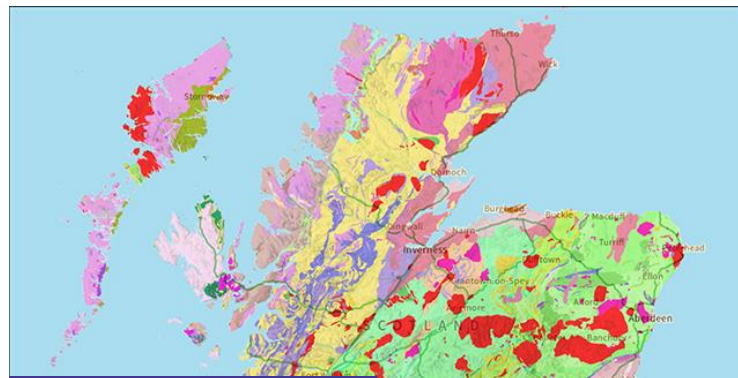
GeoCoast Open



GeoScour Open



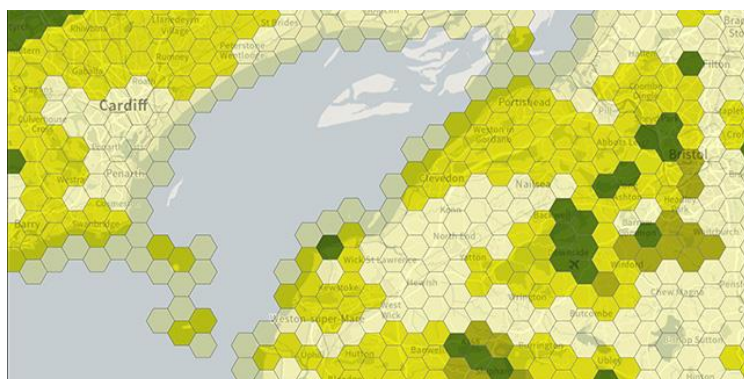
GeoSure 5 km hex grid



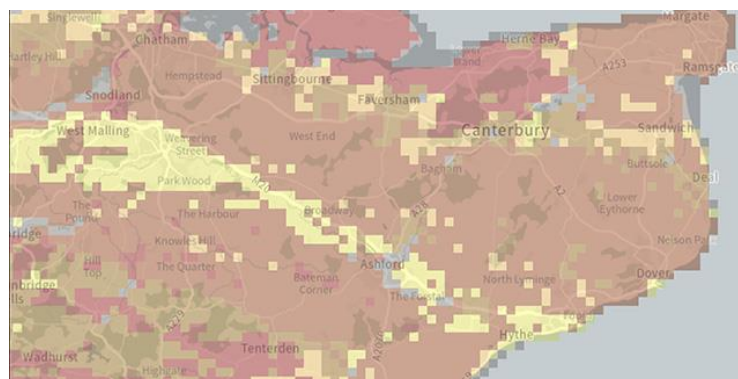
Geology 625K



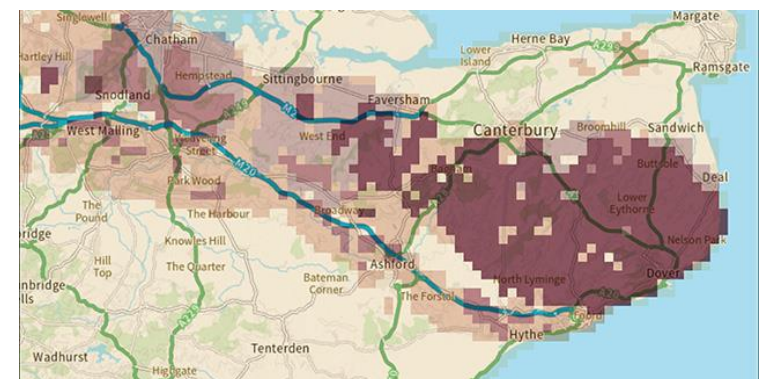
Hydrogeology 625K



Mining Hazard (not inc. coal)



Soil Parent Material Model



Indicative Atlas of Radon



Workspace

APIs


Downloads

Apps

My team

My account


Welcome,



Get started with Recipes

Create your own customised data selection with OS Select+Build.


[Find out more](#)



More than maps

For all your technical geospatial support with a range of accessible information and resources.

[Learn more](#)



Get inspired

Hear from our developers on how they're using OS data and products.

[Read our blog](#)

Recent API Projects

Recent Data Packages

Recent Recipes

OS CATS

Public Sector Plan

API usage this month

52,117 transactions

OS OpenData

Public Sector data

23,684 of unlimited\*

28,433 of unlimited\*\*

\*OS OpenData transactions are subject to our fair use policy.

\*\*As a member of the [PSGA](#) you are entitled to free Public Sector data transactions

Map views

44,360

Feature requests

7,757

[See full API usage details](#)

Help and Support



# Pricing and Licencing

- Updated PSGA Member Licence (May 24) available with some updated URLs. Latest version of the licence is on our website:

[PSGA Member Licence v 3.0](#)

- Updated PSGA licensing guide available that simplifies the guidance around sharing OS data and publishing your derived data.

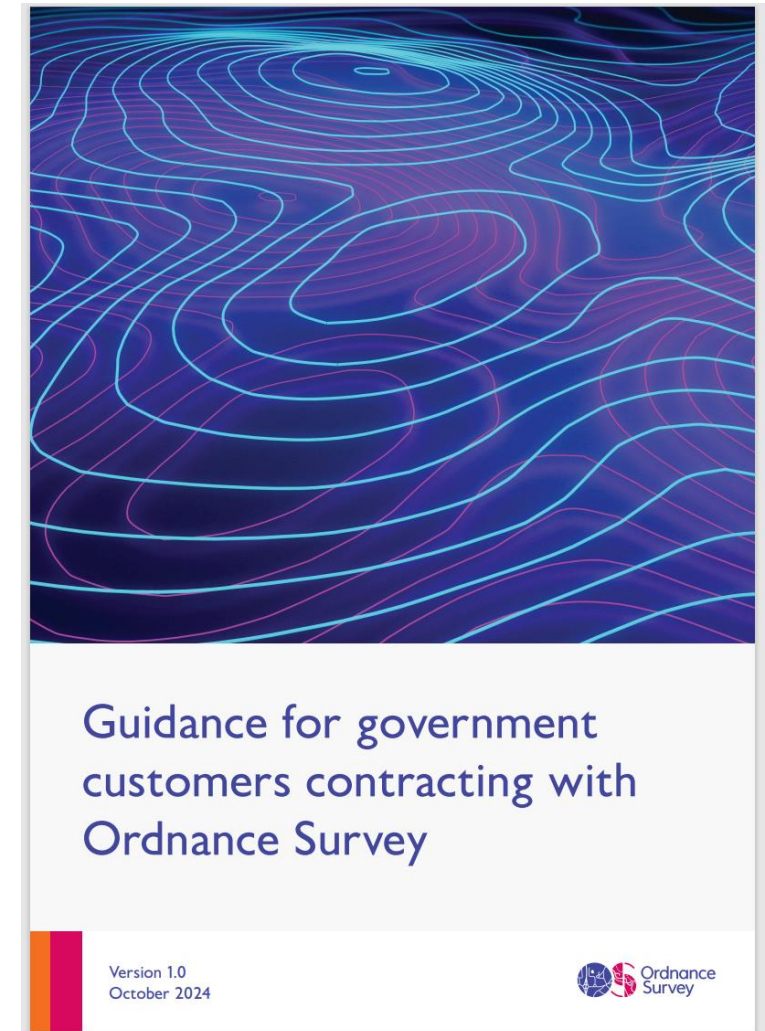
[PSGA Member Licence Start Guide](#)



# Guidance for contracting with Ordnance Survey

- Your membership of the PSGA can facilitate the use of OS data, services and capabilities to deliver your outcomes.
- We've created guidance that helps set out additional options for accessing OS data and services that aren't covered by the PSGA

Guidance for government customers working with Ordnance Survey





# OS NGD Enhancements – March 2024

## NEW OS NGD DATA



### OS NGD Buildings theme

- Simple building description
- Building age & construction material
- Basement presence



