Cornwall E-Cycle Pilot Learning for Practitioners

Companion report to the Cornwall E-Cycle Pilot Evaluation

On behalf of the Department for Transport

transport for quality of life
UNIVERSITY OF WESTMINSTER
sustrans
UWE Bristol University of the West of England

Version number

Final v1.0

Issued June 2023

Citation

This document was produced for the Department for Transport by Transport for Quality of Life, with the University of the West of England.

Report authors: Beth Hiblin (Transport for Quality of Life); Kiron Chatterjee, Ian Shergold, Evangelia Pantelaki (University of the West of England).

The preferred citation is:

Hiblin B., Chatterjee K., Shergold I. & Pantelaki, E. (2023). *Cornwall E-Cycle Pilot: Learning for Practitioners.* Report to Department for Transport

Companion reports

This report was published alongside:

Shergold, I., Chatterjee, K., Pantelaki, E., Hiblin, B. & Cairns, S. (2023). *Cornwall E-Cycle Pilot Evaluation*. Report to Department for Transport.

Shergold, I., Chatterjee, K., Pantelaki, E., Hiblin, B. & Cairns, S. (2023). *Cornwall E-Cycle Pilot Evaluation: Social Research Appendices*. Report to Department for Transport.

Disclaimer

Although this document is published by the Department for Transport (DfT), the findings and recommendations are those of the authors and do not necessarily represent the views of DfT. While these parties have made every effort to ensure the information in this document is accurate, DfT do not guarantee the accuracy, completeness or usefulness of that information; and cannot accept liability for any loss or damages of any kind resulting from reliance on the information or guidance this document contains.

Acknowledgements

With thanks to all involved in the delivery and evaluation of the Cornwall e-cycle pilot at Cornwall Council (especially Paul Bartell), Department for Transport (especially Eloise Harrison, Millie O'Driscoll and Tom Watson), Wheels to Work Cornwall and Wheels 2 Work South West (especially Annie Jowett and Max Jowett).

Thanks also to all the roadshow, Wheels 2 Work electric and Opportunity to Try riders and hosts who took part in the research surveys and interviews which helped to inform this report. The research team would also like to thank Juliet Jain (University of the West of England) for helping with conducting phone interviews of riders.

Image credits

All photos © Wheels 2 Work South West

Note that images are for illustrative purposes only – they do not necessarily represent the people or organisations featured in case studies. Individuals have been given pseudonyms to protect their privacy.

Contents

EXECUTIVE SUMMARY

The Cornwall e-cycle pilot involved three different initiatives offering the public the chance to try out e-cycles with the ultimate aim of increasing the uptake and use of e-cycles and get more people to cycle. The pilot ran between August 2021 and September 2022. It was funded by the Department for Transport and delivered by Cornwall Council in partnership with Wheels 2 Work South West and Wheels to Work Cornwall.

The pilot was intended to inform and shape a national e-cycle support programme being delivered from 2022 and to contribute generally to understanding the benefits of e-cycle interventions. The specific interventions which were trialled in Cornwall were:

1. A series of **roadshow** events giving the public a chance to ride an e-cycle, and to compare different types and models of e-cycle.
2. Longer-term **Opportunity to Try** e-cycle loans to employers; including businesses and public sector bodies.
3. Longer-term **Wheels 2 Work electric** loans to individuals wanting to use an e-cycle to access employment or training, or to trial one before potentially purchasing their own e-cycle.

A process evaluation was conducted as part of the wider evaluation of the pilot in order to capture learning about setting up and delivering these types of initiatives.

The resulting 15 lessons learnt are summarised below. Each is discussed in more detail in the report – alongside full descriptions of each of the interventions and case studies of people and organisations that took part.



15 lessons learnt from the Cornwall e-cycle pilot

Lessons for roadshows

1. Where possible, visit roadshow locations in advance and include hilly terrain in the trial route.
2. It is good to cater to people's different needs and price points by having a variety of e-cycles for them to try at roadshows.
3. Specific measures may be needed to ensure the safety and security of riders and e-cycles at roadshows.
4. Roadshows should be held when the weather is likely to be more favourable for cycling. A contingency plan is needed for bad weather.
5. Using existing contacts and targeting themed events can help locate roadshows where they are most likely to reach their target audience.

Lessons for e-cycle loans

6. An integrated and proportionate fee structure is needed to ensure that individuals and organisations sign up to the most appropriate initiative.
7. Organisations and employees who are new to cycling need a package of support if they are to make good use of an e-cycle.
8. Providing a range of types of e-cycles and accessories will maximise the number of people and organisations to which an e-cycle loan will appeal.
9. Consider the demographics of the target audience and the reasons people will be borrowing an e-cycle when deciding a price point for loans.
10. Consider how to deal with the logistics of transporting and storing large numbers of e-cycles in the context of local geography.
11. Word of mouth advertising is key for small initiatives – so encourage and enable happy customers to be e-cycle advocates.

Lessons about cross-cutting issues

12. Procurement can be time-consuming. Consider options early – aiming to both reduce risk and secure a range of e-cycles.
13. Riders should be covered by comprehensive insurance, including for third party liability in the case of injury or damage. Suitable insurance policies are scarce.
14. It is essential to have an exit pathway for the end of loans – to help maintain momentum and move people and organisations on to long-term use of e-cycles.
15. Make data collection a defined step in the participation process for individual initiatives (with no data meaning no e-cycle); and ensure staff are well-trained in the data collection methodology and participants are incentivised to contribute to it.

BACKGROUND

The Cornwall e-cycle pilot was announced at the G7 Summit in Carbis Bay, Cornwall in 2021. The pilot initially ran from August 2021 to June 2022, and was subsequently extended until September 2022. It was funded by the Department for Transport and delivered by Cornwall Council in partnership with Wheels 2 Work South West (W2WSW) and Cornwall Wheels to Work (CW2W).

The aim of this pilot was to trial e-cycle initiatives which would:

a. Increase public awareness and understanding of the benefits of e-cycles.

b. Get more people to cycle and to accelerate the uptake of e-cycles; in particular, those who would not normally consider cycling without the benefit of electric assistance to maximise health benefits – specifically including disabled people, ethnic minorities, women and lower socio-economic households.

c. Accelerate the number of trips by e-cycle as a replacement for motor vehicle journeys – in order to maximise the associated health, economic, wellbeing and carbon benefits by 2025.

The purpose of the pilot was to offer residents of Cornwall the chance to try out e-cycles with the ultimate aim of increasing the uptake and use of e-cycles and get more people to cycle. The pilot was intended to inform and shape a national e-cycle support programme being delivered from 2022 and to contribute generally to understanding the benefits of e-cycle interventions.

