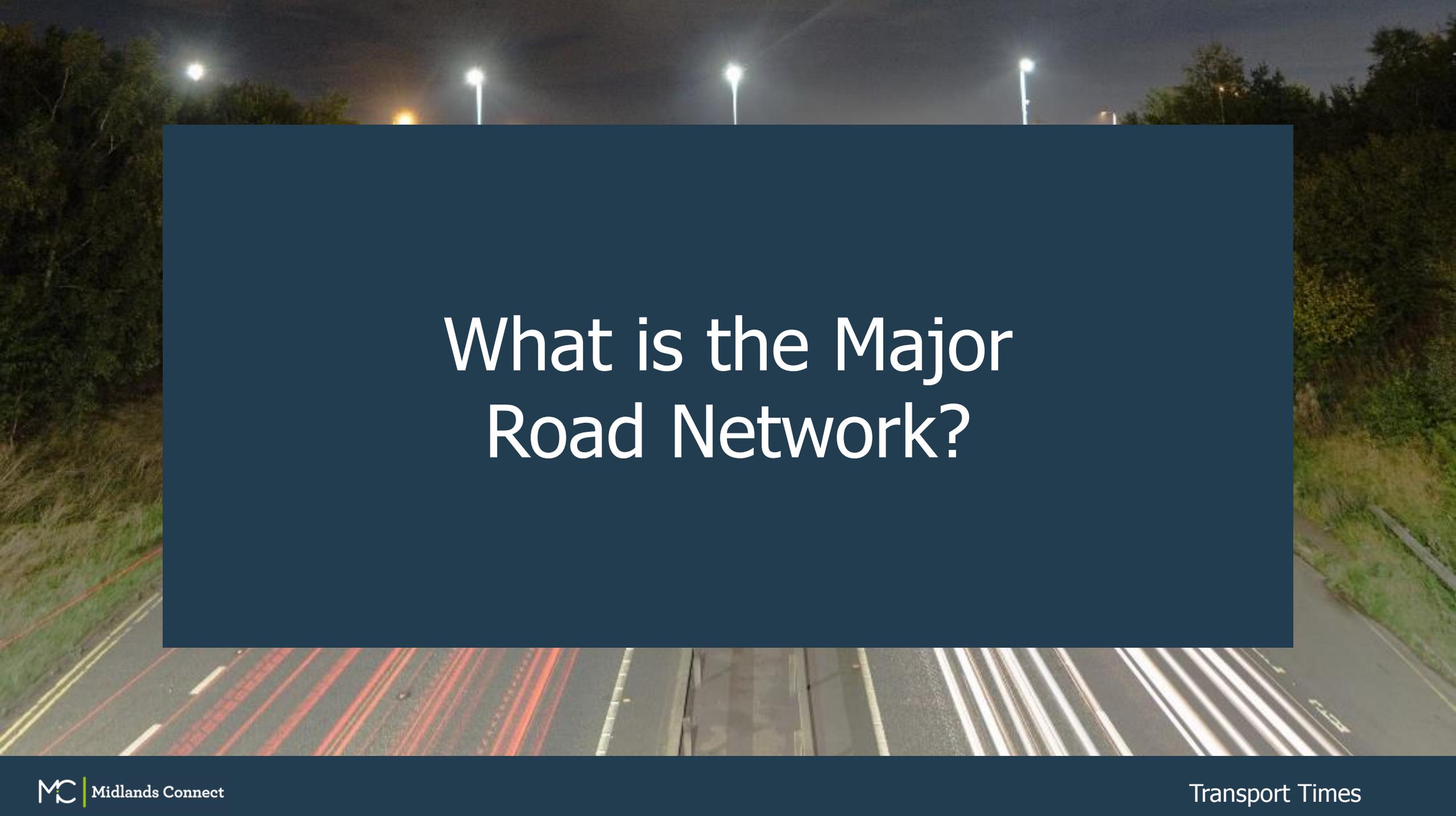




Major Road Network Technology Strategy

Simon Statham, Head of Technical Programmes



What is the Major Road Network?

