



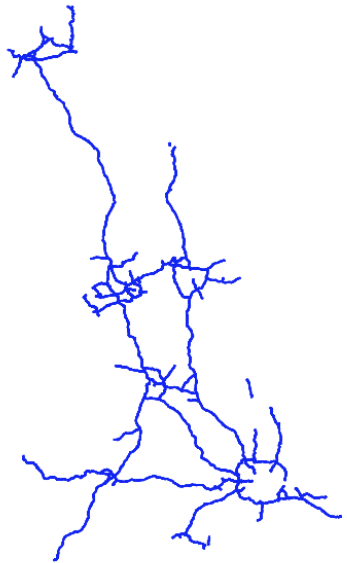
USING TECHNOLOGY AND AI TO ASSESS LARGE ROAD NETWORKS

Richard Owen

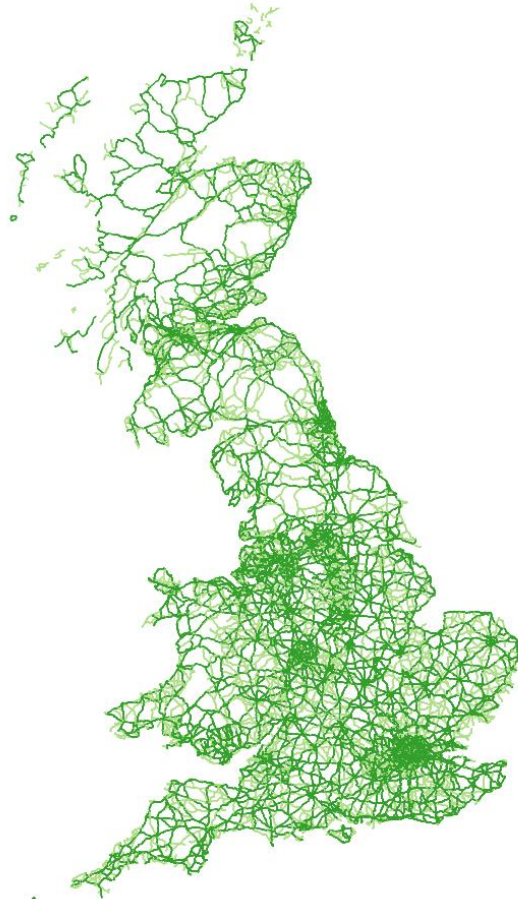
WHAT IS A LARGE NETWORK?



8,400 Km
carriageway length



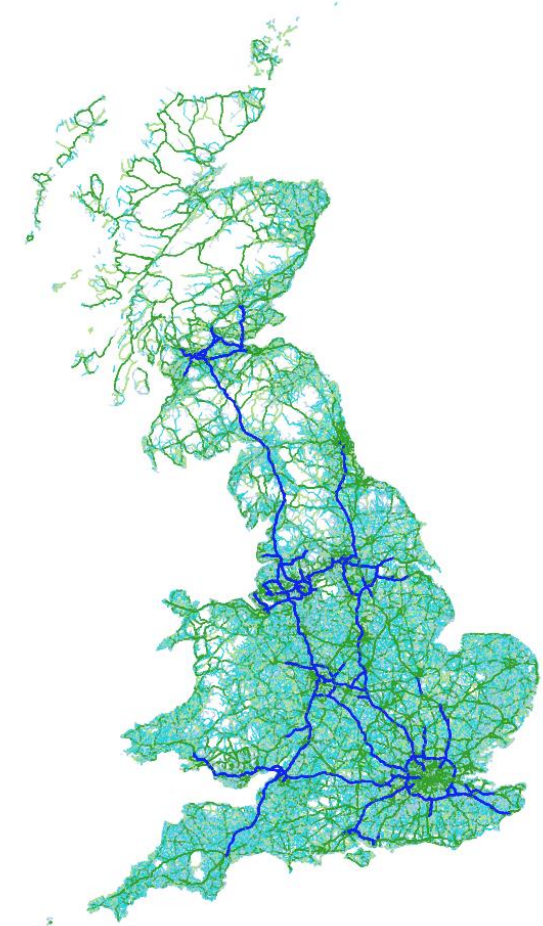
89,600 Km
carriageway length



252,700 Km
carriageway length*



433,900 Km
carriageway length



WHAT INFORMATION DO WE HAVE?