### OS NGD Structures theme

- Location, nature and properties of field boundary



### OS NGD Transport theme

- Location of tram tracks



### OS NGD Land Cover attribution

- Habitat classification schemes
- Percentage coverage of land cover




### OS NGD Geographical Names theme

- Names & location of road junctions

March  
2024


# OS NGD Enhancements – September 2024

## OS NGD LAND USE




### Enhanced Land Use Attribution

- + New classification schemes



### Increased Completeness


- + Greater coverage for both Residential and non-residential sites



### Enhanced topographic features attribution

- + Land Use attribution now present on component parts


## OS NGD STRUCTURES



### Bridge Interactions

- + Attribution identifying the network passing over and under a bridge

## OS NGD BUILDINGS



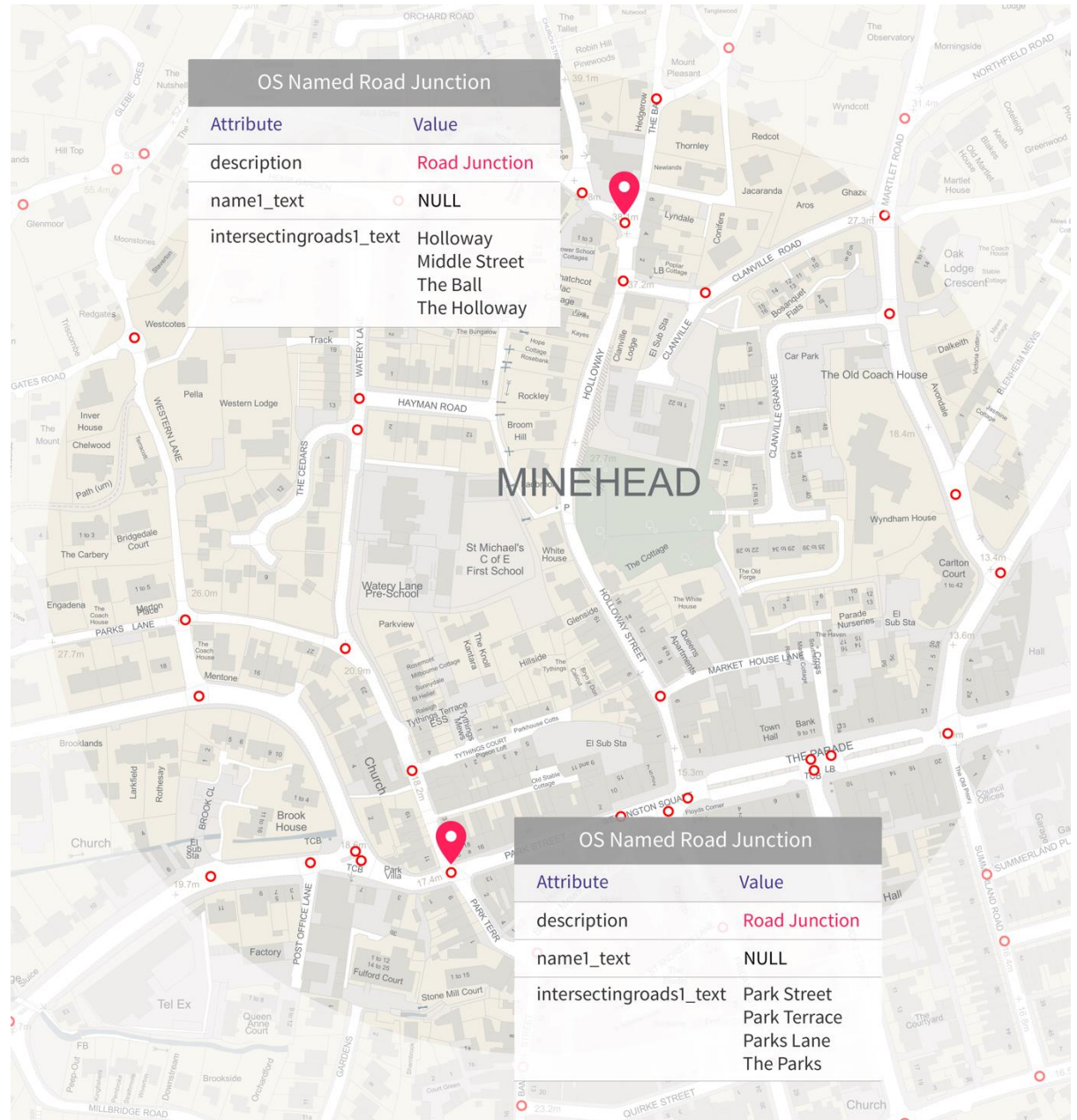
### Number of Floors

- + The maximum number of occupiable floors at or above ground level



# Other PSGA Product Updates

- Emergency Services Gazetteer
- Multi-Modal Routing Network
- OS VectorMap Local - Vector (MBTiles) specification change in July release
- Improvements to OS Open Built-Up Areas

