Contents of this slide pack

- The analysis presented in this slide pack is preliminary and has yet to be subjected to peer review. It also cites the work of others (see links on slides).

- **If you wish to use or cite any of the findings, please first contact i.Philips@leeds.ac.uk for the latest results and citation.**

- Outputs will be regularly uploaded on to the project website https://blogs.brighton.ac.uk/elevate/

Rural transport and the climate emergency – priorities and directions for action

Ian Philips
Dr Ian Philips, i.Philips@leeds.ac.uk , @ianphilipsits
https://environment.leeds.ac.uk/transport/staff/972/dr-ian-philips

Geography in practice: the future of Rural Mobility 27 March 2024
Royal Geographical Society,
Kensington
London

The decarbonization challenge

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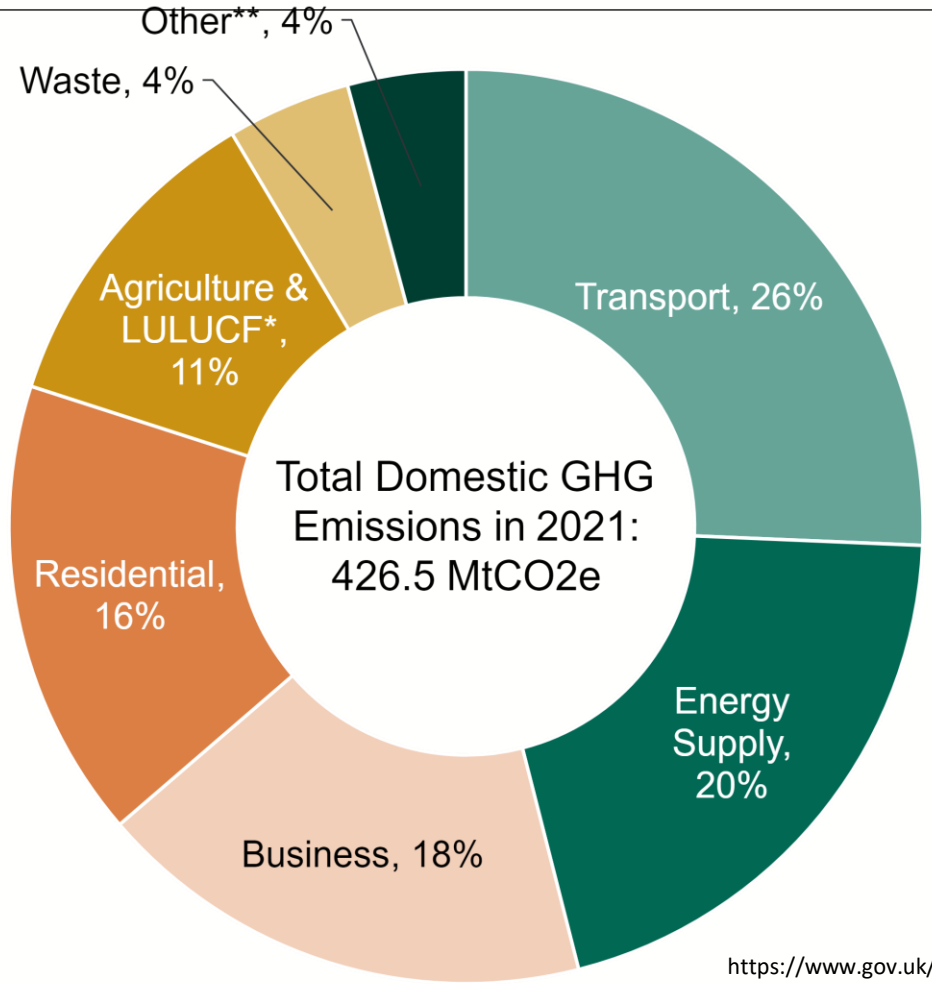
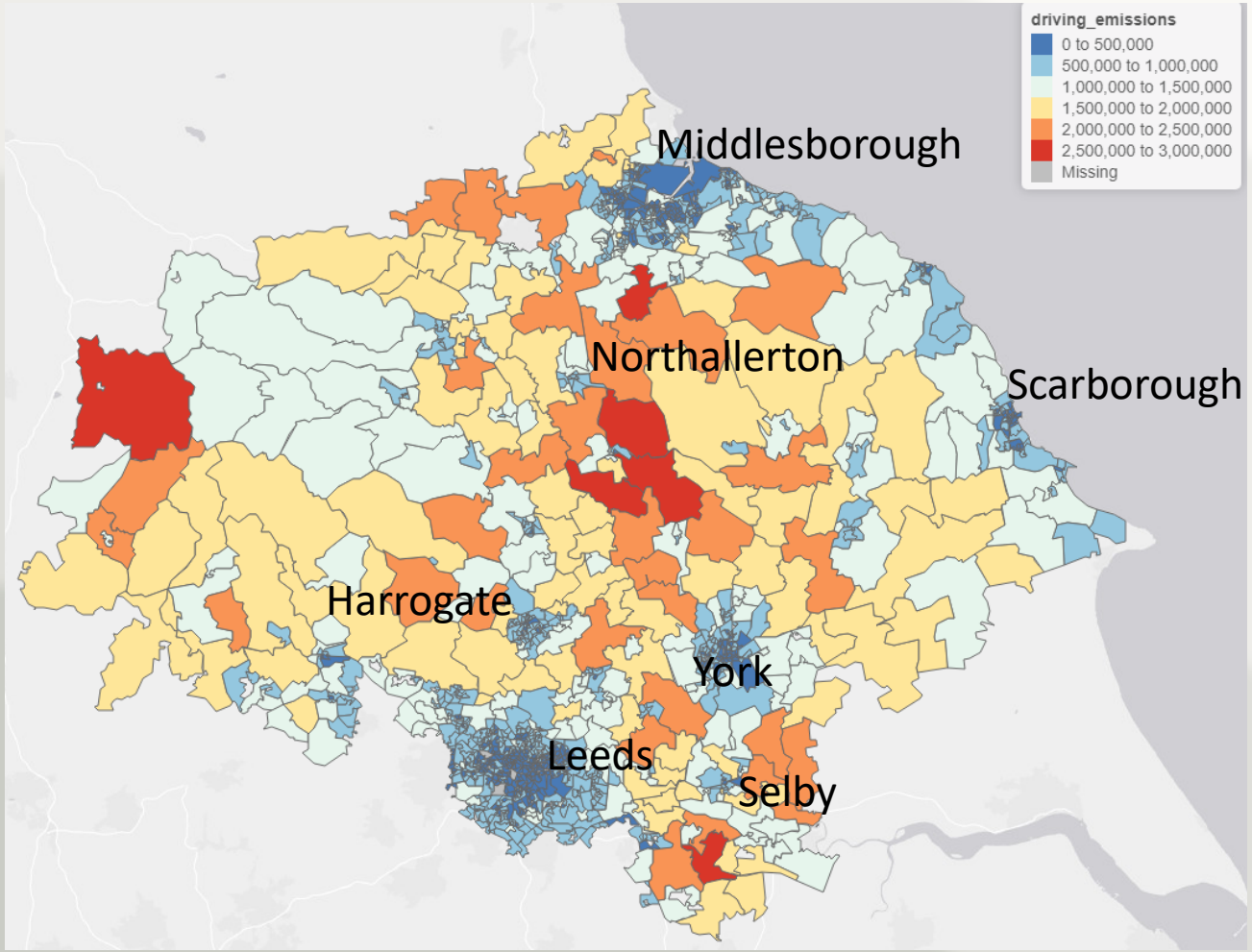
- Transport the largest contributor to UK emissions
- Cars 62% of domestic transport emissions
- not cutting fast enough
- SUV growth negating Energy efficiency savings
- Car mileage at sept 2023 ~ 5% lower than pre-covid