The interventions which were trialled in Cornwall were:[1]

1. A series of 20 **roadshow** events giving the public a chance to ride an e-cycle, and to compare different types and models of e-cycle (with about 700 people taking up the opportunity).
2. Longer-term **Opportunity to Try** (OTT) e-cycle loans to 20 employers such as businesses, or public sector bodies like GPs or the police (with about 113 employees using e-cycles during these loans).
3. Longer-term **Wheels 2 Work electric** (W2We) loans to 127 individuals wanting to use an e-cycle to access employment or training, or to trial one before potentially purchasing their own e-cycle.

Process evaluation methodology

A process evaluation was conducted as part of the evaluation of the Cornwall e-cycle pilot. The purpose of this was to learn lessons about the design, mobilisation and delivery of the three e-cycle initiatives – for the benefit of practitioners planning similar interventions, for example as part of the national e-cycles programme.

The process evaluation involved:

a. Three semi-structured interviews with representatives of Cornwall Council and Wheels 2 Work South West; held in January and May 2022.

b. 13 event logs, completed by Wheels 2 Work South West for roadshow events held between September 2021 and June 2022.

c. Semi-structured interviews with representatives of six organisations that hosted roadshows or e-cycles as part of the OTT scheme.

d. Semi-structured interviews with 15 beneficiaries who rode or loaned e-cycles at roadshows or as part of W2We or OTT.

e. A log of issues and lessons noted in project meetings between Department of Transport officials and/or representatives of the delivery partners – which a researcher attended as an observer.

Process evaluation findings

For each of the three initiatives delivered as part of the Cornwall e-cycle pilot, a chapter of this report describes the service on offer, outlines the key lessons learnt from setting up and delivering the initiative, and gives an illustrative case study.

The four issues of procuring e-cycles, insurance, maintaining use of e-cycles and monitoring cut across all three initiatives. Lessons learnt about these are outlined in the final chapter.

All of the 15 lessons from the process evaluation are listed in the Executive Summary.

Note that the companion report *Cornwall E-Cycle Pilot Evaluation*[2] presents the findings of the full evaluation of the project, including details the demographic profile of participants and any impacts arising from their involvement.

INITIATIVE 1: ROADSHOWS

Background

What was it? Roadshows were half-day or day events, at which a stand and a range of e-cycles were set up in a location where people could: be encouraged to look at and try out different types of e-cycles; get information about the range, speed and costs of buying and charging e-cycles; and get advice about the features and options to be considered when selecting one for purchase. These roadshows were either:

a. Part of a wider public event

b. Hosted by organisations for the benefit of their staff/visitors (e.g. colleges, hospitals)

c. Held as a standalone activity in a public location

Each roadshow was marketed in advance to appropriate audiences and communities (e.g. via social media, local media, staff intranet). Where the roadshow was part of a wider public event, the team link into, and piggy-backed on, the organiser's marketing.

How did it work? Ideally, on arrival the display stand would have been set up in a spacious area: where there was a direct link to a hard surfaced, off-road trial route; in a visible location (e.g. outside building entrance); and where there was plenty of passing footfall. To limit potential for accidents, the team would deliberately avoid locations near to where alcohol was available (e.g. pub, beer tent).

The roadshow fleet contained 12 e-cycles, which were displayed using portable bike racks alongside pop-up banners and a small marquee. A professional and consistent presence was created by branded staff uniforms and safety vests for participants, as well as by using a branded van as a backdrop to the display. Banners were put up at suitable surrounding locations, to direct people towards the stand.

Laminated information sheets about the e-cycles were available, so that people could compare their different features, technical specifications, prices, etc. Handouts were also available for people to take away – including a full list of local e-cycle retailers (to avoid any perception of endorsement of specific suppliers).

Once the stand was ready, the roadshow team (typically two people but more for larger events) would call out to passers-by to get their attention. They might ride the e-cycles around the location or event in order to demonstrate them – piquing people's interest and drawing their attention to the stand.

Once people had looked at the e-cycles and had an initial chat with a member of staff they could opt to try out one or more of the e-cycles. While they were fitted with a helmet and high viz vest, staff would check the rider's level of cycling experience and give guidance accordingly. They would also brief them on the key differences between riding a conventional bike and an e-cycle – so they were prepared for their ride experience.

How many roadshows did the pilot do? A total of 20 roadshow events were run between September 2021 and June 2022; giving about 700 people the chance to try out e-cycles (i.e. an average of 35 people trying at least one e-cycle at each event).

Details of the demographic profile of participants, and any impacts of involvement in roadshows, are contained in the companion report *Cornwall E-Cycle Pilot Evaluation*.[3]

Lessons learnt

1. Where possible, visit roadshow locations in advance and include hilly terrain in the trial route.

The team found it worthwhile to visit locations prior to events whenever possible. This would enable them to plan a safe trial route. Roadshow locations with a hill were best as riders were able to experiment with e-cycle settings and to experience the benefit of the electric assist. Campus-based locations (e.g. college, hospital) often provided the opportunity to plan a circuitous trial route while keeping riders away from the volume and speed of traffic on public roads.

An advance visit also helped the team ensure their stand would be located where there was likely to be high footfall – maximising the number of people they might be able to engage. In more rural locations, any potential problems with connectivity of tablets or smartphones (which were needed to access the online monitoring survey) could also be identified and resolved.

2. It is good to cater to people's different needs and price points by having a variety of e-cycles for them to try at roadshows.

Having a range of types of e-cycles for people to try (e.g. mountain, folding, commuting), across a range of price points, worked well as people were able to try as many as 4 or 5 different e-cycles – getting a feel for different styles of ride, features and price points.

A trike was included in the roadshow fleet, to promote e-cycling as an inclusive mode of transport and to ensure that, should they want to, people with a range of disabilities would be able to try out an e-cycle.

Including eye-catching e-cycles in the fleet, such as the trike and folding e-cycle, helped to attract people's attention and open up conversations.

3. Specific measures may be needed to ensure the safety and security of riders and e-cycles at roadshows.

While the roadshow team did not experience any issues with theft, accidents or damage to the e-cycles during trial rides, they were conscious of the potential risk for such occurrences. When planning similar events, organisers should consider ways to mitigate any risks identified. Some untested ideas suggested by the roadshow team for how to do this were:

- Introducing some kind of security deposit (e.g. people leaving an ID or credit card at the stand while using an e-cycle at a public event) to reduce the risk of theft.
- Where resources allow, allocating some staff to act as marshals along demarcated trial routes, to watch for / respond to any personal safety and e-cycle security incidents.