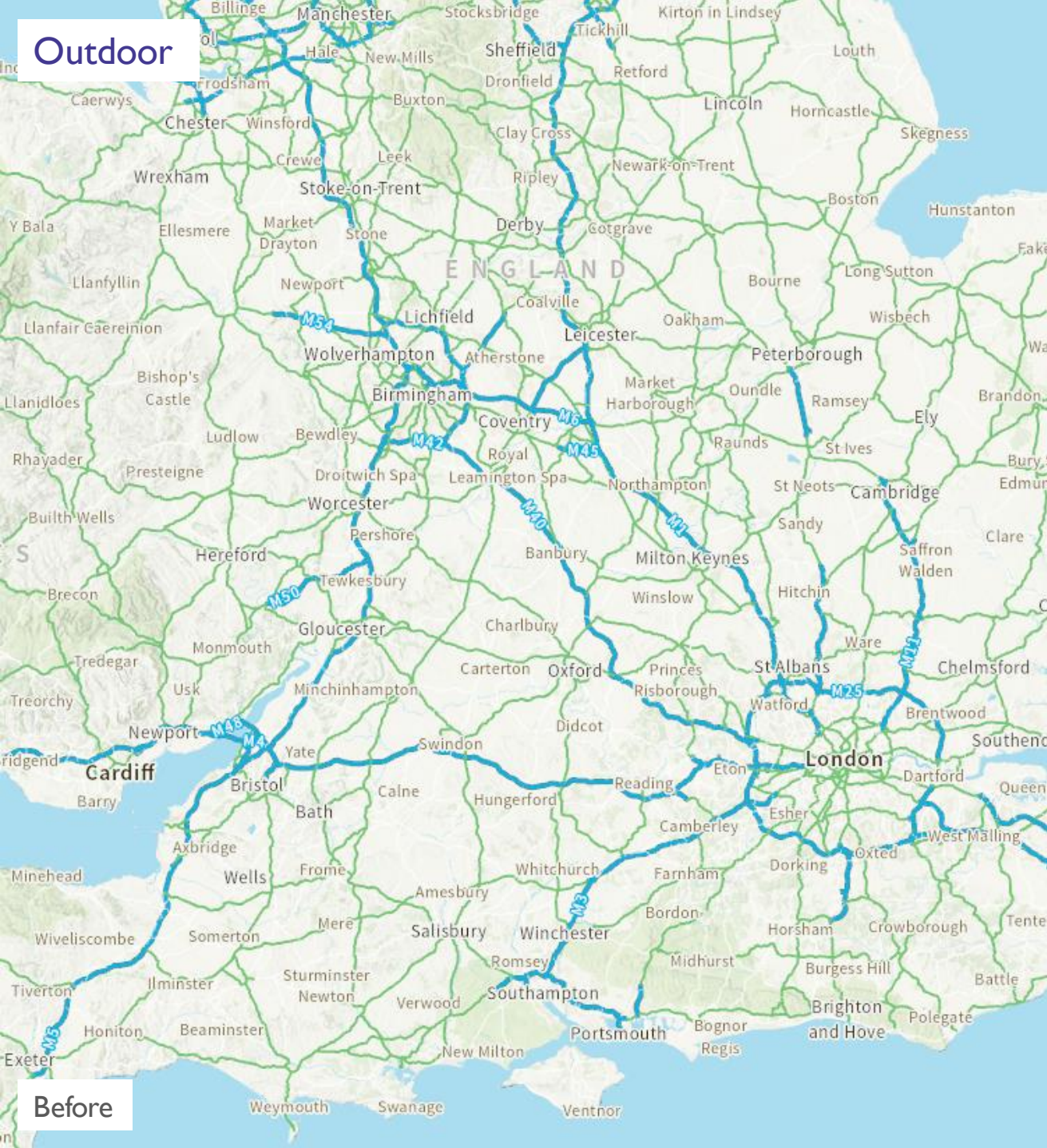


# OS Maps API Styling

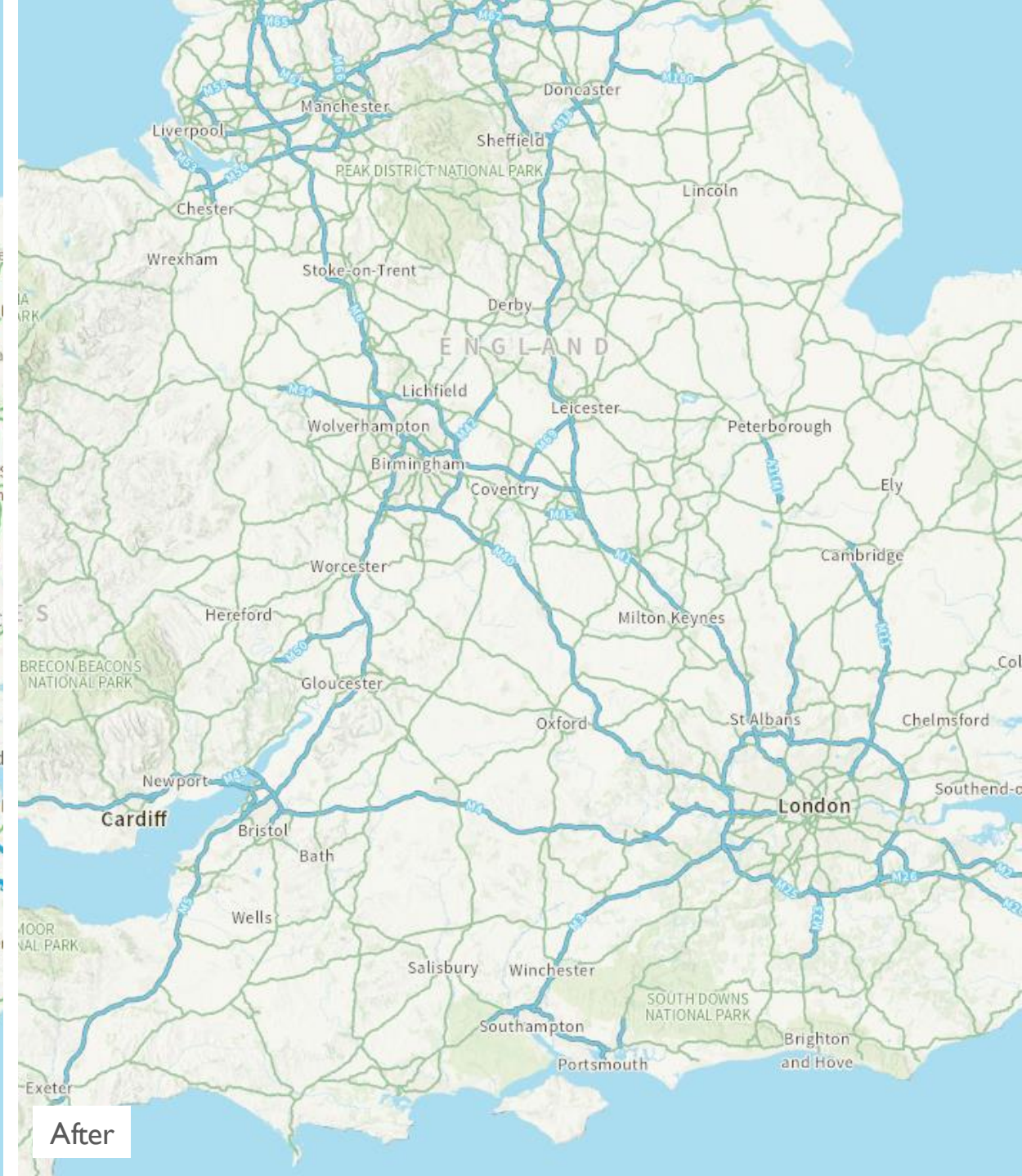




Outdoor



Before

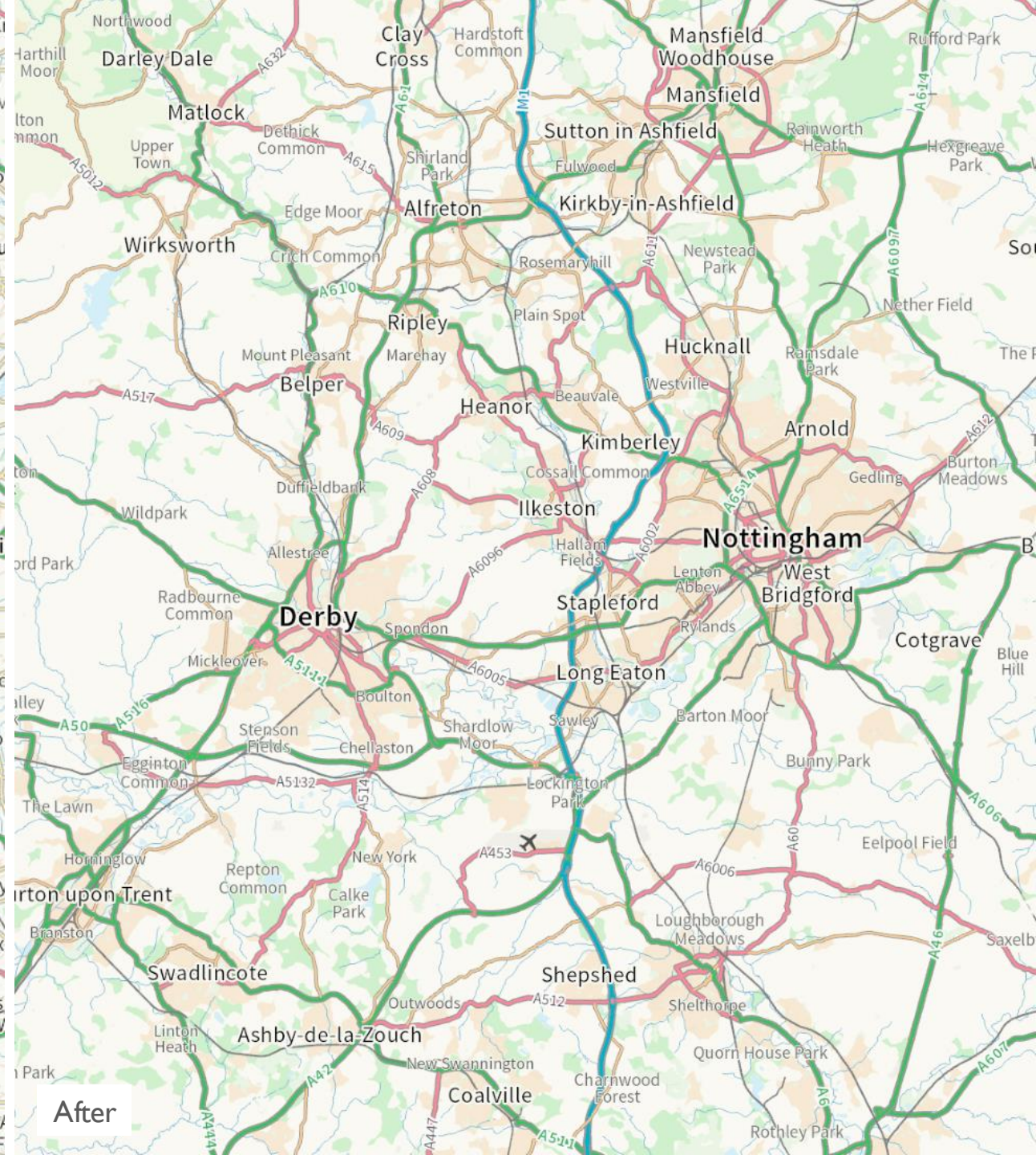


After



**Road**

**Before**



This map illustrates the road network and geographical features of the Nottingham and Derby region. Key locations include Nottingham, Derby, Mansfield, and Sutton in Ashfield. The map shows a dense network of roads, including the M1 motorway and various A-roads. The new airport is located near Shepshed, and the map also shows the surrounding countryside and urban areas.



Light



Before



After

# GB Overview Maps

- We are refreshing the cartographic styling of the GB Overview Maps Open Data product
- It will have closer affiliation with other contextual products with backdrop road data, the inclusion of shading for National Park areas and improved text.
- Acknowledging customer feedback on synchronicity of product updates, annual update/publication will move from December to January to synchronise with the publication of MiniScale
- New version will be available to download via the OS Data Hub in January 2025.



# GB Overview



# GB Overview Plus





# More Than Maps

- Updated Product Viewer
- OS NGD Product Viewer
- Lightning Talks
- Wider Documentation platform  
<https://docs.os.uk>
  - More than Maps
  - OS Downloads
  - OS NGD
  - APIs



## GEOGRAPHIC DATA VISUALISATION

>

>

>

## DATA IN ACTION

## Examples

## DEMONSTRATORS



>

### Contextual demonstrators

>



>

>



## TUTORIALS

➤

>

>

## DEEP DIVE

Int

102.99



**More than Maps** is a new self-serve platform that provides a **one-stop shop for all your technical geospatial support**. Access a range of information via an easy-to-use site that includes tutorials, demonstrators and case studies.

If you are looking for the Ordnance Survey National Geographic Database (OS NGD) gitbook then you can find that using the link below.

Ordnance Survey National Geographic Database (OS NGD)

## Geographic data visualisation

Geographic data visualisation is the design process of turning data concerned with physical, human, or location-based geography into a compelling story or argument; or at the very least a clear visual presentation of information.

This section contains a wealth of information to help you with the creation and design of your map or data visualisation.

## Geographic data visualisation

Data in action

### Demonstrators

Tutorials

### Deep dive

Code

## Resources

Was this helpful?





More than Maps

GEOGRAPHIC DATA VISUALISATION

Guide to cartography >

Guide to data visualisation >

GeoDataViz assets >

DATA IN ACTION

Examples

DEMONSTRATORS

**Product Viewer**

Addressing & location demonstrators >

Contextual demonstrators

Customer best practice >

**Network Demonstrators** >

**OS MasterMap Generation APIs** >

OS NGD (National Geographic Database) >

**OS MasterMap® demonstrators**

TUTORIALS

GIS >

Web >

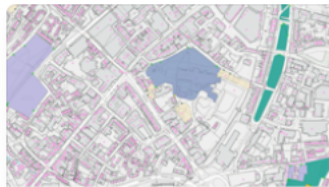
APIs >

DEEP DIVE

Introduction to address matching

**Guide to routing for the Public Sector** >

**NEW** Product Viewer



Product Viewer

Interactive Demonstrator of OS  
MasterMap Generation data



OS NGD Product Viewer

Interactive Demonstrator of OS NGD  
Generation data



Previous  
Examples

Next

Addressing & location demonstrators



Last updated 1 minute ago

Was this helpful?






[More Than Maps](#)

# Welcome to the OS Product Viewer



We have three sample data areas for you to explore. Click on the area that interests you and discover OS data through the map viewer tool.

