

○ Tackling air quality through a modal shift to sustainable transport

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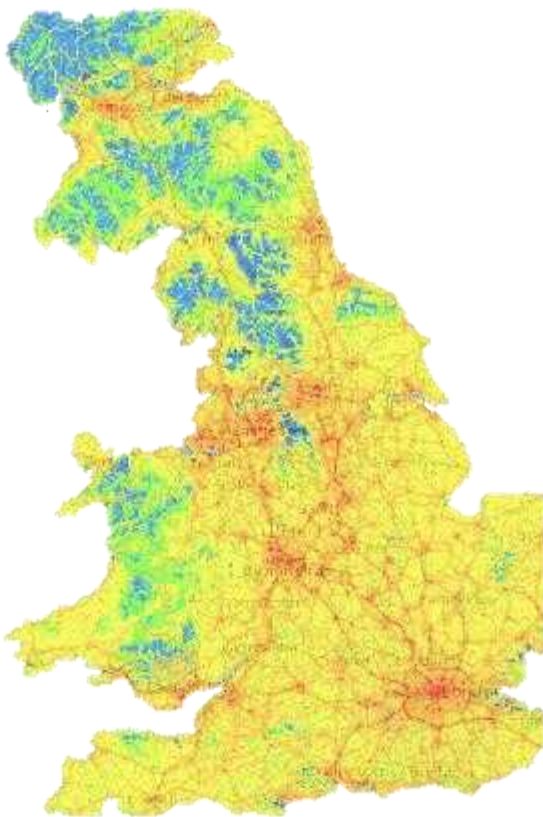
ADEPT National Traffic Managers' Conference
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○ Covid-19 exacerbates the health impacts of air pollution

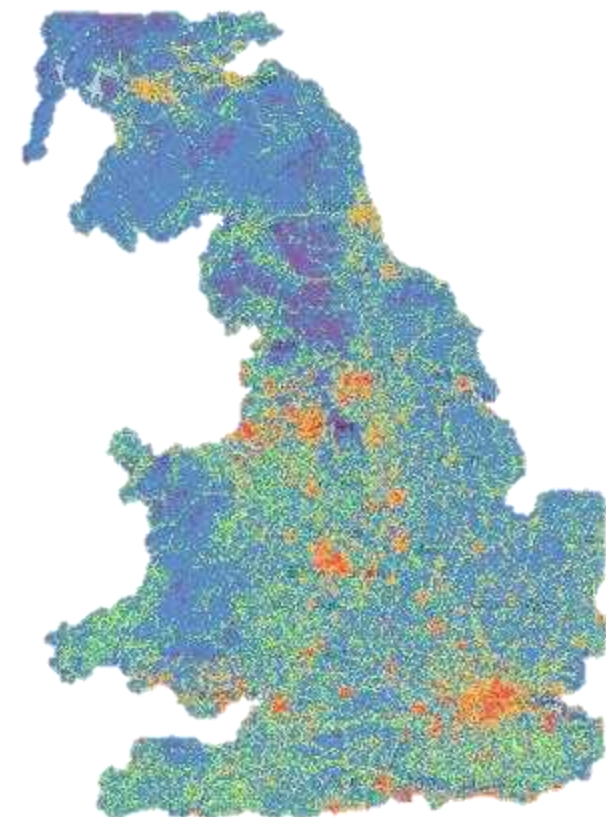
- **36,000** deaths in the UK every year are linked to air pollution
- **Air pollution** is linked to:
 - Asthma and breathing difficulties
 - Stroke and cardiovascular disease
 - Low birth weight
 - Shortened life span
- **PM10** increases the body's susceptibility to contracting Covid-19 by stimulating the release of the enzyme ACE2
- **14%** of UK deaths from Covid-19 are estimated to be attributed to long-term exposure to air pollution
- **11%** increase in COVID-19 mortality rate from 1 $\mu\text{g}/\text{m}^3$ increase in the long-term average PM2.5