The Major Road Network

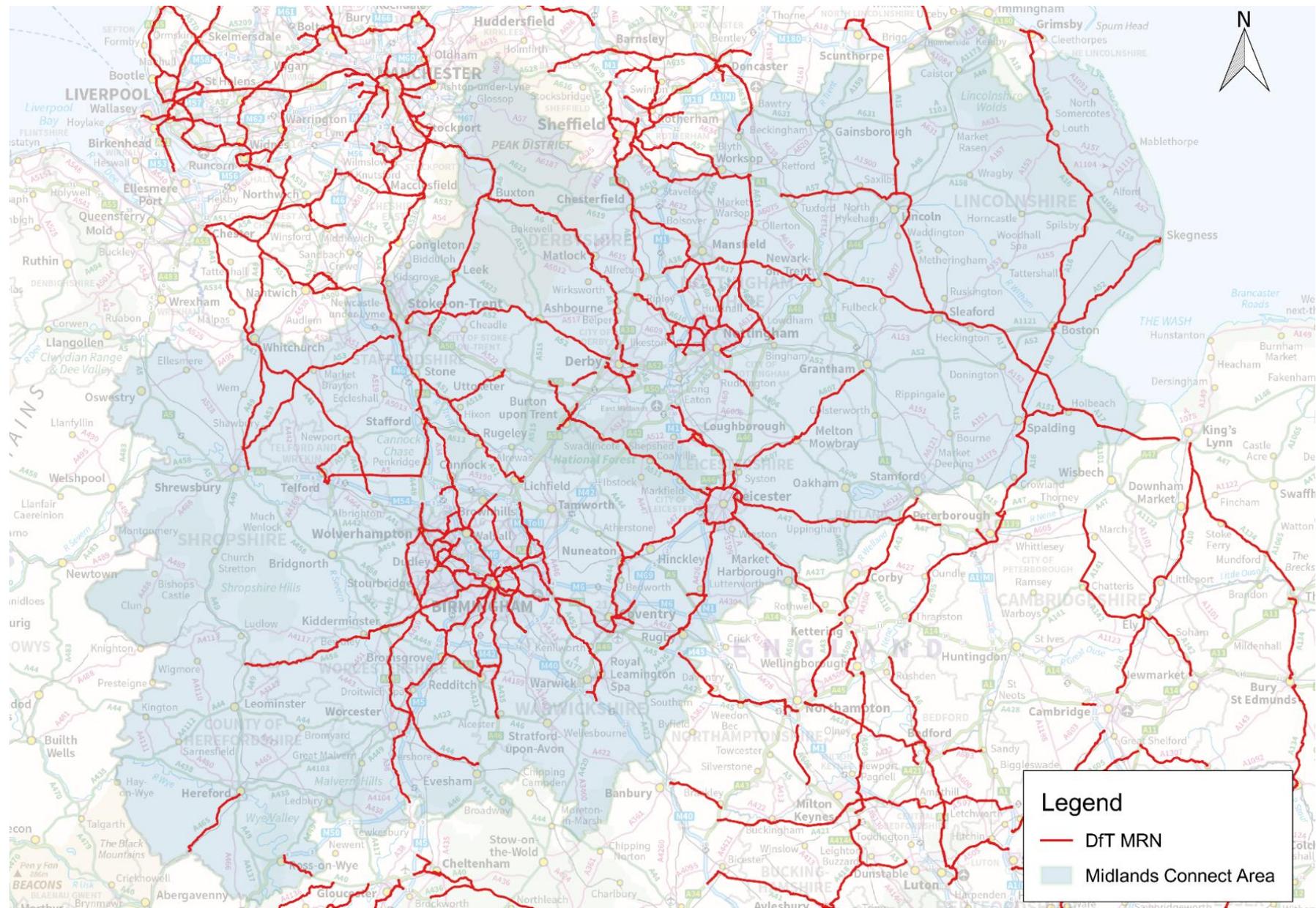
The Major Road Network (MRN) is a layer of roads which sits beneath the Strategic Road Network (SRN).

