ELEVATE
Participants' Recommendations Report

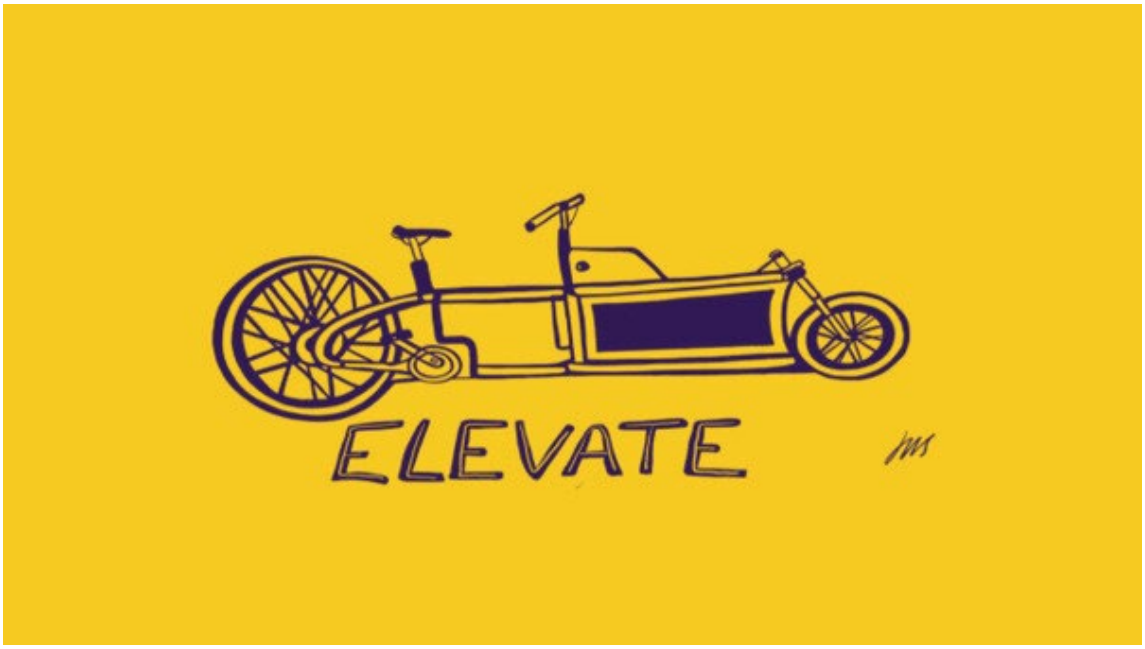

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Table of Contents

The participants' Recommendations

The following report is a summary only of the **recommendations provided directly by the Elevate project's participants** – people from 49 households around Leeds, Oxford and Brighton who borrowed and used an e-cargo bike for between 1 and 7 months. **We do not offer any commentary on the recommendations: their viability, feasibility, or acceptability**. These are issues we wish to explore in our Stakeholder Workshops.

The Elevate project[i](Innovative Light ELEctric Vehicles for Active and Digital TravEl) lent 12 e-cargo bikes[ii] to 49 households in Leeds, Oxford and Brighton[iii] for a month over summer-autumn 2023; 11 of those households were also lent an e-cargo bike for 3-6 months over winter-spring 2023/4. Weekly interviews with participants in the summer recorded their use, and non-use, of the e-cargo bikes over an extended period – revealing how the bikes substituted for other transport modes, created new trips, and fit into their daily lives.

The recommendations are from after the summer and winter trial loans and are therefore based on 1-7 months' experience cycling the e-cargo bikes. At the end of summer and winter loans we asked participants a version of the question: **"In your opinion, and imagining you had power as a policymaker, what would make using an e-cargo bike easier for people living in your city/area?"** The following recommendations are largely based on participants' responses to that question. Where multiple participants made the same recommendation, we provide the number of quotes after the recommendation in square brackets. Another annotated version of this report is available with every recommendation given a reference code or codes, and an appendix with all the direct quotes from the participants.