○ Current levels of air pollution are high in many places

NO_x

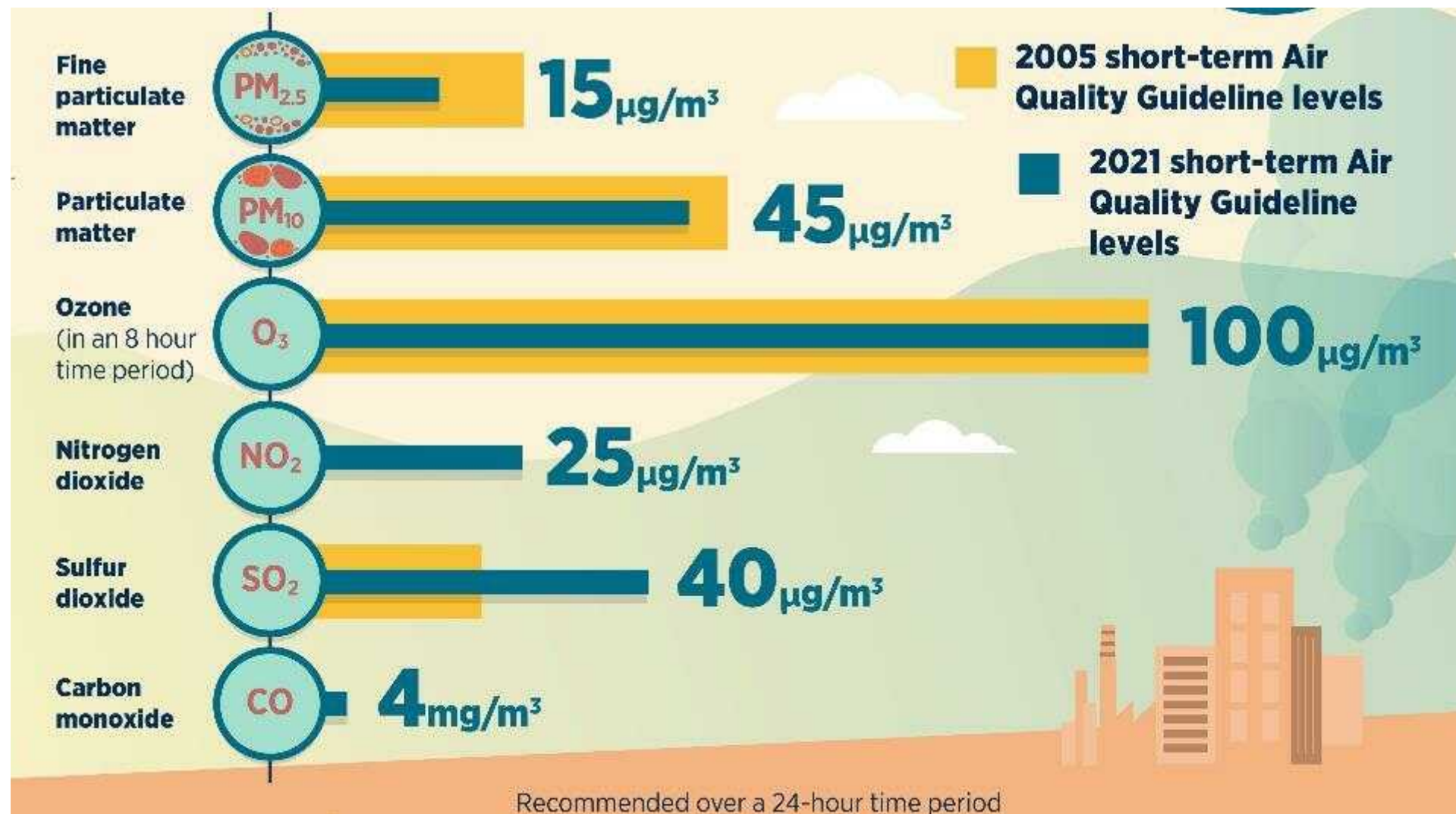


PM_{2.5}



Source: National Atmospheric Emissions Inventory, <https://naei.beis.gov.uk/emissionsapp/>

