

Zero Carbon Visioning

Mass Rapid Transport as focal point for a
new public transport network in
Gloucestershire

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Integrity



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Respect

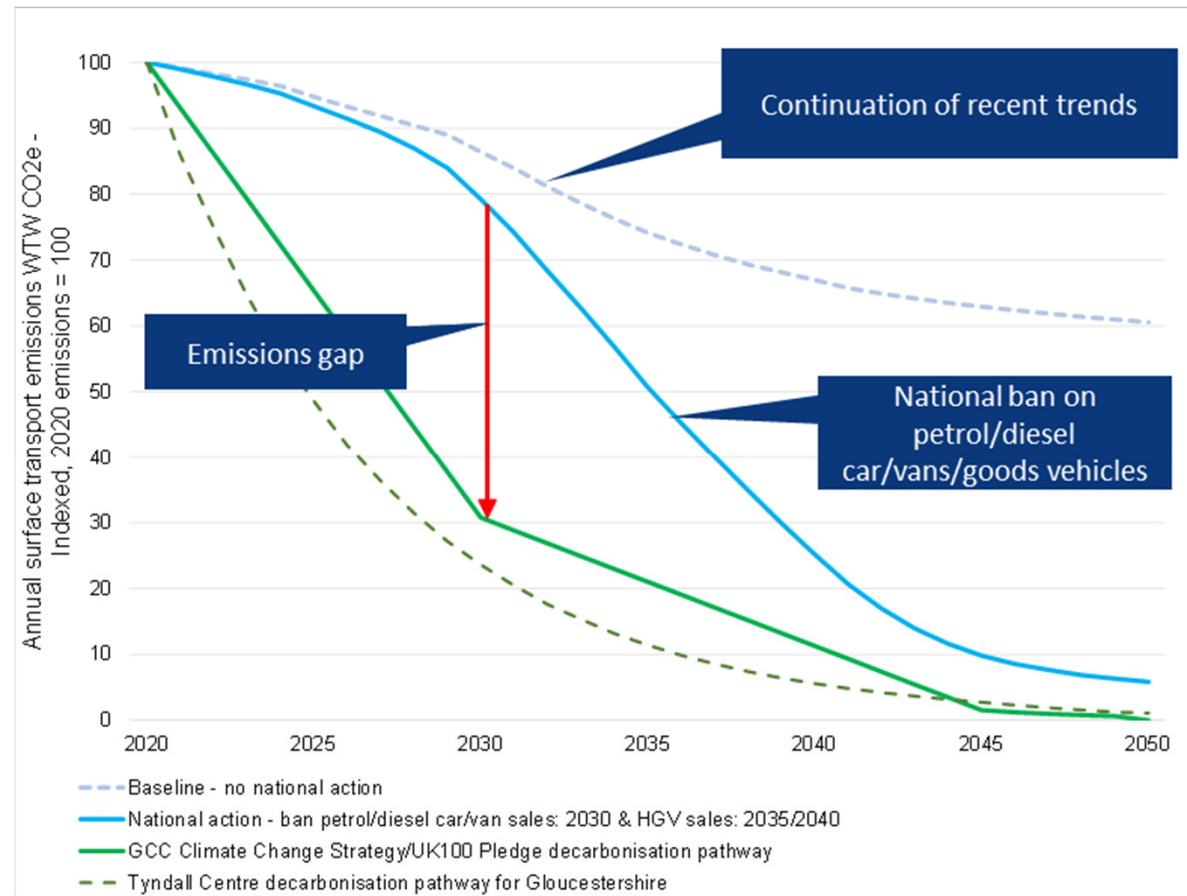


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Gloucestershire's carbon emission gap

- 34% of all CO2 emissions are transport related (44% incl. motorways and rail)
- Gloucestershire targets:
 - Emissions from all sources: net zero by 2045
 - 80% emissions reduction by 2030
- Electric Vehicles not in time to close emission gap