When planning an event it would be important to consider both the potential positive and negative impacts of introducing any such measures – in particular if they may deter participation.

4. Roadshows should be held when the weather is likely to be more favourable for cycling. A contingency plan is needed for bad weather.

People are more likely to have a positive experience trialling an e-cycle on a warm and sunny day than on a wet and windy one. So, it is preferable to hold roadshow events during times of the year when the weather is more likely to be favourable.

If poor weather was forecast the team would try to make contingency arrangements – for example, by moving their location indoors so people could still view and sit on the e-cycles and discuss their benefits, even if they couldn't always then have a ride on one. As standard at all events, the team erected a marquee over their display area, which provided them with shelter from both rain and sunshine.

5. Using existing contacts and targeting themed events can help locate roadshows where they are most likely to reach their target audience.

A variety of approaches were used to identify suitable locations and events for the roadshow to attend. The team built on the existing connections that Cornwall Council and Sustrans already had locally – for example to get a foot in the door with public sector employers, larger organisations (e.g. with obligations to deliver travel plans) and businesses which are already known to be pro-cycling.

Piggy-backing on the name, contacts and branding of already well-established cycling-focused organisations or businesses, such as e-cycle suppliers and bike shops was useful. Partnering with these to run events meant there was a broader 'offer' to attract people's attention. Examples of this are holding a roadshow in

parallel to a regular bike maintenance/security/information session run by Sustrans at a local hospital, or exhibiting e-cycles alongside suppliers who supply specialised products such as e-trikes and e-cargo bikes which are not in the trial fleet. However, care had to be taken to avoid appearing to endorse specific products or suppliers.

Roadshows at public events benefited from the wider draw of the event generating footfall with a cross-section of people. Some, such as the People's Carbon Festival, drew in a specific audience with whom the benefits of e-cycles (e.g. health, environmental, technological) were likely to particularly resonate.

Although the opportunities for this were limited, the team was open to identifying and attending events where attendees might be less affluent and/or active, and therefore be more likely to benefit from increasing access to opportunity or physical activity through cycling and/or being referred for an e-cycle loan. For example, this could include job fairs or healthy living events.

Case study: Royal Cornwall Hospitals Trust – roadshow host

In line with their commitments to sustainability and staff wellbeing, the Royal Cornwall Hospitals NHS Trust hosts a monthly Active Travel Day at its main hospital site in Truro. These are run by the cycling charity Sustrans, who do safety checks and minor repairs to bikes, sell affordable locks and lights and security mark bikes. They also give out maps of walking and cycling trails around Truro, and help staff members plan their best routes for getting to work on foot or by bike.

When Sustrans told the Trust that W2WSW were running roadshow events so people could trial e-cycles, the Trust thought it was a natural fit for W2WSW to co-host the next Active Travel Day.[4]

"We're getting a lot of applications for this type of bike through our Cycle to Work scheme. So it's good for people to try them out first because it's a lot of money to fork out if you're not really sure it's for you, or what you need. And a lot of the cheap e-bikes won't necessarily get you up a Cornish hill."

When it promoted the next Active Travel Day, the Trust's Occupational Health & Wellbeing Team let staff know there would be e-cycles to try out.[5] On the day, the roadshow was positioned outside Occupational Health, away from the main hospital entrance but where a trial route could run through the hospital's accommodation area, where traffic is quieter during the day. Despite cold and rainy weather, about 30 people visited the stand and tried out a selection of e-cycles.

W2WSW subsequently took part in another Active Travel Day, which was helpful for engaging with different staff, who might have been on a different shift or in theatre during their first visit. Also, the Trust encouraged staff at its Penzance site[6] to go along to W2WSW's e-cycles roadshow at nearby Penwith College.

"Since the pandemic we'd had more people buying that type of bike through our Cycle to Work scheme – maybe two thirds of new applications. So the e-cycle roadshow will have interested even more staff in these and has helped to continue the positive trend. By the second roadshow, it was possible to hire one for several months for a fee [through W2We], so that was another good option for some staff to think about – a 'try before you buy' option."

Case study: Marta – roadshow participant[7]

Marta has been a cyclist all her life but, living at the top of a hill in Truro, she had been walking to her job at the local college and generally used her car when popping around town. After trying out a friend's e-cycle Marta was interested in getting a folding e-cycle for herself.

"I didn't want to buy online without trying a folding version first. I wanted to see it, touch it and take it for a ride to get a feel for what it was like. I was worried, as I'm very petite, that to get one small enough and light enough for me to carry, the battery would be too small to give me enough of a boost for Cornwall's hills, upon hills, upon hills!"

So Marta was delighted when the college advertised that the e-cycle roadshow would be visiting them.

"The guys were super helpful and friendly. I was only interested in the folding e-bikes they had. They altered the seat heights for me and reassured me about battery sizes, and then I was able to get used to the speeds possible on them. It was definitely helpful for making a decision about buying an e-bike."

A month later Marta had finished her online research and felt confident enough to buy her ideal e-cycle – a super-lightweight folding version from a Plymouth-based manufacturer, whom she chose so that she could support the local economy too.

Now Marta is using it to get to work every day, as well as for all her trips around town. Although less confident about using it on the A-roads out of town, she has folded it into her car boot and taken it to some of Cornwall's famous off-road routes for relaxing leisure rides too.

"I absolutely love it. It's improved my cardiovascular health, as I only use the battery going uphill. And it makes me want to be even more active. By cycling in the morning I start the day being active, and so then I might also want to ride it to the gym later on. Also, I feel more confident on the road – being able to have a bit of a boost of speed when I need it. It is just quicker to get around town, and costs less too."

Marta is even planning to take her e-cycle on holiday with her, on her next trip to Europe. It will fold down so she can easily take it on the ferry, and she thinks it'll be perfect for getting around a city too.

INITIATIVE 2: OPPORTUNITY TO TRY LOANS

Background

What was it? These were free loans, typically lasting 2 to 3 months, of small fleets of e-cycles, which were lent to workplaces.

Host workplaces got their staff to use these e-cycles for business and/or commuting journeys. They were trialling whether e-cycles suited their staff and/or organisation, and whether e-cycle trips would save time compared to driving in congested villages and towns. Hosts which had a positive experience might then consider purchasing their own fleet of e-cycles, for on-going business use by their staff.

The OTT loan fleet comprised 26 e-cycles. Between 1 and 6 e-cycles were loaned to a host.

How did it work? Workplaces typically heard about the potential to loan an e-cycle through local business networks, at a roadshow or by word of mouth. Potential hosts contacted W2WSW by completing an online application form.