○ The WHO has just reduced the recommended limits



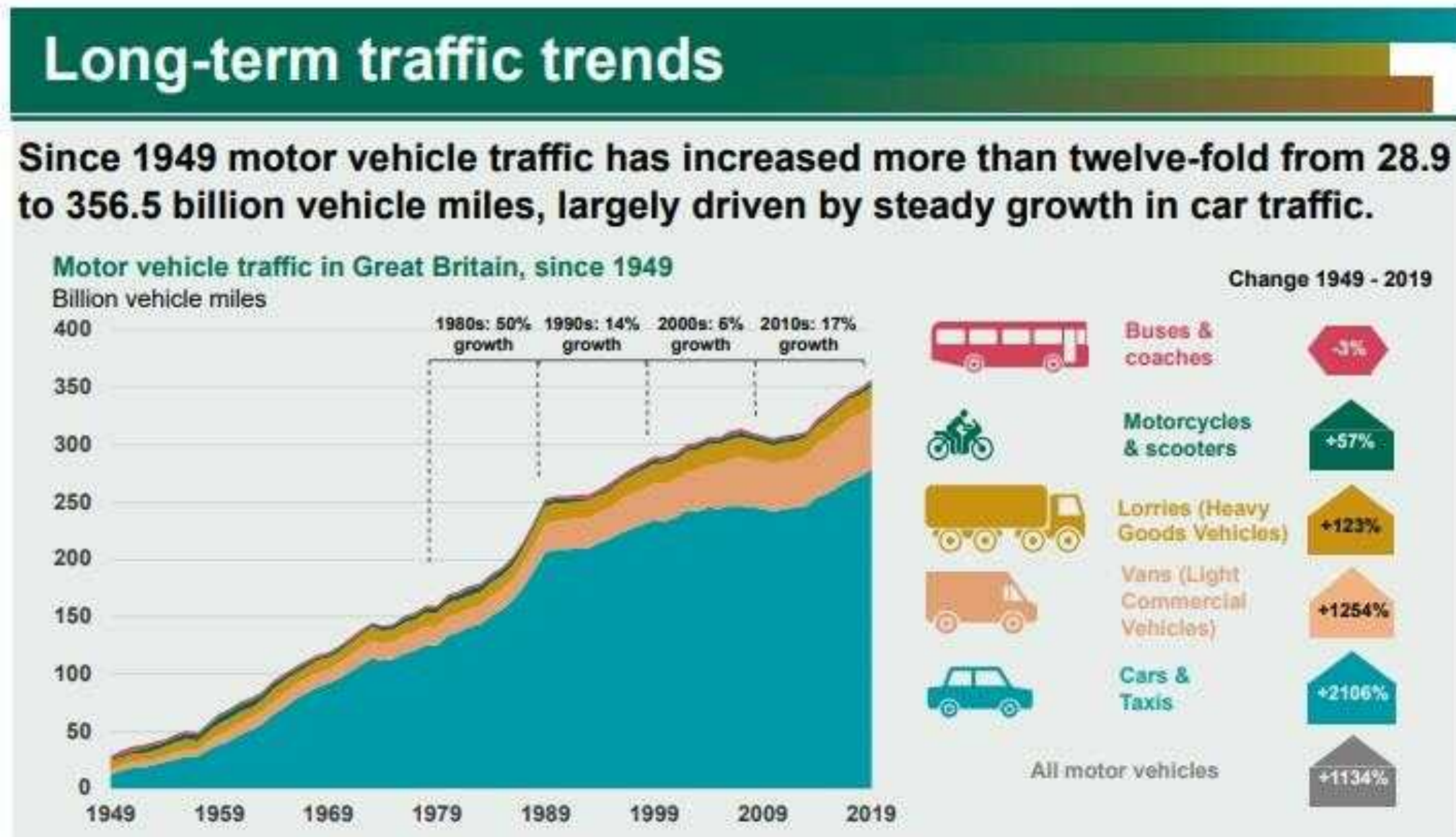
Source: WHO global air quality guidelines (September 2021),
<https://twitter.com/WHO/status/1440679514611208195>

○ Low Emission Zones help but are not the whole solution

- In its first ten months of operation, London's Ultra Low Emission Zone (ULEZ) achieved:
 - 44% ↓ in roadside NO_2
 - 35% ↓ in NO_x
 - 15% ↓ in $\text{PM}_{2.5}$
 - 6% ↓ in CO_2
- But a shift to lower emission vehicles do not necessarily address:
 - PM emissions from non-exhaust sources
 - Congestion and journey time delays
 - Net zero carbon reduction targets