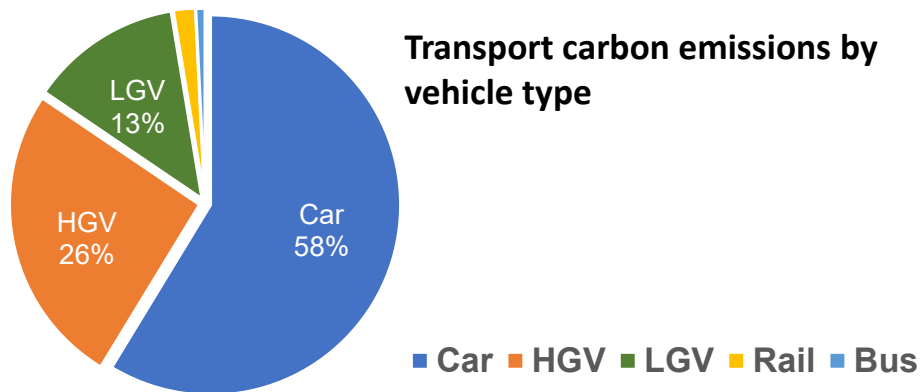


Emissions analysis

Vehicles

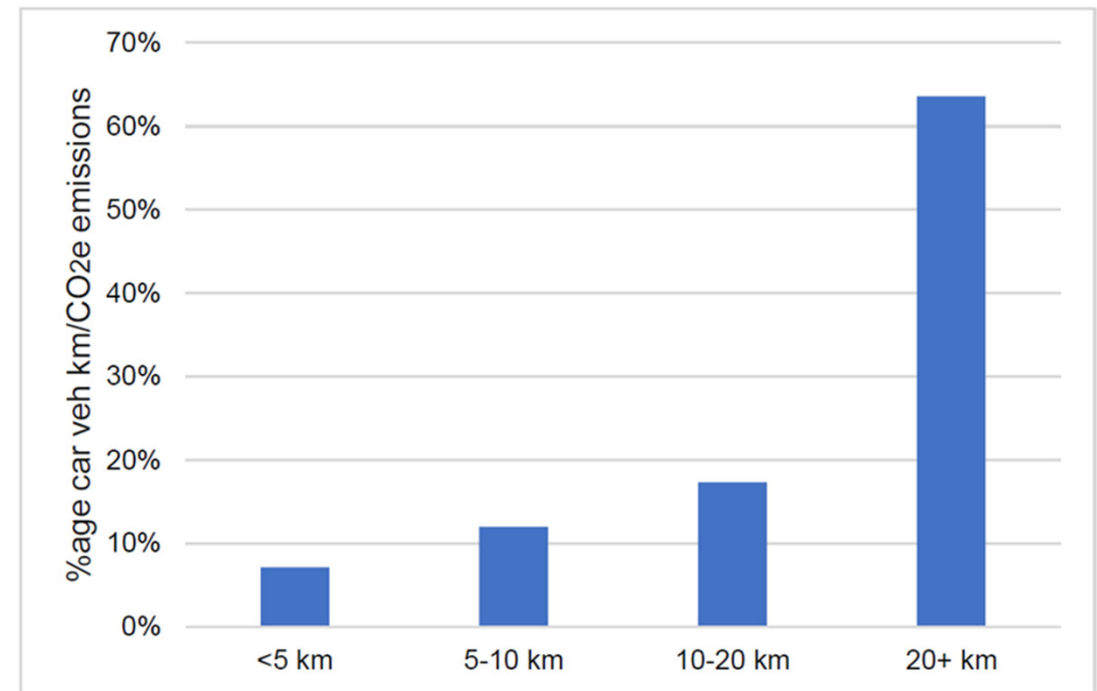
Almost 60% of emissions from car travel.

Freight accounts for almost 40%.