https://www.gov.uk/government/statistics/transport-and-environment-statistics-2022/transport-and-environment-statistics-2022

Rural areas matter for carbon



Kg CO_2 / capita from driving per year

Vehicles registered to
residents of
Lower Super Output Areas
in
North Yorkshire
Tees Valley
City of York
Leeds City Council

Analysis:
MOT data
Malcolm Morgan
Jillian Anable

DecarboN8

We need good data for good analysis for good decisions

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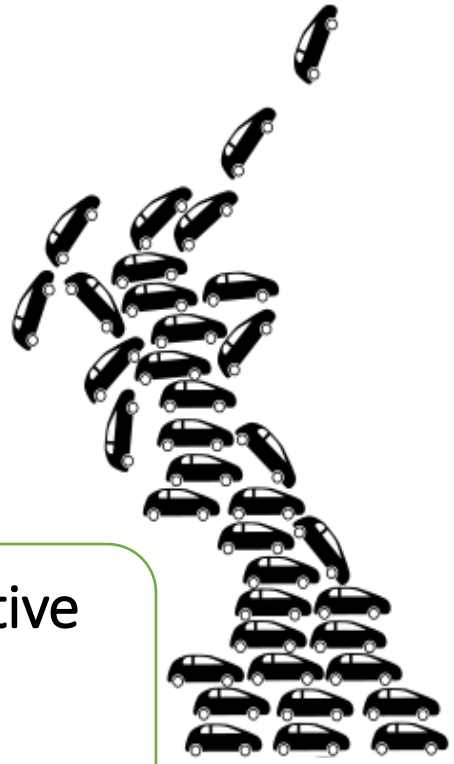

CARS - Connecting Administrative vehicle data for Research on Sustainable Transport

Car use in Rural Areas

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- Leisure travel by visitors
- Car dependence of local population

Leisure travel (rural areas = major leisure destination)