OS MasterMap Highways Network - Roads

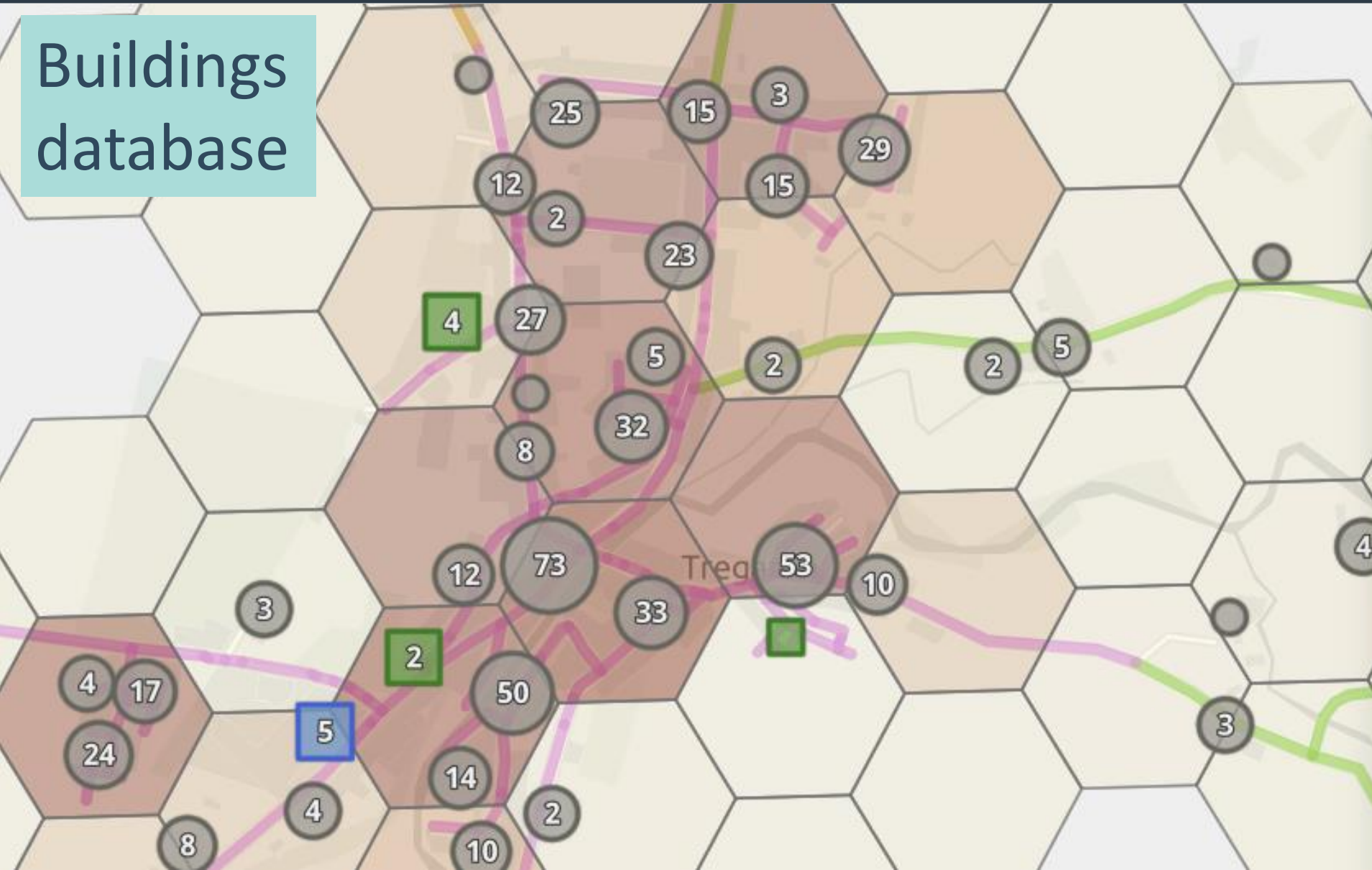


- Geometry
- Gradient
- Width
- Junctions
- Class
- Function
- Form of Way
- Cycle Facility
- Restrictions
- Hazards
- Speed Limit
- Speed Profile
- The Public Sector Geospatial Agreement
- 6,406 organisations
- Sub-contractor access

WHAT INFORMATION DO WE HAVE?







Buildings
database



Ceredigion Trip Attractor

Attractor Type

-  Education
-  Leisure
-  Medical
-  Residential
-  Retail
-  others

WHAT INFORMATION DO THEY HAVE?