Once the application had been processed and the loan contract signed, e-cycles were delivered to the host workplace. The main point of contact received a briefing on the e-cycles and how to charge them, as well as on the differences between riding conventional and electrically assisted bikes.

Depending on the workplace and the type of journeys for which the e-cycles would be used, the host would then either allocate them to individual employees, or set them up as a pool of e-cycles and encourage all of their workforce to use them on an ad-hoc basis as they desired.

Hosts would typically ensure that their e-cycles were stored indoors overnight (when they could all be charged if necessary) – either on their premises or in the homes of employees who were commuting on them.

Hosts were advised that if they encountered any maintenance issues with their e-cycle (e.g. with punctures, fuses, bike light batteries) then they should resolve these themselves where possible, or contact W2WSW.

Most of the e-cycles were fitted with pannier racks, to facilitate commuting and carrying essential work-related items. They were loaned with lights, a helmet and reflective vest, and a gold standard 'Sold Secure' accredited lock[8], to ensure the safety of the rider and the security of the e-cycle (in line with insurance requirements).

When the end of the loan period was approaching W2WSW would call the host to arrange collection of the e-cycles. When the e-cycles were collected, W2WSW would complete a returns form with the host, to track any damage to the e-cycles and to ensure all accessories, bike lock keys, charging equipment etc. were returned.

On return, e-cycles were checked, serviced and made ready for their next loan.

How many OTT loans did the pilot make? 62 e-cycle loans were made to 20 host organisations – with highest demand being during the spring/summer. These loans enabled about 113 people to try out an e-cycle for business or commuting trips, as well as for personal errands completed during the working day. The majority of participants reported using their e-cycle 3-4 days a week during their loan period.[9]

The project's partners subsequently secured additional funding to continue this initiative after the pilot ended.

Details of the demographic profile of OTT participants, and any impacts of loans, are contained in the companion report *Cornwall E-Cycle Pilot Evaluation*.[10]

Lessons learnt

6. An integrated and proportionate fee structure is needed to ensure that individuals and organisations sign up to the most appropriate initiative.

At some host organisations the e-cycles were used on an ad-hoc basis by multiple staff members (i.e. as pool vehicles). At other workplaces e-cycles were allocated to specific people. In many of these instances people appear to have used the e-cycles predominately for their commute, and for some personal trips. It may have been more appropriate for the small business owners and staff members in the latter category to have hired an e-cycle through the pilot's parallel W2We scheme – which loaned e-cycles to individuals for £10 per week. Either intentionally or not, these people were getting an e-cycle loaned to them for free; when other people, who had arranged a loan independently of their workplace, were paying for the privilege.

If potential hosts had been screened, to ensure that the e-cycles were going to be used predominately on a pool basis for work-related journeys, this may have redirected individual employees, wanting to use an e-cycle to commute to work and/or for personal journeys, to the more appropriate W2We scheme.

It is possible that charging workplaces a fee for hiring e-cycles may also have motivated them to encourage such staff members to pay for their own loans. A fee may have also helped ensure that the e-cycles are well used for business-related journeys during the trial period; as well as generated revenue to underwrite the

scheme. Charging could have been done on a per bike and/or per month basis, perhaps on a sliding scale based on the size of the business and whether they were public or private sector. The hire costs for businesses could have been the same, or higher, than for individuals – seeing as these organisations were potentially making efficiency savings through the use of e-cycles.

Any project loaning e-cycles to different target audiences should ensure that they have a joined up approach to the use (or not) of fees – balancing the possible benefits of charging with the potential for fees to suppress participation.

7. Organisations and employees who are new to cycling need a package of support if they are to make good use of an e-cycle.

Not all employees at host organisations made use of an e-cycle, and in some cases e-cycles were completely unused. Some hosts reported that people who already cycled were more likely to use the e-cycles; that e-cycles were unused because people didn't know how to alter seat heights; or that people were reticent to use them because of health issues or a lack of confidence riding on roads.

W2WSW's interactions with hosts prior to, and during, delivery of the e-cycles focused on administrative and safety issues. This meant that opportunities to inform, enable and encourage hosts and their staff to use the e-cycles were missed. Best practice in travel behaviour change is to address all of a person's barriers to using a new mode. It is not enough to provide the new mode (in this case e-cycles) and assume that it will be used – especially by workplaces or people who are not already familiar with cycling.

For example, the pilot could have (funding permitting):

- Provided hosts with an information sheet about the benefits of e-cycles for individuals, for circulation to staff (e.g. as a flyer, via the intranet or in internal newsletters) – to help create anticipation about the imminent arrival of the e-cycles.
- Offered a 'set up session' when e-cycles were delivered, potentially including some combination of: bike fittings (ensuring that frame sizes and bike styles suit the people who are going to use them); discussion of local cycle routes (especially off-road options); distribution of cycle maps; a trial group ride; and demonstrations of how to change the seat height, pump tyres, repair punctures and do other basic maintenance and safety checks. A basic toolkit could also have been loaned along with the e-cycles.
- Told hosts about opportunities for sending their staff on cycle training or about local led-rides or community cycling groups – to build the confidence of new and lapsed cyclists.

Future projects providing e-cycles should consider if and how they can incorporate, or link to, initiatives that offer opportunities for people new to cycling to build their skills and confidence and their knowledge of local cycle routes.

8. Providing a range of types of e-cycles and accessories will maximise the number of people and organisations to which an e-cycle loan will appeal.

The type of business which took up OTT loans was limited by the range of e-cycles available for hire. Having a range of types of e-cycle for loan, including e-cargo bikes, could have enabled the participation of businesses needing to make deliveries, or transport equipment between sites or to customers. Future projects should consider their target audience, and whether the benefits of being able to enrol such businesses offset any additional costs associated with the purchase, transportation, storage and maintenance of more specialist e-cycles.

Future projects should also engage with their target audiences to identify whether they need to offer specific optional accessories. W2WSW had to disappoint riders who asked whether child seats or child trailers were available for use with their e-cycle. They felt that offering such optional extras (as well as goods trailers and tag-alongs) for hire at an additional charge may have helped people who needed to trip-chain on their commute or do personal business at lunch time. This may have been particularly beneficial for getting more women to hire e-cycles, as women typically make more multi-stop trips than men and, balancing journeys for work and childcare.[11]

Case study: Devon & Cornwall Police – host workplace

Devon & Cornwall Police (DCP) already had a few e-cycles, so when Cornwall Council offered to loan them a whole fleet they were keen to test how a larger scale roll-out of these types of bikes would work, both practically and in terms of any benefits they might have over patrolling on foot or in a vehicle.

