SUPPORTING EMERGENCY SERVICES COLLABORATION

Andrew Cooling
Ordnance Survey
25th January 2017

Ordnance Survey

LOCATION AND GIS - ENABLING EMERGENCY SERVICES COLLABORATION

- Increased level of emergency services collaboration
- Fire and rescue policy moved to the Home Office (along with key national systems)
- ‘Policing and Crime Bill’ aims to introduce a statutory duty on police, fire and ambulance services to collaborate and to allow the PCCs to assume greater involvement in the provision of fire and rescue services.
- The PSMA and enabling technology enables emergency services collaboration

SUPPORTING ACTIVITY

Police
- Northern Police Force GIS User Group (meeting tomorrow in Sheffield)
- Southern Police Force GIS User Group
- GICG representation and NPCC lead for GIS/location – ACC Dave Orford at Durham Constabulary
- PURG representative – Chris Daborn (Norfolk Constabulary). Leaving PURG soon.

Fire
- Fire GeoSpatial User Group – Chair: Chris O'Conner (London Fire Brigade)
- GICG representation and CFOA lead – DCFO Neil Odin (Hampshire Fire)
- PURG representative – Martina Doolan (West Midlands Fire and Rescue Service)

Ambulance
- GICG representation - David Hughes, NHS Digital's Director of Information and Analytics
- PURG representation - Vince Weldon, Associate Director for IM&T at SCAS

PRODUCT UPDATE

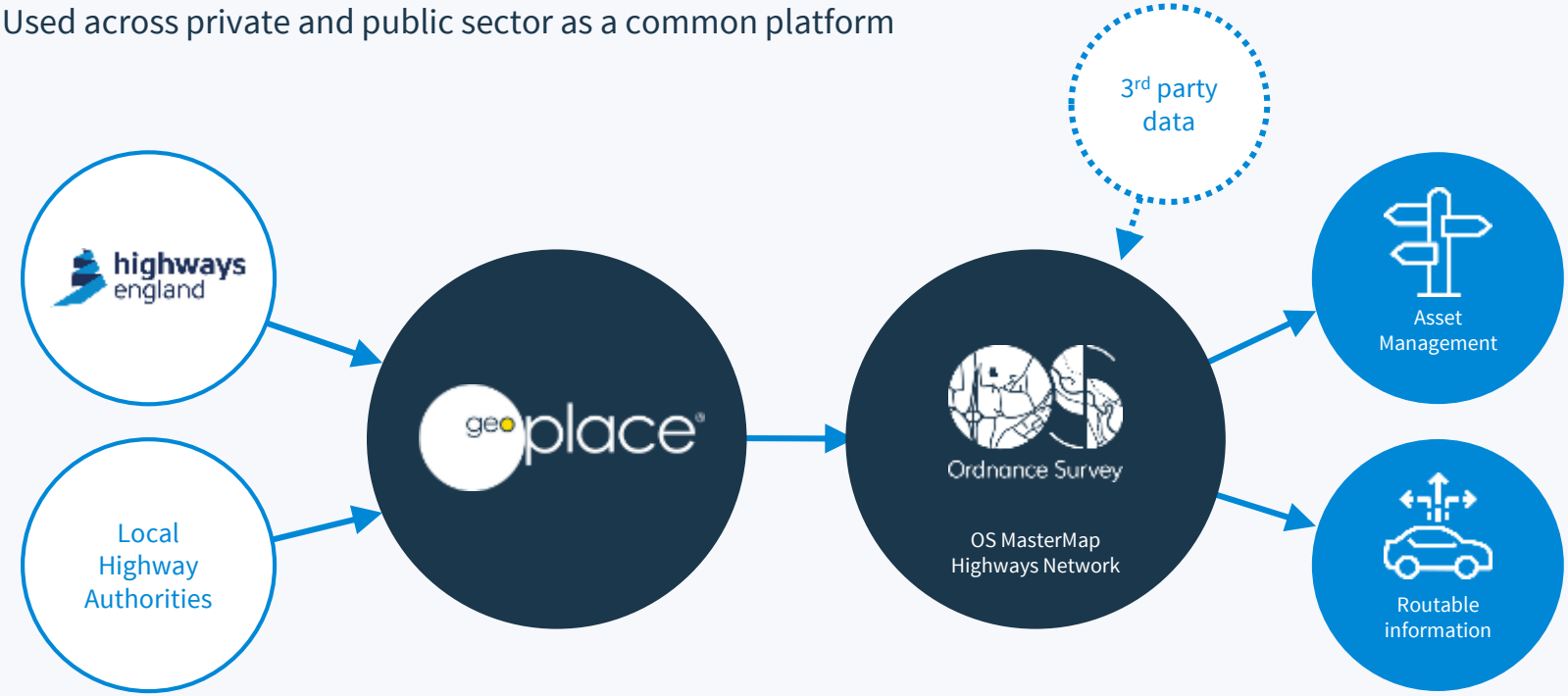
- Highways Layer
- OS MasterMap Schema Change
- AddressBase Islands
- OS Digital Surface Model (DSM)
- Greenspace