Google

 esri®


OVERTURE MAPS
FOUNDATION

TomTom 

CART 

 mapbox

here



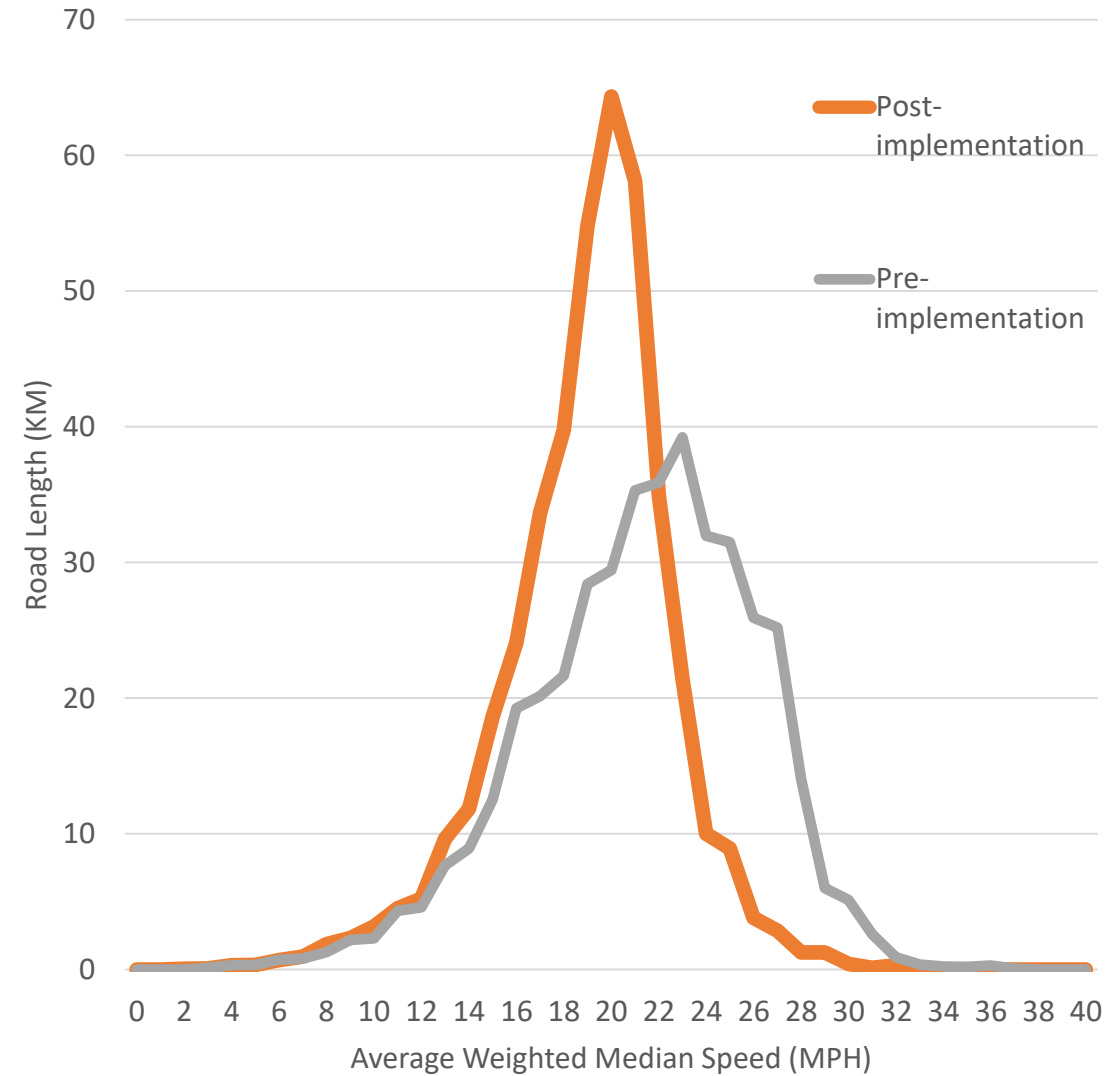
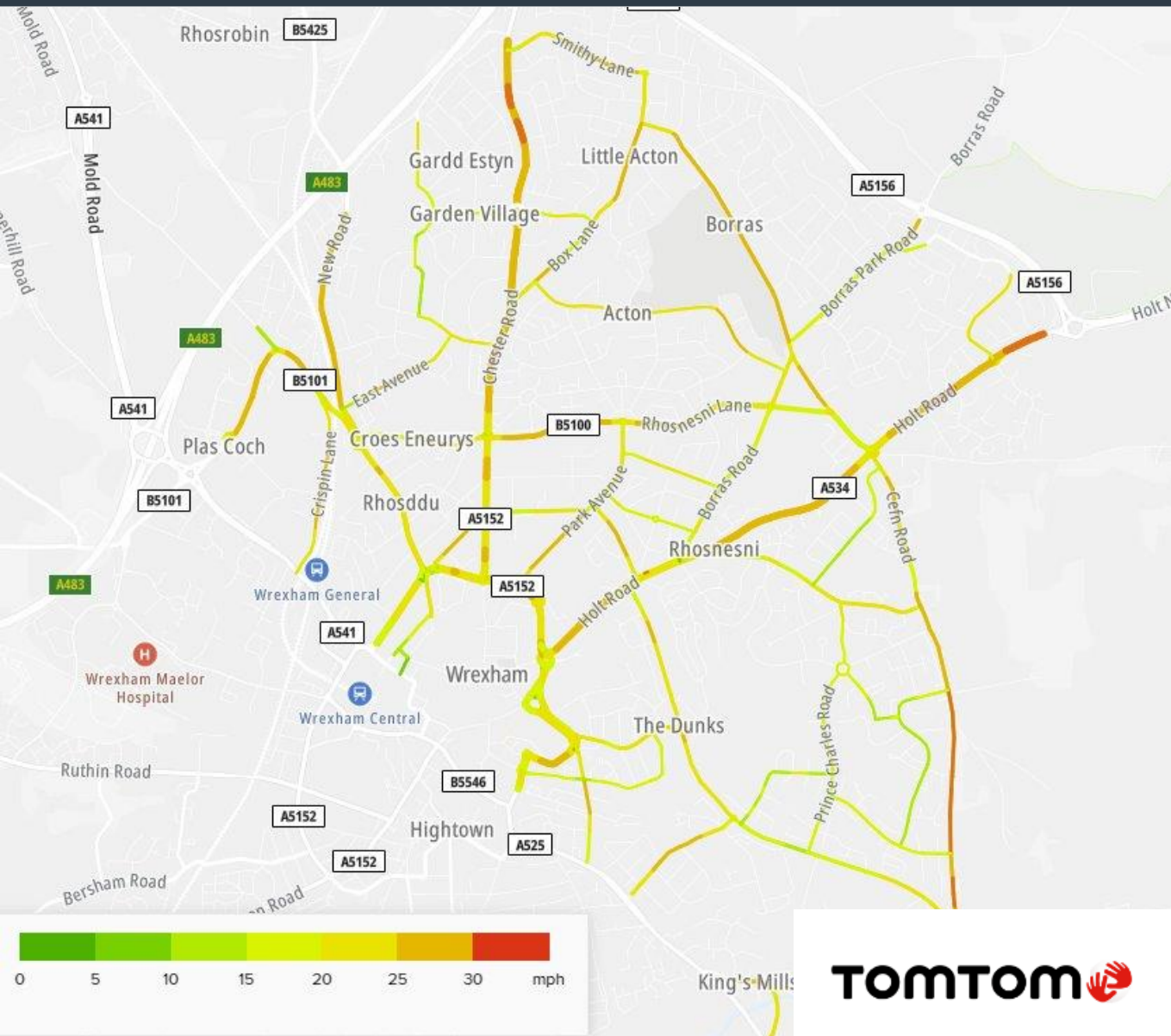
WHAT INFORMATION DO THEY HAVE?



- Connected vehicles offer a wealth of data
 - ABS activation
 - ADAS activation
 - Harsh braking (GPS)
 - Near-miss (swerve)
 - Surface condition (roughness)



WHAT INFORMATION DO THEY HAVE?

