# 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>







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 What supports us to think about strategies for 'making and doing' transport de-carbonisation?

(Who is 'us'? Who is the collective who strategises - and how?)

- What *actually happens* when people (households) are given the opportunity to trial e-cargo bikes?
- How does this help us develop household mobility decarbonisation strategies?

(What is a *good resource* for strategy-making?)













### **ELEVATE Project Team**

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  - Co-investigators: Professor Jillian Anable, Dr Noel Cass, Salma Kuhy

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  - Professor Eva Heinen

 Project Start Date:
 01.06.21

 Project Finish Date:
 31.05.25

 Value:
 £1.7M











### **ELEVATE Project Aims**



- To better understand the decarbonisation potential of emicromobility in the context of <u>household use</u>
- To examine willingness and capability of people to change practices through studying their attitudes, behaviours, social practices and experiences in the context of the places where they live
- To find out 'what works' when it come to promoting propensity, possibility and capability to decarbonise













### Reaching net-zero targets as a process

- One part of that process is to eliminate carbon-emitting household transport modes and energy use
  - Geels (2005) Multi-level Perspective: niche, socio-technical regime, sociotechnical landscape. Ontology of socio-technical systems, social groups and regimes (rules). Micro-foundations (2020) agency.
- Power (2021) Modelling the micro-foundations of the audit society
  - Ideational, processual, material ontology. Logic amplification and diffusion.
- (Co)Designing transition
  - Generating spaces for collective ideational, processual and material change. Amplifying logics of change.











# Test beds as transition design spaces



- Natural experiment or trial "incubation room" (Geels 2006)
- [In ELEVATE] A trial nested within a set of surveys

#### Both read through an ontology of place

- Differentiated from, but complemented by place-neutral or 'less placebased' epistemics
- Goal: to understand the role of e-micromobility in mode shift; to understand how transition 'logics of change' amplify and diffuse
- Over-generalisation can lead to poorly conceived intervention
  - E.g. Digital inequalities research (Helsper 2018) From 'access' and 'use'; to 'skills, motivation and tangible outcomes'











## Surveys performing a role

- Neighbourhood survey (linked to trial)
  - Asks same questions as national survey on ownership, use, attitudinal
- Potential participant survey
  - Ability to store vehicle, type of bike they are interested in

#### <u>Confirmed participant survey</u>

- Asks for detailed information about household and household travel
- Identifies lead and secondary participants
- Requests basic physical characteristics and high-level health data

#### Supported E-cargo bike loans

- 4 bikes per city
- 4-week loans over 6 months (49 lead participants in total)
- Cycle training, mechanic support, full-time researcher on-hand

















## Surveys as place-based interventions

- Recruitment social media, 'place-base, social media landscape' [Facebook]
  - Focus on hard-to-reach networks, avoiding 'already on board' networks
- Encouraging neighbourhood survey completion [n=995]
- Linked to trial participation [n=142]
- Trial participation [ideational willingness but material, processual limitations]
   [n=48/142]

Child Friendly Brighton and Hove · Join Elevate Brighton · 9 May 2023 · 😚

Hi there-- Hope this is okay to post... Sincere apologies in advanced, if not!

I'm part of the Elevate Brighton Project. We're researchers at the University of Brighton looking to survey the opinions of people in #PrestonPark / #Fiveways and #HovePark about 'emicromobility': E-bikes, e-cargo bikes, and e-scooters. <u>We are interested in ALL opinions –</u> <u>positive, negative, and/or indifferent, about these travel options</u>. *I know this is meant for childfriendly activities and events...* See more











University of Brighton ELE



## 2. Trials



- "Systems are also stabilized because they are embedded in society. People adapt their lifestyles to them" (Geels 2006:447)
- Niches act as 'incubation rooms' for radical innovations, nurturing their early development. In the face of lock-in and a car dominant regime and landscape.
  - Pre-trial ideas
  - Post-trial (4 weeks) experience
  - Longer trials (4-5 month 'winter' trials)
- According to surveys not much [user group level] change over one month
- In interviews, for a minority of households, significant change
  - When a niche mode meets a niche of users....at the right time, in the right place
  - Who is this niche? Hard to capture demographically or through surveys alone















# Trial Design: Reflexive Capability Building

- Localised, in-place, supported...
  - Reflexive capability building.
- Trials are a space to 'ideate with' a mode and explore mode's relationship to home, life, household, street, town, city
- But also
  - Storage, parking, repair, maintenance, charging, theft, digital connections and devices
  - Health, enjoyment, social connections, car use / replacement
- A space to explore and assess change potential
  - Weekly interviews, material-discursive engagement with researcher









# **Trial Design: Reflexive Capability Building**



- O85: But I think it might just, yeah, it might make me think about where I would have used a car not using a car. And I think in the past I've not used a bike specifically for work because it just makes, I'm already, I'm just tired and hot and sweaty so that's why I used an eScooter before. I don't want to get to work and be sweaty and stressed and stuff.
- O7: It's much closer to your work as well, so we want to try out how that journey would work, because it's one possibility for us to do that commute, then dropping him off at nursery on the way to work would be something like this. So I will take it to work a couple of times and try that out. I think that would be interesting because it's very, very busy at that time in the morning
- B400: And for me, the kind of voyage of discovery over the next month is how practical is it to live without a car? Certainly for the day-to-day stuff that we do.
- L138: I can, you know, just nip down into Otley and do the shopping and come back and not have had to do that in the car because I need to carry bags, you know, that distance is no distance on a bike, it really isn't, but you do it because you've got a load to carry, and so actually having a look at something like a Cargo Bike gives you the opportunity to say, well actually, does that work for me, can I make that happen?











### Conclusions



- The Multi-level Perspective emphasizes that both internal niche dynamics and external developments at regime and landscape level are important for wider breakthrough and diffusion
  - "The breakthrough from niche to regime level does not take place at once, but through a sequence of steps. While the innovation is initially used in specialized technological or small market niches, it captures increasingly larger market niches. Wide diffusion thus occurs through a process of niche-accumulation."
- Market-based explanation, people-powered explanation (perhaps social movement-oriented).
- E-micromobility a collection of niche innovation opportunities (not one innovation) •
- Building on momentum of existing place-based, micromobility commitments •
- Building on macro-ideation of ...... whatever motivates people (environment, health, enjoyment)
- Supporting people to experiment with their own change processes processes of collectivising these
- How to co-design (speeded up) change processes? Co-produced change at neighbourhood level? •









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