OS HIGHWAYS LAYER*

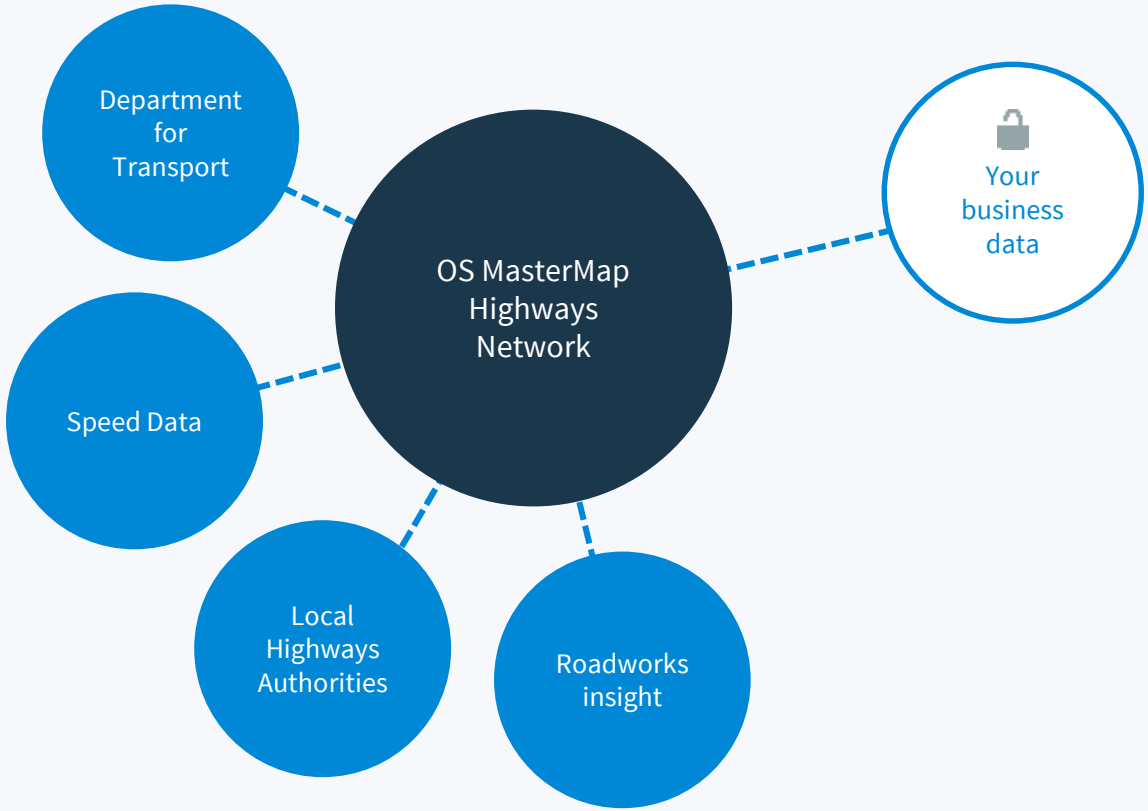
Ordnance Survey

A story similar to Addressing

- New highways dataset to provide the definitive view of the network across England and Wales
- Most accurate and up-to-date information on the network
- Used across private and public sector as a common platform

