

# Urban Development Around Transport Hubs

## Towards Transit-Oriented Development in City-Regions

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Why are the principles of integrated,  
transit-oriented development important  
beyond urban boundaries?

And how can we apply them?

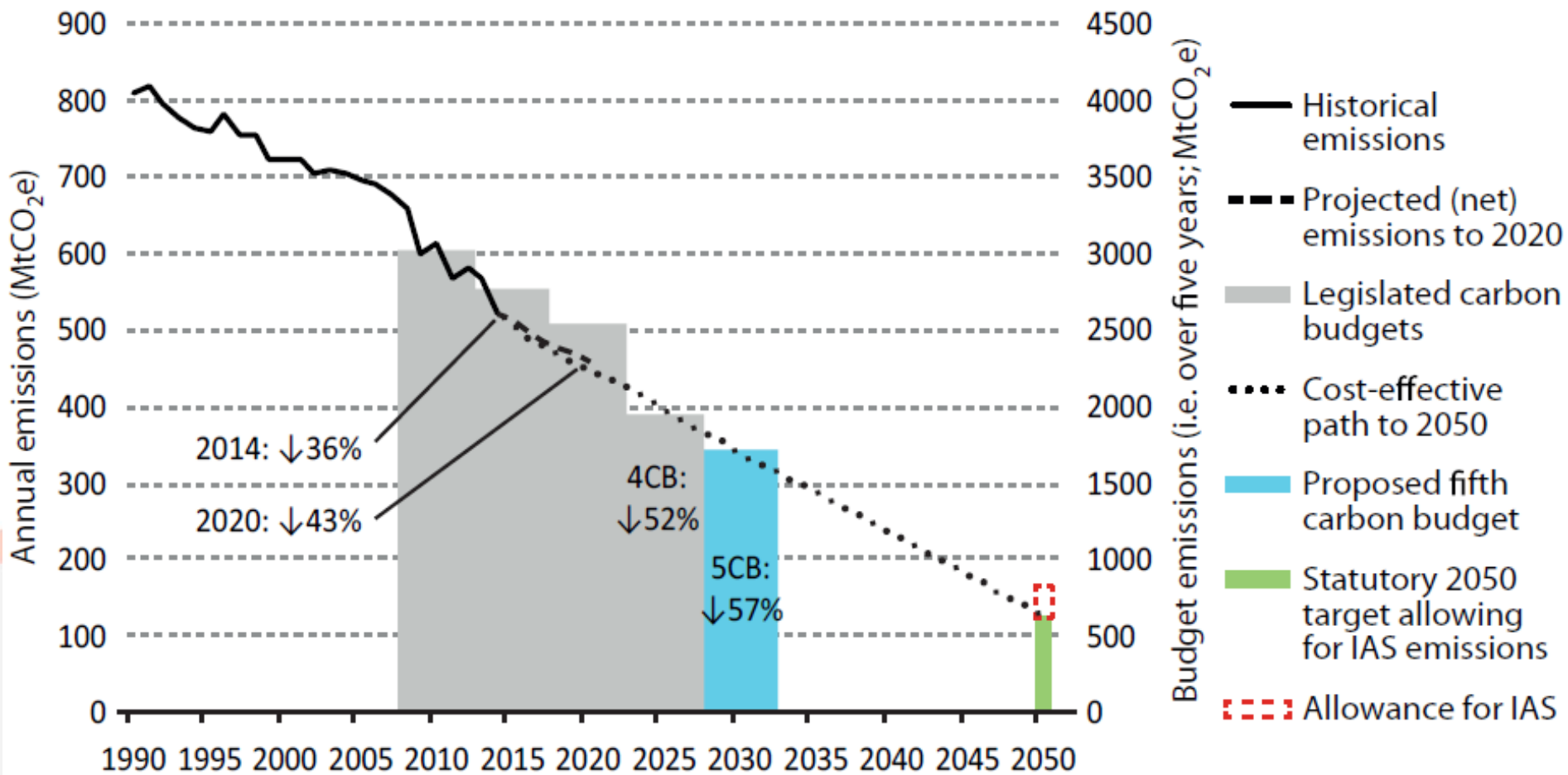
# 1. It serves the economy...