It has a level of regional/national importance which raises it above other 'local' roads

The idea was first put forward by the Rees Jeffrys Road Fund and included within the Government's 2017 'Transport Investment Strategy' (TIS)

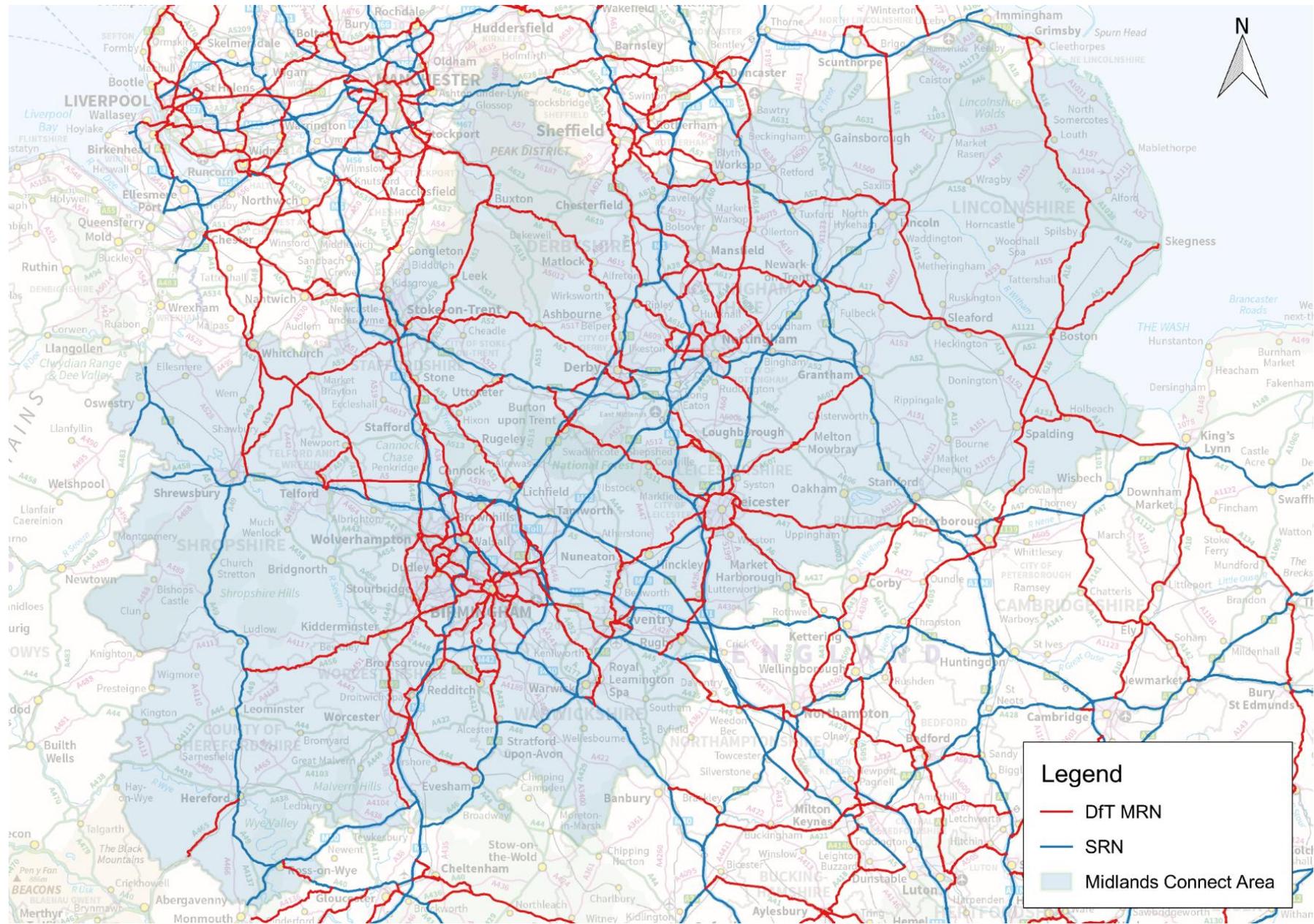
The TIS document also set out a clear desire for Sub-national Transport Bodies (STBs), like Midlands Connect, to take a lead role in driving the MRN agenda.