- LinkedIn
- QR code
- Email
- Link



Share the OS Product Viewer with others




**EXETER**



**NEWPORT**



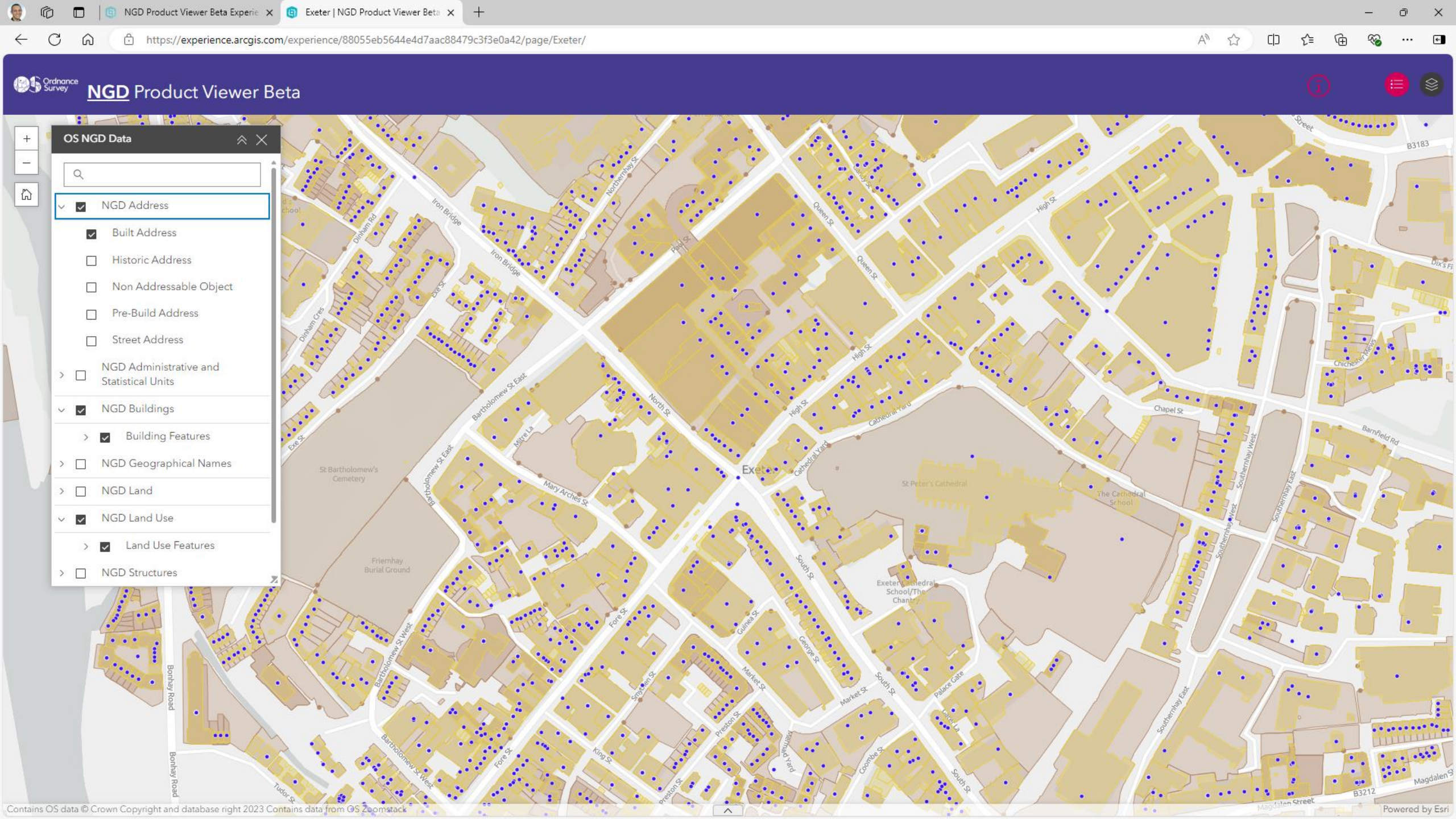
**INVERNESS**













# Thank You

**PSGA Helpdesk** [psga@os.uk](mailto:psga@os.uk)

**Tel: 03453 75 75 95**

Nathan Davis

[nathan.davis@os.uk](mailto:nathan.davis@os.uk)

James Armstrong

[james.armstrong@os.uk](mailto:james.armstrong@os.uk)





Geospatial  
Commission



Ordnance  
Survey

## **WE'RE TAKING A SHORT BREAK**

The next session will start at 15:20









Geospatial  
Commission



Ordnance  
Survey

## WELCOME BACK

The next session will start at 15:20









UK Health  
Security  
Agency

# Applying the NGD to public health

**James Lewis**

Head of Geospatial  
Data, Analytics & Surveillance  
UK Health Security Agency

Tuesday 26<sup>th</sup> November 2024





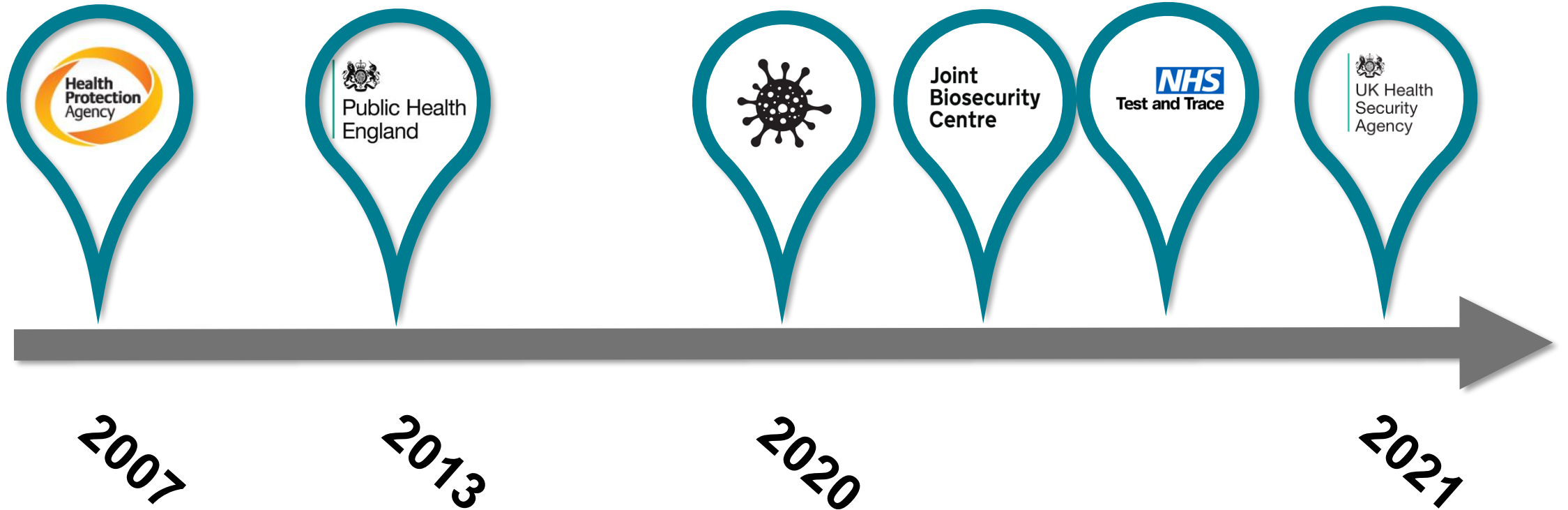
UK Health  
Security  
Agency

- Who we are
- Applying the NGD to public health
- Raising awareness





UK Health  
Security  
Agency







UK Health  
Security  
Agency

## Our mission

To prepare for, prevent and respond to health threats, save lives and protect livelihoods

## Our vision

Through our scientific and operational expertise, we aim to protect every person, community, business and public service from infectious diseases and environmental hazards, helping to create a safe and prosperous society

## Our goals

### Prepare

Be ready for, and prevent, future health security hazards

#### Strategic priorities

Be ready to respond to all hazards to health  
•  
Improve health outcomes through vaccines

### Respond

Save lives and reduce harm through effective health security response

#### Strategic priorities

Reduce the impact of infectious diseases and antimicrobial resistance  
•  
Protect health from threats in the environment

### Build

Build the UK's health security capacity

#### Strategic priorities

Improve action on public health through data and insight  
•  
Develop UKHSA as a high-performing agency

Achieve more equitable outcomes

# Data, Analytics and Surveillance Group (DA&S)

Our mission is to enable the UKHSA. Deliver impact and lead an innovative programme to transform the UK's approach to Public Health data, analytics and surveillance. Help make the nation secure.

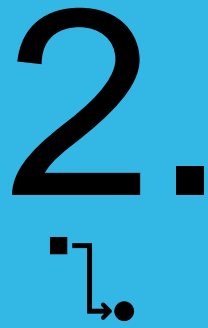


We'll achieve that mission through our five objectives



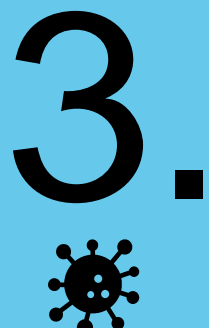
**1.**  
Strengthen our ability to lawfully and securely process data and information and drive a data culture change

Create the conditions for UKHSA teams to safely, lawfully and efficiently receive and process data.



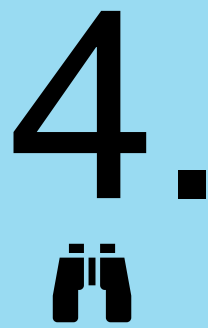
**2.**  
Lead a data transformation

Manage, maintain, and optimise UKHSA's data platforms, tooling and capabilities.



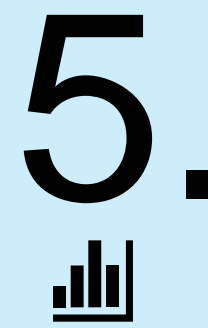
**3.**  
Enhance our approach to surveillance

Build on and transform UKHSA approach to surveillance, working effectively across the one health landscape, delivering enhanced and coordinated capabilities.



**4.**  
Partner across UKHSA to deliver unique insight and foresight into current and emerging health threats

Develop the innovative use of data, advanced analytical tooling, replicable analytics techniques, and statistical methodologies within UKHSA. Enhance transparency and trustworthiness of UKHSA analysis.