- Need to consider the long-term resilience of a car-dependent economy
  - How car-mobile will a future ageing population be?
  - How long will fuel prices stay low?
  - We cannot burn the fossil fuel stocks that are available
  - A genuinely low/zero-carbon car fleet is decades away

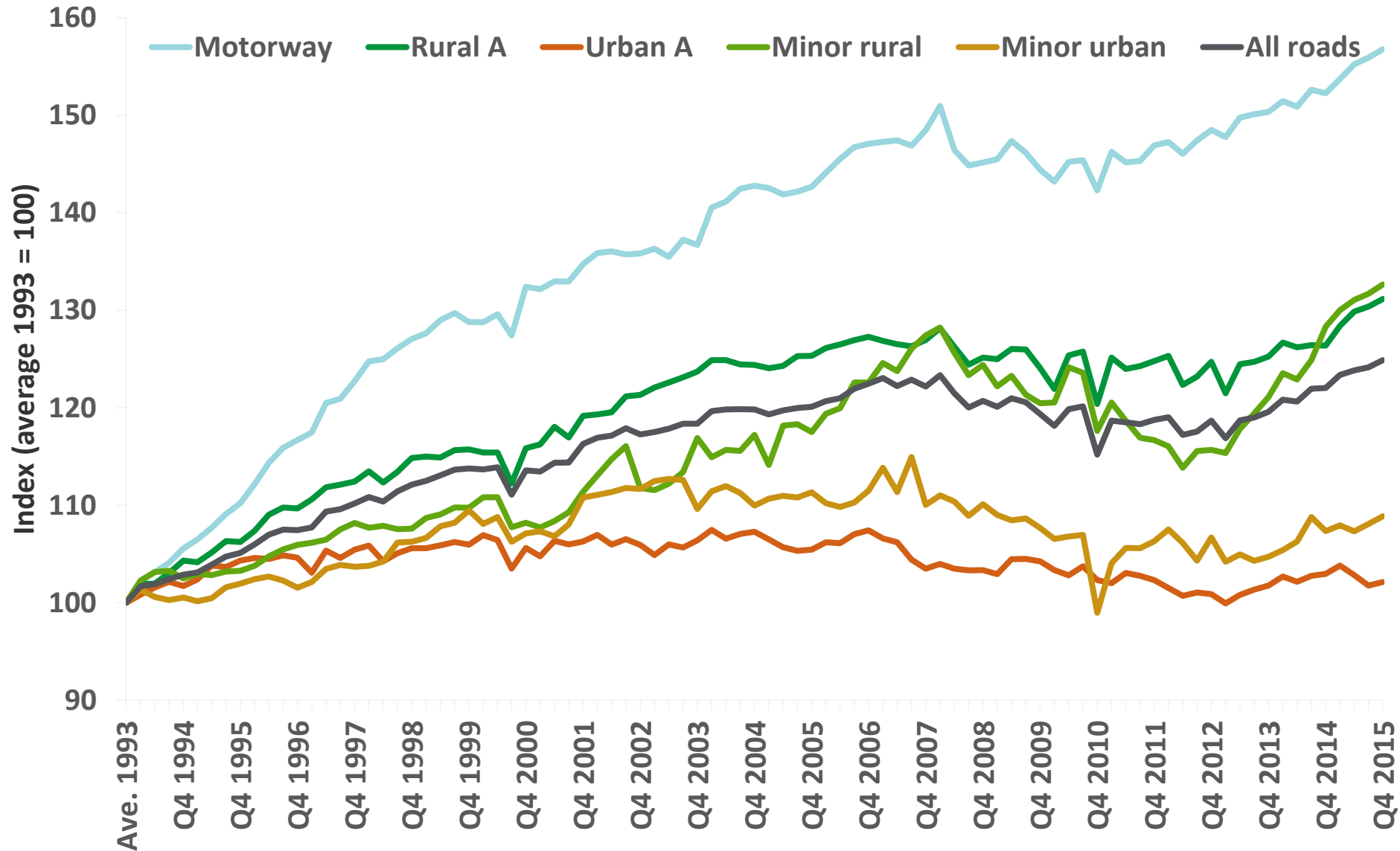
# 2. It respects the environment...



