## The Co2 reduction potential of e-bikes .

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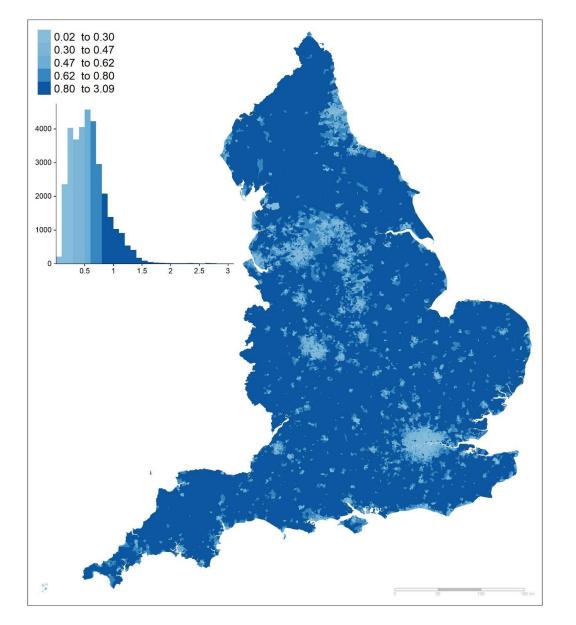


https://environment.leeds.ac.uk/transport/staff/972/dr-ian-philips

## E-bikes have high carbon reduction capability

- If people had to , they could use e-bikes to replace a lot of their car use.
- Especially in Rural Areas.
- e-bikes can cut more carbon than ordinary bikes in rural areas.
- Older people in a hilly wet rural area ride their e-bikes a long way

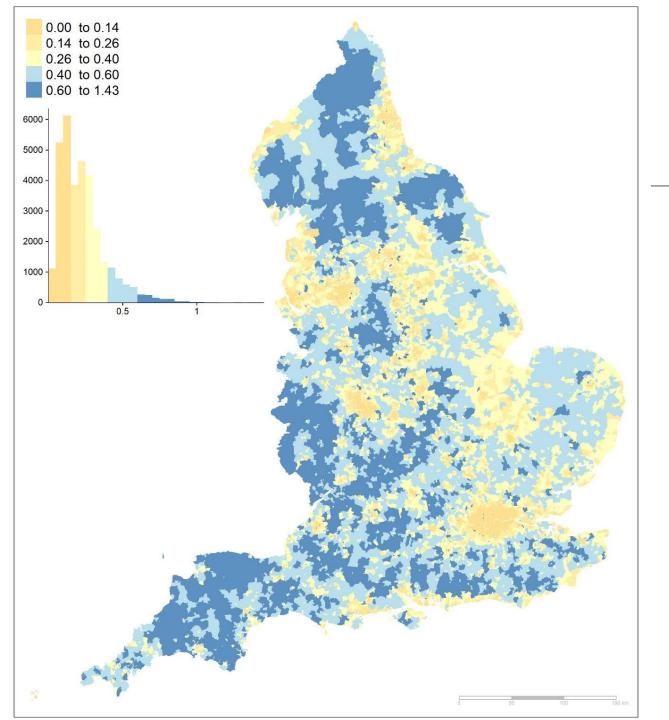
#### This is why rural e-bike use is important E-bikes can shift journeys over 5 miles (8km) to active travel Which has a big effect on km shifted and CO<sub>2</sub> 300 to 1000 -0.04% -0.79% 100 - 300 14% 50 - 100 -1% 12 35 - 50 -1% 5 - 35 -31% 46% up to 5 -65% 18% -75% -60% 15% 30% 75% -45% 45% Trips % Miles % Source: https://www.local.gov.uk/sites/default/files/documents/Professor%2 0Jillian%20Anable%20and%20Professor%20Greg%20Marsden.pdf



E- bike carbon reduction capability is largest outside major cities

• Dark blue = large Ebike carbon reduction capability (over 0.8 tonnes per person per year)