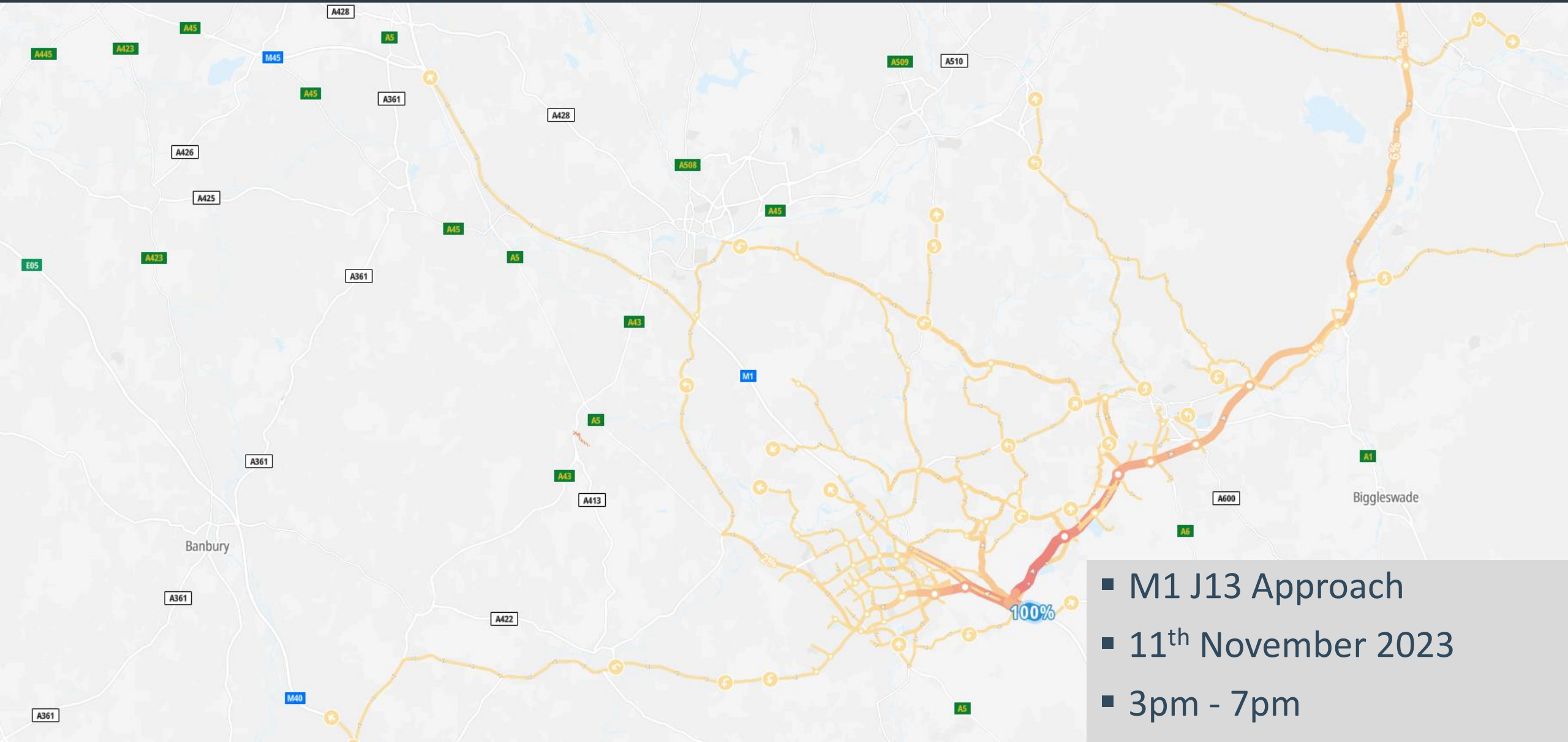


WHAT INFORMATION DO THEY HAVE?



- M1 J13 Approach
- 11th November 2023
- 9am- 2pm

WHAT INFORMATION DO THEY HAVE?