UK committed to a reduction in emissions by 2050 equivalent to 80% of 1990 level or lower



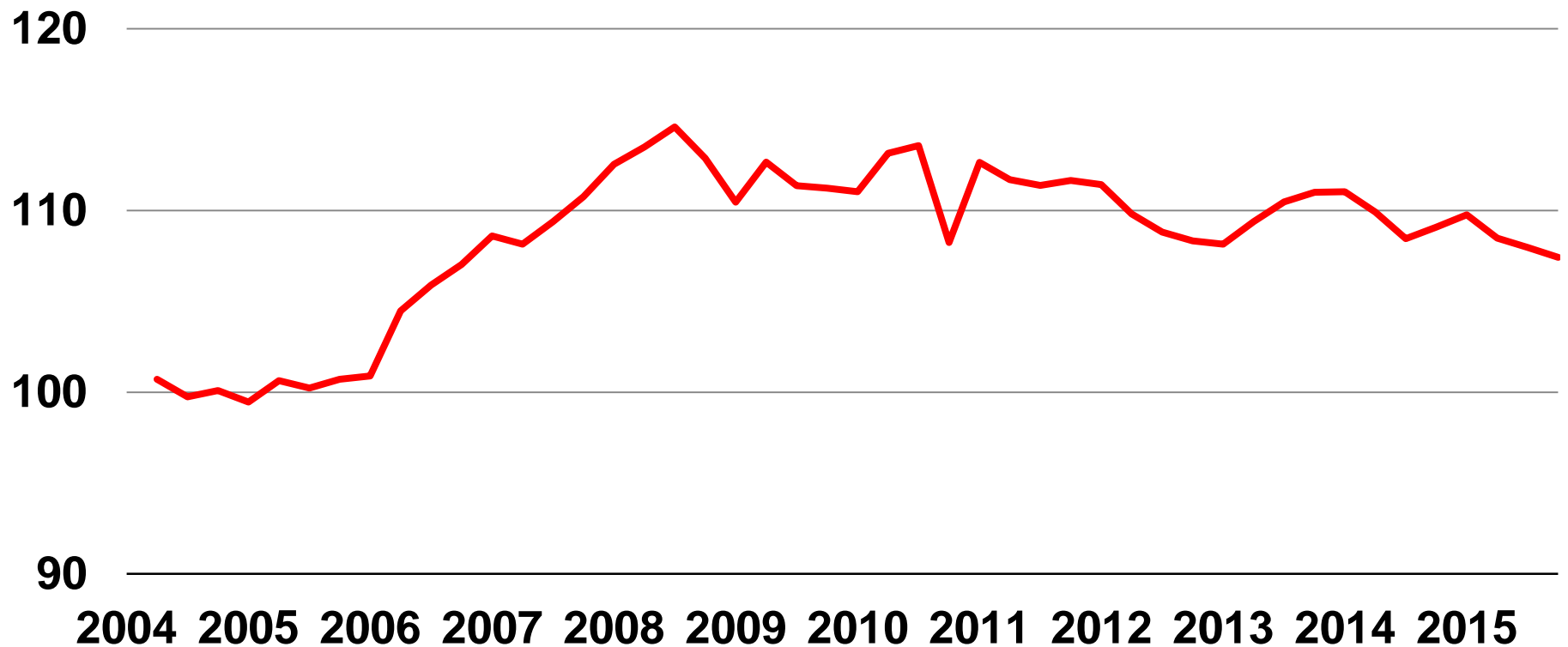
# Traffic still growing outside urban areas



DfT (2016) Road traffic (vehicle kilometres) by road class in Great Britain, seasonally adjusted indices, quarterly, 1993 average = 100 5/

# 3. It connects rural areas...

After the boost from concessionary fares, bus journeys in the English shires trending downwards



DfT (2016) Bus Statistics. Table BUS0106b Passenger journeys on local bus services by metropolitan area status and country: Great Britain, quarterly from 2004/05

# Transit-Oriented Development: The Challenge



- Usually for new developments
  - So what about existing developments?
- Planned around existing public transport infrastructure
- Public transport is most viable in areas of high urban density
  - So what about in areas of low urban density?