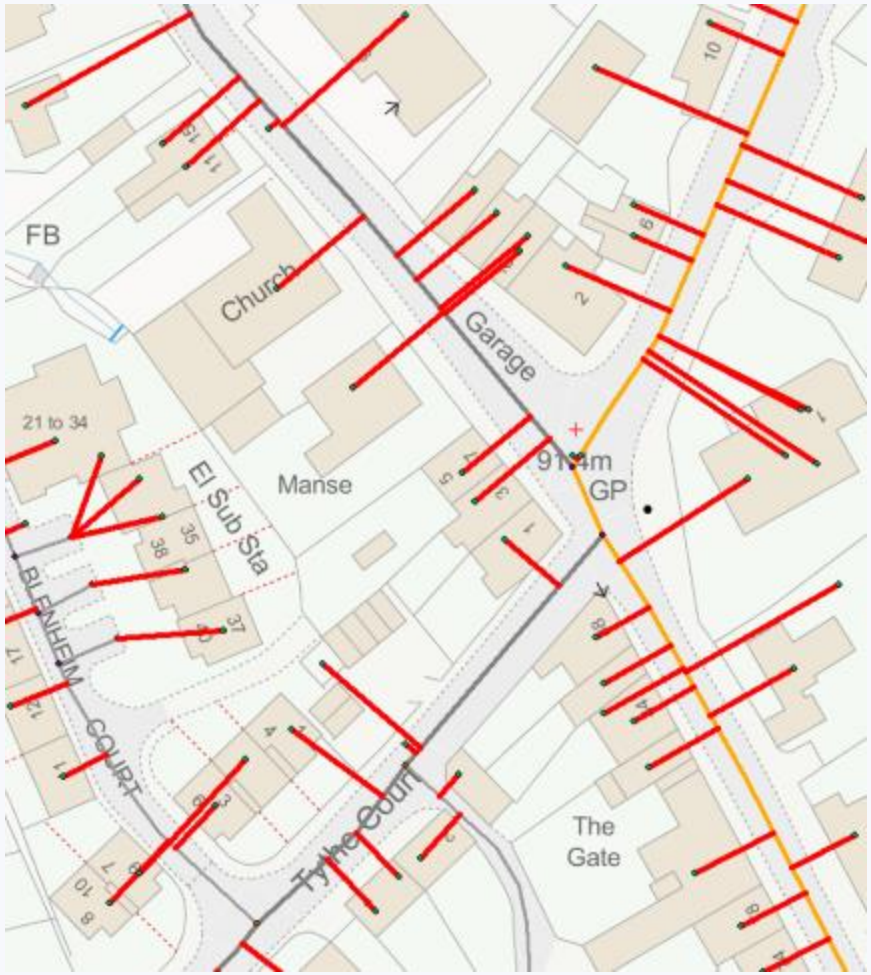


The key to unlocking your transport data



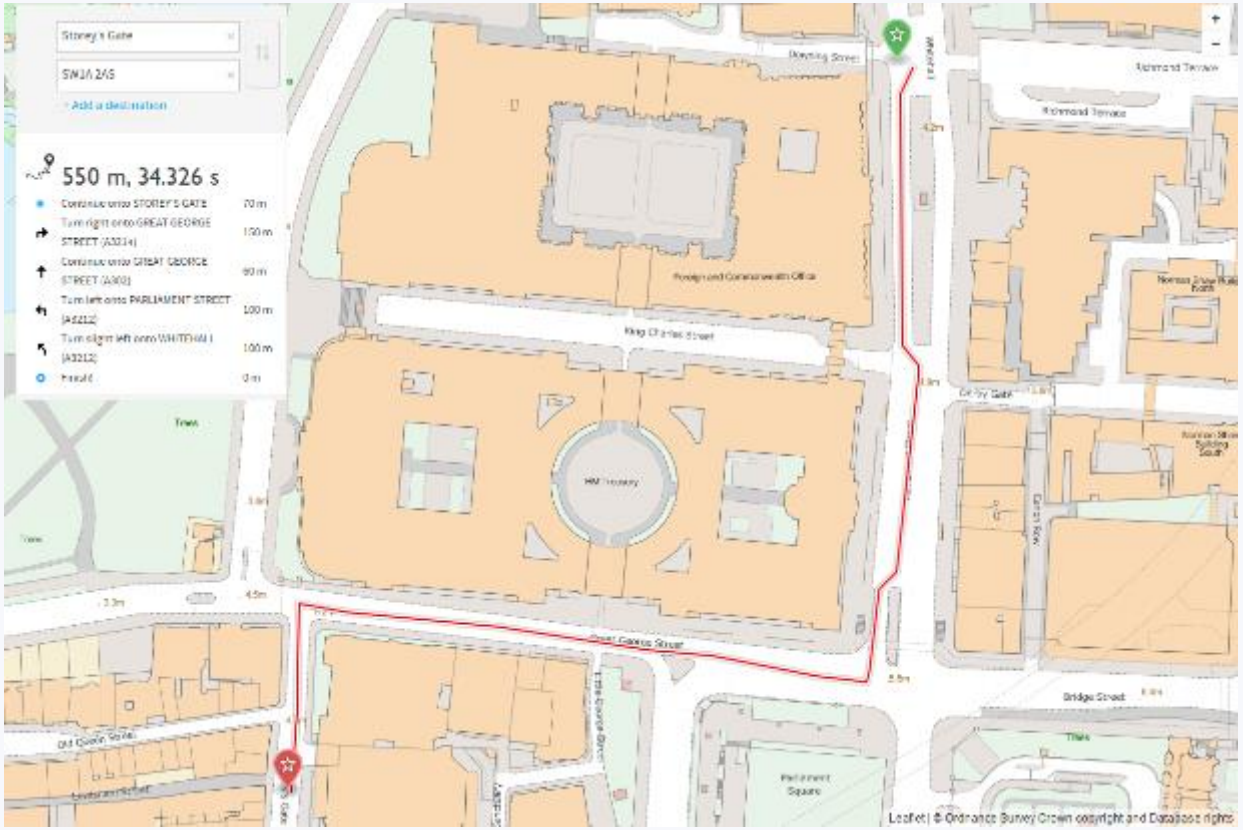
ADDRESSING

- Do you ever need to know what addresses are on a particular road? Do you need to link the road network to the address?
- Using the Unique Street Reference Number and the Unique Property Reference Number together will open to more customer applications.



ROUTING

- The routing will provide a definitive database for routing from authoritative sources. Including information on road widths, bridge heights, weight restrictions and bans on left or right turns at junctions.
- Minimum width (along link)
- Lane information (capacity)



EMERGENCY SERVICES HIGHWAYS WORKSHOPS

- 2 workshops are available for registration;
    - 30th January in Wakefield
    - 16th February at BEIS HQ

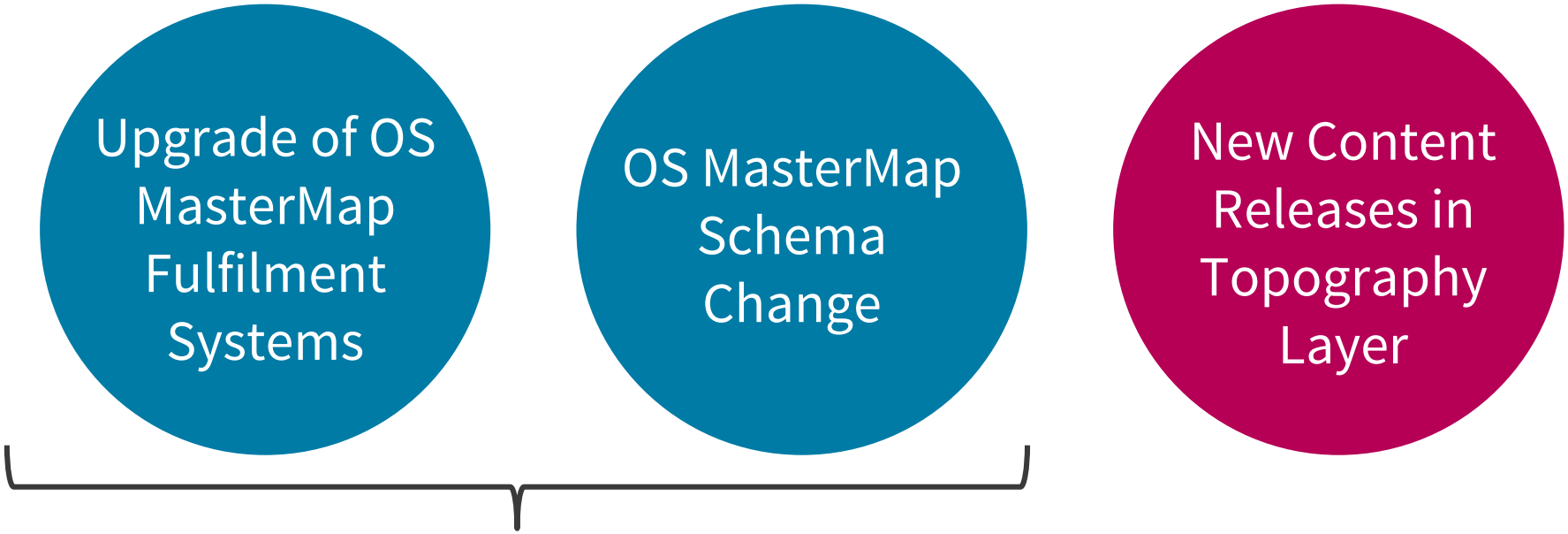
- Focus is on what the Highways Product is and how it will benefit Emergency Services.