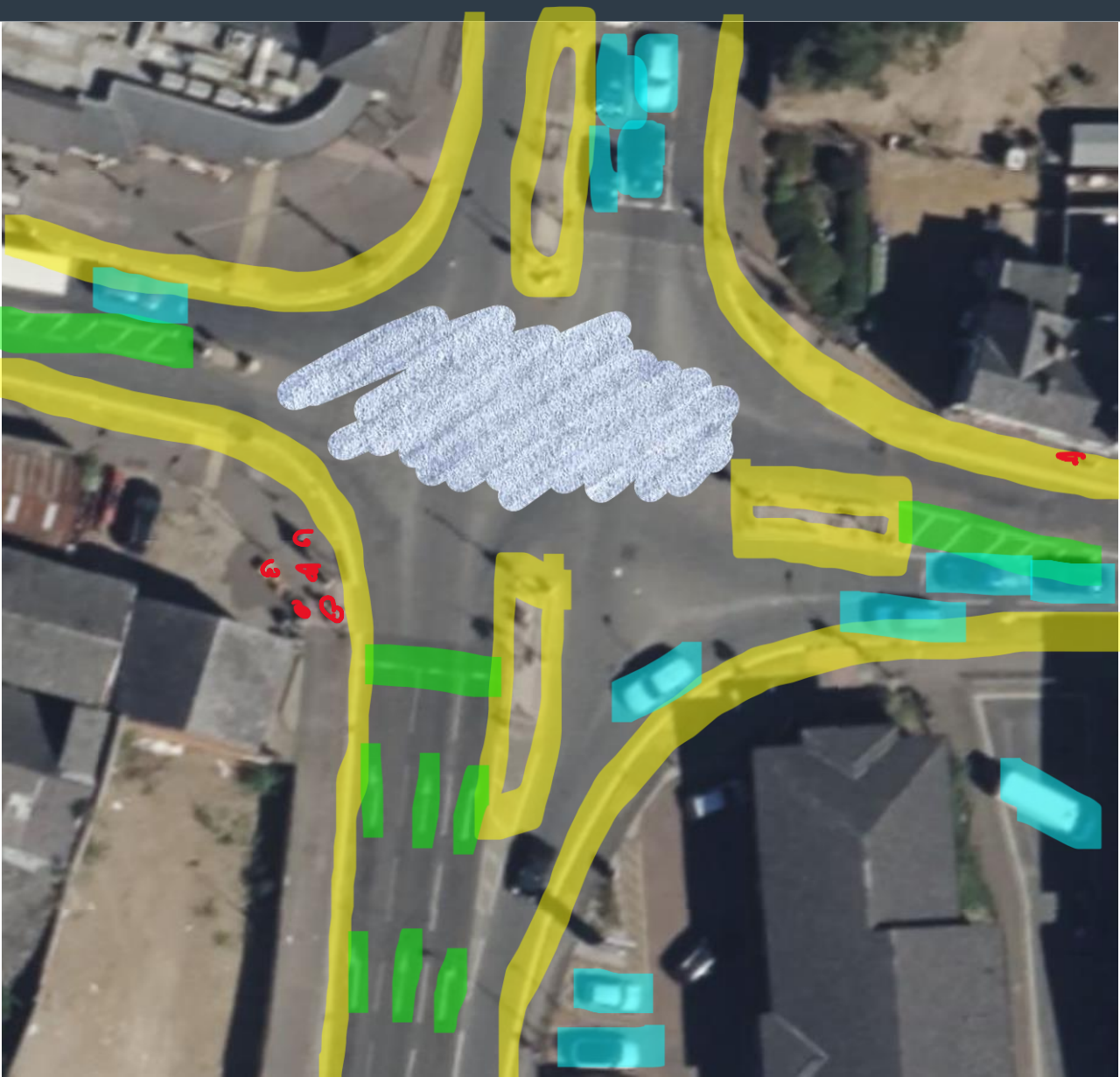


- M1 J13 Approach
- 11th November 2023
- 3pm - 7pm

WHAT TECHNOLOGY SOURCES ARE THERE?

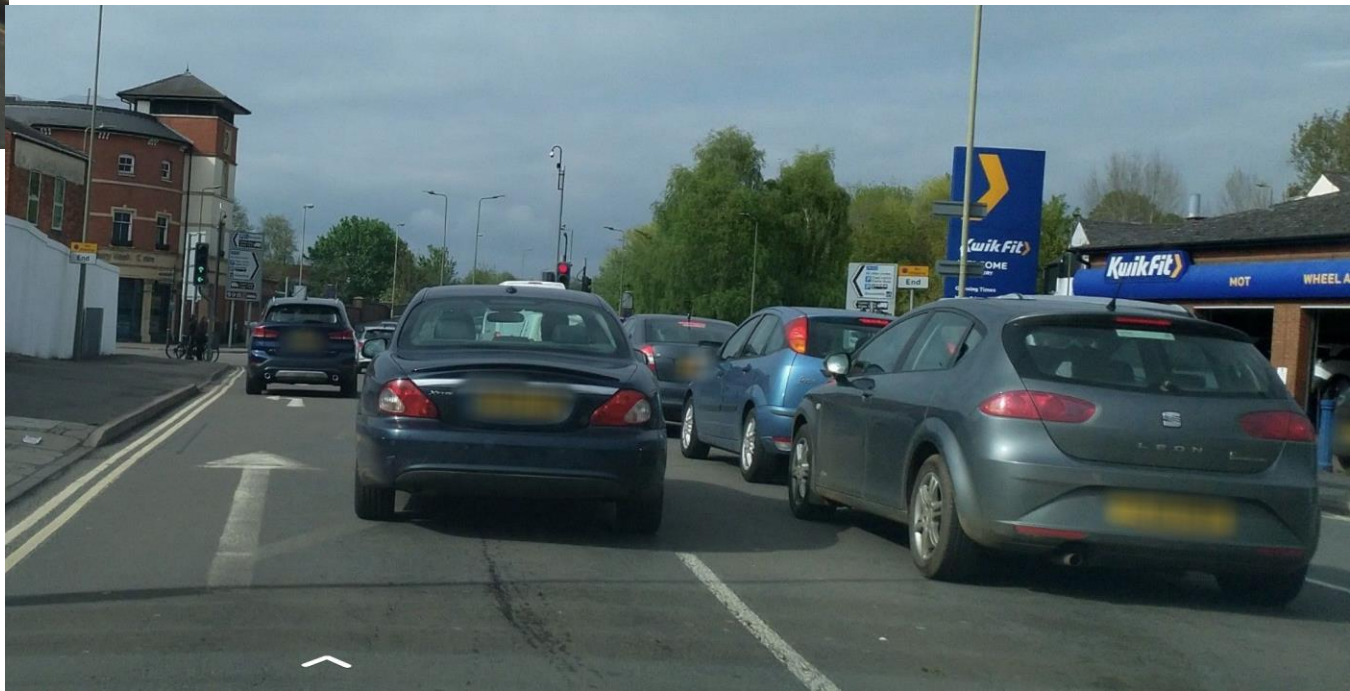


WHAT TECHNOLOGY SOURCES ARE THERE?



- Carriageway boundaries
- Road Markings
- Vehicles
- Other road users
- Road surface

WHAT TECHNOLOGY SOURCES ARE THERE?