An operational delivery group was set up to prepare for the trial (including representatives of DCP's neighbourhood policing, sustainability, estates and fleet management teams). This ensured that appropriate insurance and risk assessments were in place and that secure storage and charging facilities were available at each of the 11 stations where e-cycles were deployed. Managers ensured that staff members allocated e-cycles were proficient cyclists and circulated training manuals and videos on how to use the e-cycles.

Over 12 weeks, 18 loan e-cycles were trialled by neighbourhood policing teams across Cornwall. They were allocated on a ratio of one e-cycle to three officers; with staff given the choice of using e-cycles alongside their existing options of walking or driving. 25 officers used the e-cycles, with each e-cycle being used 5 days out of the week and covering an average of 30 miles a day. In total, 9,936 miles were cycled. As these trips would otherwise have been driven, this saved an estimated 2,426kg CO_{2e}[12], and freed up vehicles for higher priority uses.

Officers used the e-cycles to get around quickly and to move between communities. Being able to use off-road routes meant that they were visible in more areas, and to more people, than if they'd gone out in a vehicle. They felt that this helped make them more accessible to the public – which in turn increased public confidence and engagement, with people often saying hello or stopping them for a quick chat.

The speed and flexibility of movement that the e-cycles provided also generated efficiency savings. For example, making finding a missing person much quicker than it they'd been searching on foot, and getting to an area to patrol on foot much quicker than if they'd walked there. The e-cycles were less efficient in more rural areas, where officers had to cycle longer distances between communities, and where they were visible to fewer people on route. However, in all locations officers felt they were more suitable for the hilly local terrain than conventional bikes. Overall, staff satisfaction with the e-cycles was very high – with most officers reporting a boost to their health and wellbeing from using them.

"The trial taught us about the practicalities of having an e-cycles fleet. For example, in good weather, cycling in full uniform with PPE can be a sweaty business – so we might think about adding branded cycling tops to our uniform. Also, we learnt that we need heat detectors installed above charging points [as a safety measure in case of overheating]. Thankfully we didn't have any problems with the e-cycles, probably as

they were brand new. But now we own them, we know we need to put a maintenance contract in place."

"The trial started off with a sustainability theme but we quite quickly realised the benefits of the e-bikes for the health and wellbeing of our officers and staff. Once the trial started it kind of reverberated around the organisation. We had people that weren't involved in the trial asking if they were going to be getting e-bikes too. People were quite excited about it."

To maintain this momentum, at the end of the trial DCP purchased the 18 e-cycles they'd been using, and are now planning to buy 60 more. They estimate that these will have paid for themselves in 3 years – making them much more cost effective than patrol vehicles.

"Our existing facilities and working environment were an enabler to running a successful trial. We already have secure places to store e-bikes and have staff shower and changing areas. So people could freshen up after a shift on an e-bike in hot weather. Lots of our staff are already cyclists, perhaps because they use cycling to work as a way to maintain their fitness. Plus we do lots around staff mental wellbeing and resilience, because of the nature of the jobs we're doing, and cycling can help with that too. So the e-cycles just seemed to fit well with our organisation."

INITIATIVE 3: WHEELS TO WORK ELECTRIC LOANS

Background

What was it? W2We loans were low cost e-cycle loans, of typically 3 to 6 months, directly to individuals who either:

a. Needed transport to access training, interview and employment opportunities.

b. Wanted to try an e-cycle for an extended period, potentially prior to purchasing one.

How did it work? W2We was promoted on social media and through local community groups or networks. Some people were referred to the scheme by roadshow staff or after a word of mouth recommendation. Potential participants contacted W2WSW by completing an online application form.

Once the application had been processed and the loan contract signed, e-cycles were either collected by the rider or delivered to their home or workplace. Riders received a briefing on their e-cycle and how to charge it, as well as on the differences between riding conventional and electrically assisted bikes.

Riders were advised to contact W2W if they encountered any maintenance issues with their e-cycle – except in the instance of a puncture, which they were expected to repair (or arrange repair of) themselves.

The e-cycles were:

1. Fitted with pannier racks – to facilitate commuting.
2. Loaned along with lights, a helmet and reflective vest – to encourage riders to use personal protective equipment and maximise their own safety.
3. Loaned with a gold standard ‘Sold Secure’ accredited lock – in line with insurance requirements and to encourage riders to store and park the e-cycle securely.

Participants were charged £10 per week for the duration of their hire – which they could pay upfront or in weekly instalments of £10 or monthly instalments of £42.

When the end of the loan period was approaching W2W would call to arrange collection of the e-cycle. When it was collected, W2W would complete a returns form with the rider, to track any damage to the e-cycle and to ensure all accessories, bike lock keys, charging equipment etc. were returned.

On return, e-cycles were checked, serviced and made ready for their next loan. W2W used its existing moped workshops to do this and provided its mechanics with specialist training in e-cycle maintenance.

The loan fleet comprised 59 e-cycles.

How many W2We loans did the pilot make? 127 people were loaned an e-cycle. W2W operated a waiting list for most of the pilot due to demand. As result most loans were for the standard 3 months period, despite around 40% of participants requesting an extension to their loan. The majority of participants reported using their e-cycle 3-4 days a week during their loan period.[13]

The project's partners subsequently secured additional funding to continue this initiative after the pilot ended.

Details of the demographic profile of W2We participants, and any impacts of loans, are contained in the companion report *Cornwall E-Cycle Pilot Evaluation*.[14]

Lessons learnt

9. Consider the demographics of the target audience and the reasons people will be borrowing an e-cycle when deciding on a price point for loans.

The scheme was initially marketed on social media, largely to W2WSW's existing customer base of people seeking affordable transport to access work and training, as well as via a return to work programme. However, local media coverage and organic social media marketing appear to have advertised the scheme to a wider audience. As a result the W2We customer based covered a wider socio-economic range than W2WSW's moped loans. While 3 in 10 participants were from households with an annual household income lower than £20,000, 3 in 10 also came from households with an income of £40,000 or more. Some participants may have been using W2We as a 'try before you buy' opportunity, to see how an e-cycle would fit into their life.

Consequently, W2WSW reported that participants never questioned the £10 weekly cost of hiring their e-cycle – with many riders able to pay the full £126 cost of a 3 month hire upfront. As a comparison, a moped loan via W2WSW costs the rider £220 per month and the rider has to buy their own helmet and gloves. The mopeds cost about £2.5k – so are roughly equivalent in value to many of the e-cycles on loan for £42 per month (i.e. at a fifth of the moped hire cost).