- We intend to;
    - Provide and Overview of the Product
    - We have invited a number of suppliers along for a Q&A and networking
    - We will have round table sessions to provide demos of how to load the data as well as link to to other OS products such as AddressBase

OS MASTERMAP UPGRADE*

Ordnance Survey

There are three changes being made to provide better delivery for OS MasterMap and enhanced content in Topography Layer:



Ordnance Survey

TOPOGRAPHY LAYER NEW CONTENT RELEASES

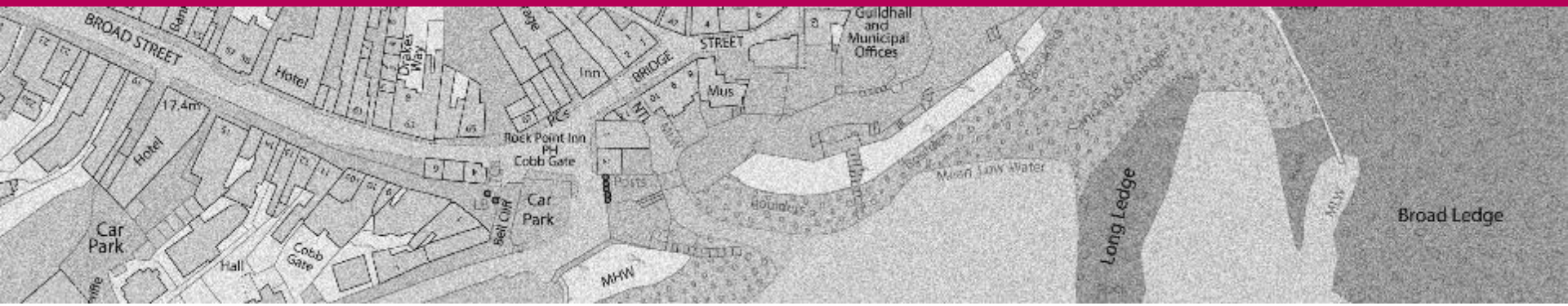
76 new descriptive term attributes giving:

- Improved definition of tidal features
  - Styling can change from ‘tide in’ to ‘tide out’
- Improved attribution of inland water features
  - Reservoirs, Static Water, Watercourses, Canals, Drains
  - Separation of ‘Marsh Reeds Or Saltmarsh’
- Improved land-use attributes
  - Agricultural Land, Landfill, Mineral Extraction
- Improved use of existing Descriptive Terms
  - MHW and MLW co-incident
  - Foreshore Descriptive Term now includes Mud, Sand, Shingle etc.

Better attribution of structures

- Structure moved from ‘Descriptive Term’ to ‘Descriptive Group’ allowing many new Descriptive Terms:
- Bridge, Telecoms Mast, Tank, Chimney etc.