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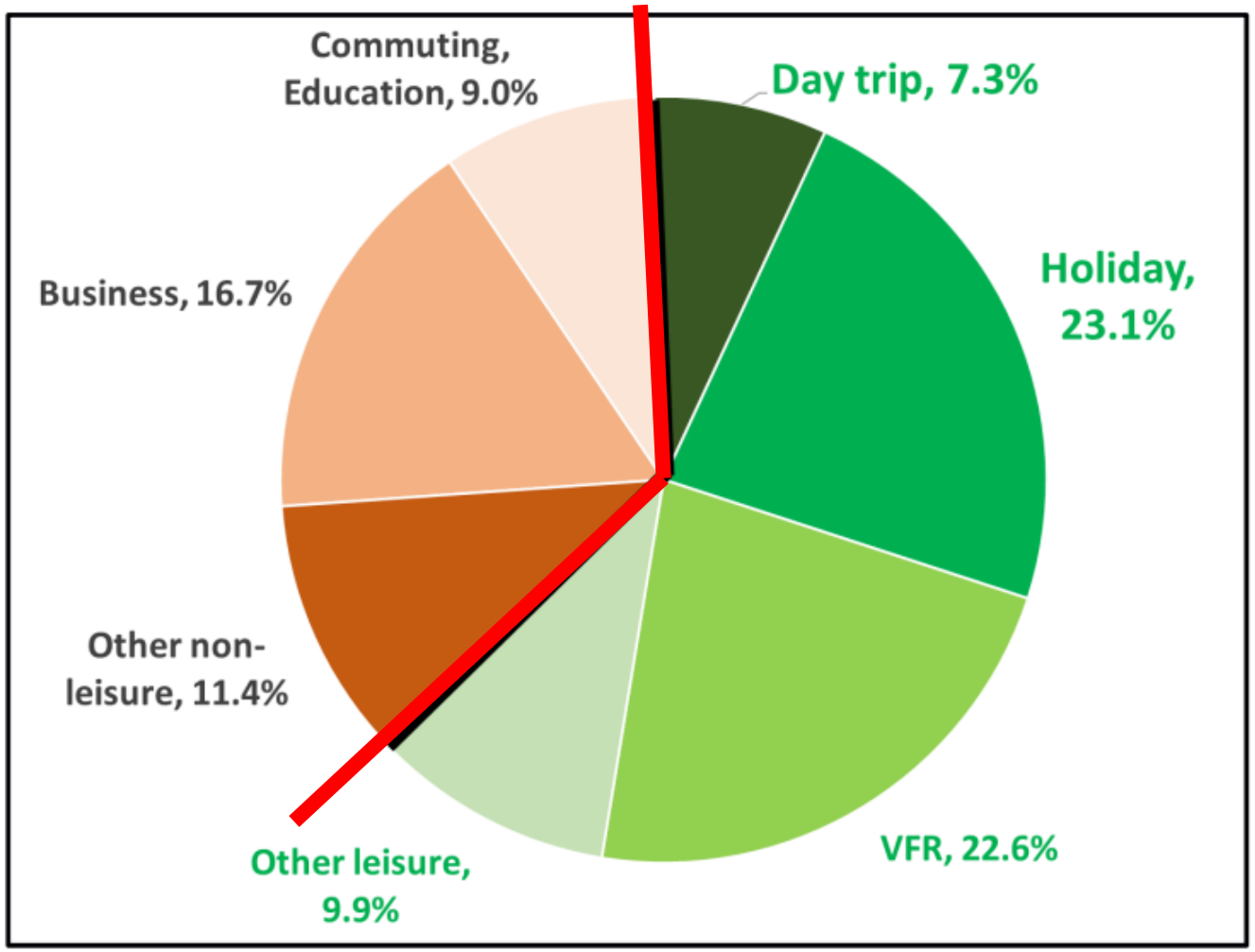