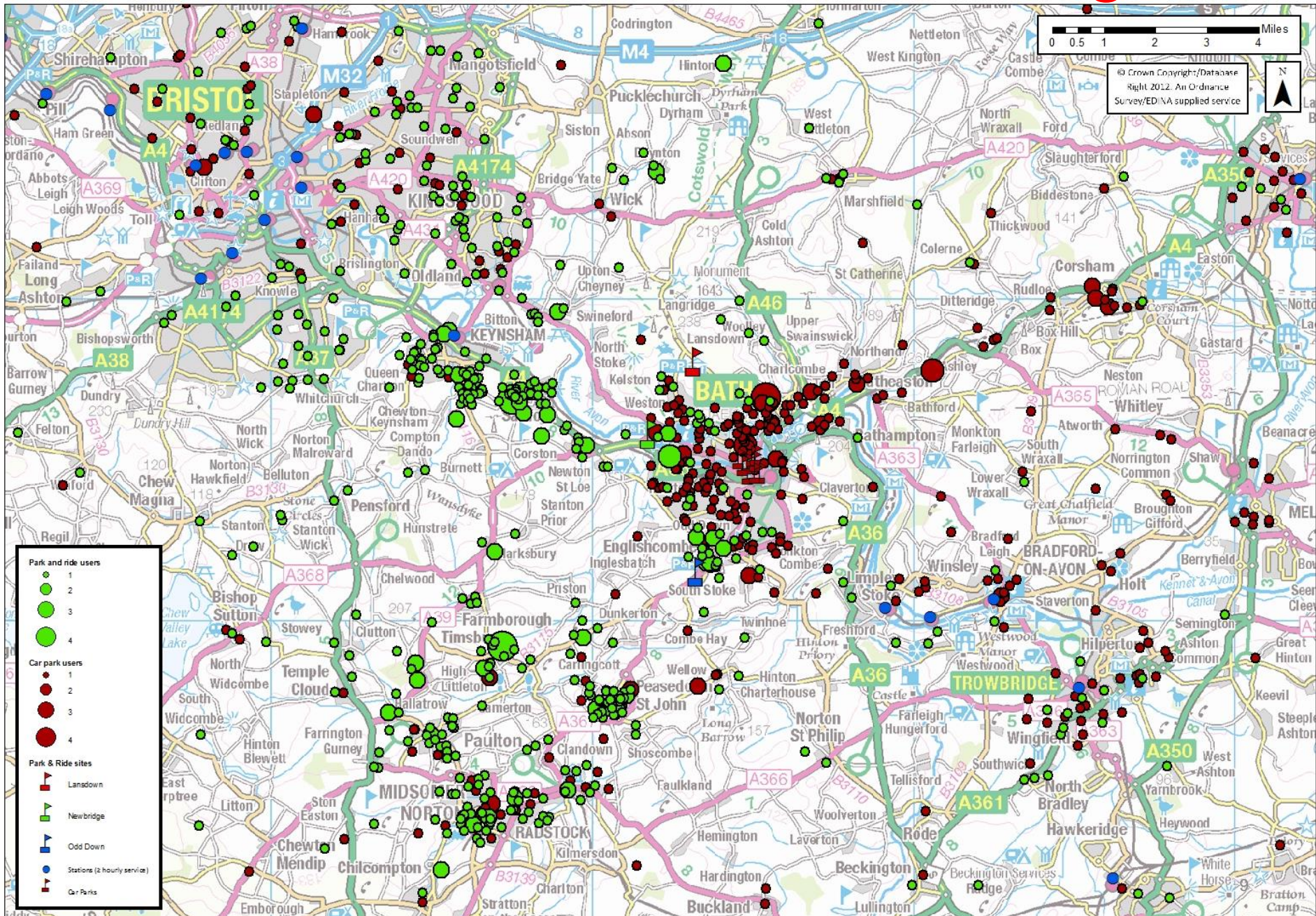
# Case study: Bath

- Historic city – popular tourist attraction
- Significant traffic problems in historic centre
- A common urban tension?
  - Vitality through commerce
  - Vitality through pleasant urban environment