2017



Ordnance Survey

ORDNANCE SURVEY

DIGITAL SURFACE MODEL

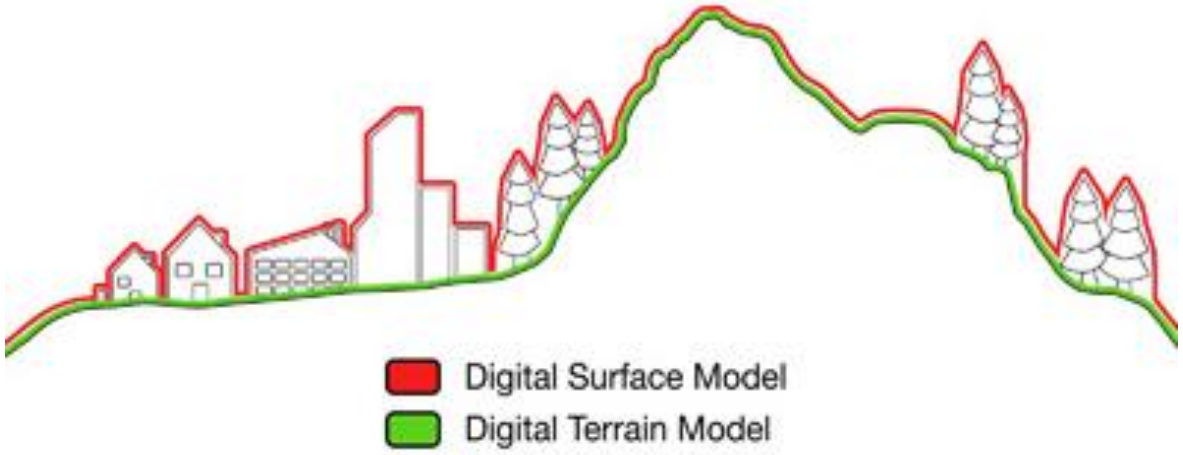
PRODUCTS

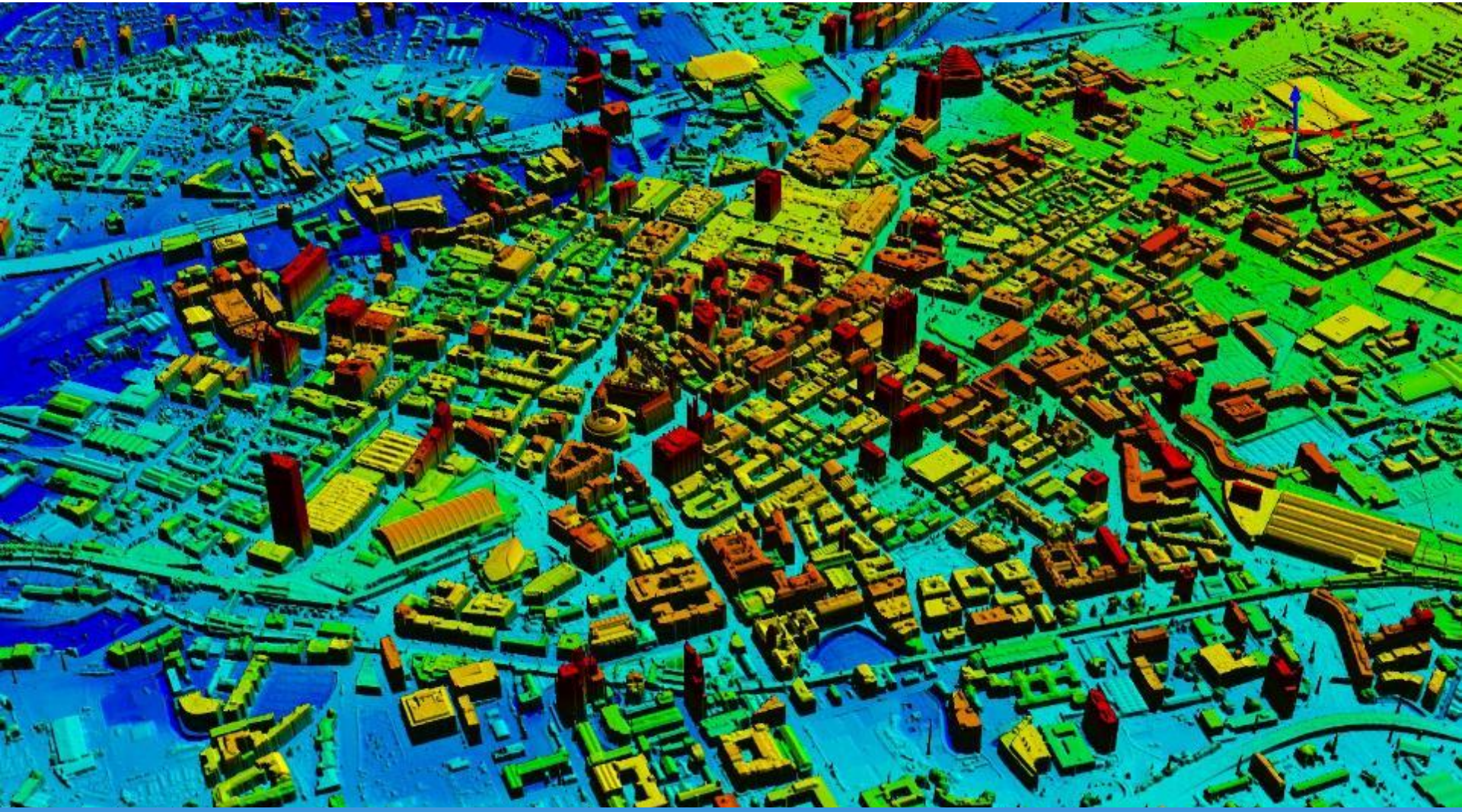
2017

Ordnance Survey

What is a Digital Surface Model (DSM)?

A data set which articulates the height of all features visible on the earth's surface representing a three-dimensional model of the earth's surface. It includes all permanent and non-permanent features, such as the ground surface, bare earth, rocks, man-made structures such as buildings and vegetation.





What problems can customers solve with the data?

Communicate through visualisations:

- 3D fly throughs and simulated environments
- Data visualisation

Vegetation management:

- Forestry: Canopy heights, biomass measurements, and leaf area can all be studied using DSM data.
- Along a transmission line, overlaying a DSM to see where and how much vegetation is encroaching.

We think these are likely to be the core use cases. But it's possible for additional use cases to emerge from feedback.

What problems can customers solve with the data?

View shed and line of sight:

- *Telecommunications:* The additional detailed information can be incorporated into statistical or GIS software and used to provide accurate analysis for determining line of sight and view shed for proposed cellular antenna. This analysis has the benefit of creating the optimal site for the masts ensuring coverage is optimal whilst reducing costs in the process.
- Security and defence.
- Urban planners use DSM to check how a proposed building would affect the view shed of other residents and businesses.

OS Digital Surface Model

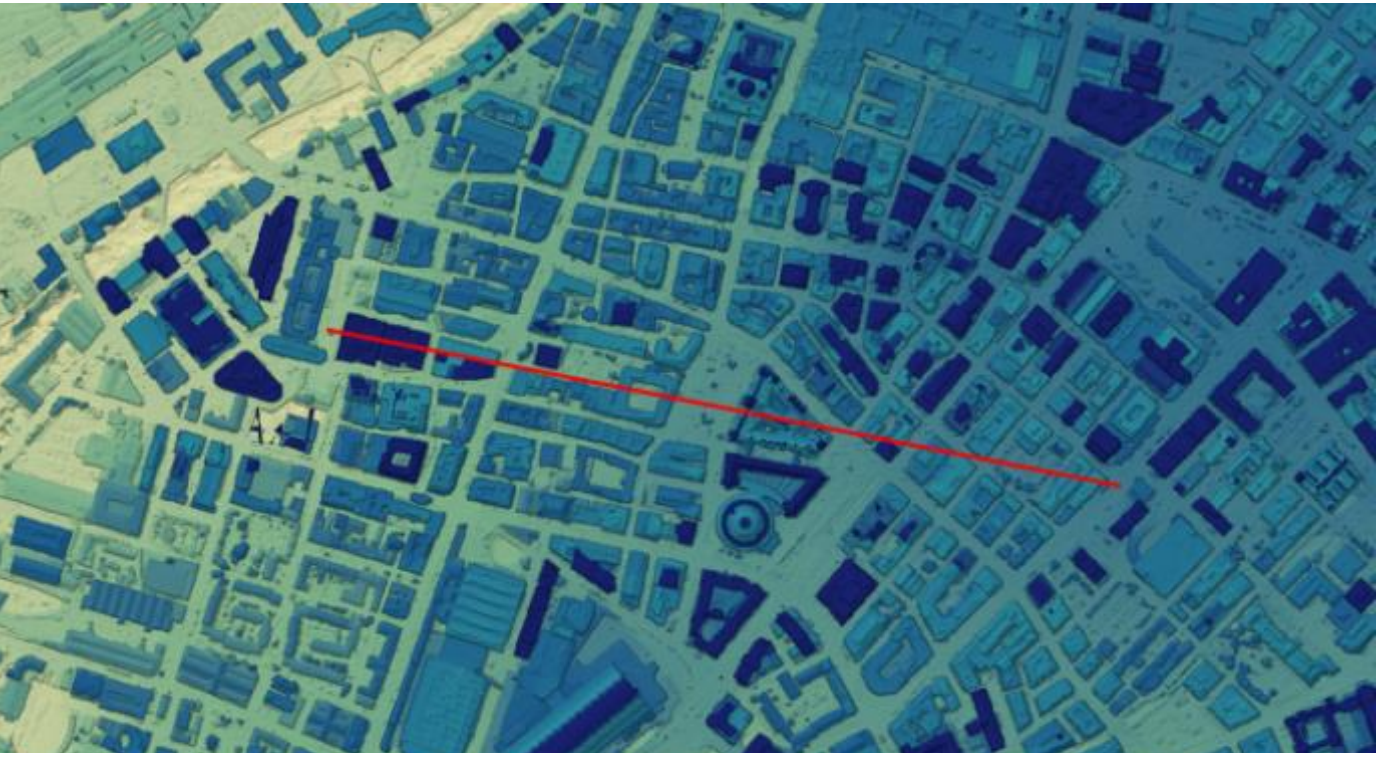
- **Sample data** released in January 2017.
- We're gathering **market insight** and feedback on the creation of a national DSM data set.
- The creation process for our existing height products has enabled us to generate a DSM of approximately **70% GB coverage**