To improve the financial sustainability of the W2We initiative, W2WSW believe that loans could have been charged at £25 per week and still have been seen as competitive by participants. Alternatively, W2WSW suggest introducing a sliding

scale and means testing people (and maintaining their emergency fund, which allows for short payment breaks) in order to remain affordable to people on lower incomes needing an e-cycle to get to work or training.

W2WSW also theorise that the higher the cost to participants, the more they may value their e-cycle – i.e. making more use of it, and treating it more carefully to prevent damage and theft. This may have had knock-on benefits for the pilot – maximising the outcomes for cycling and helping ensure the maintenance of its assets.

10. Consider how to deal with the logistics of transporting and storing large numbers of e-cycles in the context of local geography.

All deliveries and collections of loan e-cycles were scheduled alongside other deliveries and collections for the W2We and OTT loan schemes – in order to be fuel and time efficient (for both sustainability and cost efficiency reasons) when travelling long distances across the county.

W2WSW bought a long wheelbase van to transport the e-cycles around. This allowed for up to 12 e-cycles to be transported at a time. These were secured in the van using freestanding cycle racks, which could be removed from the van and used to secure and display e-cycles at roadshows. One downside of the van was that, while it was well suited to use in towns and cities, due to its necessary size, it was cumbersome to use on narrow Cornish lanes with high, encroaching hedges.

W2WSW knew from already hiring out mopeds that fewer people would want to hire e-cycles in winter, when the weather is wetter and colder and days are shorter. So, to reduce pressure cost-effectively on their storage space in winter, they purchased two shipping containers as weatherproof, secure storage for their e-cycles fleet.

11. Word of mouth advertising is key for small initiatives – so encourage and enable happy customers to be e-cycle advocates.

About 50% of people applying for a W2We loan had heard about the scheme by word of mouth – from a friend, family member or colleague (with about a quarter hearing via social media, and the remainder referred through the roadshow team, Cornwall Council or a local community group or network). W2WSW specifically encouraged W2We riders, as well as OTT loan hosts, to put pictures of their e-cycles on social media and to tell people about their e-cycle experience.

Many of the participants, interviewed as part of this evaluation, were very positive about their experience and had shown off their e-cycle at home, at work and to their friends – sometimes inspiring others to consider hiring or purchasing an e-cycle of their own. This was not something the pilot did, however future e-cycling initiatives may want to identify and facilitate some of their own happy customers to be ‘e-cycle ambassadors’ – people with great communication skills whose experience was so positive that with on-going access to the right equipment and support they will continue to use a branded e-cycle and act as ‘travelling billboards’ in their community – signposting more people to the loan scheme.

Case study: Claire – loanee[15]

When she was younger Claire cycled a lot. Life took over and she got out of the habit, and, while she still had a bike, in the last few years it had sat unused in the garage, as using it aggravated knee pain from her rheumatoid arthritis. So during the pandemic she sold it.

Claire had vaguely wondered whether an e-cycle might get her back to cycling but she was, by her own admission, clueless about them.

"Then I saw on Facebook that a roadshow was coming to my local town. It said there'd be all these e-bikes to try and to come along. So I thought I would. I went and tried them, and it was amazing."

As advised at the roadshow, Claire signed up to W2We and, at the time of being interviewed, she'd had her e-cycle on loan for 4 months (after extending her initial loan until the end of the pilot).

"It's brilliant. So easy to use. I cycled quite a big hill straight away on it. I'd have been out of breath walking it, but not on the e-bike! It benefits your health as you're out and moving. And it makes life easier. It's in the garage, so I just open the door and off we go."

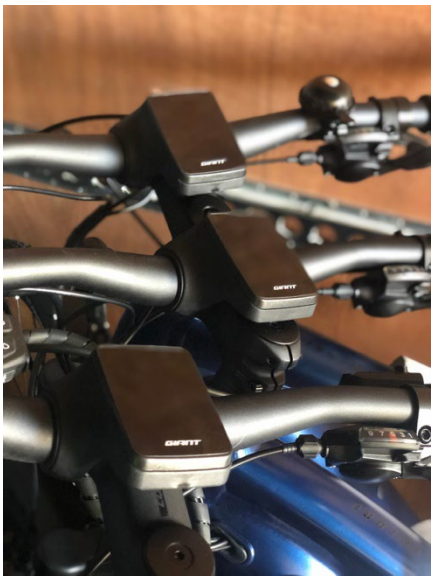
Although Claire would like to cycle to her job at a local shop, she chooses not to as she doesn't feel there is anywhere there to safely lock up the e-cycle and she is conscious it isn't her bike to lose. Instead she continues to drive to work. She has asked her union to look into getting better cycle storage put in.

She does now jump on the e-cycle rather than getting in the car for her other trips around town though – to the shops or for a round trip to the beach. She also cycles to her partner's house, which is 3 miles away – parking it in his living room. She's even bought some panniers to help transport all her stuff.

"It's just great getting out in the fresh air on it and enjoying it. I'd really like to buy my own when I can afford to. They cost a lot of money and Cornwall is quite a deprived area. So it's [W2We] a really good idea for people who want to try them first."

Claire says, if she could afford it, she'd like to buy the bike she is using and keep it forever, rather than just 6 months. So W2WSW may need to be ready to wrestle it off her when her loan is up!

CROSS-CUTTING ISSUES



Procuring e-cycles

12. Procurement can be time-consuming. Consider options early – aiming to both reduce risk and secure a range of e-cycles.

As the pilot was initially only 8 months long, it had to be mobilised very quickly. The most challenging and time-consuming aspect of this was procuring a large fleet of 107 e-cycles – which proved difficult to do at such scale and speed, ultimately delaying the start of the roadshows and loans.

Procurement initially took place through Cornwall Council, which meant that timescales and the number of e-cycles that could be purchased at any one time, were dictated by the requirements of the Council's tender processes and purchasing thresholds.

The initial procurement specification was carefully worded and weighted to encourage tenders from potential suppliers who were:

a. Dealers or manufacturers of a range of types of e-cycles – as the project needed to showcase, and make available for hire, e-cycles of different types, styles and price points.

b. Local – as the delivery team believed this would give them expertise in the e-cycles most suited to the geography and socio-economics of the local area; provide easy access for replacements, spare parts, repairs, etc. under warranty; and benefit the Cornish economy.

In evaluating the tenders submitted, the delivery team found that smaller suppliers were more likely to have provided a considered response – which met their needs and showed an understanding of purpose and target audience of the pilot. They felt that tenders from larger manufactures were not as tailored to their needs and that they were unable to adapt their fleet to meet all the pilot's requirements.