Distance

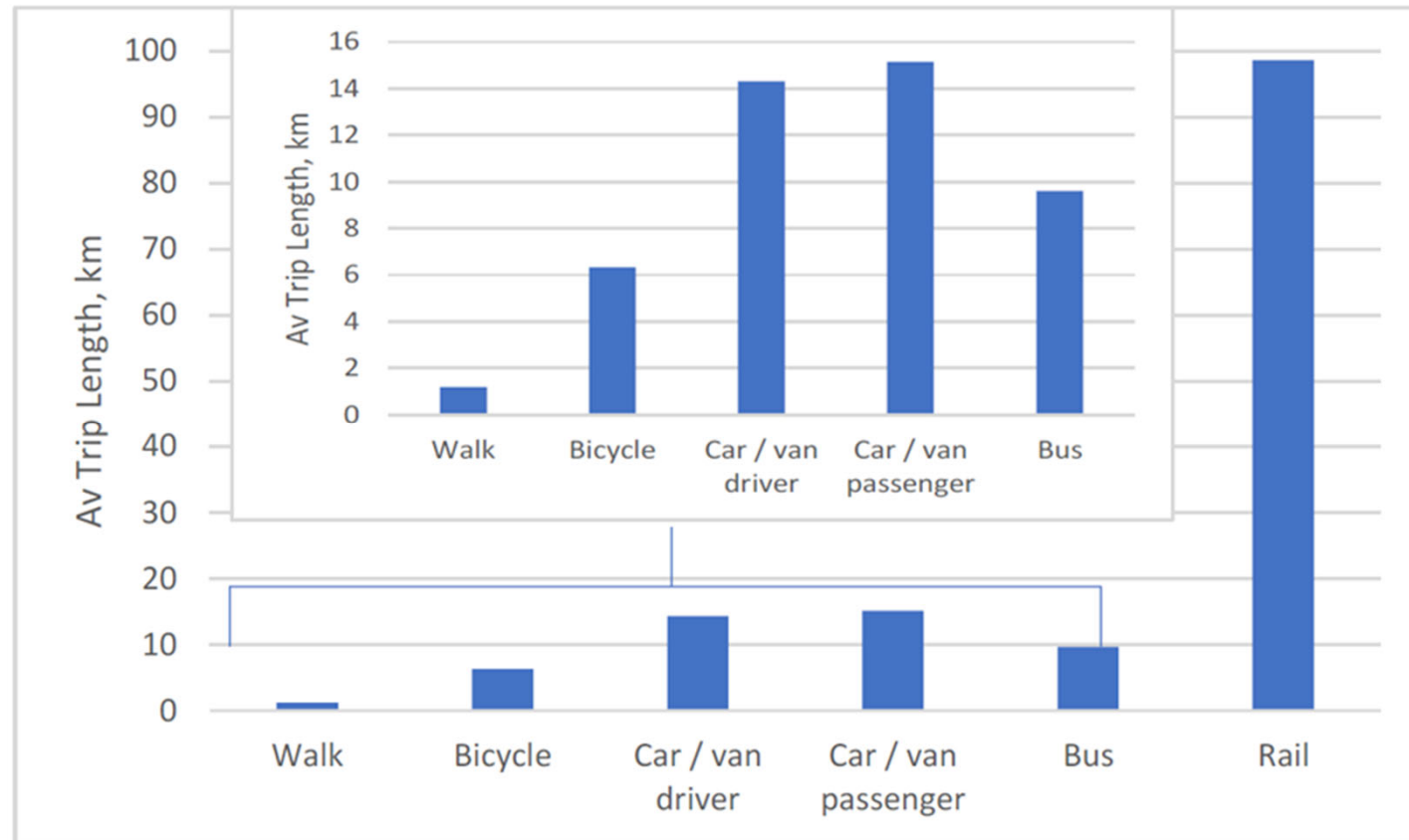
Trips > 20km make up c. 15% of trips but account for c. 60% of emissions.