• Light blue = more modest e-bike carbon reduction capability

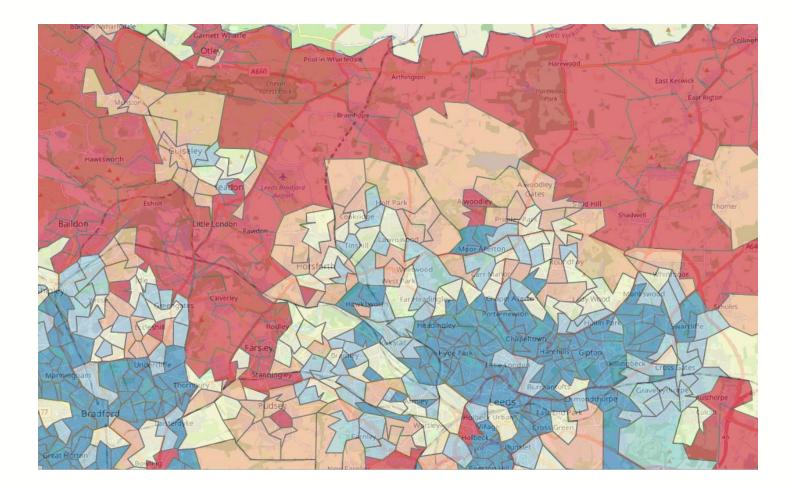


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### e-bike cuts more carbon than an ordinary bike in rural areas (blue)

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

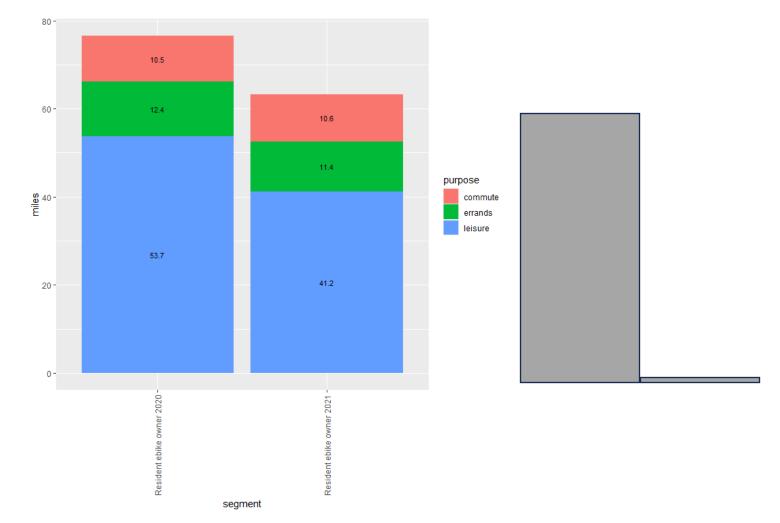
## E-bikes could cut more carbon at the edge of cities than in the centre.





# I told you about capability to change: Now something about observed behaviour

People ride more in a week on an e-bike in a wet hilly place than the average person does in a year

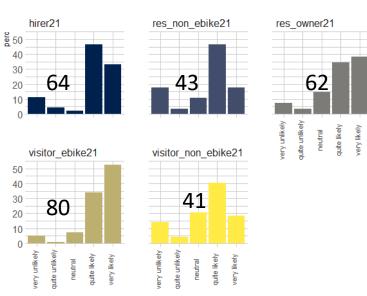


Paper in review, initial findings here: https://www.researchgate.net/publication/362888120\_Longitudinal\_survey\_of\_e-bike\_use\_in\_the\_Lake\_District\_during\_Covid

#### Secure E-bike storage



- E-bike owners likely to use e-bike secure parking (and storage).
- Qualitative comments state need for secure parking



## I can't go on a bike I've got to take things with me







## UK National Survey (ELEVATE project)

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UK policy too much focus on e-cars. E-bikes have enormous potential.

Our survey

69% of people agreed that 'e-bikes can be a realistic alternative for some car journeys'

The Government should do more to support e-bike use' (only 15% somewhat or strongly disagreed)

https://www.creds.ac.uk/why-any-government-serious-aboutachieving-net-zero-needs-to-focus-more-on-electrically-assisted-bikes/

https://blogs.brighton.ac.uk/elevate/

### Are rural E-bikes are Magic? – We'll let you know