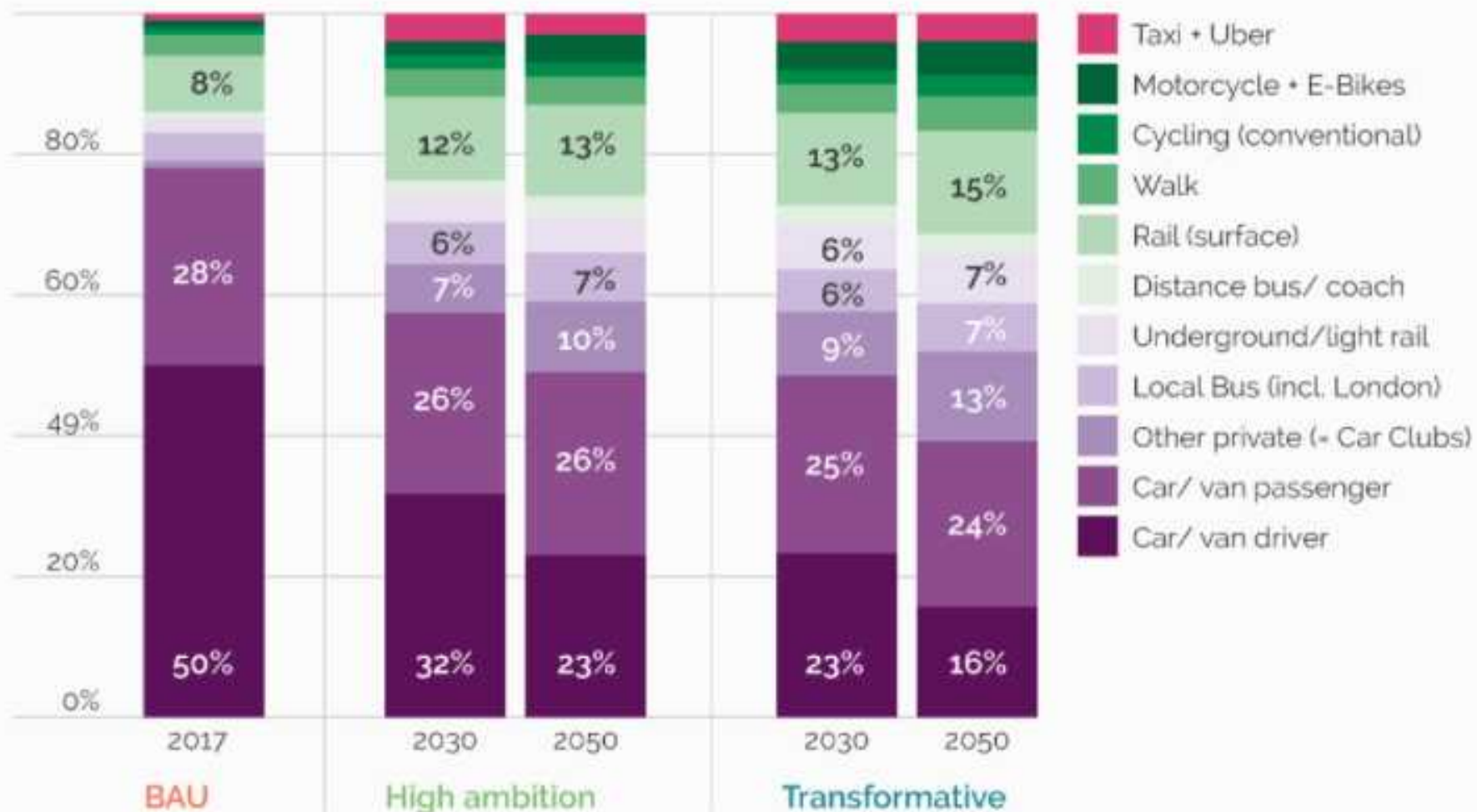
○ Private vehicle use continues growing



Source: Department for Transport (2020), Road Traffic Estimates: Great Britain 2019,
<https://www.gov.uk/government/statistics/road-traffic-estimates-in-great-britain-2019>

