Contents of this slide pack

- The analysis presented in this slide pack is preliminary and has yet to be subjected to peer review.
- If you wish to use or cite any of the findings, please first contact <u>i.Philips@leeds.ac.uk</u> .for the latest results and citation.
- Outputs will be regularly uploaded on to the project website <u>https://blogs.brighton.ac.uk/elevate/</u>



Institute for Transport Studies

UNIVERSITY OF LEEDS

Where are we now – and where do we need to be?

The role of active travel in decarbonisation

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

WYCA 27 june 2024

The decarbonisation challenge

Killer facts:

- If transport decarbonisation fails, the whole of the UK Net Zero target will fail
- In the first 30 yrs of the 60 yr 'net zero' period, transport CO₂ did not reduce at all
- For surface modes, the goal is for "ABSOLUTE zero" (the 'net' is reserved for aviation)
- The Carbon Budget Delivery Plan (which superseded the DfT's Transport Decarbonisation Plan) was ruled UNLAWFUL by the High Court in May 2024 for having inadequate policy prescriptions
- There is no longer ANY pathway where car MILEAGE does not have to reduce by 20% by 2030 in addition to maximum uptake of pure battery electric vehicles
- How much CAR MILEAGE can active travel replace???
 - <u>https://www.transportxtra.com/publications/local-transport-today/news/75927/-dangerously-inadequate-decarbonisation-plan/</u>
 - https://www.nature.com/articles/s44333-024-00002-8
 - <u>https://www.creds.ac.uk/publications/reverse-gear-the-reality-and-implications-of-national-transport-emission-reduction-policies/</u>



Per capita CO₂ from transport in the Netherlands is as high as in the UK despite their huge levels of cycling.

Why? Because the Dutch have not had their car ownership and use curtailed



We need a strategy for trips over 5 miles in length

- Journeys under 5 miles are 65% of all journeys but only 18% of miles (and carbon)
- (on the other end of the spectrum, trips over 50 miles make up only 3% of trips but are responsible for 30% of miles)
- So, for active travel to really start to 'bite', we need more attention to:
 - STICKS + carrots
 - Destination shifting alongside mode shift
 - E-mobility



E-bikes have high capability to reduce carbon outside city centres



Kg CO₂ / capita from driving per year

https://www.itf-oecd.org/innovations-better-rural-mobility



Car dependence and vulnerabilty



Rural / peri-urban areas areas are economically and socially vulnerable to continued car dependence

High expenditure on motoring Poor public transport

Increases challenge of decarbonization outside city centres

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

Opportunity for shift especially in rural areas



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- 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

E-cargo bikes in the suburbs .



ELEVATE project

Trials Summer 2023

1 month loans to suburban households including Leeds

Suggests significant substitution. Some evidence that people are reducing second car ownership

And we are in Tod so had to mention....



There is clearly potential for shifting some car / van use in rural areas too.



cargodale.co.uk/blog https://www.cargodale.co.uk/

Conventional - bikes and bathwater.



Do not throw the bicycle out with the bathwater.

Conventional bicycles work!

And Walking!!

https://www.google.com/url?sa=i&url=https%3A%2F%2Fm.youtube.co m%2Fwatch%3Fv%3DHnz47alRtUQ&psig=AOvVaw33z_8GW4JzNYnBUJ8l _bdj&ust=1719398171364000&source=images&cd=vfe&opi=89978449& ved=0CBEQjhxqFwoTCliZ7-jH9oYDFQAAAAAdAAAABAT



Active travel enables "avoid" – by giving proximity

Politics / misinformation around this concept contributes to the challenge



Public transport + active travel



Potential to shift longer trips away from car

Bike parking Walkability / cycle infrastructure to stations Legislation on e-micromobility





Summary



Addressing active travel in isolation not effective enough

Active travel is part of the solution

There are political, governance and practical issues to deal with