Emissions analysis

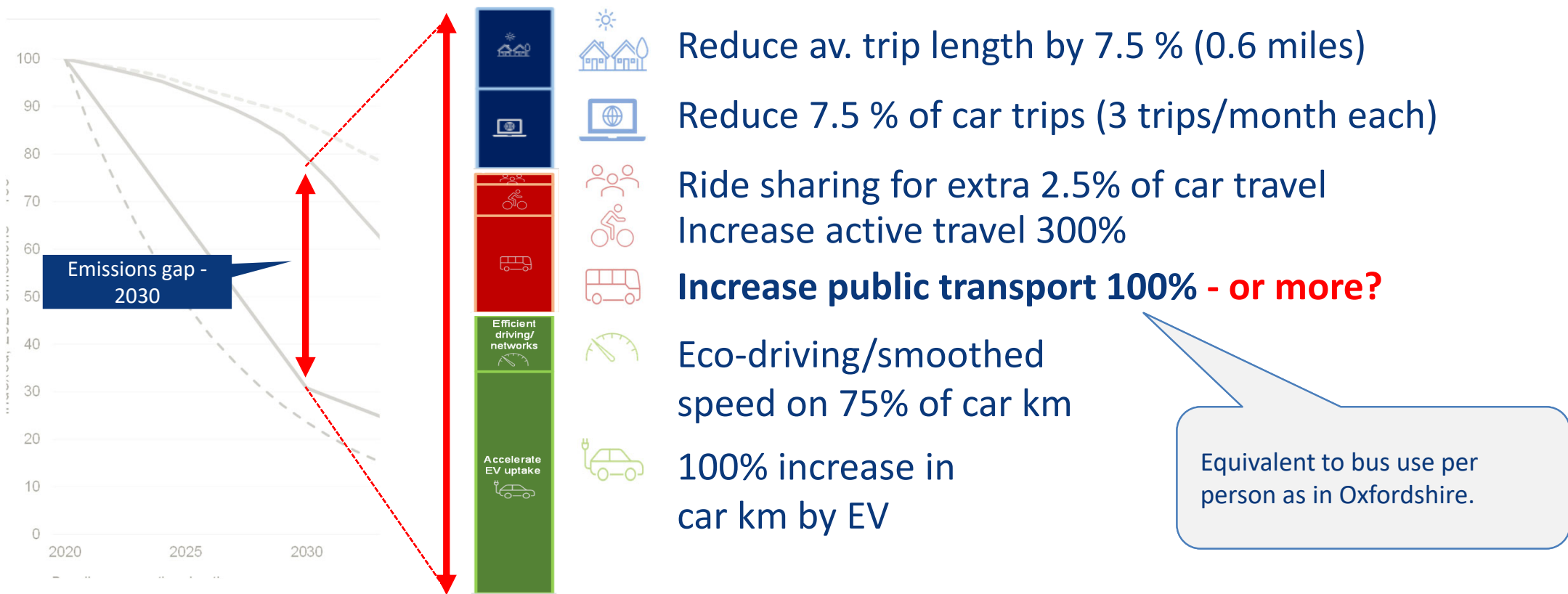
Modes

- Use zero emission vehicles for high mileage trips
- Bus and rail: highest potential to replace most emitting trips.
- Cycling an alternative for up to 10 km. Could be extended through better facilities and e-bikes.



Sketching the scale of ambition needed ...

...by all actors: general public, private and public sector organisations



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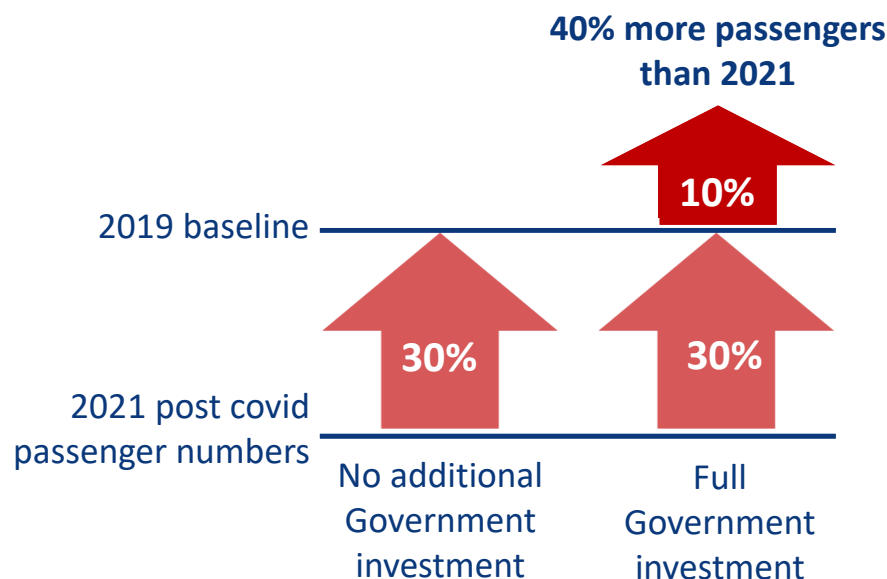


Gloucestershire bus patronage targets

Local Transport Plan
(LTP) Target:

Bus Service Improvement
Plan (BSIP) Target:

Carbon reduction
suggestion:



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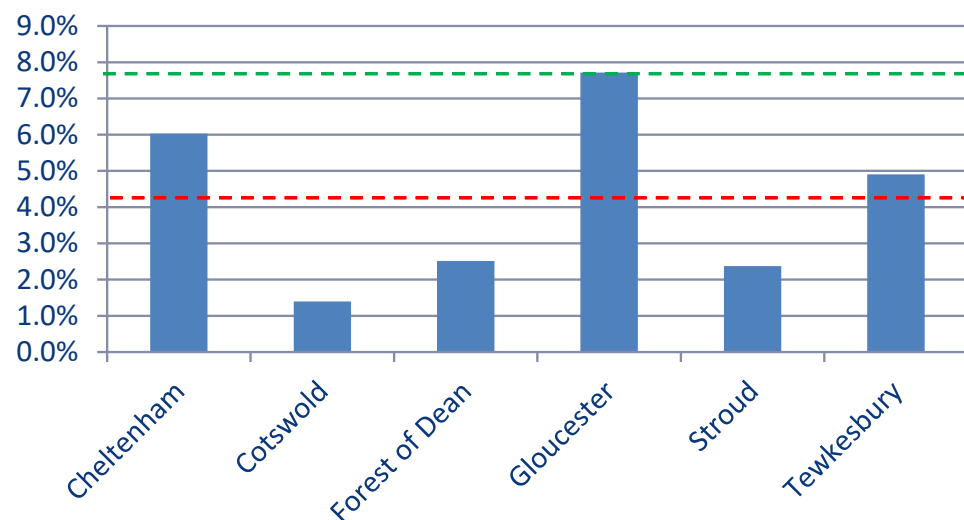
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Bus patronage current trends

Bus patronage comparison

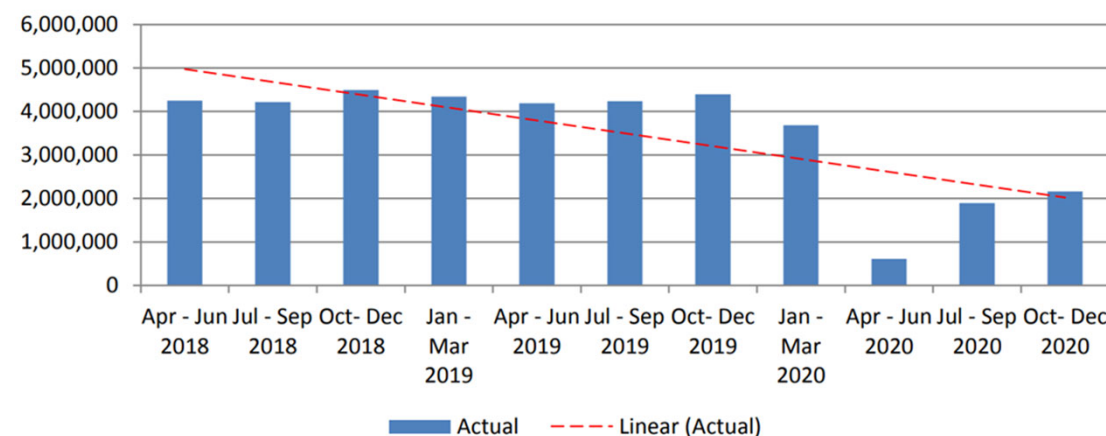
% of journeys to work by bus



Gloucestershire average: 4.5% of 2011 journeys to work by bus
 England and Wales average: 8% of 2011 journeys to work by bus

Bus patronage trend

Bus passenger numbers



Before covid: passenger numbers were flat
Post covid: passenger numbers still down c.20-30% on average in Gloucestershire compared to 2019

