



Department
for Transport

From the Parliamentary
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Huw Merriman MP
Chair of the Transport Committee

23rd March 2021

Dear Huw,

I am pleased that the Transport Committee continues to take a close interest in e-scooter trials. In this letter I will update you on the progress we have made by responding to the further questions you and the Committee put to me. I take each of your questions in turn, below.

The Committee would be grateful for an update on the progress with the rental trials, the latest timelines, and the planned evaluation process.

As you know, e-scooter trials were expedited and expanded in scope last Spring in response to the Covid outbreak and in order to provide an evidence base for longer term policy decisions. Legislation to enable trials of rental e-scooters to take place in participating English local authorities came into force last July. The first trial launched later that month in Tees Valley.

Since then we have seen continued interest from a number of local areas and by the end of March will have 30 trials live, with a large London trial due to commence as soon as possible this Spring. Feedback from trial areas has been generally very favourable and in my own constituency, Redditch, the Borough Council have been delighted with the trial they have put in place, partnering with e-scooter operator, Bird.

The trials are due to end from this July and by 30 November 2021 at the latest, due to their rolling start dates and intended 12 month maximum duration.

An evaluation contract was recently awarded to Arup, working in partnership with social researchers, Nat Cen. The scope of the evaluation that will be undertaken is agreed, data sharing agreements are in place with all e-scooter operators, a data warehouse has been built and trip data (including historic data) began to flow through in February and is now being analysed. Further details on timings for the evaluation set out below.

Can you provide a full list of current ongoing rental e-scooter schemes, when they started and are due to end, the population density of each trial location, and confirmation on whether the Department is looking to secure further schemes in other parts of the country.

A summary of key details about each trial is provided in Annex A, attached. I can confirm that we are not looking at this stage to expand trials into other parts of the country. The window to express an interest in participating closed to local areas last year and it is with those areas we are finalising arrangements for the remaining trials to launch.

Can you provide a full timeline for the upcoming key dates and milestones of the rental trials and subsequent evaluation process.

The key reporting timelines as planned across the year are:

Reporting	Date
Draft early findings report	Spring 2021
Final early findings report	Spring2021
Draft interim report	Summer 2021
Final interim report	Summer 2021
Draft interim report 2	Autumn 2021
Final interim report 2	Autumn 2021
Draft final evaluation report	Winter 2022
Final evaluation report	Winter 2022

The Government Response stated that e-scooter trials will run until the Autumn of 2021. However, some trials were only launched relatively recently. Is it the intention that the Department’s evaluation process will begin while several trials are ongoing and have not ran for the intended 12 month period? If so, how will the more recent trials be properly evaluated?

The e-scooter trial process was created in such a way to allow trials in areas to run for up to 12 months. As you have noted, some trials have launched later and in those areas trials are planned to end by 30 November this year. However, there is an option for trial timescales to be extended without need for further regulation, and it is possible we might consider doing so, given delays related to Covid.

All trip data from our 30 trial areas will be evaluated and a sample of 12 trials will be used for more granular surveys, analysis and deep dives. They will be selected to ensure their findings can be generalised and representative of the other locations. Some of these 12 evaluation trial areas will not have the opportunity to complete a full 12-months before being included in the evaluation.

However, the evaluation has been designed from the outset with the knowledge that some locations will not have completed a full 12-month cycle. Therefore evaluation objectives are all achievable without locations reaching the 12 month point and analysis and interpretation of findings will consider the length of time a trial has been live for.

Which organisation is undertaking the evaluation of the trials and on what basis were they selected? What will be the Department's involvement in the evaluation process and what direction or objectives has the Department given as to how the evaluation should be carried out?

Arup were successful in their joint proposal, with Nat Cen, last October. The procurement was competitively let through the Research Marketplace framework, using Crown Commercial Services. Bids were assessed thoroughly and highest scoring bidder was appointed.

The Department has set research objectives/ questions and worked with our contractors to ensure the final agreed scope will deliver against each. Key areas where we will be gathering information include:

- Safety outcomes for e-scooter users and what influences this
- Interaction with, and effect on, other road users
- Public perceptions of e-scooters, including people with disabilities and related groups
- Nature of modal shift and new journeys that have been enabled. *details of trips made: how far, routes, speed
- Characteristics of users, and how uptake and outcomes differ for different groups
- Local authority perception of effects on their transport system
- Lessons for future rollout
- What a future regulatory system for the future should include, such as speed, vehicle standards or licensing
- Any other unexpected outcomes
- Overall costs and benefits to society

The current restrictions on travel due to the pandemic may mean that the results of the evaluation do not provide a completely accurate reflection of the impact of e-scooters on our roads. How will this be considered as part of the evaluation process?