# Bath P&R and Car Park User Origins

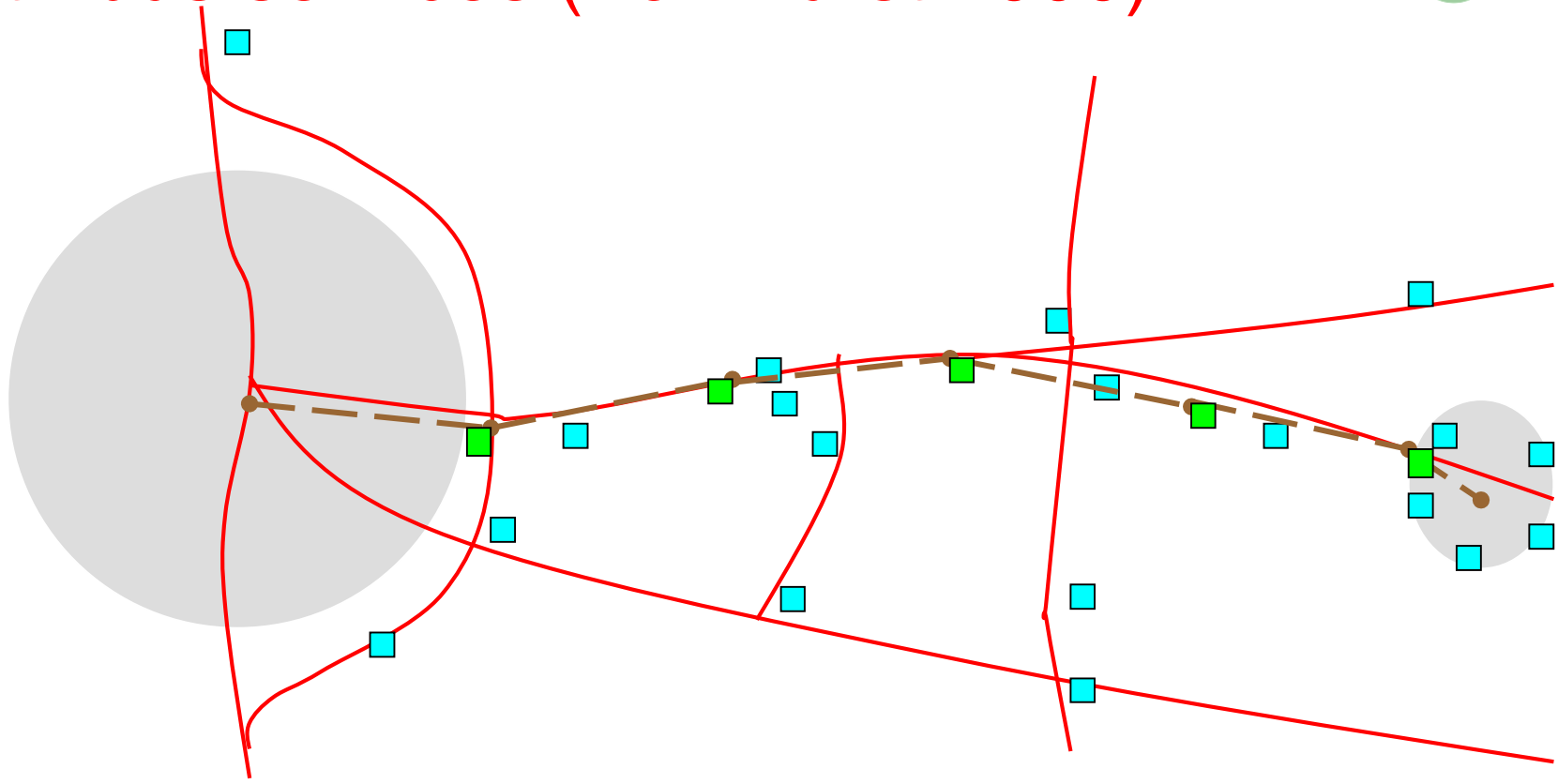


Can we 'retrofit' our existing urban developments with transport infrastructure and services so it becomes more transit-oriented?