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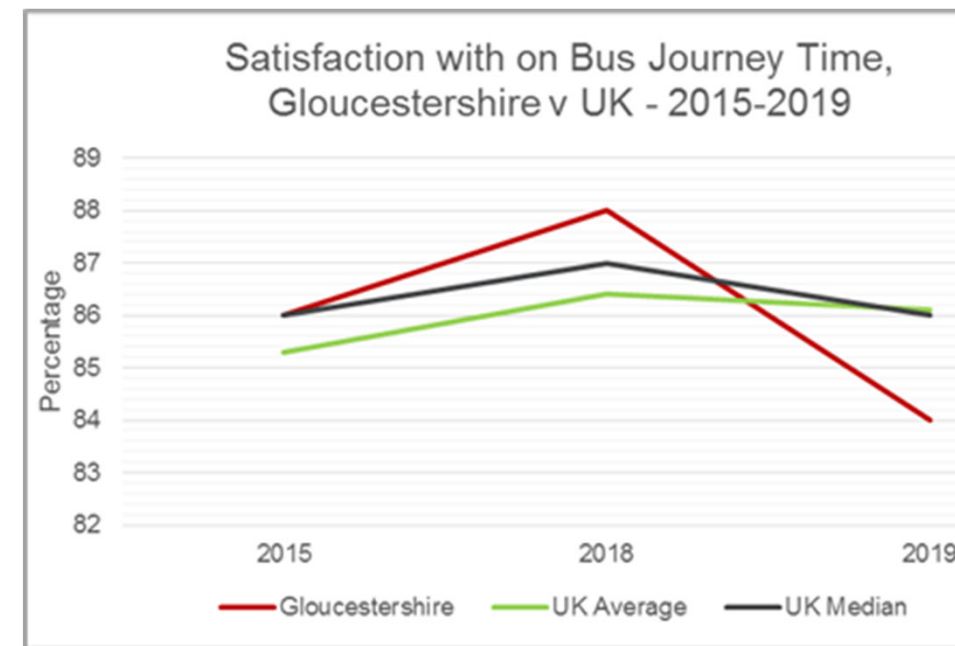
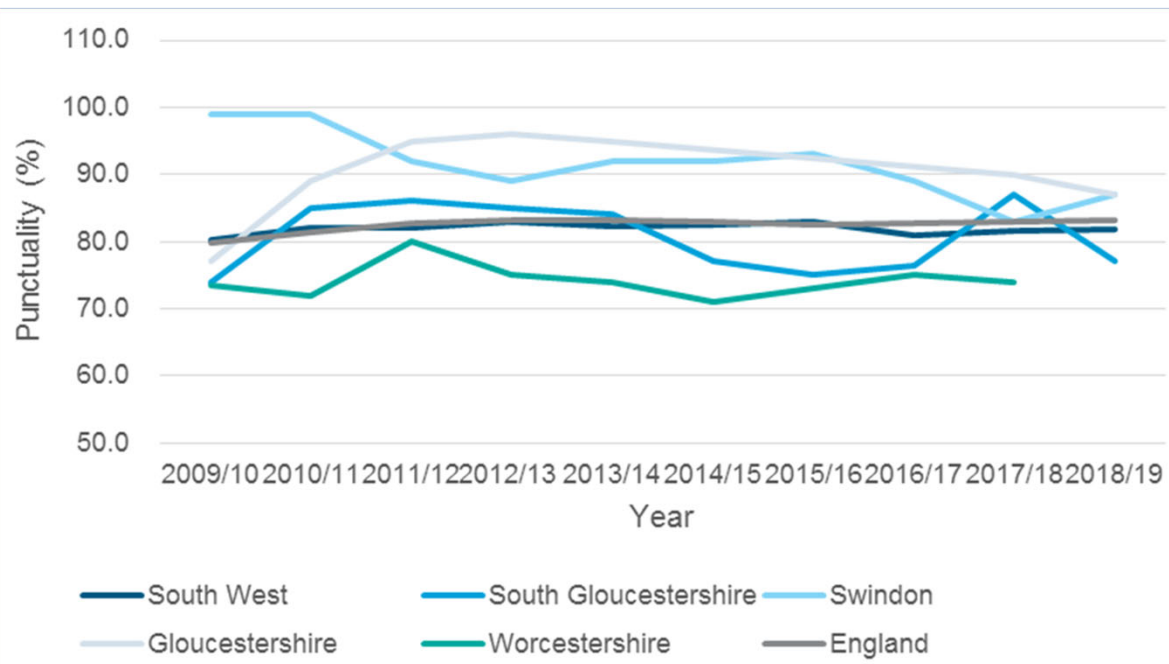


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Why Mass Rapid Transit?

Bus service reliability in Gloucestershire is decreasing, journey time is increasing