Leisure travel = 63% of all miles travelled by all modes

Analysis of NTS 2015 - 17 by Jillian Anable

Leisure travel

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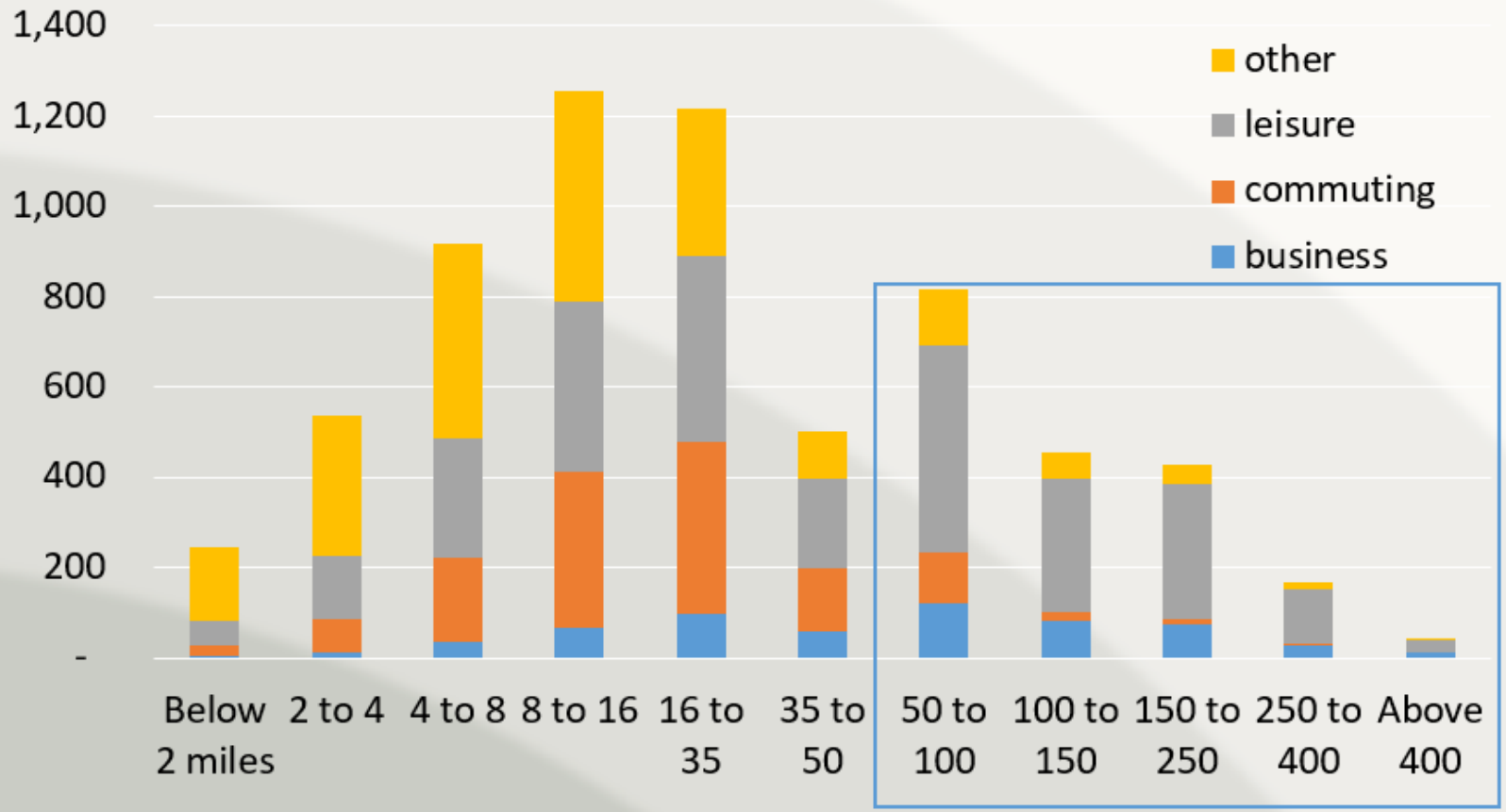

Nearly 2/3 of LDT miles are for leisure purposes

DecarboN8

Source: NTS 2015 - 2017, pooled weighted N=46,603

Leisure travel

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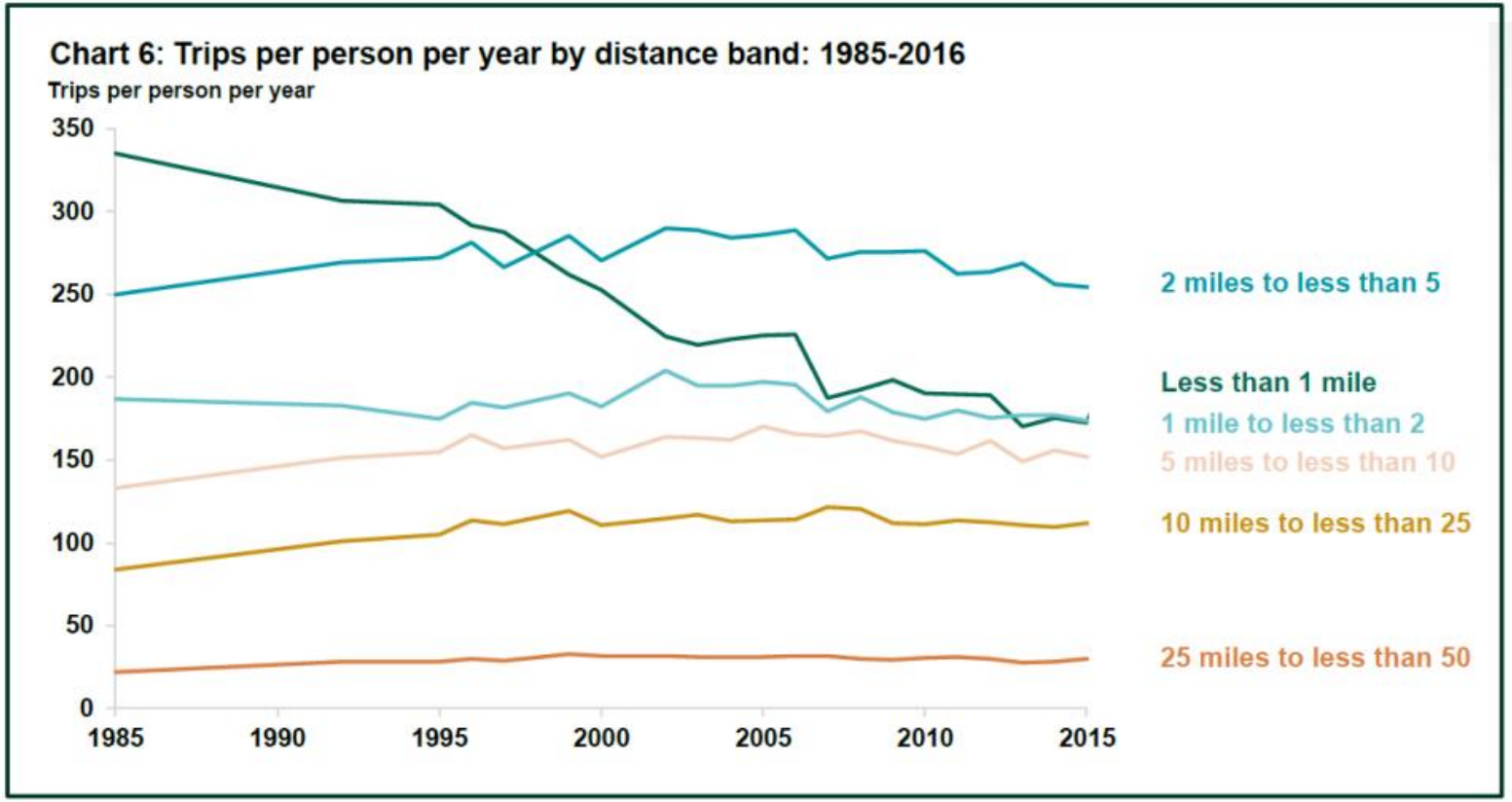