Later on in the pilot, W2WSW were given some funding for additional e-cycles and accessories, so they could be responsive to the needs of participants and procure these as needed. Cornwall Council are now considering setting up a framework contract for the supply of e-cycles and accessories. They think this will enable them to be more agile in calling off smaller contracts from across an array of suppliers, who will collectively be able to supply a wide range of e-cycles. They also think this will spread the exigencies of supplying large numbers of e-cycles across multiple supply chains.

Procurement of the e-cycles began in late 2021 – when the cycling industry was still affected by on-going supply issues due to high levels of demand, and the disruption to manufacturing and supply chains internationally, resulting from the COVID-19 pandemic. While it is unlikely that such extreme circumstance would be a factor in the future, it did highlight the need to diversify supply chains when looking to mobilise so swiftly.

Insurance

13. Riders should be covered by comprehensive insurance, including for third party liability in the case of injury or damage. Suitable insurance policies are scarce.

Insurance is not required to ride an e-cycle but the delivery partners needed to ensure that they would not be liable for any injury to riders or bystanders, or damage to property, in the event of a rider having an accident on one of their e-cycles.

All roadshow activities were covered by Wheels 2 Work South West's *public liability* insurance.

As part of the contracts for W2We and OTT loans, all liability for *personal injury* was transferred to the rider.

Securing *third party liability* cover for any accidental injury or damage riders caused to people or property while on their e-cycle proved to be difficult. W2WSW were initially advised by insurers that this would need to be taken out on a person-by-person basis for each loan – which would be costly and administratively onerous.

At the start of the pilot, as part of the loan contract, individuals and hosts were made liable for *damage to or theft of the e-cycles*. OTT hosts typically arranged cover for this through their existing business insurance. W2We riders and individual employees of OTT hosts using the e-cycles were also required to take out a £4 per month membership of a leading UK cycle charity – as this includes third party cover up to a value of £10m. W2WSW facilitated easy sign up by providing a hyperlink to the relevant page on the charity's website, as part of the OTT/W2We application process.

W2WSW eventually secured *fully comprehensive* insurance from a specialist cycling and micro-mobility insurance broker for £150 per e-cycle per year. This insurance stipulated that e-cycles had to be locked with a gold standard 'Sold Secure' lock and could not be left parked in public in the same spot for more than 24 hours. A suitable lock was loaned out with each e-cycle, while the requirement to use it and park the e-cycle accordingly were written into each scheme's loan agreement. Also, each

individual or organisation hiring an e-cycle had to be registered with the insurer (who required proof of ID and address for each). Capturing this information from loanees, and submitting it to the insurer, was made part of each scheme's application process.

Insurance for the pilot's e-cycle fleet was originally budgeted at £12k. The actual cost was £19k. No claims were made during the course of the pilot.

Maintaining use of e-cycles

14. It is essential to have an exit pathway for the end of loans – to help maintain momentum and move people and organisations on to long-term use of e-cycles.

Many W2We riders extended their loan another 3 months after their initial 3 month loan. Some would have been interested in continuing their loan for even longer if the pilot was not ending. In parallel, people and organisations who used e-cycles through the OTT loan scheme often moved onto the W2We scheme and began paying for their loan after their free loan fleet was returned. While some people and workplaces, from both the W2We and OTT loan schemes, were interested in purchasing their own e-cycle(s), the cost of these remained a barrier to many.

It would have been helpful if the pilot's loan schemes had had a clear 'exit pathway' of options to facilitate the subsequent purchase or long-term use of e-cycles by individuals and organisations who had a positive experience and wanted to continue their new e-cycling habits. Suggestions for potential next steps, based on discussions with the pilot's delivery partners and participants, were:

a. Option to purchase the hired e-cycles – either out-right or via a Financial Standards Authority regulated finance scheme.

b. Offering a discount at local e-cycle retailers.

c. Hosting regular e-cycle markets (including sellers of both new and second-hand bikes) or acting as a second-hand e-cycle brokerage (i.e. buying, refurbishing and selling on).

d. Offering a competitively priced, long-term or ad-hoc hire scheme – with the option for people to have repeat loans each year.

e. Guidance on setting up the Cycle to Work Scheme – to enable more people to access this via their employer.

f. For workplaces, a capital grant scheme for the purchase of e-cycles and secure cycle storage (in particular targeting public sector organisations).

Surveys and monitoring

15. Make data collection a defined step in the participation process for individual initiatives (with no data meaning no e-cycle); and ensure staff are well-trained in the data collection methodology and participants are incentivised to contribute to it.

Online surveys set up to monitor the impact of the initiatives.[16] For each initiative, participants were asked to complete a baseline survey before trying an e-cycle and a follow-up survey about three months afterwards. These were bespoke to each of the three initiatives and sought information on:

a. Socio-demographic characteristics of the participant,

b. Motivations to try an e-cycle and experiences when trying an e-cycle,

c. Cycling attitudes, ownership and behaviour before and after trying an e-cycle,

d. Broader travel behaviour and physical activity before and after trying an e-cycle.

Roadshow participants were asked to complete an initial survey during their engagement with roadshow staff.[17] As part of this baseline survey they were asked to provide an email address and consent to taking part in further research. Those that did so were invited to participate in a follow-up survey after about three months.

People loaning an e-cycle via W2We were asked to complete an initial survey as part of the administrative process of setting up their loan. If, as part of this initial survey, a loanee consented to taking part in further research, they would also be invited to complete the relevant follow-up survey at the end of their loan.

A survey link was distributed (via the lead contact at the host organisation) to people planning on using an e-cycle at their workplace as part of the OTT scheme. If, as part of this initial survey, an employee consented to taking part in further research, they would also be invited to complete the relevant follow-up survey at the end of the OTT loan. It is not known how diligent host organisations were at distributing these links or at encouraging participation in these surveys.

A small selection of survey respondents were subsequently invited to take part in a semi-structured interview, in order for the research team to develop a more in-depth understanding of their experience. They were selected based on reporting outcomes of particular interest to the evaluation such as going on to buy an e-cycle.

The key issue with monitoring was the difficulty of ensuring those who took part in the initiatives completed the baseline survey and those who consented to take part in further research could be encouraged to complete the follow-up survey. About 900 people were estimated to have taken part in the pilot initiatives, with 700 of these trying an e-cycle at a roadshow. 333 people completed baseline surveys (36% of participants) but only 78 completed follow-up surveys (9% of participants). It is important to be aware that survey respondents self-selected to participate in both the intervention and the surveys, so they are not representative of the wider Cornwall population.