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What needs to be done

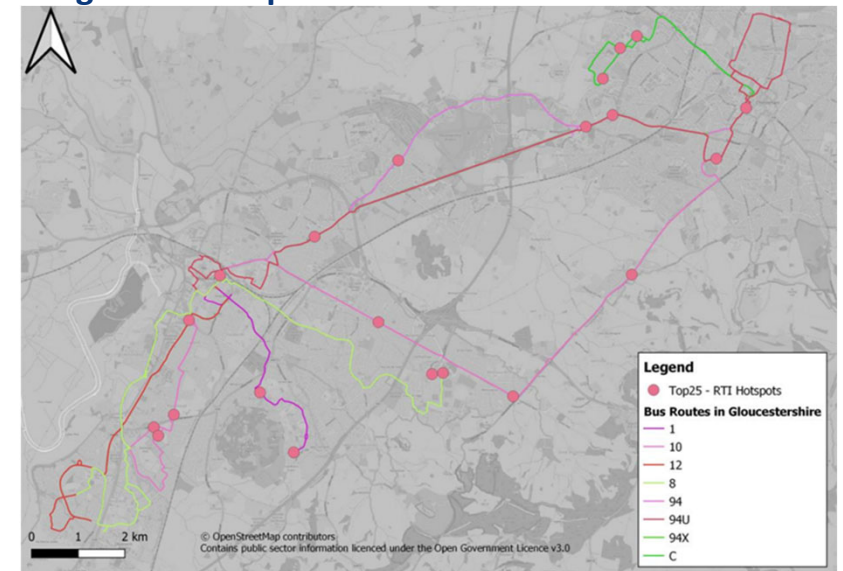
Prepare for success

- Learn from best practice – bus use per person as in Oxfordshire
- Raise the profile of buses in Gloucestershire - identify and communicate our ambitions
- Prepare for future bidding opportunities
- Develop express bus network/corridors
- Develop interchange hub strategy
- MRT business case!

Start delivering now

- Work with bus operators
- Deliver our flagship projects:
 - i. £20m Arle Court Interchange Hub
 - ii. £1.3m Rural Mobility Fund
 - iii. £2.6m Bus Priority at signals

Improve journey time and reliability by tackling congestion hotspots



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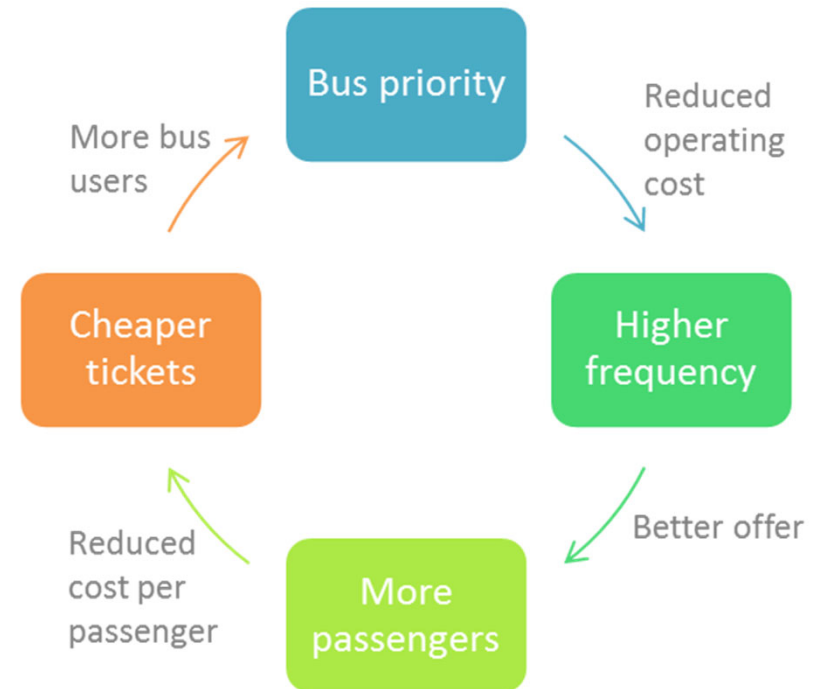
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Our ambition