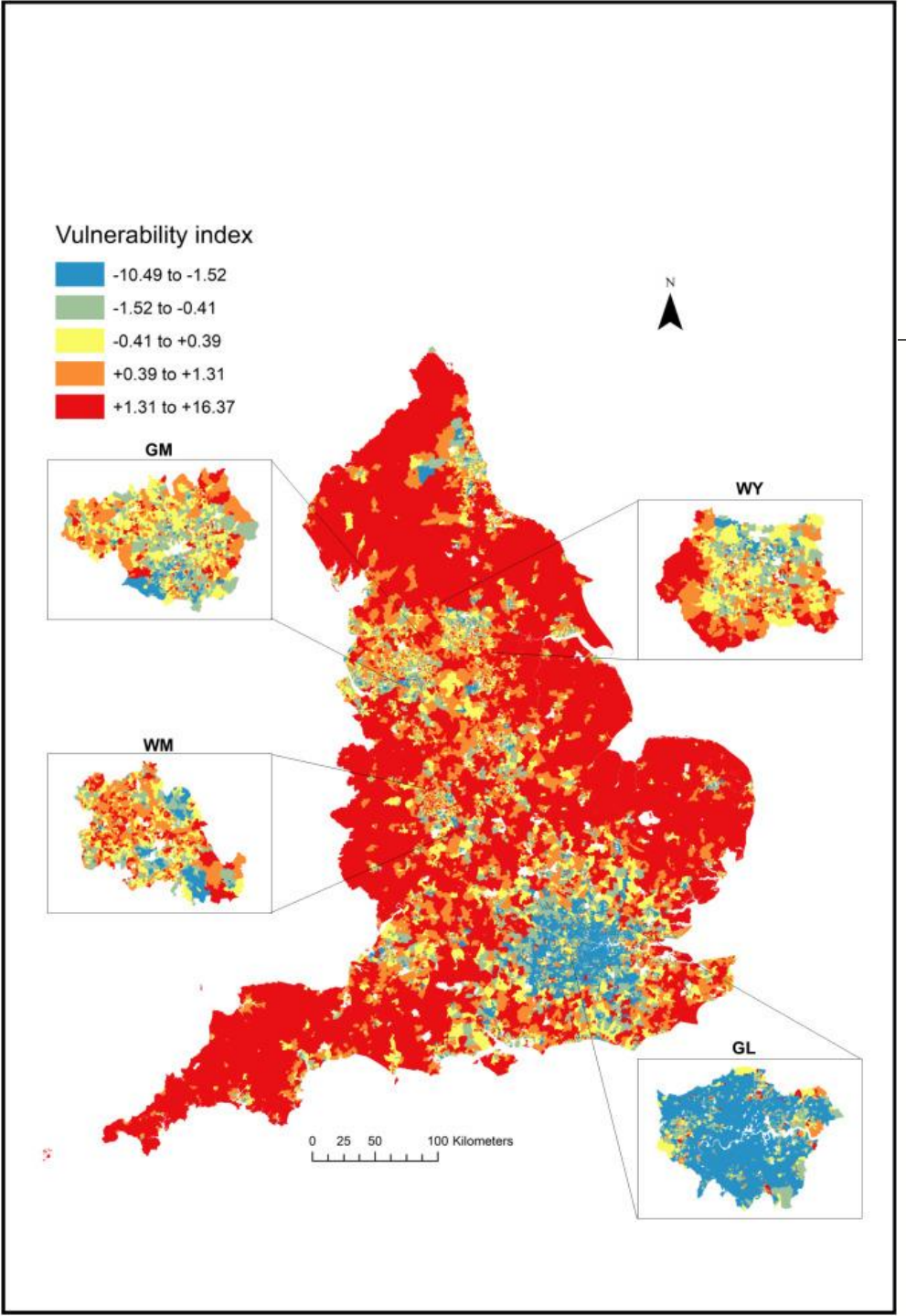
DfT (2018) Analyses from the National Travel Survey, DfT Statistical Release.