The Major Road Network in the Midlands



The Major Road Network in the Midlands

Integration with the Strategic Road Network



DfT's objectives for the MRN

Reduce congestion

Support economic
rebalancing and
growth

Support housing
delivery

Support all road
users

Support the
Strategic Road
Network

Midlands Connect:

How can technology
support all these
objectives?



Midlands Connect's MRN Technology Strategy

Technology's contribution to the MRN

Connected Vehicles



Autonomous Driving



The four new technologies of the future

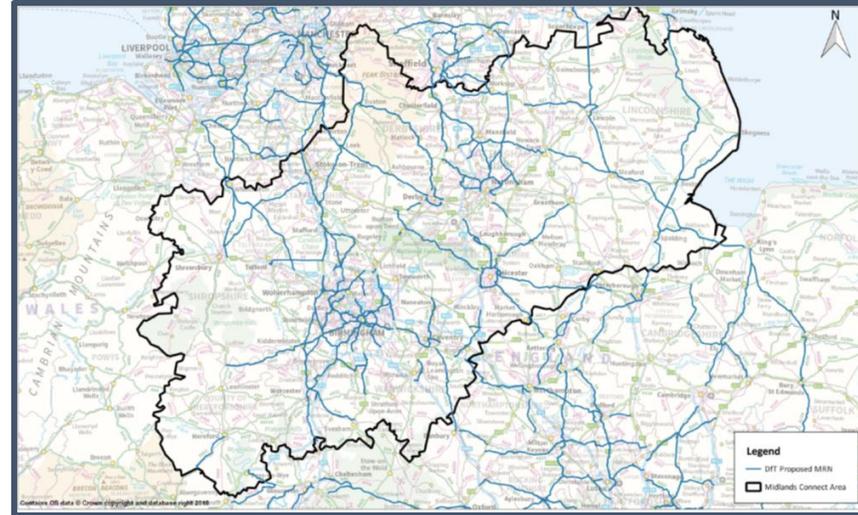


Zero Emission travel



Shared Mobility

Images: Auto Alliance, Mobileye. London.gov.uk; Mobility Lab



This is an opportunity to demonstrate that Midlands Connect and its stakeholders are actively thinking about making the MRN in the Midlands fit for the future using technology

Objectives for the MRN Technology Strategy

Identify technology and how it can be used on the Midlands' Major Road Network that will assist in delivering the DfT objectives for the MRN

Show Midlands Connect intends to be "Intelligently Connected; Leading the technology revolution

Be grounded in robust analysis that sets priorities that will be positive for the prosperity of the region and the growth of the Midlands Engine

Set direction, identify priorities and propose actions likely to secure funding and that will result in positive return on investment

MRN Technology Strategy vision

Throughout the Midlands' Major Road Network standards of technology deployment will be consistent, seamless and contribute to the overall objectives of the network.



MRN technology strategy goals

All travelers supported by technology-driven services by 2025

Universal 5G mobile coverage

Zero electric vehicle charging anxiety

Full technology integration with the Strategic Road Network and local roads

Data management and analytics support in depth network monitoring and modelling

Initial areas of focus

Strategy Themes	Type of technology
Data and Asset Management	Data mining (from in-vehicle information) Asset monitoring technology Digital roads Data sharing Data to support funding bids and operations Digital asset record of Midlands MRN
Network Information and Management	Roadworks data CCTV analysis Variable Message Signs Overnight closures on SRN causing stress on MRN Diversion Route Management Network reliability and resilience Event Management
Communications	5G / 4G / IoT / Comms
Connected and Autonomous Vehicles	Connected Vehicles Autonomous Vehicles
Electric Vehicles	Electric Vehicles (and charging) for MRN

Early Project focus areas

- HGV GLOSA (Green Light Optimal Speed Advice)
- Safety
- Freight
- Use of MaaS (Mobility as a Service)
- Connected cycles / pedestrians / safety
- Environmental / Air Quality monitoring technology deployment
- eCall, bCall