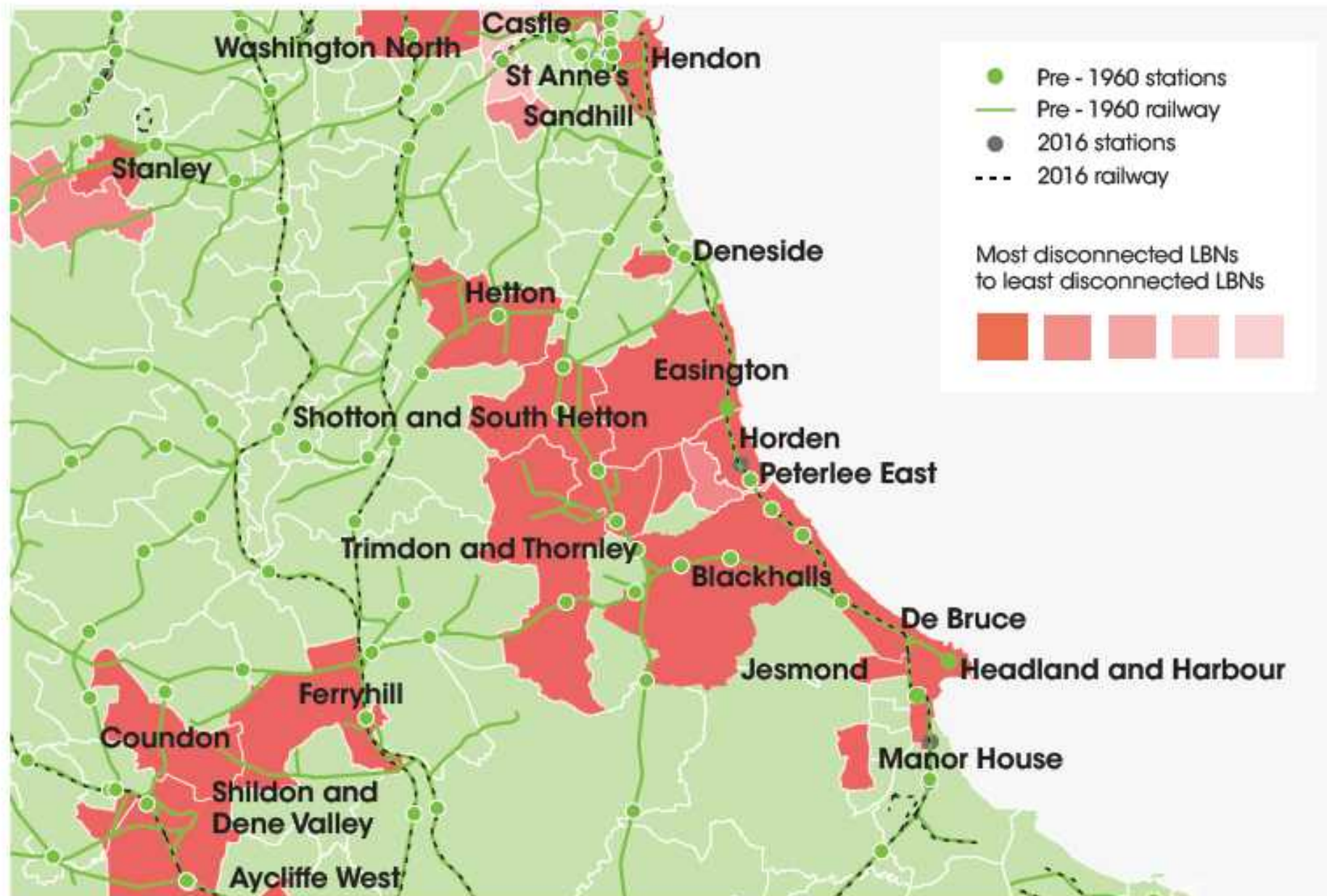
○ Significant modal shift from private vehicles is needed

Figure 4: Change in trip mode shares (by trip frequency). Left panel: Shift demand, right panel: Transform demand. Data in table format. [Hi-res image](#)