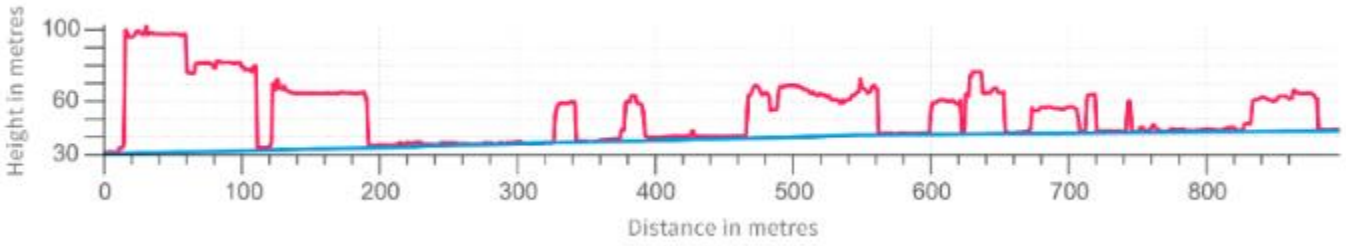
Key details:

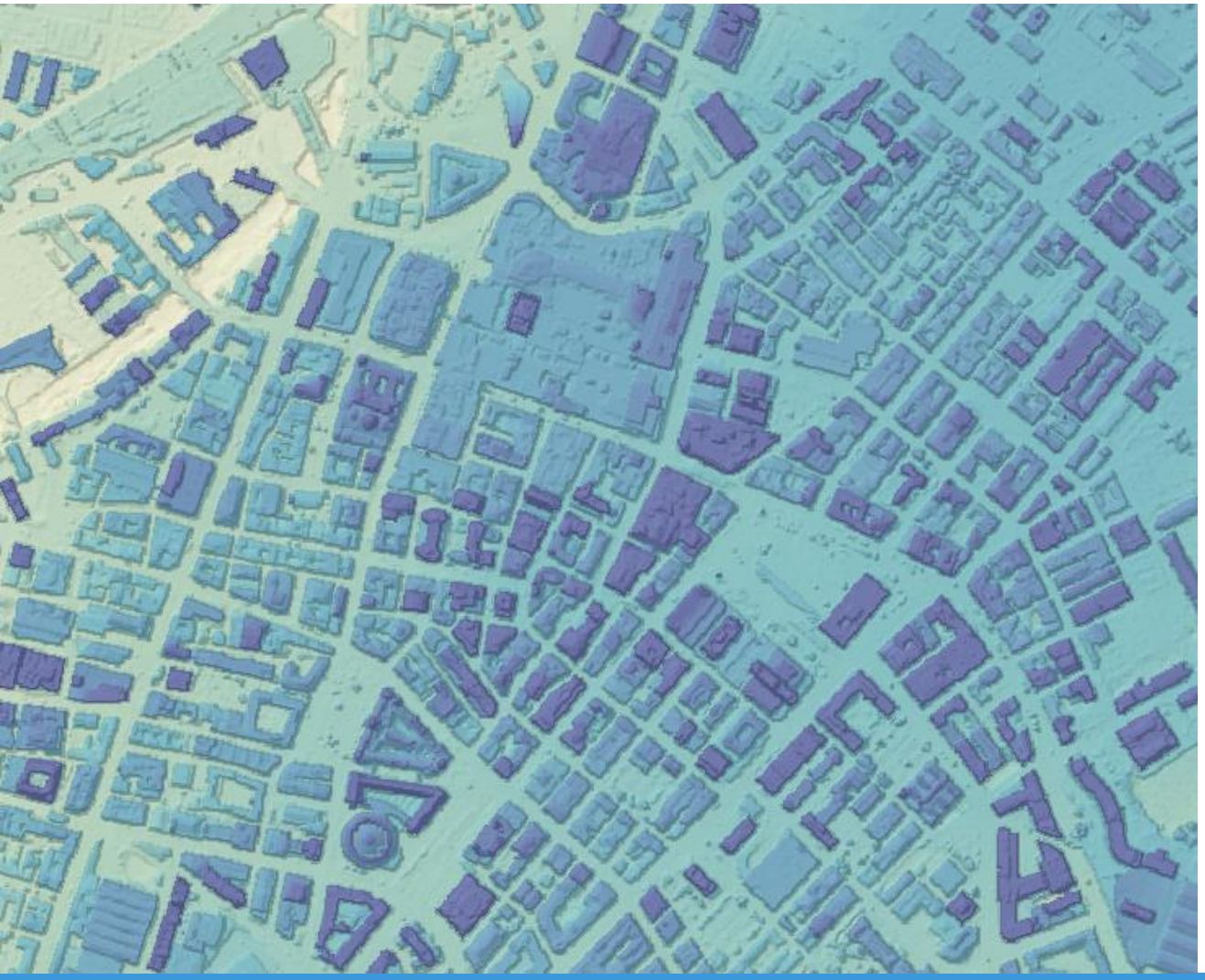
- April / May 2017 launch (*pending customer feedback*)
- 1 meter resolution
- Unedited
- Supplied in tiles – download only
- Premium data (*not PSMA or Open*)
- Pricing & Licensing TBC (*pending sample data feedback*)
- Grid format – GEOTIFF