Number of short trips declined
But longer trips did not

Long car trips 3% of trips
~ 1/3 of mileage

Analysis of NTS 2015 - 17 by Jillian Anable

Car dependence and vulnerabilty



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Rural areas are economically and socially vulnerable to continued car dependence

High expenditure on motoring
Poor public transport

Increases challenge of rural decarbonisation

https://doi.org/10.1016/j.jtrangeo.2019.05.009

Priorities and directions for action: general principle

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- "relying on **technical solutions alone is insufficiently rapid** and risky, and that policies influencing the **demand** for travel and **mode switching** should have a more prominent role (CCC, 2018; CCC, 2019). Here the demand for the mobility itself (i.e. the distances travelled and the travel modes used) will be at least as crucial to future energy demands as the fuel types and efficiencies of the vehicles."

1. **Avoid**
2. **Shift**
3. **Improve**

- Brand, Anable , Marsden
- https://low-energy.creds.ac.uk/mobility/

BUT

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- ~~Avoid~~ > Shift > Improve

- Demand reduction removed from current policy , over reliance on EV uptake

https://www.creds.ac.uk/publications/reverse-gear-the-reality-and-implications-of-national-transport-emission-reduction-policies/

Directions for action.

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Positive Low Energy Futures.

scenarios

Energy demand pathways

Equitable / fair

Integrated with other sectors

A few suggestions

- Cut car use
- Increase occupancy
- Don’t build roads
- Increase proximity,
- Localise services
- Fund active travel
- Carrot and stick policies
- Build co-benefits into MaaS
- Price in all costs and benefits
- Limit SUVs