We have grouped the recommendations into **sections**. First, we collect the participants' thoughts, from their experiences of using ECBs, of **who** they would recommend using ECBs, for **what trips**, and **where** - in what ideal places or areas. Then we offer recommendations specifically relevant to different **stakeholder groups**: national and local **government**; **organisations** (workplaces, schools and destinations); and the **cycle industry**. Finally, a set of recommendations that apply to **multiple stakeholders** (on **parking**, **storage**, and **charging** infrastructures) are given at the end of the report. We advise that stakeholders read the sections most relevant to their interests and follow up the details of participants' thoughts in the fully annotated report.

1. E-cargo bikes are for who, what and where?

1.1 Recommended for who?

"Well, it depends what transport they're currently using, if they're currently walking everywhere I'd say the e-cargo bike will help you go further, if they're currently driving everywhere I'd say the e-cargo bike will help you pollute less. If they're currently getting their kids to cycle everywhere I'd say, well this e-cargo bike will mean that your kids have more energy, aren't so worn out, maybe aren't so bad tempered!"

Participants suggested that ECBs are ideal for use by **parents/families** [7 quotes]; **parents of small children** [5] **and/or babies/toddlers** [2]; **parents with no more than two children** [4]; or **parents currently using an unsafe trailer** [2]. They are also seen as suitable for **small businesses**; **people strong enough** to manoeuvre the larger bikes [2]; **experienced cyclists** [4]; **people who are 'eco-minded'** [2] or **avoiding car use, petrol, energy use, and carbon emissions** [5]; and **people who are not** only **wanting to keep fit**, as an ECB lowers activity compared to a bike. It was also suggested they are ideal for **people with a garage/drive** [2] or **other suitable storage** [2]; with an **underused second car**; with a **bus pass** for other trips; people who **don't use public transport to commute**; **people who car-share**; **people affected by Low Traffic Neighbourhoods** (LTNs); the **car dependent and deprived**; **people with enough money** to buy an ECB; people with **high mileage costs** not paid by employer; and **car-free households** [2].

1.2 For which trips?

Participants suggested that the ideal trip lengths for an ECB are **under 5 miles** [2]; **shorter** trips [4] **in urban environments** that are **regular**; and trips that are **too far to walk children with a buggy** [2]. In terms of trip purposes they were recommended for **school runs** [3]; **family** [2] or **individual leisure trips**; **ferrying children** [5] **with things to carry**; **medium** [2], **bigger** or **general/local shopping trips** [2]; **commuting, with things to carry** [2] **up to 8-9 miles** [2], especially if **combined with shopping**; and **general trips/chores** [2]. They were also thought suitable for **solo trips** [2] and for **trips to town in rush hour/avoiding parking**

1.3 Where?

ECB usage was considered suitable in different places by different people, sometimes in contradictory ways. For example, they were considered suitable at the **bottom of hills/in city centres** or **in hilly areas**; in **deep rural** (e.g. islands, holiday) areas and **villages** or in **suburbs,** or not **rurally** [3]. They were also suggested for **suburbs, between 1 and 2 miles from shops** etc., and in **cities**; especially '**15-minute city'** areas. Other definitions of ideal geographies were **out of walking distance of most regular journeys** and **not on a bus route**.

2. National and Local Government

2.1 Regulation, legislation and policy

In terms of road use, participants recommended that regulation/legislation could implement **speed limits equalised between ECBs and cars in urban** areas (e.g. 20mph) [5]; allowing ECBs to go **faster than 15mph**, e.g. to 20mph [2]; imposing more **speed restrictions in towns**; introducing **more Low Traffic Neighbourhoods (LTNs) and Low Emission Zones**; allowing **cyclists to ride on pavements**; and **designating pavements/footpaths dual use** wherever possible.