Viewshed analysis (example)

Profile analysis (example)

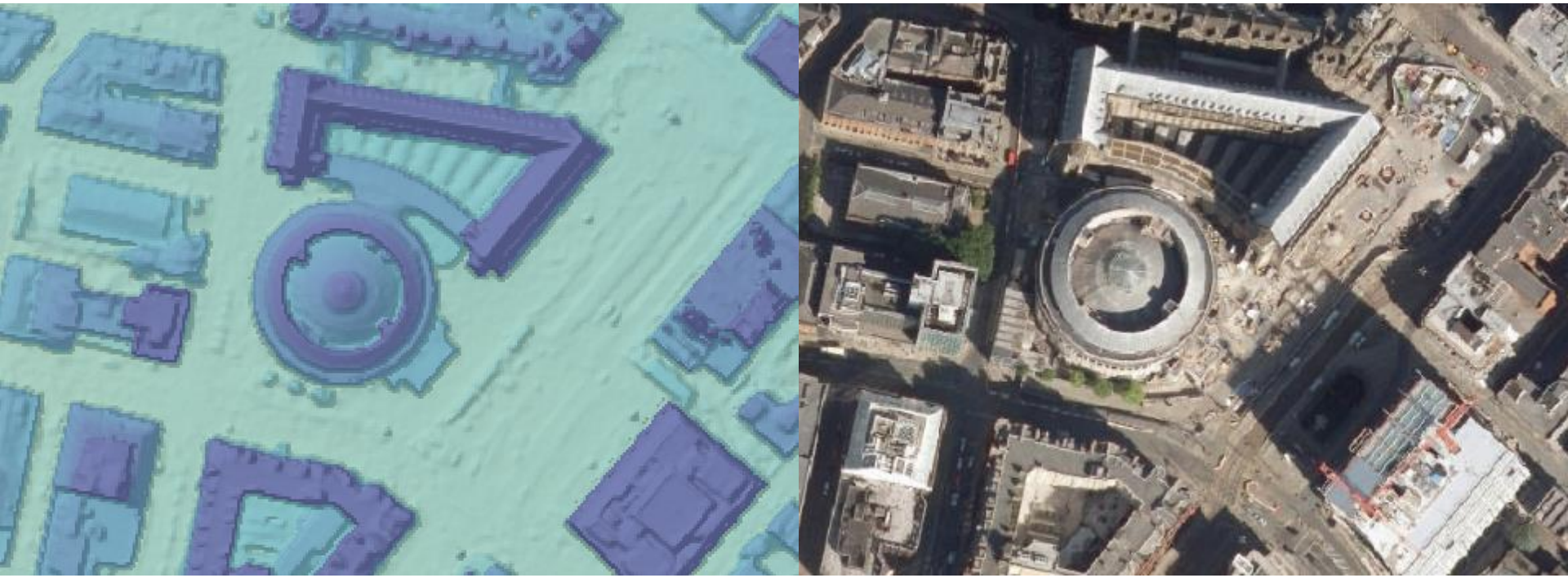


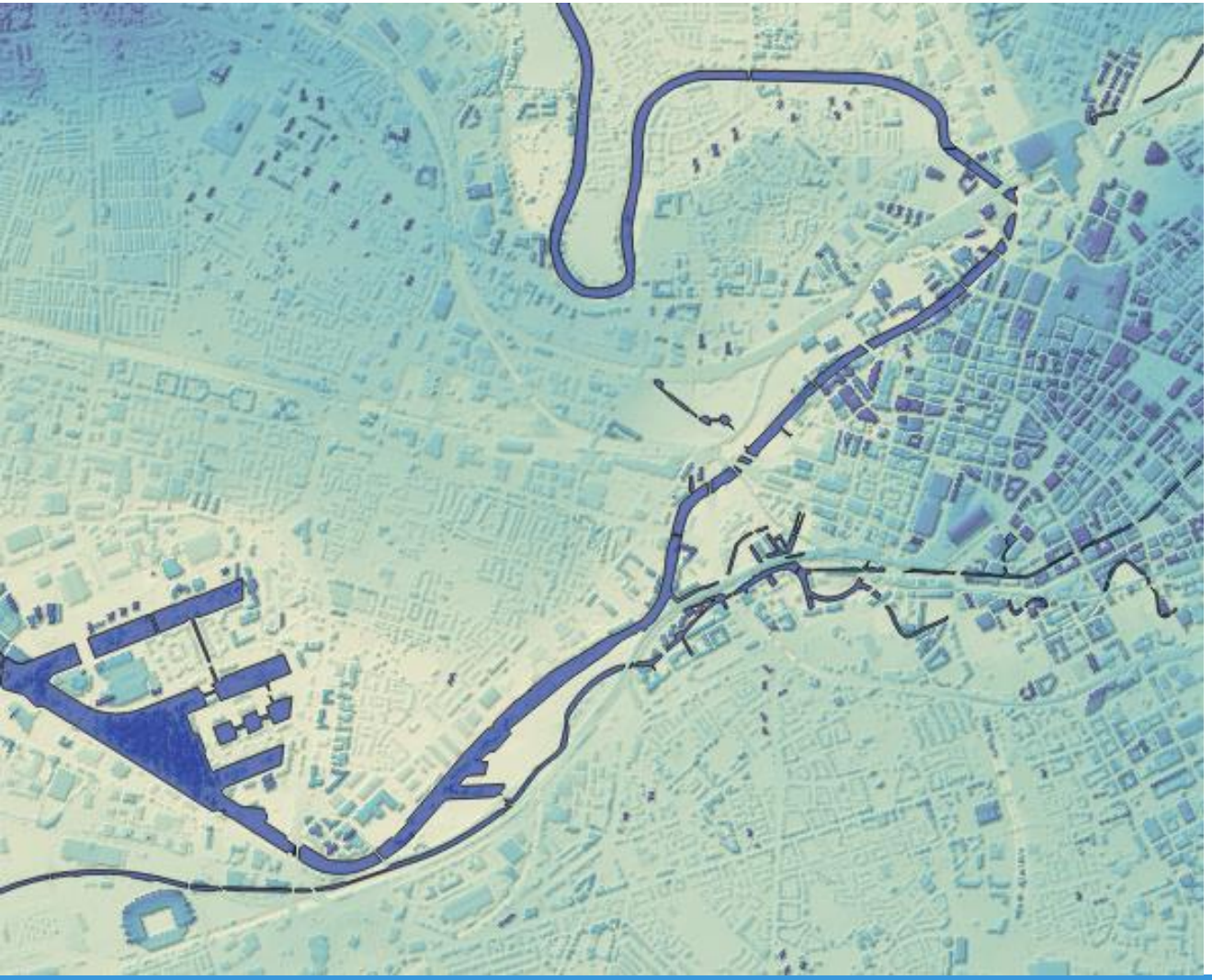




DSM demonstration (example)

DSM demonstration – comparison (example)

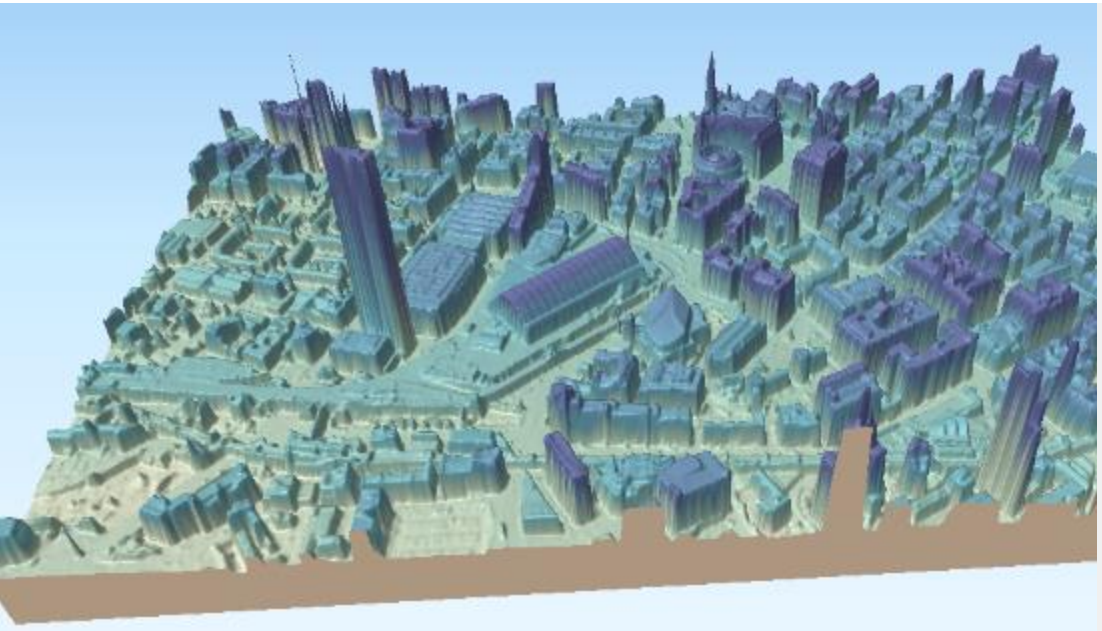