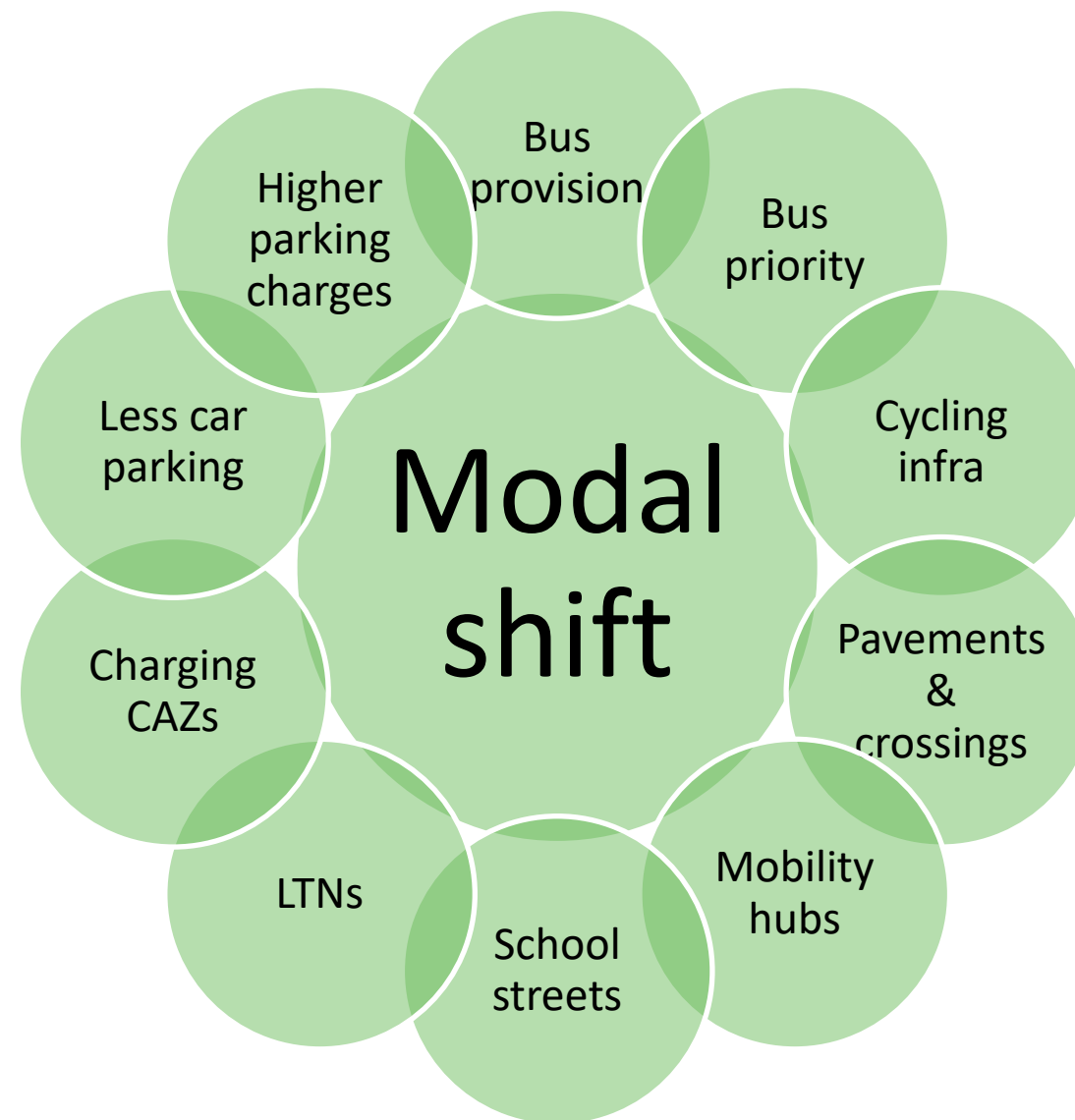
Source: CREDS (2021), Positive low energy futures, <https://low-energy.creds.ac.uk/mobility/#evidence>

But public transport provision is poor in many areas



Source: Campaign for Better Transport (2021), Transport connectivity in left behind neighbourhoods, https://bettertransport.org.uk/sites/default/files/research-files/Back_on_Track_Report_Mar_2021.pdf

○ There is much that local authorities can do



But there are structural barriers to overcome

- Lack of appetite among elected representatives
- Low understanding of the social, economic and environmental benefits of modal shift
- Lack dedicated bus and active travel champions
- Small team sizes and difficulty of attracting new staff
- Reliance on expensive consultants
- Poor integration between policy, passenger transport and highways management teams (particularly for two-tier authorities)
- Coordinating cross-border provision with neighbouring authorities
- Lack of technical capability withing legal, financial and project management departments
- Need for meaningful and positive public engagement

Let's increase ambition and get on board



Campaign for
Better Transport 

The way forward is public transport

Are you on board?

THE-WAY-FORWARD.ORG

#TheWayForward

○ Get in touch: Let us help you get communities on board

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