It was suggested that **focussing on bike theft** would reassure people thinking of buying expensive ECBs, and that there should be **education on motorbikes and e-bikes for drivers** in driving tests, and on the **changes to the Highway Code giving bikes and pedestrians more right of way**.

It was suggested that existing **e-scooter schemes** could be **expanded and brought out of city centres**, and that there should be **better policing of parking in bike lanes** to keep them clear.

More generally, it was argued that there should be **more 'sticks' on car use, rather than more 'carrots' for bikes**, such as **fuel duty** [2] and **workplace parking levies**. It was suggested this should target **private vehicles rather than commercial** ones, and that it could **target short trips** somehow, e.g. **banning driving to school**.

More specifically, it was suggested by one participant that **ECBs do not need pedals and gears**, in other words, that **non-pedelecs** (e-mopeds and e-motorbikes) **should be legalised**. However, it was also observed that **delivery riders on illegal e-bikes** create a **negative image** that potential ECB users avoid being associated with. It was asked if a **new class** of vehicle **between e-mopeds and pedelecs** could be legislated, that could be **ridden at 14**.

2.2 Financial incentives to purchase e-cargo bikes

The high price of ECBs was seen as a serious barrier to their uptake. The most obvious mechanism to help people buy them was seen as the **Cycle To Work (CTW) grant/loan** [6], which could be made to **work better for those on lower income**. i.e. salary sacrifice as **tax relief benefits those on higher pay** more, compared to a **grant**. The **amount of bike value could also be extended for CTW**.

In general, there were *many* calls for **financial support** or **making ECBs cheaper** [12]. Other financial incentives suggested were a general **tax-free allowance** for purchase; a **'get rid of your second car'** grant; **a 'get rid of your only car'** grant of e.g. £3000; generally making ECBs **cheaper than a car**; **removing VAT**; or providing an **incentive to deprived non-cyclists to try a free trial e.g. with food vouchers**.

2.3 Local Authority support and/or promotion

Regarding providing support and information to support mainstreaming ECBs, it was recommended to **provide better Information**: on **climate change and carbon savings possible**; the **ease of use** but **need for secure storage**; on the **percentage of journeys that are short**, to suggest car renting for the ~10% of longer (non-e-cargo-bikeable) journeys; on the s**orts/makes of e-bikes and ECBs available** [2]; on the **travel savings available (against car use)**; on **costs and depreciation (vs second hand car)**; on **available secure parking places for ECBs**, including a **map**; and on **cycle lanes, including for what sort of bikes they are suitable**. On car clubs, it was suggested possibly **linking ECB use with car club membership** [2] and/or **including them as vehicles in car club pools**.

In terms of **marketing** and **raising awareness** of ECBs, it was suggested to **target** specific people: **retirees** possibly giving up car use; **second car drivers**; or the **car dependent in deprived areas**. It was suggested that such marketing **should promote ECB use as replacing as many trips as possible** rather than **'getting rid of your car'**. It was also suggested that councils could **create a 'subcommunity' of ECB users** sharing information about routes, storage etc. It was also suggested that councils could facilitate '**try a bike' sessions** [2], **off-road** [2], and **promote integrated transport**, with **storage at bus/rail stations/exchanges**, and/or **allowing ECBs on those modes**. See also **section 5.1** on **parking**.

2.4 Road authorities and Sustrans

At the most extreme end, it was recommended that authorities **ban cars from roads**, and introduce **Dutch or Danish levels of infrastructure**, although it was acknowledged that the **political will is lacking** in the UK [2]. One participant suggested the **removal of LTNs**.