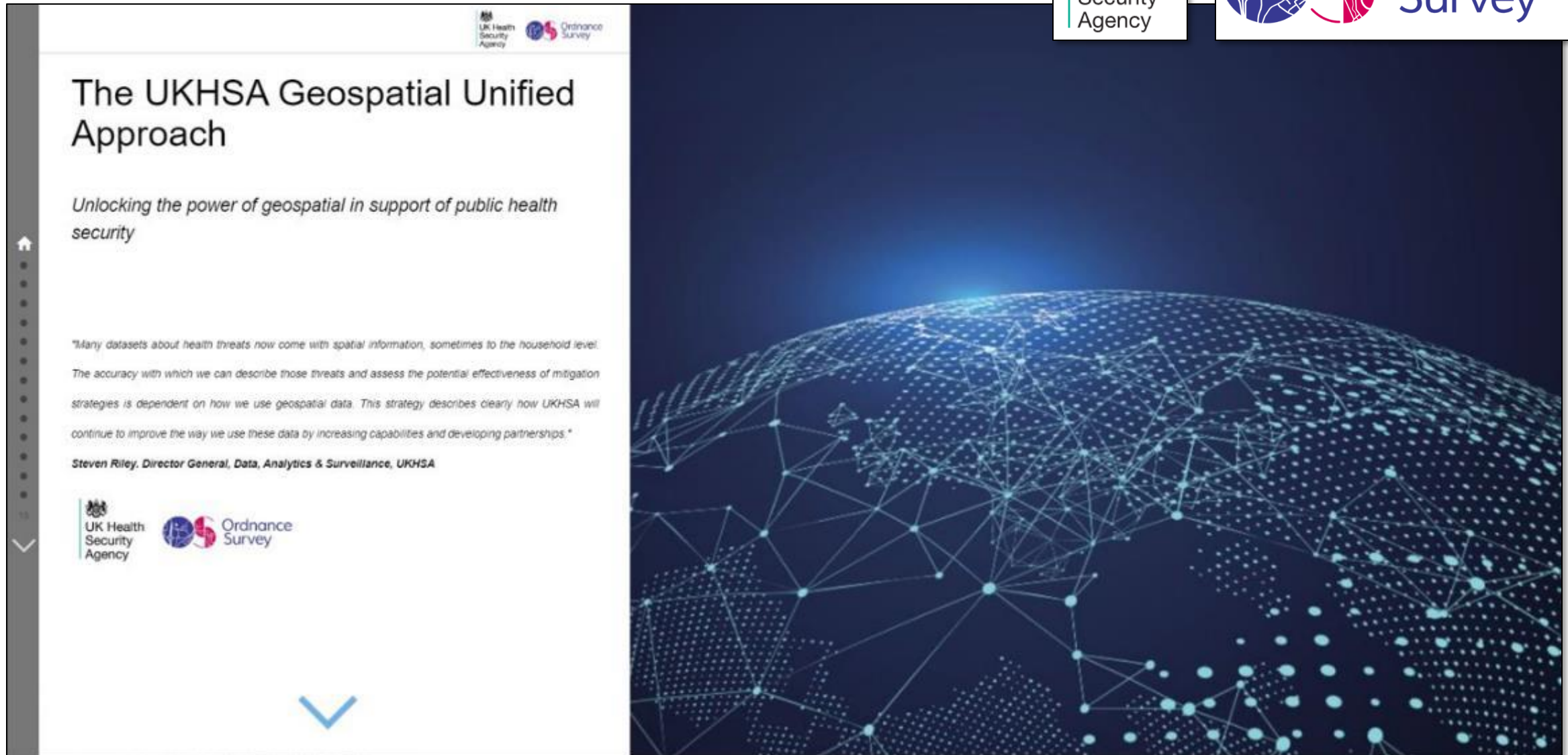


**5.**  
Improving our public health impact, making insight relevant to policy

Deliver an all source, all hazard health threat assessment capability for Government, providing situational awareness and insights into current and emerging global health threats.



# UKHSA Geospatial Unified Approach



# Applying the NGD to public health – UPRN and the NGD

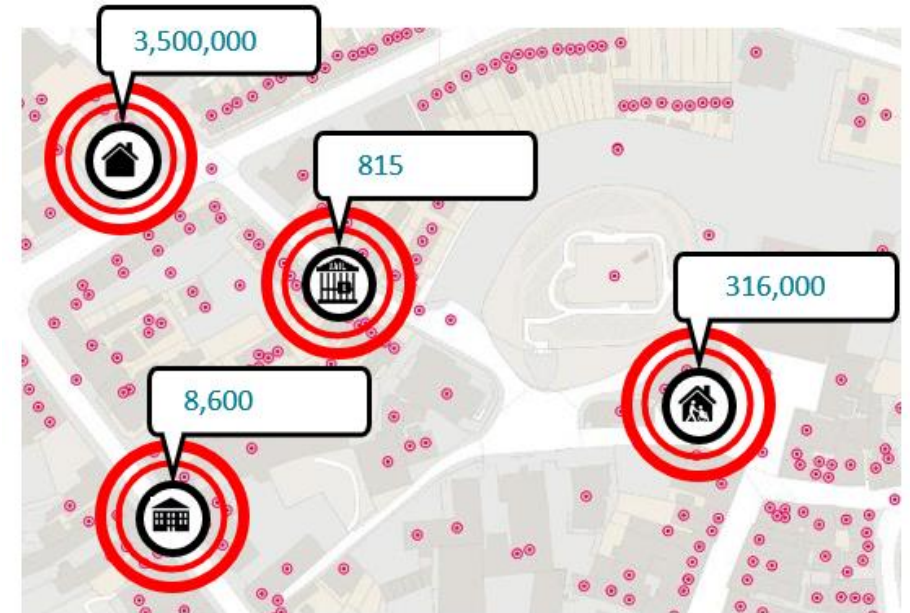
## Linking public health data to UPRN and the wider benefits of linkage to the NGD Buildings theme

### Aims

- Adopt UPRN as a critical geographic identifier within public health surveillance, monitoring and response systems
- **Leverage additional benefit from NGD data** (setting identification, building characteristics) to inform identification of vulnerable populations and settings within our data

### Approach

- Retrospective linkage and **infection centric** approach:
  - COVID-19 - cluster detection in care homes, prisons etc. and visualisation/geospatial tools
  - Invasive group A streptococcal disease (iGAS)
  - Monkey Pox
  - Scarlet Fever
  - H5N1
- Identifying vulnerable populations using a **place-based** approach
  - COVID-19 PROTECT National Core Study – Outbreak Investigation
  - Health Equity – explicit and implicit settings





# Climate change impact and the NGD

Investigate **how climate change exacerbates existing health inequalities** due to **extreme temperature events across geographies in England**

## Aims

- build on the analytical framework developed by Gasparrini et al. (2022) - analysing the association between ambient air temperature and all-cause mortality and morbidity
- map the impact of extreme temperature events across England using scales of climate, socioeconomic, and topographical and property predictors.

## Approach

- Collecting data on (A) individual mortality and morbidity in England, (B) mean air temperature, and (C) area **and individual-level variables** related to vulnerability to extreme temperature events at LSOA level.
- Estimating the excess deaths caused by high and low air temperature in the last two years by LSOA
- Forecasting # excess deaths and hospitalizations by LSOA level under projected climate scenarios



# Shigella Toxin Producing E.coli (STEC) outbreak investigation and the NGD

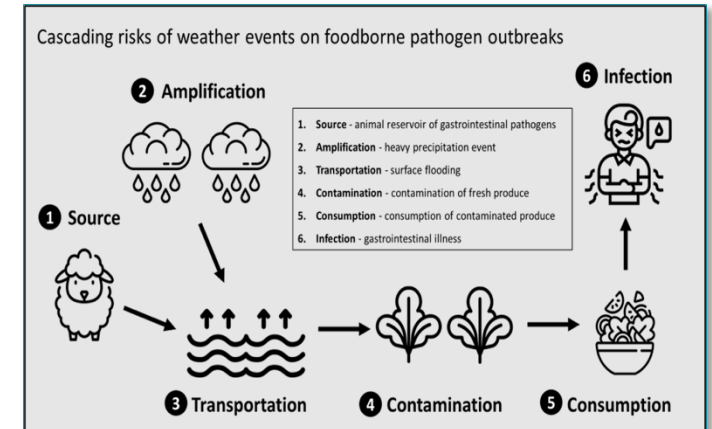
## Retrospective investigation of the cause and role of environmental datasets during 2022 STEC outbreak

### Background

- Foodborne pathogen; Mild (diarrhea, vomiting, stomach cramps) to severe (hospitalisation)
- Substantial increase in cases in late August/Sept 2022
- Research links weather events to an increase in food pathogen infections
- Incident Management Team (IMT) commissioned analysis

### Approach

- Food exposure information & food chain investigations to identify likely outbreak sources.
- Weather events from meteorological and flood risk data, plus **NGD land use data** e.g. fresh produce for human consumption
- Visualisations + epi models enabled the identification of source locations (farm level)





Raising awareness

# NATIONAL GEOGRAPHIC DATABASE APP

Introducing NGD App – your one-stop self-service platform for exploring and evaluating NGD datasets. Designed for ease and efficiency.