The Covid-19 pandemic has substantially altered travel demand patterns as a result of travel and lockdown restrictions implemented across different locations and timescales. We have identified a number of areas where Covid-19 might affect the findings:

- Lockdowns and travel restrictions might affect levels and the spatial distribution of travel demand and demand for e-scooter use
- Covid-19 might encourage use of e-scooters as a mode enabling social distancing
- Reductions in overall traffic associated with lockdowns could improve safety of e-scooters
- Hygiene concerns around shared e-scooters might encourage private use
- The expansion and introduction of temporary widening or new cycle lanes might encourage use of e-scooters

As a result, we will attempt to understand the impacts of Covid-19 on the evaluation findings, and consider the applicability of the findings to 'normal' times'.

Which stakeholders will be involved in the evaluation process, how were these decided, and how specifically will their views be gathered and analysed?

The research with national stakeholders is intended to contextualise and interpret the evidence emerging from the evaluation, using in-depth interviews. Stakeholders were identified through discussions between DfT and Arup/NatCen to ensure a broad sample capturing the expertise and perspectives of different stakeholders. 10 national stakeholder interviews were agreed which include a range of organisations. Please note we are unable to provide the list of organisations involved at this point due to participant anonymity.

Topics and issues that emerge from the interview data will be identified to develop themes to analyse stakeholder responses within.

In the Government Response, you said that the Department was considering “a range of options” for monitoring the extent of pavement use during the trials. What approaches have been taken to ensure data on pavement use is collected in a comprehensive manner across all trials?

The evaluation will survey both users and non-users within trial areas to understand the extent of pavement use during the trials. In the selected case study areas, we will explore in more detail, through Interviews with users and non-users, including vulnerable groups, why pavement use may be occurring, the drivers of this and the impact it may be having on other pavement users.

We are also looking into options for camera sensor technology to be used to track the extent of pavement use across trial areas, while ensuring user-related data is entirely anonymised.

In addition to the monitoring and evaluation activities outlined, new work is planned to explore how behavioural science can be utilised to mitigate pavement riding. This will involve research analysing which language and framing is most effective at minimising pavement riding, and consider communications and policies which utilise these behavioural insights.

Some e-scooter operators cite geo-fencing technology as an effective way to prevent illegal riding, although this has been disputed by others who claim it is not accurate enough. What is the Department’s initial view on the adequacy of geo-fencing as a tool to prevent illegal riding on pavements?

Geofencing technology clearly has an important role to play in aiding the successful management of shared mobility services, such as e-scooters. The technology is, though, still nascent and evolving quite rapidly. As such, the Department will use insights from national e-scooter trials to enhance understanding about the strengths and limitations of the technology.

All e-scooter trial areas are utilising geofencing technology to create a blend of restricted 'no go' areas, low speed zones, and permitted parking areas. Whilst some pedestrianised areas are restricted in our trials, it is not possible to use the technology to restrict access to all pavements within the trial area. Geofencing relies on the vehicle being able to

accurately establish and then communicate its GPS position at a suitable frequency to the 'cloud' (servers) where operators' geofence data is stored and communicated back to their vehicles. Potential inaccuracies with GPS and delays in communicating this information to and from the cloud over cellular networks create issues.

Part of the potential solution to this – currently being tested by a number of our trial operators – is to embed more data and intelligence in the e-scooter vehicle itself. An e-scooter which holds all geofence mapping information relevant to its operational area removes the requirement to communicate with servers over cellular networks multiple times every minute, and therefore removes the risk of network delays.

Operators in trial areas are also trialling use of new sensing technology, which can be combined with real time geolocation data to create a more accurate measure of whether a user is riding illegally on a pavement. Action can then be taken in real time (eg alert the user). These trials are ongoing and we await sight of detailed findings, but the early indications are encouraging and we will of course be working with local trial areas and operators to understand their efficacy and potential wider application.

To what extent have people committing offences during the e-scooter trials, such as illegal riding, been identified and enforced by the authorities?