WHAT TECHNOLOGY SOURCES ARE THERE?

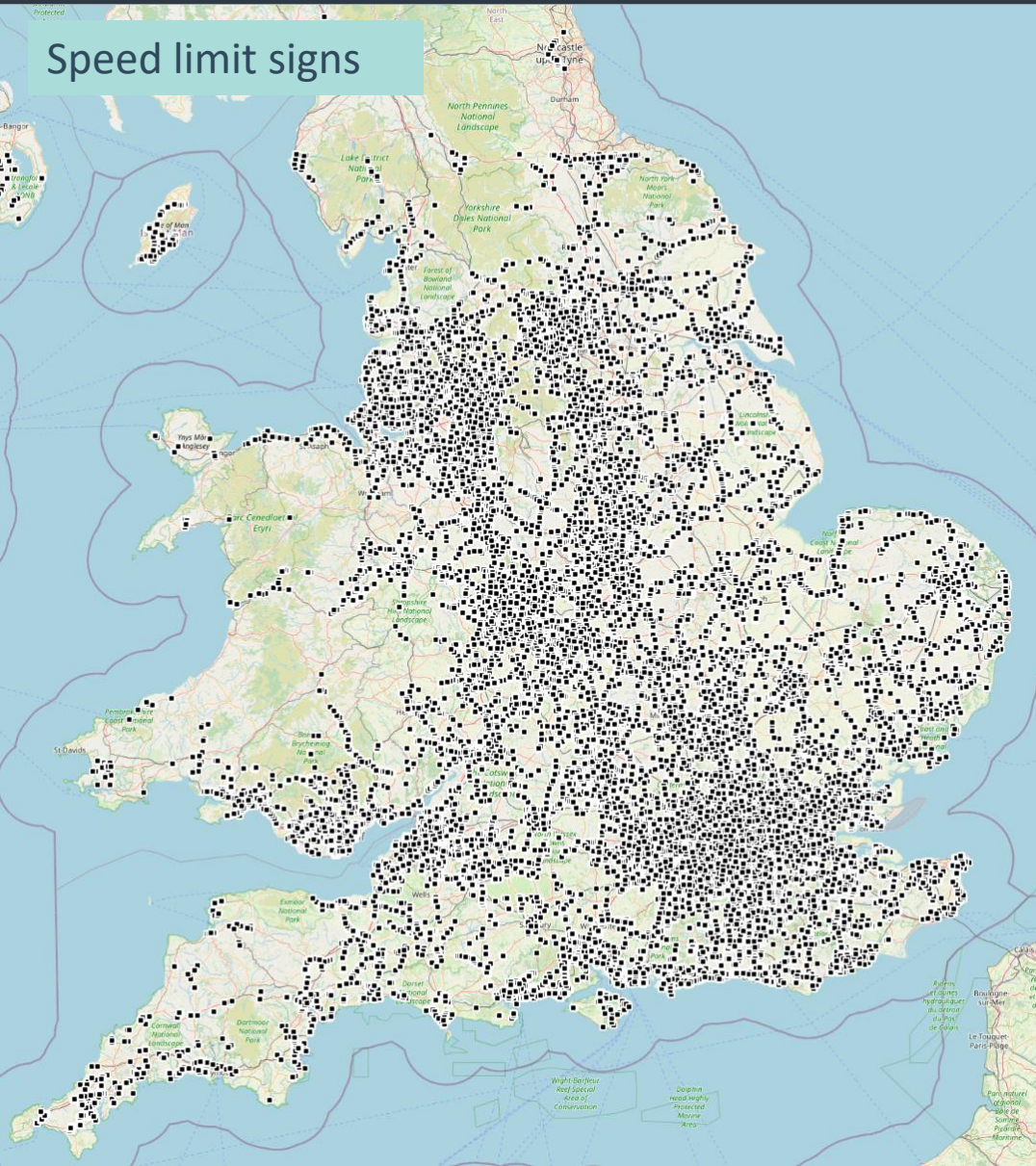


Feature
recognition from
images

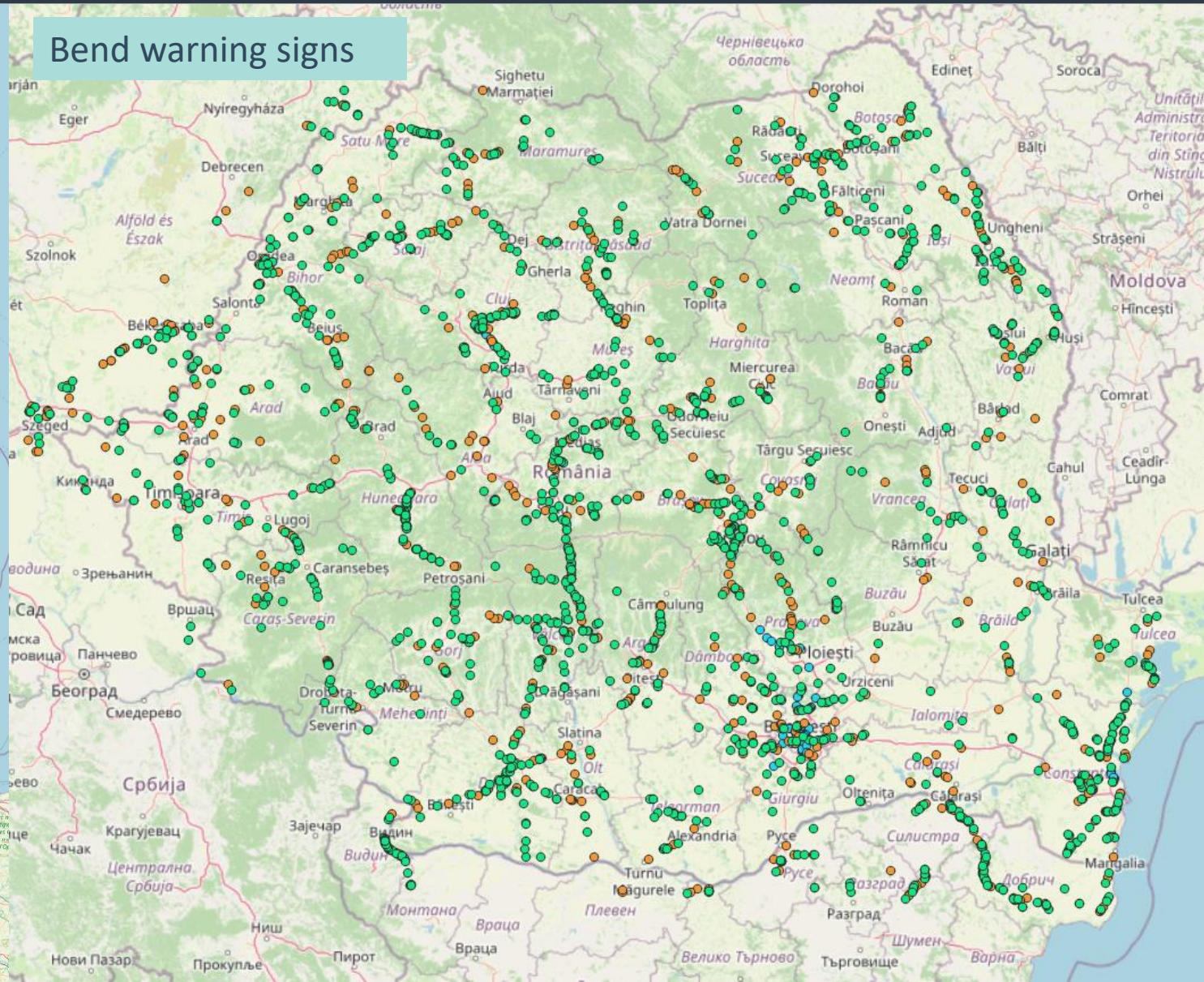