In general, it was suggested that there should be **better cyclepath provision** [6], especially **in city centres**, with **bike only lanes** [7] and **expressways**; that bike paths should be **protected from traffic or segregated**, preferably by curbs [10] or even just the **'wands'** used in the pandemic; that cycle path infrastructure should be **connected/uninterrupted** [4], clearly **signposted**, and **extending out of city centres**. Existing paths should be **accessible to ECB**s (i.e. wider) [5], **cleared of foliage and potholes** [3]; **re-opened** where closed [2]; and regularly **cleared of car accident debris**. Bikepaths should be **policed** (e.g. against car parking) and **enforced**. **Towpaths** should be **upgraded for cycling**, with **mandatory removal of 'A frames'** aimed at keeping out motorbikes.

There were several suggestions for improving road design to make ECB more attractive, including: **improving road conditions (potholes etc.)**; **removing staggered crossings**; and **using traffic light-controlled junctions not roundabouts**. There was quite specific advice on **altering junctions**, especially **allowing bikes to cross multiple lanes at traffic lights** and to **filter back into traffic smoothly** and adding **bike-specific traffic lights**. There was praise for one local piece of **junction design**, the Sheepscar Interchange in Leeds.

3. Organisations- workplaces, schools, NHS and destinations

3.1 Workplaces

Businesses and organisations were also asked to have **buildings policies allowing ECB parking/charging**, and to **reimburse ECB travel**. Workplaces should provide **changing and showering facilities** [2] and **bike lockers**, and there should be **secure storage at shopping and cultural destinations** and **railway stations**

3.2 Schools

Schools specifically might encourage use for the school run by providing B**ikeability training**, more **bike racks/parking**, or even **ECBs to borrow**, according to one participant who saw the school run as the ideal trip to target and promote with ECB use.

3.3 NHS

It was suggested that the NHS could buy **fleets for community nurses**. See also section 2.2 Financial incentives to purchase e-cargo bikes for 'Cycle To Work', and section **5.1 Parking and storage.**

4. Cycle Businesses

4.1 (E-cargo) Cycle Training

It was suggested that **ECB-specific training** is needed [4], **for non-cyclists** or even **for experienced cyclists** [8], **based on experience/need**. It was suggested that it be provided **free with purchase** [2], and even that it be **essential for hire bikes**. Some suggested the training could be on **basic handling** [2] e.g. **from bike shops**; should be **one to one**; **from people with experience of using ECBs**; preferably in a **group or community of users**; and **off-road**, especially **for non-cyclists**.

Appropriate **ECB training** might cover **pannier use**; **appropriate speed**; **negotiating the weight/balance and speed**; **locking up**; **using stands** (especially for heavier long john models[iv]); **riding in traffic**; and on **maintenance** and **servicing, beyond basic bike maintenance skills**.

4.2 Bike loans, leasing/renting and support services

One participant stated that *"it's not the support that needs to change, it's the world around you."*
Others suggested that **free loans** should be **offered more widely**, with **support** like that offered by the Elevate project. This would ideally include **weekly support calls** and extend **longer than 4 weeks**.

Others suggested ECB **commercial lease schemes** for e.g. **3-6 months**, with an **option to then buy** cheaper, or other **'try before you buy' schemes** [2], possibly *"for a* couple of days*"*, ideally **for free** [2]. **Leases** should, it was thought, **include free/cheap**

maintenance/insurance, e.g. **for 2yrs**, and a **recovery/breakdown service** [3]. This should get people to their **final destination** rather than a bike shop and include **phone support for emergencies/breakdown**. Costs suggested were **£10-20/week** or **£15-20/month. Rental/sharing schemes** similar to e-bikes and e-scooters that are currently being trialled were **supported** [4], especially if they were **available outside city centres** [2], **cheaper for families**, and included an **app to check availability and battery levels**.

See also **section 5 Multiple Stakeholders: Parking, Storage, Charging and Sharing** for more on **shared** ECBs.