My officials hold weekly webinars with trial areas where updates are received and discussed, including reflections on incidents such as illegal riding. We also collect monthly 'situation reports' from trial operators, which report on a variety of incidents, including, for example, e-scooters being stolen or vandalised and inappropriate use of e-scooters. A specific metric about enforcement against illegal riding was recently included in a refresh of these reports, and consideration of offences and enforcement in an area is an area our evaluation team, Arup and Nat Cen, will be considering. We do not collect data from law enforcement on their activities.

To what extent will the evaluation of the rental schemes cover whether there have been changes in illegal use of *privately owned* e-scooters in areas with those schemes?

Research will explore, through surveys and interviews with users, attitudes to private ownership. In addition to this, we are also speaking to retailers in order to understand any trends within trial areas and potential increase in private e-scooter sales. And, we are exploring the possibility of using sensors to count illegal use in trial areas and monitor any increase in use.

In addition, work is currently being scoped to undertake behavioural research looking at the factors which motivate private ownership. This will explore both the motivations and contributing factors in both e-scooter trial regions and those without. This research will help to inform how behavioural insights, such as messaging and framing, might be applied to minimise private e-scooter usage for as long as it remains illegal.

Do any of the current or planned trials only provide long-term hire rental e-scooters? In areas with both short-term and long-term hire e-scooters, are any trends emerging regarding usage and impact of e-scooters depending on their hire length?

Long-term hire is (or will soon) be provided as an option alongside on-street hire in three trial areas – York, the West of England Combined Authority (WECA), and Nottingham. The

most extensive proposed trial will be in WECA, who plan to launch a long-term rental scheme across the whole region to encourage residents to use e-scooters instead of cars. They anticipate high demand, given the success of the short-term rental schemes in Bath and Bristol. They will start the scheme shortly with between 100 and 250 long-term rental e-scooters and scale up with demand to a maximum of 5,000 as the trial progresses.

We have not yet begun to analyse these sorts of differences in use – the data to do so will begin to be gathered shortly through our monthly data dashboard and surveys/interviews which will distinguish between long and short-term rentals, and will build cumulatively over the next 7 months.

With respect to the problem of ‘street clutter’, the Government Response stated that a “range of different approaches to e-scooter deployment and operations have been encouraged” across trial locations. I have been shown photographic evidence of problems with street clutter in some trial areas. How are problems with street clutter being actively monitored in trial areas and reported to the Department?

We have been keen to allow areas and their operators to implement scheme types of their choosing in order to allow for comparisons to be drawn. Some trials have dedicated parking bays which are physically identifiable through markings, etc., and digitally demarcated so as to only allow a user trip to end when the vehicle is parked within its boundaries. Some - such as Milton Keynes - have created more permissive parking zones in which users can leave vehicles but are asked to do so considerately. Others are looking to test docking station infrastructure.

Surveys and interviews, with users and non-users will be conducted across a range of trial areas to explore and understand the potential issue of street clutter, this will then also allow us analyse results by different areas and associate it with different operating models.

In addition, the Department’s Social Research and Behavioural Science Team is currently in the process of finalising an E-scooter Pavement Parking Toolkit designed for use by Local Authorities. This resource has been informed by local authorities, operators, the micro-mobility team and other Departmental stakeholders. It diagnoses the behavioural motivations which underpin anti-social parking behaviour and proposes behaviourally informed interventions to mitigate these behaviours. The resource is designed to act as a tool through which Local Authorities and Operators can consider evidence-based options to reduce street clutter by users.

Issues such as street clutter are discussed at weekly webinars with local trial areas and operators and best practice shared. Where particularly significant issues with operations in trial areas have been brought to our attention, we have worked with local areas and operators to diagnose the cause and agree on mitigations. These have included deploying additional staff (brand ‘ambassadors’) to help educate users and remove inappropriately parked vehicles, and utilising incentives for users to park appropriately (e.g. money off a future e-scooter ride).

The Committee recommended that the Department collect data during the rental trials on the modal shift observed with e-scooters (paragraph 35). How exactly will be this be done and presented during the evaluation process?

Modal shift is one of our core evaluations questions (‘What is the impact on the transport system? Including mode-shift, additional journeys, integration with other transport modes’).