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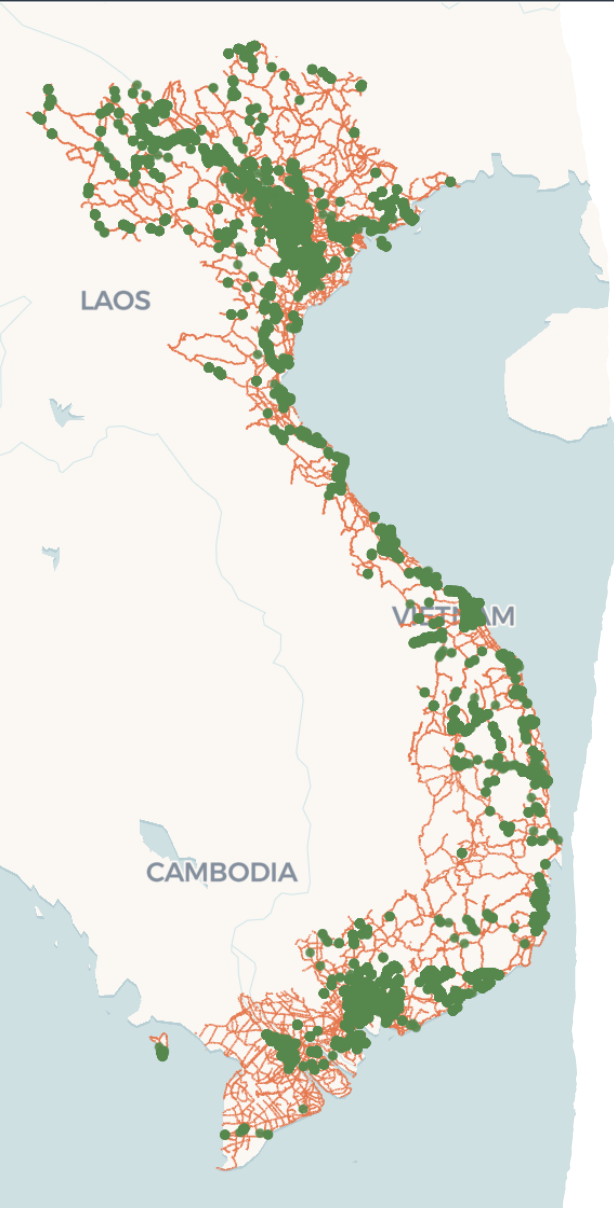
Speed limit signs