Quadri Adebayo

1 October 2024



# NGD®

[OS Building](#)

[OS Open Greenspace](#)

[OS Open Built up Area](#)

[OS Landform](#)

[OS Land](#)

[Water Body](#)

[Resources](#)

## OS Building

### National Building Dataset – Powering Public Health Protection.

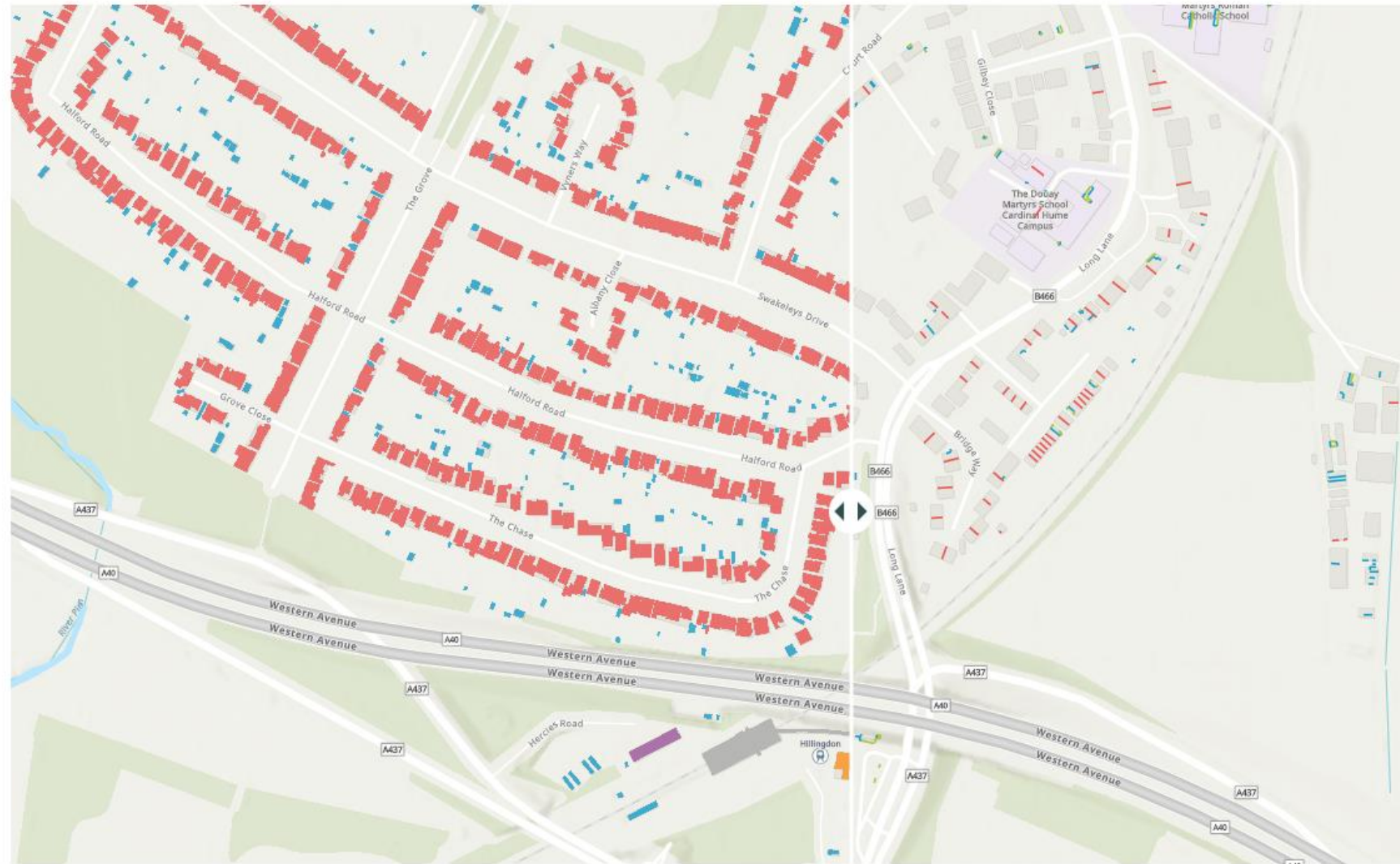
**About the Data:** The **National Building Dataset** offers a detailed, multi-layered view of building data that is invaluable for public health applications. It comprises three key layers:

**Building Line:** Outlines the footprint of each building.

**Building Part:** Details the structural components within a building.

**Building:** Provides overarching information about the entire building, including its function and size.

These layers can be explored on an interactive map, allowing





**Resource**

Powered by: Geospatial Team

For any questions contact [Geospatial@ukhsa.gov.uk](mailto:Geospatial@ukhsa.gov.uk)  
You can fill out the the below form to request for data a

[Data Request Form](#)

Resources	<u><a href="#">OS NGD Documentation Platform   OS National Geographic Database</a></u>
Building Layer	<u><a href="#">Building Features   OS National Geographic Database</a></u>
OS Land	<u><a href="#">Land Features   OS National Geographic Database</a></u>
Water Body	<u><a href="#">Water Features   OS National Geographic Database</a></u>
OS Open Greenspace	<u><a href="#">OS Open Greenspace   Data Products   OS</a></u>
OS Open Built Up Area	<u><a href="#">OS Open Built Up Areas   Data Products   OS</a></u>

# Summary

- Valuable resource that is demonstrating the need for scalable identifiers in our data and the added value leveraged from the NGD
- OS NGD Select & Build and OS NGD API
- Achieving equitable public health outcomes:
  - Setting identification
  - Building characteristics as indicators of place-based vulnerability
  - Other

## September 2024 – OS NGD data enhancements

New bridge interaction  
attribution

New number of floors  
attribution

Increased coverage of  
land use site extents

Enhanced land use  
attribution





UK Health  
Security  
Agency

**Thank you.**

James Lewis  
[james.lewis@ukhsa.gov.uk](mailto:james.lewis@ukhsa.gov.uk)

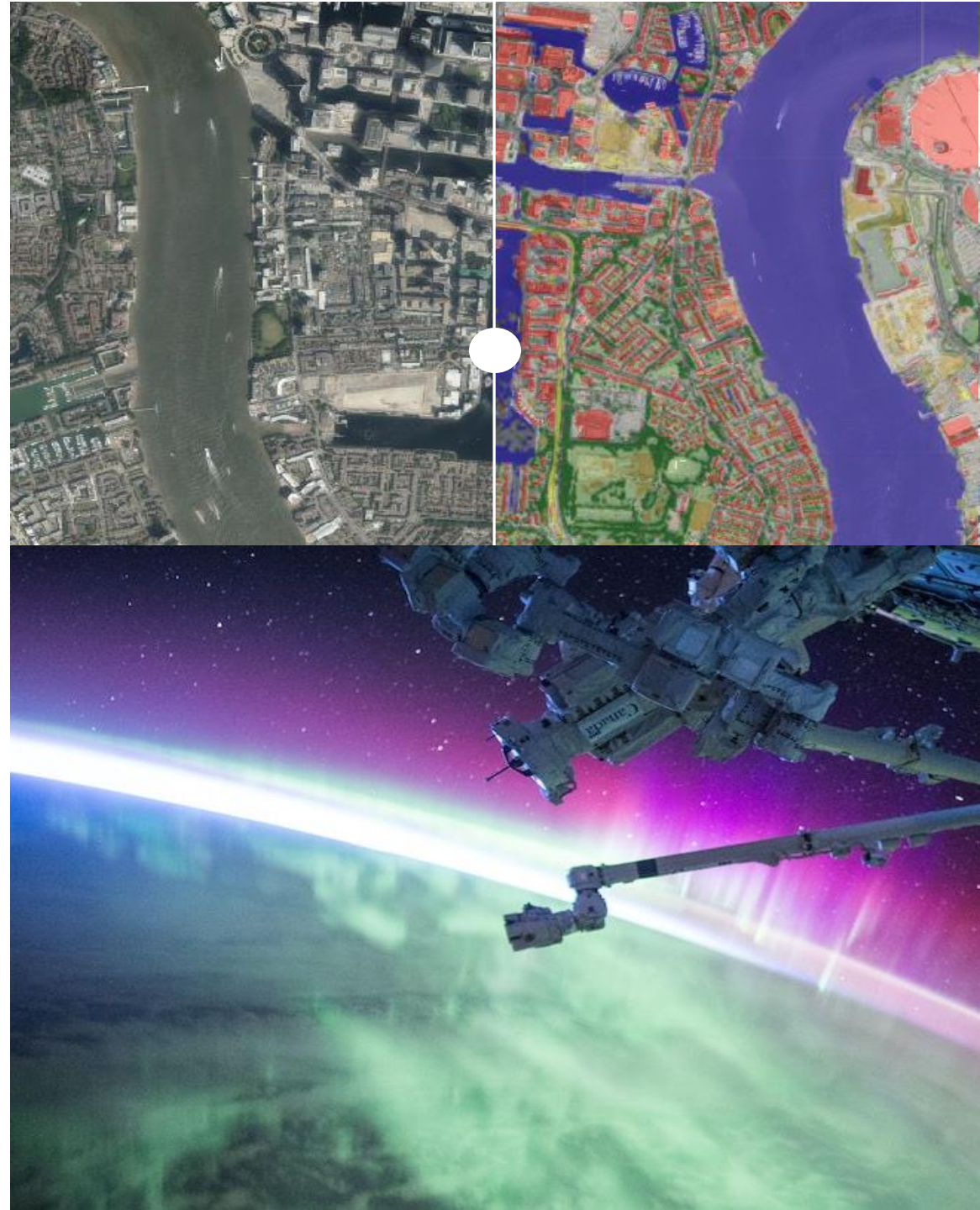
# PSGA FUTURE CAPABILITIES- UPDATE

Andy Wilson, PSGA Futures Lead  
Ordnance Survey



# Original set of PSGA future capabilities...

- UPRN and USRN adoption support
- Higher resolution/3D, more seamless data
- Information hub partnerships
- Improved currency
- Improved coastal zone data
- Position, Navigation and Timing (PNT) resilience
- Dynamic data linkages
- Derived analytical content



# User Engagement activities over last 18 months

## Public Sector

Mix of structured interviews and sector-based workshops

60 public sector organisations (138 participants)