Relevant data will be collected in a number of ways, including at the end of each e-scooter ride. Additional surveys and interviews will then also provide more insight into understanding the modal shift observed. This will also form part of the overall cost benefit analysis to understand the impacts e-scooters may be having on the transport system.

A handwritten signature in black ink, appearing to read 'R Maclean', with a small dot at the end.

RACHEL MACLEAN

PARLIAMENTARY UNDER SECRETARY OF STATE FOR TRANSPORT

Trial areas, start and end dates, and population density

<i>Trial No.</i>	<i>Trial Area</i>	<i>Individual trials</i>	<i>Start</i>	<i>End</i>	<i>Population density¹</i>
T01	Tees Valley Combined Authority	Middlesbrough	14/07/20	12/07/21	2616
		Hartlepool	27/08/20	12/07/21	999
T02	Milton Keynes Council	Milton Keynes Borough	21/08/20	20/08/21	873
T03	West Midlands Combined Authority	Birmingham	03/09/20	02/09/21	4264
		Coventry	10/09/20 paused and restarted 12/01/21	02/09/21	3766
		Sandwell	04/12/20	02/09/21	3839
T04	Northamptonshire County Council	Northampton	03/09/20	02/09/21	2781
		Kettering	10/12/20	02/09/21	436
		Corby	25/02/21	30/11/21	900
		Wellingborough	02/03/21	30/11/21	489
T05	Norfolk County Council	Norwich	21/09/20	13/09/21	3602
T06	Staffordshire County Council	Stafford	17/09/20	16/09/21	229
		Newcastle-under-Lyme	17/09/20	16/09/21	614
T07	Gloucestershire County Council	Gloucester	30/09/20	22/09/21	3184
		Cheltenham	30/09/20	22/09/21	2496
T08	Liverpool City Region Combined Authority	Liverpool City Centre	01/10/20	29/09/21	4453
T09	Redditch Borough Council	Redditch Borough	01/10/20	30/09/21	1572
T10	City of York Council	York	12/10/20	11/10/21	775
T11	Cambridge and Peterborough CA	Cambridge	16/10/20	07/10/21	3066
T12	Slough Borough Council	Slough	16/10/20	15/10/21	4595
T13	Salford City Council	Salford	21/10/20	20/10/21	2663
T14	South Somerset District Council	Yeovil	24/10/20	20/10/21	176
T15	Nottingham City Council	Nottingham	26/10/20	11/10/21	4462
T16	West of England Combined Authority	Bristol	29/10/20	25/10/21	4224
		Bath	29/10/20	25/10/21	559

¹ Population density per square kilometre. Data is taken from the 2019 Population Estimates published by the ONS:

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2019estimates>

T17	Somerset West and Taunton Council	Taunton	30/10/20	25/10/21	131 ²
T18	Kent County Council	Canterbury	02/11/20	01/11/21	536
T19	Buckinghamshire Council	Aylesbury	17/11/20	16/10/21	348 ³
		High Wycombe	18/11/20	16/10/21	348 ⁴
T20	Solent Transport	Isle of Wight	26/11/20	19/11/21	373
		Southampton	01/03/21	30/11/21	5062
		Portsmouth	01/03/21	30/11/21	5321
T21	Essex County Council	Basildon	07/12/20	30/11/21	1702
		Chelmsford	12/02/21	30/11/21	527
		Colchester	15/02/21	30/11/21	593
		Clacton	01/03/21	30/11/21	436 ⁵
T22	Copeland Borough Council	Whitehaven	18/12/20	30/11/21	93 ⁶
T23	North Lincolnshire Council	Scunthorpe	18/12/20	30/11/21	828 ⁷
T24	Cheshire West and Chester Council	Chester	21/12/20	30/11/21	373 ⁸
T25	Bournemouth, Poole and Christchurch Council	Bournemouth and Poole	25/01/21	30/11/21	2539
T26	Newcastle City Council	Newcastle	15/02/21	30/11/21	2669
T27	North Devon Council	Barnstable	01/03/21	30/11/21	89 ⁹
T28	Great Yarmouth Borough Council	Great Yarmouth	Launch delayed	30/11/21	570
T29	Oxfordshire County Council	Oxford	17/02/21	30/11/21	3343

² Somerset West and Taunton

³ Buckinghamshire

⁴ Buckinghamshire

⁵ Tendring

⁶ Copeland

⁷ North East Lincolnshire

⁸ Cheshire West and Chester

⁹ North Devon