Positive low energy futures

https://low-energy.creds.ac.uk/introduction/

Major reduction in car mileage needed

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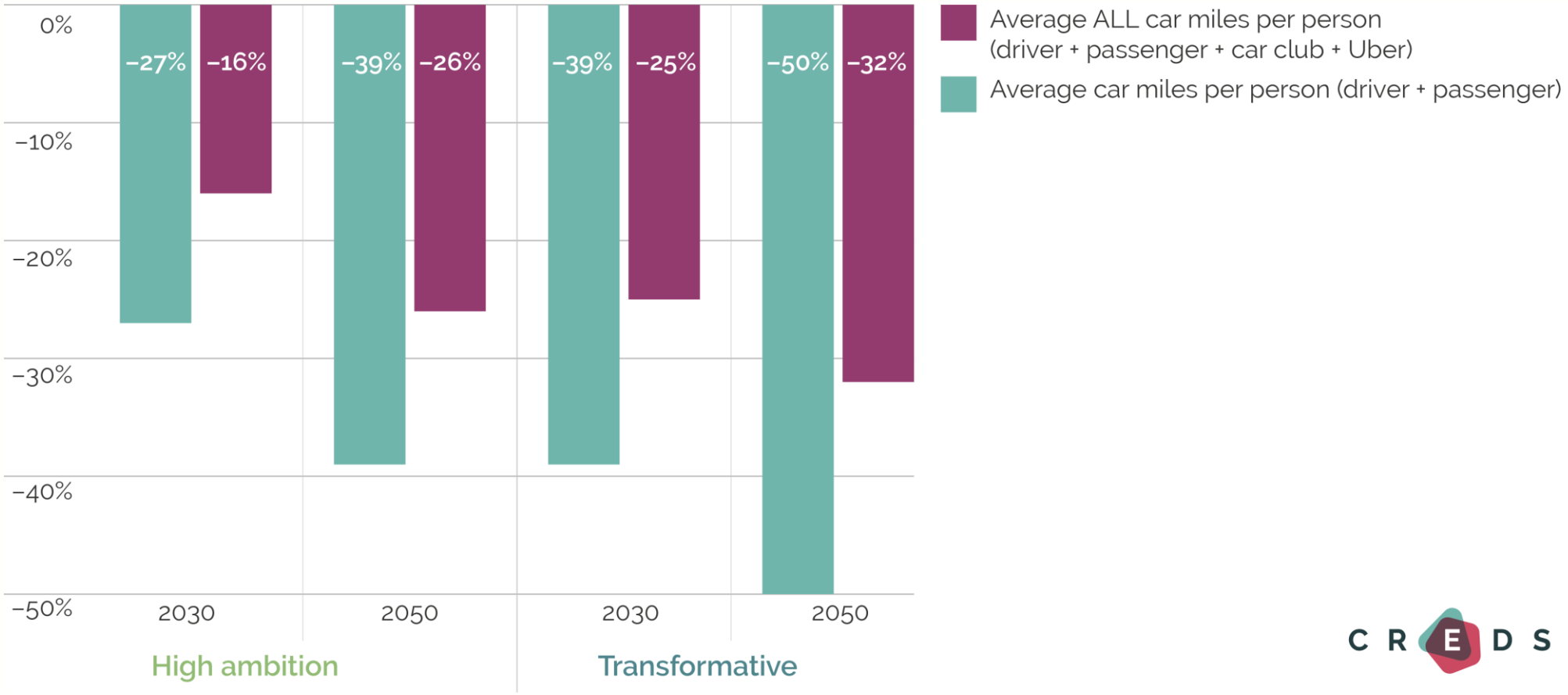
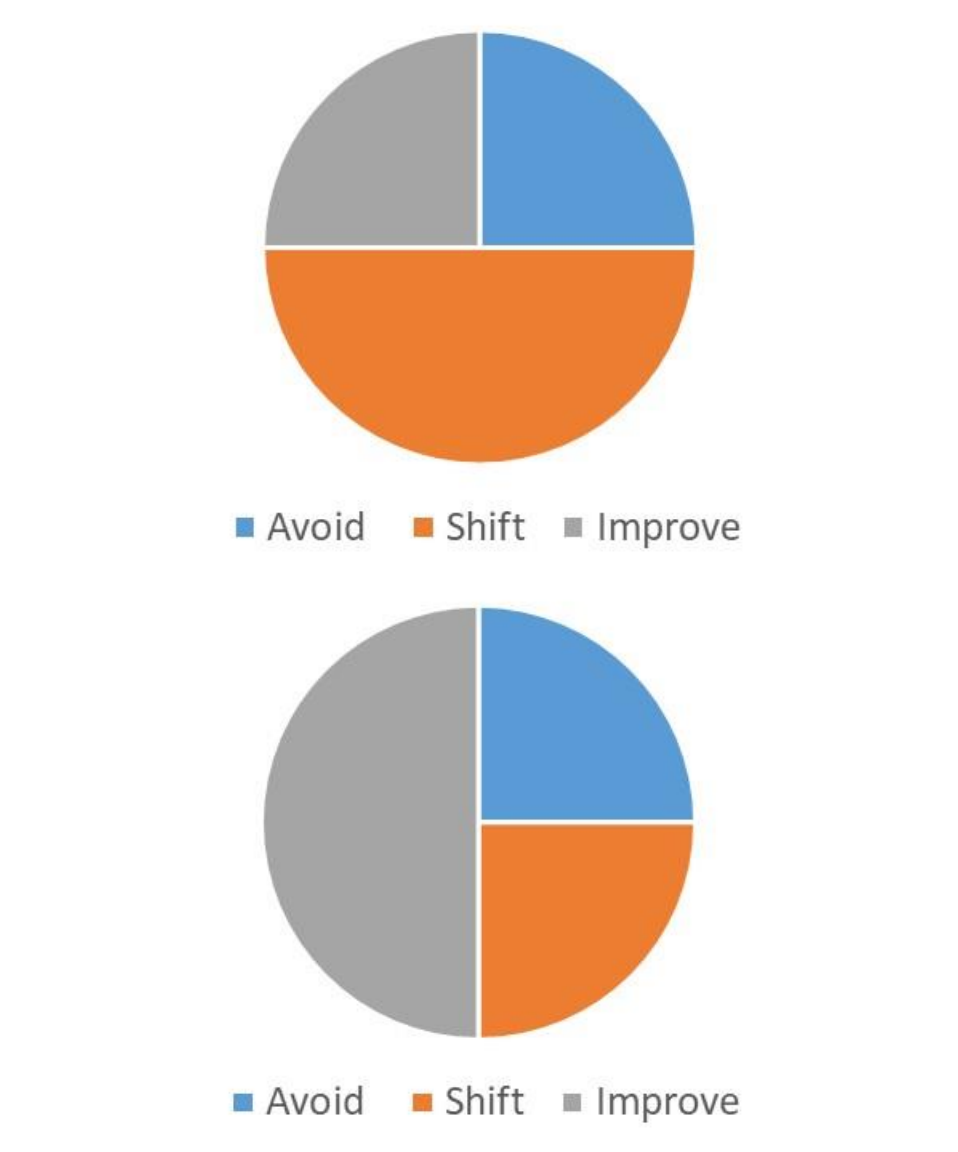


