



Department
for Transport

The Highways Network: past, present and future



Why DfT are interested in the project

- ▶ **We invested money!** DfT invested £3 million to get the project started
- ▶ **We want better data.** Ordnance Survey data alone can only get us so far
- ▶ **We want to be world leading.** Better data on road networks is an aim of many countries. We want to be one of the first to deliver this
- ▶ Then Transport Minister Robert Goodwill said:
- ▶ *“This government is backing schemes that will make Britain’s transport system world-class. This mapping project has the potential to substantially improve how we look after our roads.”*





How DfT uses network datasets

- ▶ My team, **the network condition and geography statistics team**, looks after the underlying network datasets that many other teams use. These underpin many of our key datasets, including:
 - ▶ Traffic
 - ▶ Congestion
 - ▶ Road length
 - ▶ Road safety
 - ▶ Journey time statistics
- ▶ These datasets are then used for a range of purposes, with examples including:
 - ▶ Establishing the most congested roads, and prioritising action accordingly
 - ▶ Ensuring funding is allocated on a fair basis
 - ▶ Establishing which areas of the road network are less safe
- ▶ So getting the picture of the network right is very important!



Introduction to the Highways Network

- ▶ Before the Highways Network, there was no single, authoritative road network dataset
- ▶ There are many questions that we could not answer, for example:
 - ▶ How many miles of cycle lanes are there?
 - ▶ What is the capacity of the road network?
 - ▶ Where are all the classified 'C' roads?
 - ▶ Where are all the 'private roads'?
 - ▶ Who manages road X?
 - ▶ How much of the road network has three / four lanes?
 - ▶ What would be the impact of changing a speed limit on single carriageways?

A lot of this information was know to be held by highways authorities, but in different ways/forms, and not linked to Ordnance Survey data.



What the Dataset Contains

Physical Properties	Rights & Restrictions	Advisory Information	Asset Management
Surface Type	Access & Use Restrictions	Barriers (Bollards, Gates)	Maintenance responsibility
Width of carriageway	Turn Restrictions	Hazards (Ford, Gradient, Level Crossing)	Reinstatement
Elevation profile of road network	Vehicle Restrictions (Height, weight, width)	Structures and Traffic Safety (Bridge/Tunnel, Toll, Traffic Calming)	Special Designation (Protected Street, Traffic Sensitive Street, Special Engineering Difficulty)
	Public Rights of Way (where related to roads)	Road classification	

Much of this information was previously only visible to individual local authorities.



What's new/improved in the last couple of years?

Open Roads
product now
available

Height of
network
(OS)

Width of
network
(OS)

Cycle paths
(NSG)

Special
events
(NSG)

Link to ONS
datasets

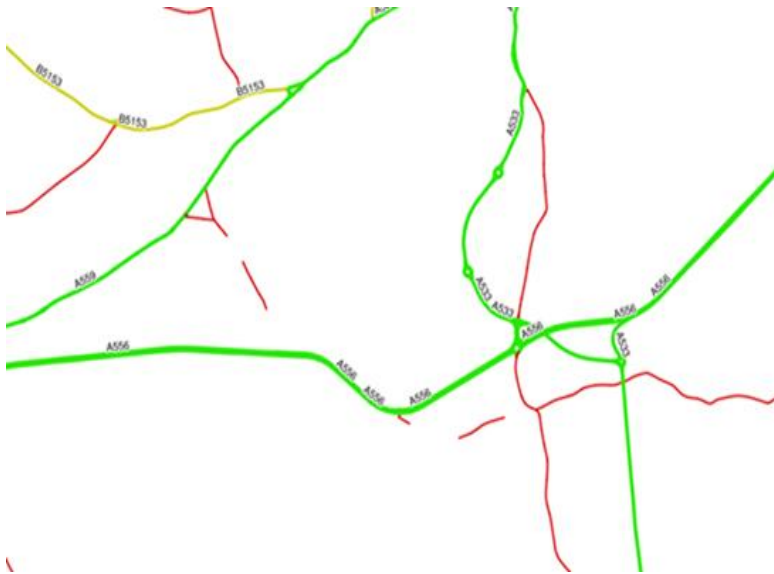
Public rights
of way
(NSG)

And lots
more from
the NSG



What's still being developed?

Data quality issues still exist



The red lines (C roads) have gaps along their length. These are marked as unclassified roads in the product, but this doesn't seem likely in reality

Road classification	Highways Jan 18	Published April 16	% difference	Numerical difference
Motorway	3,617	3,193	13%	424
A road	37,308	36,547	2%	761
B road	22,826	22,974	-1%	-148
C + U	262,854	274,640	-4%	-11,785

There also seems to be an undercount of C and U roads in Highways. Many roads have a classification of 'unknown'

Resolving these is vital to DfT to allow us to start using Highways more widely



What are we doing?

- ▶ Have recently started a project with a small number of local authorities to identify how accurately the Highways Network captures their road network
- ▶ Particular focus on ensuring that the product identifies publicly maintained roads and their classifications (A, B, C, U) accurately
- ▶ The outcome of this will tell us what further work is needed to ensure that the product is accurate enough to be used in things like funding settlements
- ▶ Intention is to replace the current R199b process by using accurate data from the Highways Network



What's in it for you?

A single source of data

Rather than have multiple sources of data with different purposes, Highways provides a single, authoritative source, derived from the NSG

Access to data from other highways authorities

As members of the Public Sector Mapping Agreement, you would have seamless access to data from neighbouring authorities via the product, allowing you to see how the features of others' networks differ to your own.

Reduction in burden

Some existing processes, such as the R199b process, would become unnecessary if Highways were up to date and accurate



What would we like from you?

- ▶ The completeness and accuracy of your LSG is vital to the success of Highways
- ▶ However, we recognise that updating and maintaining your LSG is a substantial task and can't be done at once
- ▶ Therefore the improvement schedules are important in prioritising the improvements that have most relevance
- ▶ In particular, maintenance records and road classifications are really important to get 'the basics' of the dataset right