Additional feedback gathered in a sessions at 4 x PSGA Events, Autumn 2023

## Partners

Mix of structured interviews and bilateral workshops

15 Partner organisations (19 participants) + workshop with OS Connect

Additional feedback gathered in workshop at OS Partner Conference, March 2024

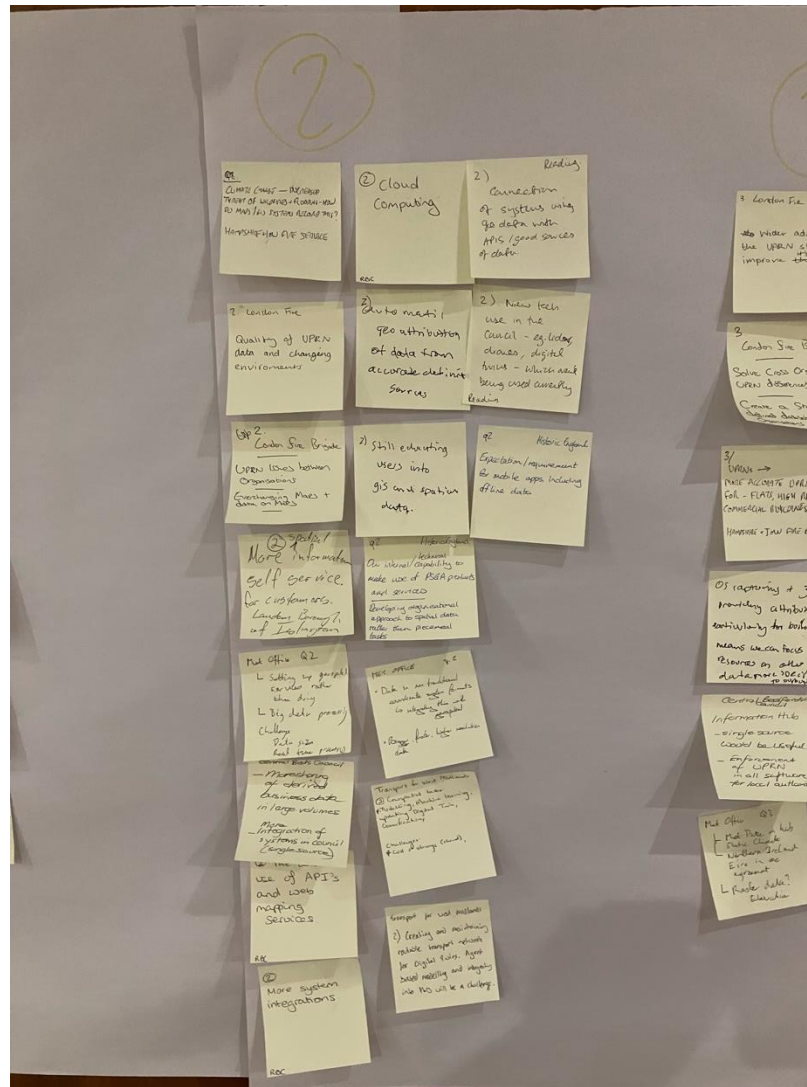
## Analysis & reporting

Findings captured in structured format to support business case evidence

User Engagement Report shared with to GC



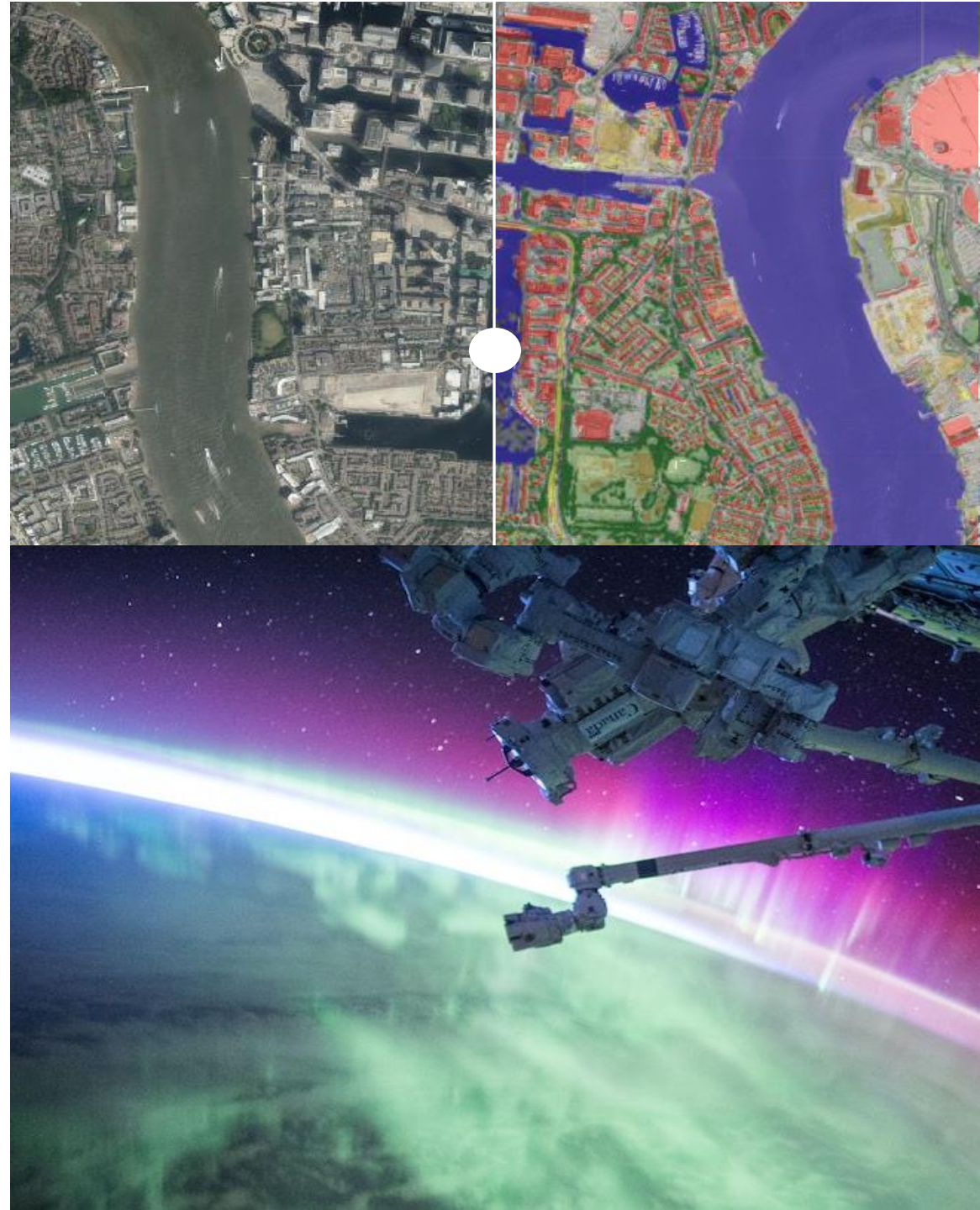
# PSGA Events- Discovery and analysis of 750+ post its!





# Priority Future capability themes

- Enabling linking and sharing
- Better data
- Data and services for safety and security





# Summary of importance of requirements

Captured via interviews, workshops and PSGA events

## Better data

- 3D geospatial data
- Indoor mapping
- Feature granularity and classification
- Coastal zone
- Derived analytical datasets
- Improve currency
- Improved spatial accuracy
- Change history
- Integration of 3<sup>rd</sup> party identifiers/data with OS data
- Enabling use of real time data feeds


## Enabling linking and sharing

- Access to 3<sup>rd</sup> party data via OS Data Hub
- Provision of OS data via other platforms
- Reducing barriers to use of OS data
- Identifiers from OS enabling data linking (inc UPRN adoption)


## Data and services for safety and security

- PNT capabilities and resilience


# Key trends identified by customers as driving changing needs




+ Desire to democratise access to geospatial insights, enabling more applications and increased impact




+ Demand for insights to more complex questions, which in turn is driving needs for more richer, more complete, current, accurate geospatial data.



+ Frustration that it is difficult to aggregate and share geospatial information, both within and between organisations



+ Need to increase efficiency related to managing geospatial data, alongside challenges with capacity and skills (particularly in the public sector)



+ Opportunity for AI to enable increased benefits from geospatial data





# Overview of resulting 7 specific propositions

**Data and services  
for safety and  
security**

Risk mitigation

**PNT  
services**

**Better data**

Enabling evolving  
geospatial applications  
and policy outcomes

**Enhanced land  
cover &  
habitat data**

**Enhanced  
transport  
networks**

**Functional  
Economic  
Market Areas**

**Enabling linking &  
sharing**

Improving efficiency  
and effectiveness

**OS Data Hub for  
government  
geospatial datasets**

**Higher currency &  
pre-construction  
for properties**

**Enhanced location  
information for  
emergency response**

## Next Steps



Engaging with the Geospatial Commission to determine priorities (subject to Government budgetary processes)