## What can we do?

- Discourage car trips to city centres
- Reinforce public transport routes (network density, service frequency, service quality)
- Create public transport infrastructure
- Provide parking capacity near user origins on public transport routes

# Link and Ride: Longer-range P&R integrated with bus services (Parkhurst 2000)



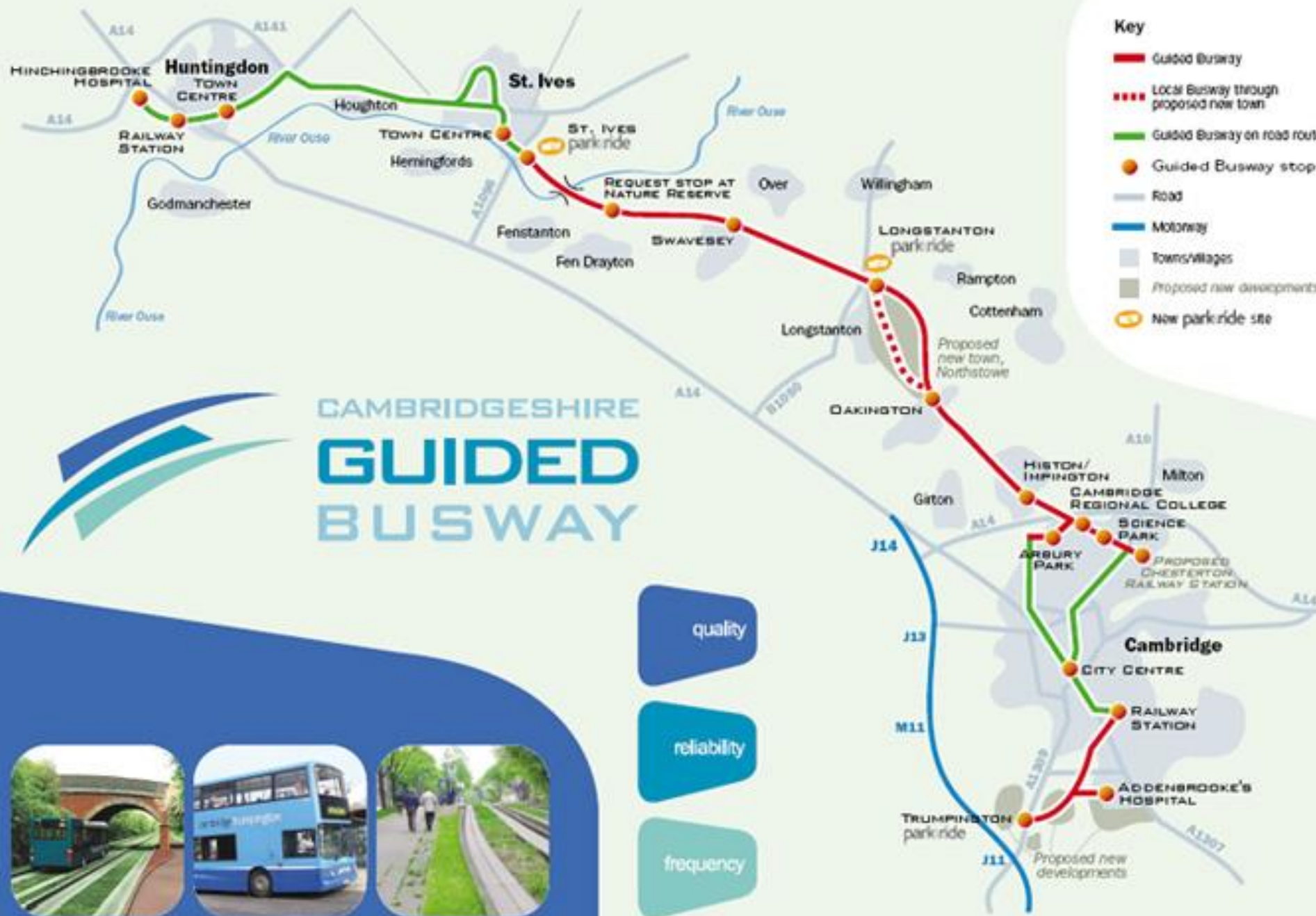
← 4 km → 5 km → 5 km → 5 km → 5 km →

	park and ride site		urban area
	road network		bus service
	user-origin		

# Cambridgeshire Guided Busway

<http://www.thebusway.info/default.aspx>





- Key**
- Guided Busway
  - - - Local Busway through proposed new town
  - Guided Busway on road route
  - Guided Busway stops
  - Road
  - Motorway
  - Towns/Villages
  - Proposed new developments
  - New park/ride site