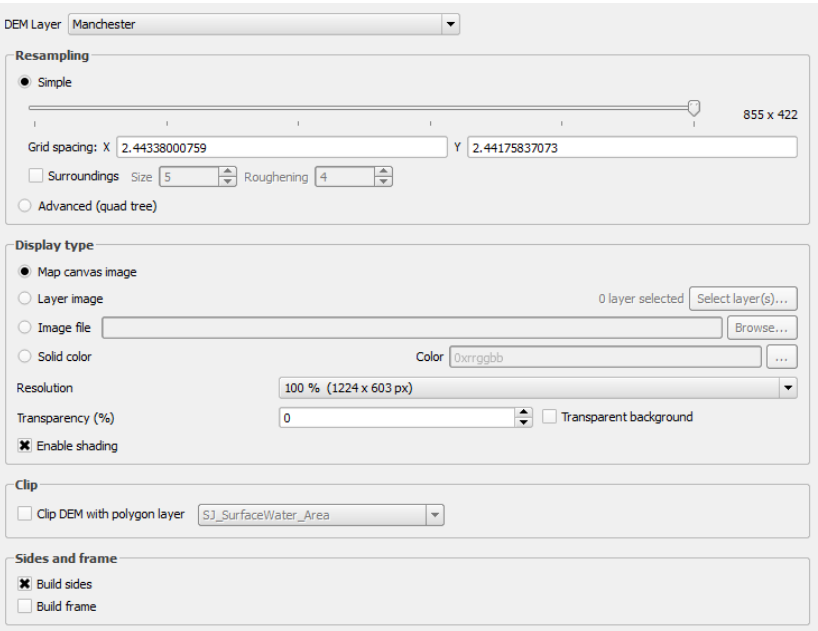


DSM – Use with other datasets (example)

DSM – Use with other datasets (example)

3D Cityscape (example)





Thank you

(Name here…)

Digital Surface Model

(email here…)

Ordnance Survey

Andrew Cooling
Andrew.cooling@os.uk
07764 629771