4.3 Manufacturers: bike design and technology

There were numerous suggestions for changed to ECB designs, including for **security**: **integrate the battery with the bike**; create a **removable starter** to disable the bike; **back wheel** (cafe) **locks**; or make **self-locking bikes** [2]. The **display head unit** on some was seen as **too easy to dismount** and steal. It was suggested manufacturers make **lighter bikes**; **improve back brakes**; **make panniers fit better with child seats** [2]; install a **'cage' around the child** seat; use **velcro and clips for pannier connections,** or **clips only,** or **hooks instead of straps** [2]; add **braking lights** and **colourful fairy lights and ribbons,** and make **swappable** or **waterproof leatherette saddles**. A **lockable cargo area** for security of cargo when parked was also suggested (L289: 3). More **attractive, less blocky** design was suggested. It was suggested that in future there might be **smaller batteries** with new tech [2] and it was asked if **motors** could allow **faster speeds uphill** or **allow more powerful motors** (e.g. 1000W) to reach **15mph uphill.** It was suggested that **insulated panniers** could help with **supermarket freezer shopping**. A **car-mounting rack** was proposed, as was **automatic gear-shifting.**

It was suggested that a **phone app** should be available to allow **checking e.g. battery levels or congestion** on routes, and finally again on security, users were recommended to use **two motorbike cable locks** or a **more flexible lock**.

4.4 Maintenance

It was suggested that there is **not enough repair capacity** for ECBs in cycle shops compared to car networks, and that with electrification of the car fleet, **ECB repair could be included in training for car mechanics**. General **mechanical support** was asked for. Finally, a participant asked for **public charging/maintenance/pump stations,** similar to (non-e-bike) stations that are increasingly available.

5. Multiple Stakeholders: Parking, Storage, Charging and Sharing

5.1 Parking and storage

Many participants recommended **more parking facilities for bikes** [7] that are **big enough for ECBs** [5], or **exclusively for ECBs/shared with motorbikes**, as car park spaces can feel intimidating or too large, and bike parking too small. It was recommended that the provision of such parking be made **mandatory for e.g. flats with no suitable space**. **Secure storage** was requested, e.g. **with CCTV**, or **APNR cameras** in **car parks** [2] which could be **mandated**: *"if you run a car park in this city you need to have one percent of your floorspace dedicated to free e-bike secure parking"*. To discourage car use, parking could **replace car parking spaces**, in **car parks**, and in **multi-storeys**.
Secure storage included being **properly secure and floor-attached**, **not just Sheffield/wheel racks**, seen as easily removed. For people with **no off-road parking**, **secure ground level bike storage** was seen as **essential**: *"some form of access to lockers"*. **Ramps and accessibility at properties/homes** might also need to be provided.

5.2 Charging

There were calls for **outdoor ECB charging points** [2], especially at **storage/parking locations** [2] e.g. at **secure lockers at rail stations**, with chargers integrated or at **lockers**, using **solar power**. **Fast chargers** as currently available in **France and Majorca** on **cycle routes** or **at tourist locations** were mentioned as exemplary. It was also suggested that e-bikes and e-cargo bikes along with **charging and storage** facilities should be provided **alongside every on-street EV charge point**, for shared use i.e. by a street.

5.3 Sharing

It was suggested that sharable ECBs could be **mandated as part of planning permission** for e.g. town edge estates; **sponsored by supermarkets** in a 'shop by ECB' scheme; **offered free at first**; or **linked to free trial days day of annual leave** from companies. For **shared/rental ECBs** storage/parking might be **similar to existing docking stations**.

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[i] Funded by ESPRC grant UKRI EP/S030700/1
[ii] Leeds: 2 Raleigh Strides, 1 Benno Boost, 1 Tern GSD, 1 Pegedo Cargo. Oxford: 4 Gazelle Makki Loads. Brighton: 4 Riese & Müller Multitinkers
[iii] Specifically in Guiseley, Yeadon, Menston, Otley and Cookridge (Leeds), Kennington and Radley (Oxford), Preston Park and Hove Park (Brighton).
[iv] A cargo bike with the cargo area in front of the rider and some linkage connecting the steering to the front wheel