**CAMBRIDGESHIRE  
GUIDED  
BUSWAY**

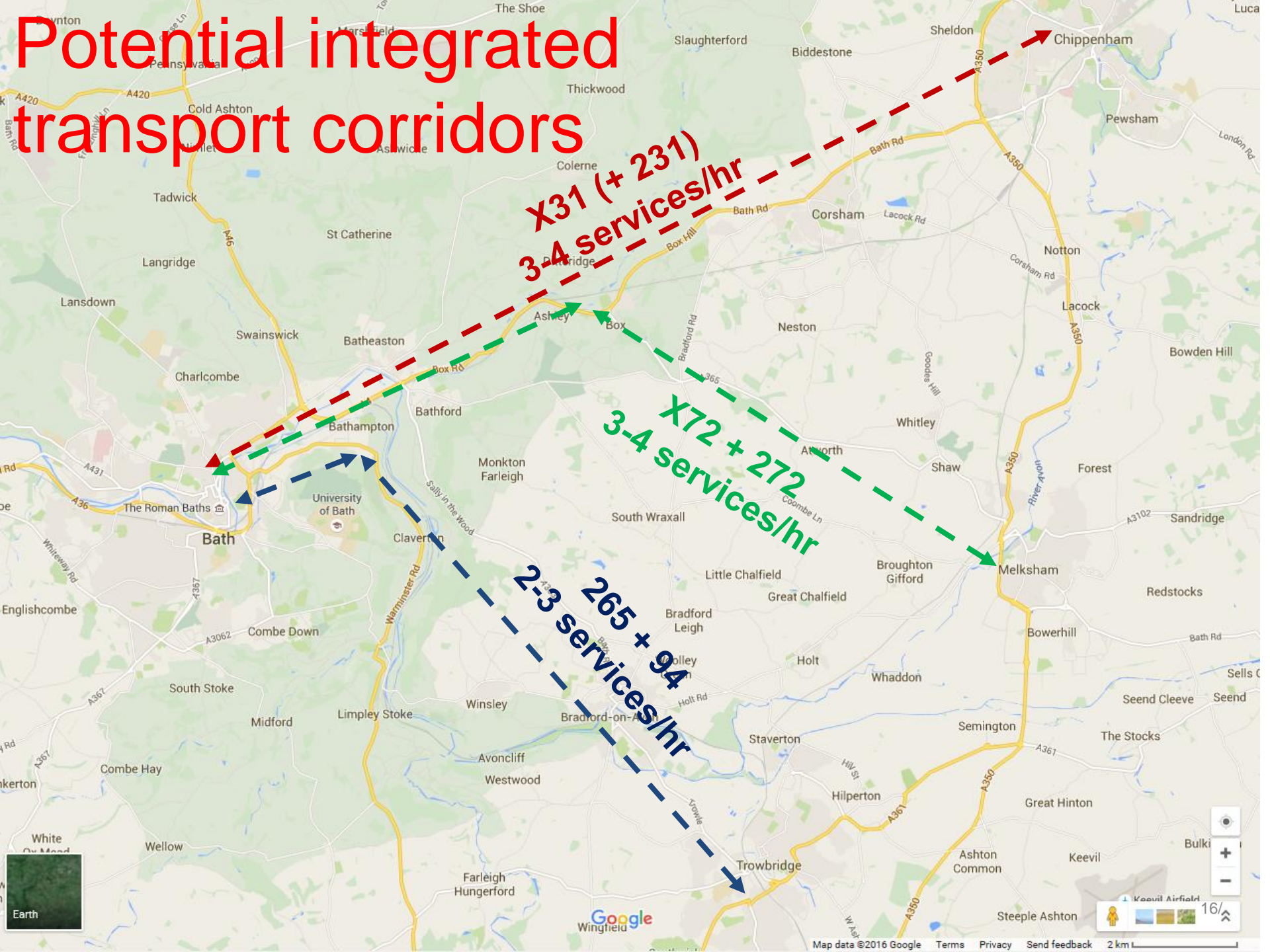
- quality
- reliability
- frequency



# Leigh-Manchester Busway



# Potential integrated transport corridors





# An Integrated, Transit-Oriented Subregional Transport and Spatial Planning Strategy:

- Uses road space more efficiently
- Reduces carbon emissions from road transport
- Reduces household exposure to high transport costs
- Increases patronage for established or enhanced medium-range public transport
  - Which benefits residents of rural areas and small towns without a car available