As higher response rates were achieved for the baseline surveys (especially for W2We), there is reasonable confidence that baseline survey results (for example, socio-demographics) are representative of participants in the three initiatives. However, the more modest response rates for follow-up surveys mean there is uncertainty over whether the results from these are representative of the outcomes and experiences of all those who took part in the pilot. Overall, the results can be considered to provide indications of the responses that might be seen in a wider implementation of these sorts of interventions, and the type of person who might be most receptive to them.

At roadshows, staff tried to maximise the number of surveys completed by: asking people to complete it before trying out the e-cycles; having tablets on which the survey could be completed; having laminated QR codes people could scan for quick access to the survey URL on their own mobile phones; having paper copies of the survey available on request; and helping older people to complete the online survey. Sometimes survey completion was directly influenced by tablets and mobile phones experiencing WIFI or 3G/4G connectivity issues, especially when roadshows were held in more rural locations. In such instances, staff sometimes gave their own mobile phones to participants so they could complete the survey. Regardless, the number of people completing the survey continually fell short of the number of roadshow participants.

Monitoring could also be hindered by frontline staff not understanding the importance of data collection, or, in the heat of a busy roadshow, not following the methodology. For example, letting one person complete the survey on behalf of a whole group (rather than requiring each individual to complete a survey); or getting people to complete the online baseline survey for one of the sister initiatives when there was a technical problem with the link to the roadshow-specific survey (rather than getting people to complete a paper copy of the correct survey).

Minor issues with survey design were:

a. The survey's opt-in for follow-up contact was for research purposes only. For the roadshows in particular, it would have been helpful if this had been worded so as to allow W2WSW to also use people's contact details – so they could send them follow-up information and marketing, such as about e-cycle retailers in their local area or e-cycle loan/purchase opportunities.

b. There was a need to use standardised survey questions (from wider DfT monitoring guidance) to enable comparison of results with other cycling investment programmes. For some questions, there were answer options which may have seemed irrelevant in the Cornish context (e.g. underground, metro, light rail or tram); while for other questions it was not possible to include options which survey respondents might have expected to see in their local context (e.g. Cornish as an ethnicity option). While it is not known whether these inconsistencies affected respondents in this instance, it is good practice to tailor questions to maximise their relevance to the target audience. This saves respondents time and helps to minimise the survey dropout rate.[18]

While it is important that monitoring is conducted by an organisation that is independent from the delivery process, practical arrangements for monitoring need to be built in to the delivery process. In the Cornwall e-cycle pilot, the research team liaised with W2WSW to identify when OTT and W2We participants had returned their

e-cycles so that the appropriate time to approach them to complete the follow-up survey could be judged. This was managed in batches and the timing may not always have been optimised for each participant.

Incentives can play an important role in motivating people to complete surveys, especially when they are asked to do this on more than one occasion. Looking back at what might have been done differently in the Cornwall e-cycle pilot, the research team believe a greater effort could have been made to motivate baseline survey respondents to opt-in to further research and an incentive could have been offered to complete the follow-up survey. Incentives could take the form of a prize draw or a voucher as a token of appreciation. These could be related to cycling and act as a further stimulus to keep cycling or to start cycling.

CONCLUSION

Overall the Cornwall e-cycle pilot generated useful learnings about the design and delivery of initiatives seeking to give people a taste of e-cycling. The lessons learnt (summarised on page 5) should inspire and inform practitioners planning initiatives of a similar nature.

However, Cornwall's geography and topography, and the influence of the tourist season on the local road network and economy, all impacted on how initiatives were delivered, as well as how they were received by local residents and workplaces. Practitioners will need to apply Cornwall's learning through the lens of their own local context, and to tailor their e-cycle initiatives so they best serve the specific needs of their locality.

Endnotes

[1] Wheels 2 Work South West (W2WSW) were lead delivery partner. Cornwall Wheels to Work (CW2W) supported delivery of OPP and W2We loans. Where the abbreviation 'W2W' is used, this denotes an action completed by both/either of these partners.

[2] Shergold, I., Chatterjee, K., Pantelaki, E., Hiblin, B. & Cairns, S. (2023). Cornwall E-Cycle Pilot Evaluation. Report to Department for Transport.

[3] Shergold, I., Chatterjee, K., Pantelaki, E., Hiblin, B. & Cairns, S. (2023). Cornwall E-Cycle Pilot Evaluation. Report to Department for Transport.

[4] As Sustrans were already set up as a contractor to the hospital (with relevant training and documentation completed and accreditation badges issued), W2WSW did not have to spend time going through this process themselves, nor delay holding a roadshow until this was completed.

[5] Promotion was done via: fortnightly staff newsletter; posters displayed around the hospital and on cycle racks; staff social media pages; and emails to both the Trust's informal bike user group members and their network of Health & Wellbeing Champions in each department. The team managing the on-site accommodation also notified their residents – as these are often students on placement, who are not fully exposed to staff engagement channels.

[6] Which is too small to host its own Active Travel Days.

[7] Not her real name, nor her image in the accompanying picture.

[8] Sold Secure is an accreditation standard, which certifies that branded locks made by individual manufacturers meet specific standards of security. It gives consumers confidence in the quality of their lock, and insurance companies often mandate their use.

[9] Based on responses to follow-up survey, as reported in Shergold, I, Chatterjee, K, Pantelaki, E, Hiblin, B & Cairns, S (2023) *Cornwall E-Cycle Pilot Evaluation.* Report to Department for Transport.

[10] Shergold, I., Chatterjee, K., Pantelaki, E., Hiblin, B. & Cairns, S. (2023). Cornwall E-Cycle Pilot Evaluation. Report to Department for Transport.

[11] Sustrans (2018) "Are we nearly there yet?" Exploring gender and active travel

[12] Estimate calculated by Devon & Cornwall Police.

[13] Based on responses to follow-up survey, as reported in Shergold, I., Chatterjee, K., Pantelaki, E., Hiblin, B., Cairns, S. (2023). *Cornwall E-Cycle Pilot Evaluation*. Report to Department for Transport.

[14] Shergold, I., Chatterjee, K., Pantelaki, E., Hiblin, B. & Cairns, S. (2023). Cornwall E-Cycle Pilot Evaluation. Report to Department for Transport.

[15] Not her real name, nor her image in the accompanying picture.

[16] The results of these surveys, along with other output and outcome data from the pilot, are presented in a companion report *Cornwall E-Cycle Pilot Evaluation*.

[17] Only participants aged 18 or over were asked to complete the survey – in line with the University of the West of England's research ethics requirements.

[18] The number of surveys which are incomplete because the respondent stopped part way through.