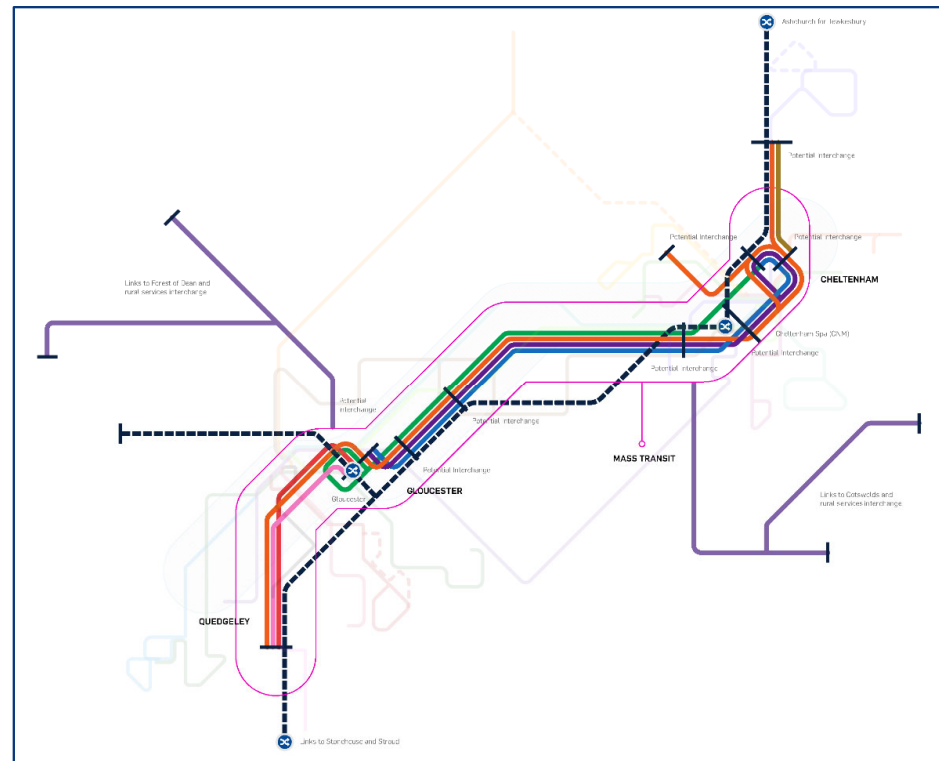
- Integrated Mass Rapid Transit (MRT)
- Fully developed expressbus network, including bus priority to complement MRT
- High quality interchange/ modal integration
- All areas accessible by public transport
- Simple, affordable fares
- Clear, simple information

Virtuous Circle of bus user growth



MRT for fast journey times and reliable services across Gloucestershire

Initial draft of a 'spider' diagram - this will be refined and developed as the project progresses.



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Work to Date

1

PRE-FEASIBILITY STUDY

Explored transport challenges in Central Gloucestershire.
Provided initial overview of how a mass transit system could provide a potential solution to challenges.

2

FEASIBILITY STUDY

Developed assessment of mass transit as potential solution to the challenges of transport in Central Gloucestershire.

Implementing mass transit in Central Gloucestershire is likely to be financially viable under nearly all future growth scenarios.

(NB sign off for feasibility study due July 2022)



Early viability assessments



OR



Bus Rapid Transit

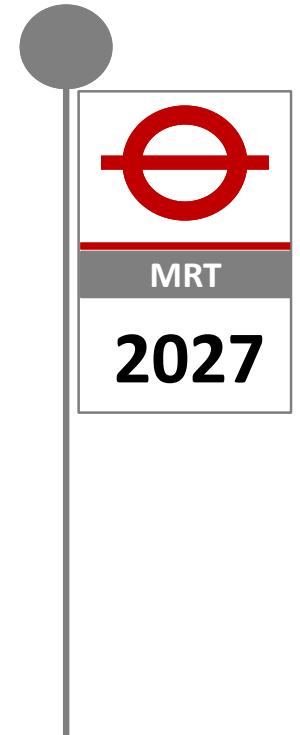
Bus Rapid Transit (BRT) in some form has the potential to be viable within the area assuming that a range of BRT-type features can be delivered, including potentially high levels of segregation from traffic congestion, high levels of services and quality vehicles and associated infrastructure.

Light Rapid Transit

Light Rapid Transit (LRT), based on fixed route rail technology is unlikely to be viable, primarily due to scheme costs. However, this option may need to be reconsidered in due course if it can be proven that changes in technology (for example Ultra-Light Rail) can significantly reduce costs.

MRT Next steps

- Pre-feasibility – completed
- Feasibility Study – sign off due in July 2022
- Strategic assessment and initial option assessment – 2022/23
- Strategic Outline Case (SOC) – 2023/24
- Subsequent stages of business case development (Outline Business Case, Full Business Case and related design and engagement) – 2024 - 2027
- Construction – 2027 at the earliest but need to be operational before 2030 in order to contribute to closing Gloucestershire's emissions Gap.



Conclusion

- Mass transit can help support rural-urban linkages through well-located interchange hubs.
- Mass transit increases public transport demand, contribution to carbon reductions, especially when demand management measures are introduced
- Mass transit can support sustainable growth in Central Gloucestershire