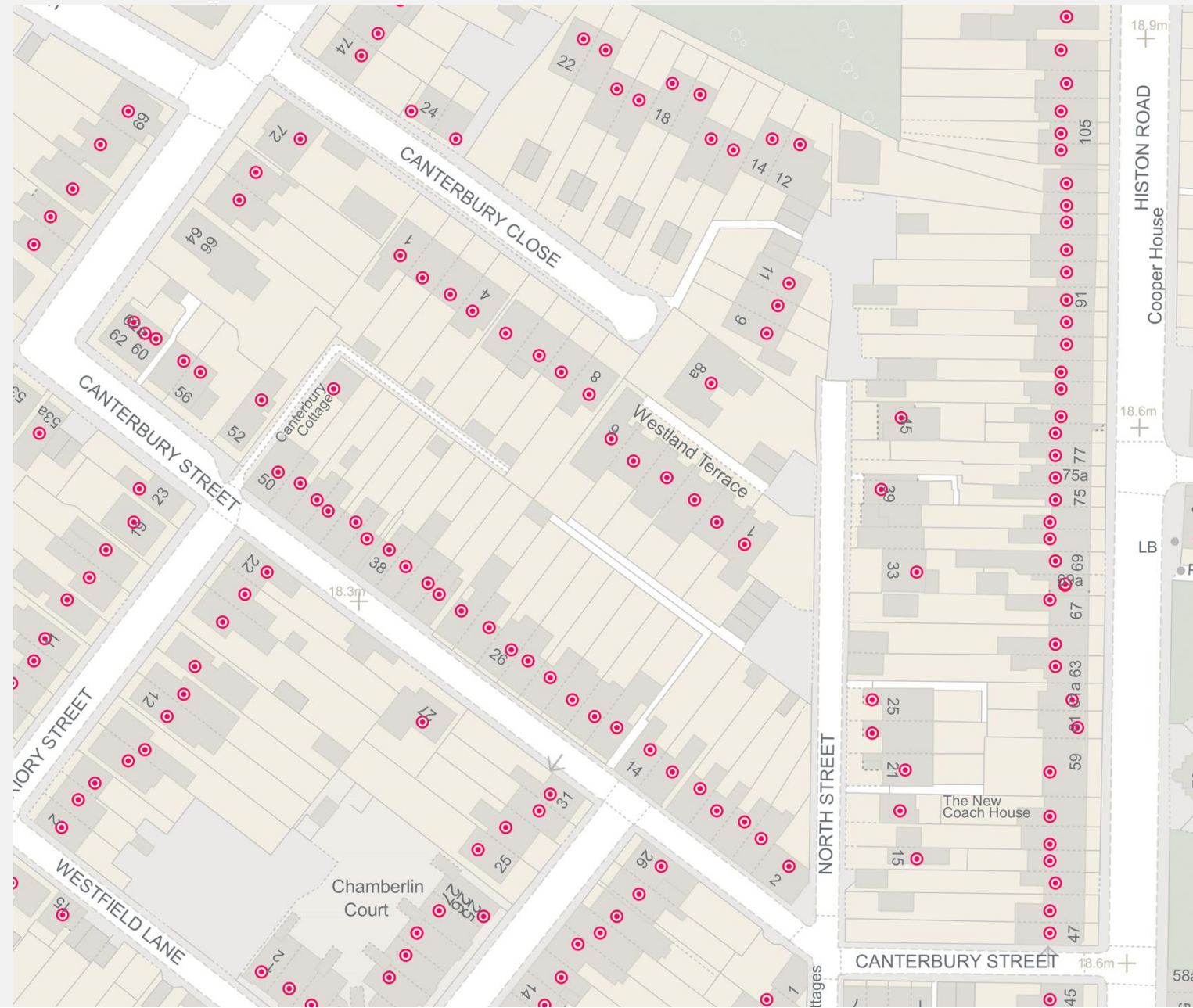
Continued proposition development and engagement with customers to ensure requirements are fit for purpose



Assessing lessons learned from new data releases



# Update on Address and Street Information Directory (ASTRID) Trial



# The Government Mandate

1 July 2020, the Open Standards Board, via the Government Digital Service (GDS) mandated that:

The **Unique Property Reference Number (UPRN)** and **Unique Street Reference Number (USRN)** are the public sector standard for referencing and sharing property and street information.

All new public sector systems and projects that include address and/or street data should include the identifier.



Government  
Digital Service



# Specific feedback on visibility and access to UPRN/USRN data from PSGA customers...

*“When a gov dep is holding data at UPRN level they should be publishing it openly.”*

*“Visibility and awareness of data is a real challenge”*

*“Establish a UPRN data catalogue so you can see who has matched their data to the UPRN – would be really useful”*

*“Would welcome a UPRN catalogue approach (what’s been linked to UPRNs)”*

*“Can OS support other gov bodies to develop a standard to follow when they publish their data with UPRN – something similar to INSPIRE”*

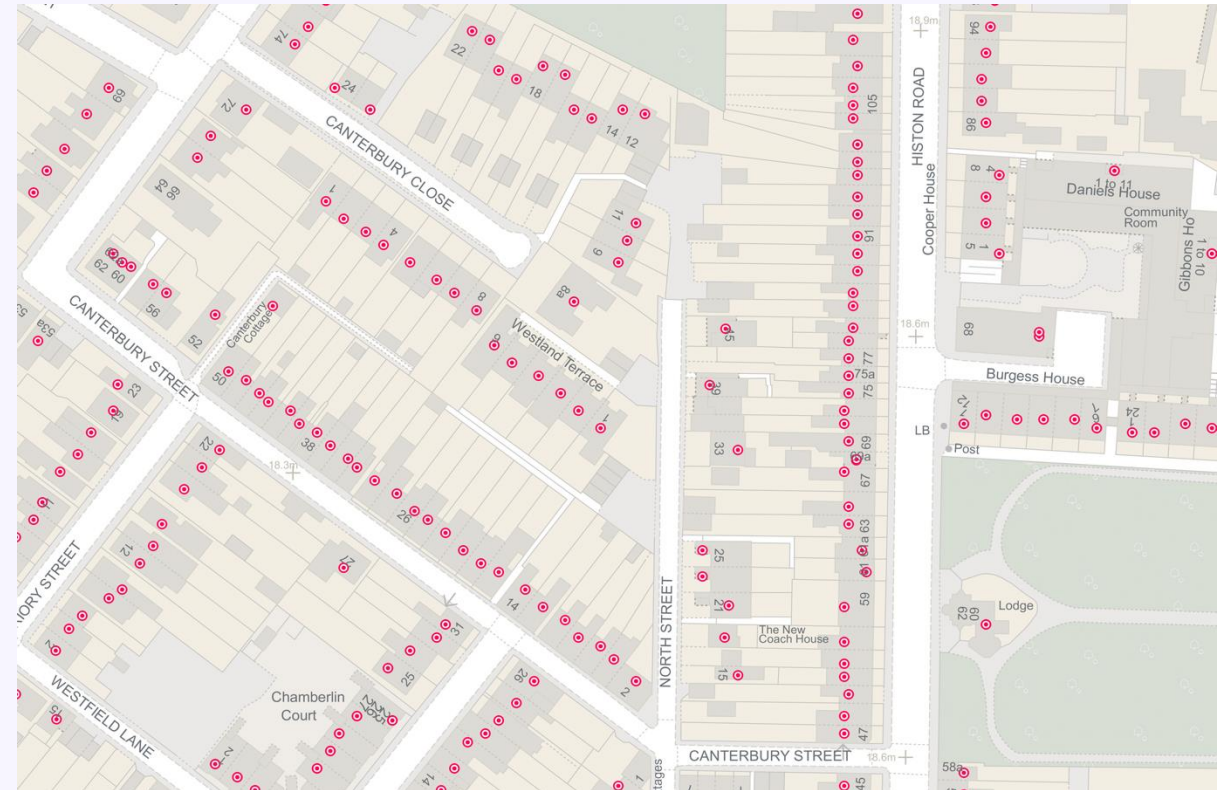
# ASTRID Pilot

Pilot for the creation of an on-line searchable UPRN/USRN data directory

This first iteration was a searchable library comprising of the following data fields;

- Dataset attributed to UPRN/USRN? e.g. Energy Performance Certificates, Air Quality etc
- Dataset owner/custodian
- Details of how to obtain dataset
- Update cycle of data

Functionality to request datasets for inclusion if not present.





Domestic property information to support Council Tax Banding	No	Property List	Valuation Office Agency	9/19/2024 8:44 AM	Open register	<div>▼</div>
GP surgeries: Main Sites (Open Government Licensed version)	Yes	GP data	Welsh Government/Digital Healthcare Wales	9/19/2024 8:44 AM	Open register	<div>▼</div>
HMO (Houses in Multiple Occupation) licensing register	No	Property List	Nottingham City Council	9/19/2024 8:44 AM	Open register	<div>▼</div>
Non-domestic property data to support Business Rates valuations	No	Property List	Valuation Office Agency	9/19/2024 8:44 AM	Open register	<div>▼</div>
Risk of Flooding from Rivers and Sea - Properties at Risk	Yes	Flood risk	Environment Agency	9/19/2024 8:44 AM	Open register	<div>▼</div>
Sample BCP LLPG	No	Local Land and Property Gazetteer sample	BCP Council	9/19/2024 8:44 AM	Open register	<div>▼</div>
This is a test	Built	Geopackage	No	Property List	test	9/19/2024 Open register <div>▼</div>

Bulk data uploads in CSV formatted files, please use the template for column headings and table structure



File Name \*

Uploaded By

Upload Date

M/D/YYYY h:mm A



Attach a file

Choose File

No file chosen

Submit

# Benefits of ASTRID



Provides a single place for PSGA members and the wider market to see what data is already attributed to the UPRN & USRN



Use cases and value can also be captured as part of the subsequent versions of the directory



Will help identify gaps in attribution across government for targeted adoption focus



# ASTRID- Phase 2 Next Steps and timeline



If you are interested in participating in the next phase of the trial, please contact [tianna.barefoot@os.uk](mailto:tianna.barefoot@os.uk)

THANK YOU

Andy.wilson@os.uk





Geospatial  
Commission



Ordnance  
Survey

**THANK YOU**