Bend warning signs



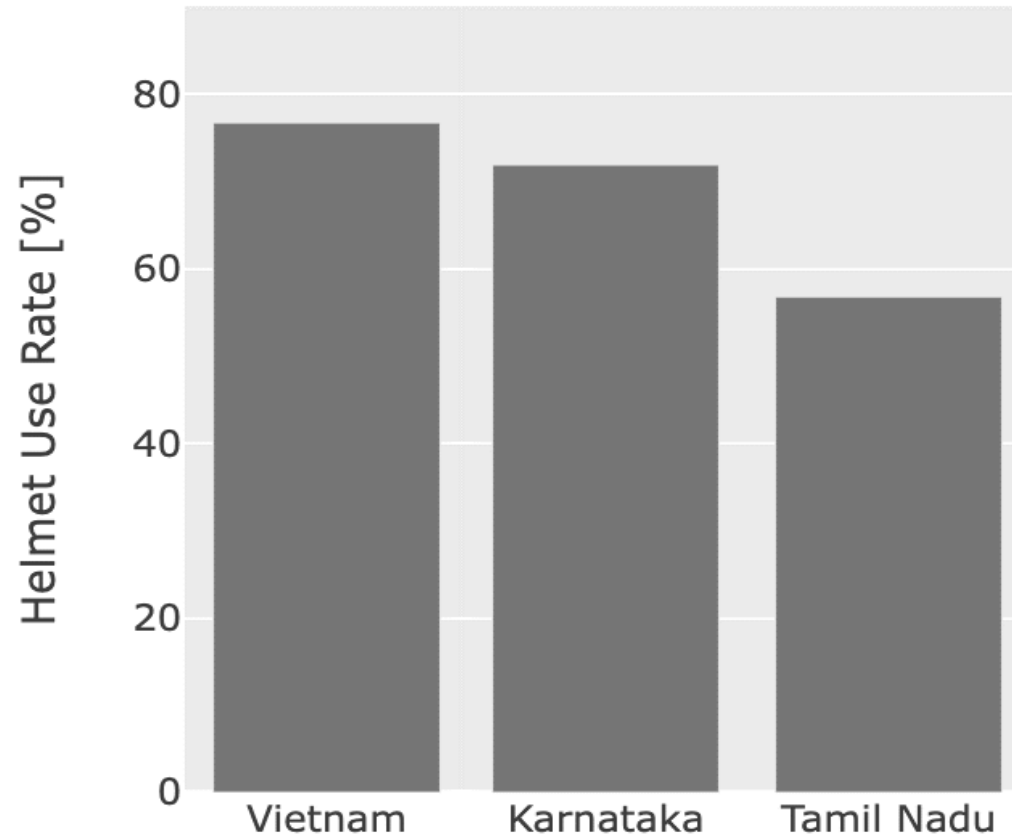
WHAT TECHNOLOGY SOURCES ARE THERE?



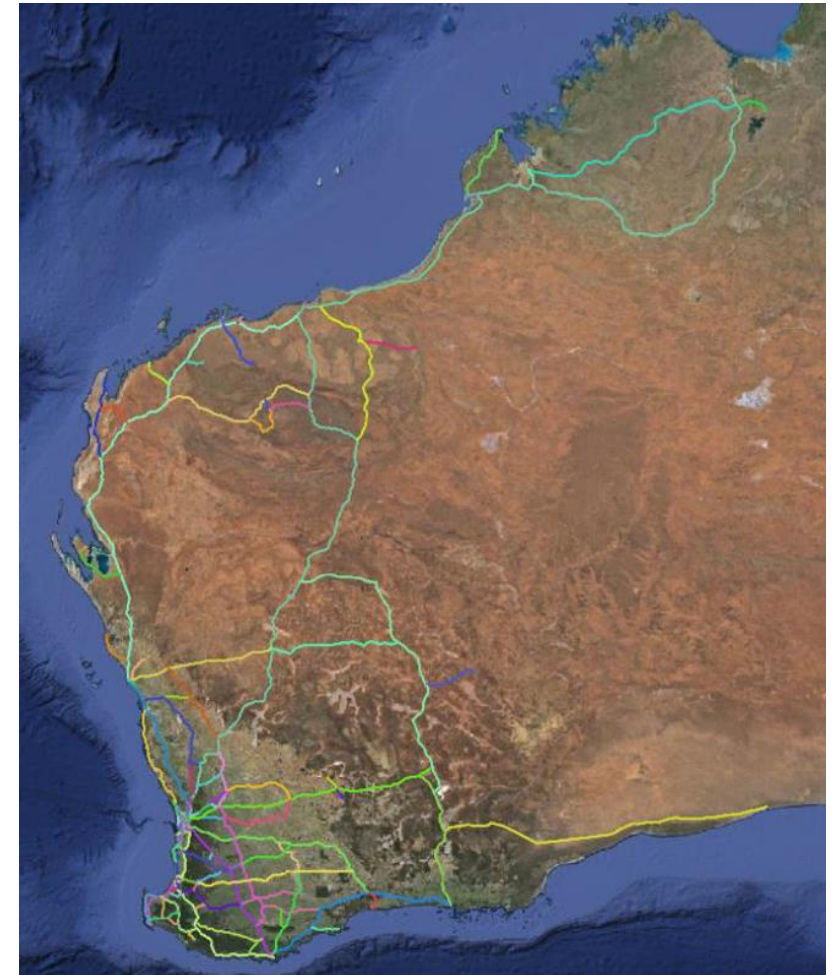
Vietnam:

-Images: 1,225,411

-Road segments with image(s): 6.2 %



WHAT TECHNOLOGY SOURCES ARE THERE?





WHAT TECHNOLOGY SOURCES ARE THERE?



ABOUT US

SAFETY INSIGHTS

RAP TOOLS

INNOVATION

TRAINING & ACCREDITATION

AusRAP News: Anditi and Agilysis announce AiRAP Partnership to Improve Road Safety in Queensland

Feb 5, 2025 | AiRAP, General, News



Anditi and Agilysis have announced their collaboration on a major road safety initiative for the Department of Transport and Main Roads Queensland (TMR) to conduct an AiRAP Star Rating assessment across nearly 6,000 km of the state's National Land Transport Network highways in Australia.

- Up to 6,000km of roads in Queensland
- Supporting iRAP assessments
- Enhancing safety performance data
- Scalable and repeatable



IVORY

AI for Vision Zero in Road Safety

15 DOCTORAL CANDIDATES

10 COUNTRIES

4 UNIVERSITIES

21 PARTNERS

SUPPORTED BY



MARIE CURIE ACTIONS

Connected & Adaptive Maintenance for Safer Urban & Secondary Roads