CREDS

Policy Options Look Different Rural / Urban



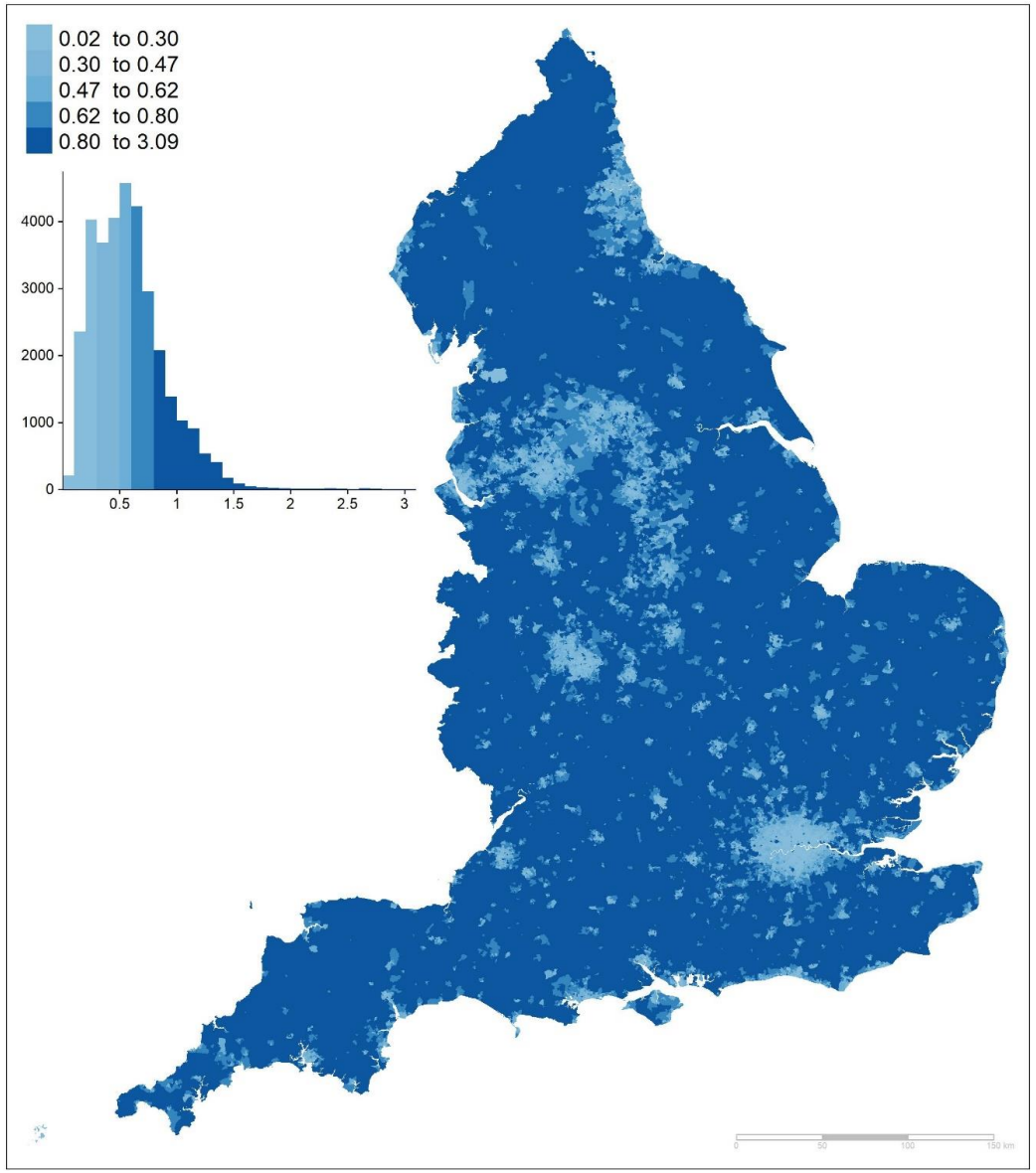
- Thinking of ways to **avoid** travel is something everywhere can do
  - Proximity to services in rural areas?
  - What are the options to service these places with fewer trips?

- **Shift** is easier in some places than others
  - Creating alternatives
  - Strong social arguments

- **Improve** needs to happen everywhere
  - Other opportunities (e.g. farming, utilities)

DecarboN8

Opportunity for shift especially in rural areas



E- bike carbon reduction capability is largest in rural areas

A lot of rural car trips are 5-15 miles long = the ideal range for e-bikes.

- **Dark blue** = large Ebike carbon reduction capabiility
- **Light blue** = more modest e-bike carbon reduction capability

Philips, I., Anable, J., Chatterton, T., 2022. E-bikes and their capability to reduce car CO2 emissions. Transp. Policy https://doi.org/10.1016/j.tranpol.2021.11.019

E-bikes in the Lake District

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- Surveys in 2020 and 2021.
- People ride alot in hilly rainy places!
- Mode substitution
- Interest in integrated tickets and e-bike hire scheme.
- Support for car restraint
- BUT people tell us getting to the Lakes without a car is hard and PT is poor.

imagehttps://keswickreminder.co.uk/2022/10/27/failure-to-punish-lake-district-problem-parkers-leaving-residents-at-end-of-tether/