

Date: 22 March 2023

Item: Electrified Travel Devices (Micromobility)

This paper will be considered in public

1 Summary

1.1 At the meeting of the Panel in March 2022, an update was sought on what was described as ‘the rise of electrified travel devices’ following a proliferation of new vehicle types being seen on London’s streets. This paper provides an update on TfL’s strategic approach to the issues raised and how it seeks to manage the risk to pedestrians.

2 Recommendation

2.1 **The Panel is asked to note the update.**

3 Background

3.1 Over the last five years, new vehicle types or transport devices have been seen on London’s streets and around the UK. These have included e-scooters, electric skateboards and electric unicycles, the majority of which:

- (a) are classified by the Department for Transport (DfT) as ‘Powered Transporters’; and
- (b) cannot be used legally on the public highway (meaning carriageways, footways, or segregated cycle tracks).

3.2 The emergence of these devices or vehicles (as well as the continued use of longstanding legal personal transport modes like bicycles and e-bikes) has led to the use of the catch-all term ‘micromobility’.

3.3 Specifically for e-scooters, the legal status is more complex and not well understood by the public. It is legal to sell e-scooters and they are readily available from retailers. However, the only legal way to ride an e-scooter in the UK is by using e-scooters that are part of the rental trials enabled by the DfT. Privately owned e-scooters can only be used on private land.

3.4 For private e-scooters, electric skateboards and electric unicycles, there are no specific regulatory requirements or construction standards. As they are not legal for use on public highways, they do not have to conform to construction standards or pass roadworthiness tests like motor vehicles. As such, quality varies considerably across the products on offer, which may impact on the safety of these types of electric micromobility vehicles.

- 3.5 Two fires have occurred on TfL services when electric micromobility vehicles malfunctioned while being carried. The causes of the fires on our services appear to have been due to the absence of safety standards or battery specification. Electrical and battery safety is not the only concern. Some of these vehicles can be poorly constructed, and speed limiters that are intended to cap how fast they can travel can be over-ridden.
- 3.6 TfL's position on all private micromobility vehicles that are illegal for use on public highways is not to endorse or support them and to remind people of their legal status. The Metropolitan Police Service (MPS) has TfL's full support in all enforcement activities relating to illegally used vehicles. TfL introduced a ban on e-scooters and electric unicycles on TfL services or premises, to guard against the potential for electric fires. This ban is under constant review in conjunction with the London Fire Brigade.
- 3.7 There is a clear delineation between private and rented e-scooters in terms of legal status. Now that they are widely available, e-scooters that can be purchased and owned privately appear to be selling in large quantities – especially the cheaper, more poorly constructed models – and are being used widely in public despite the illegality of doing so. We have made it clear in our communications that the e-scooter rental trial (described later in this paper) is currently the only legal way to ride an e-scooter in London, and the Mayor's Cycling and Walking Commissioner has been a co-signatory with the MPS on a number of occasions to retailers (primarily of e-scooters) to remind them of the need to inform their customers of the legal status of the products they sell.
- 3.8 E-scooters have become highly popular in other countries (albeit with accompanying inconsistencies in legal frameworks and statuses), with several operating companies springing up and scaling rapidly to offer rental schemes (mostly in cities) where large fleets of e-scooters are parked in the streets and made available to hire by the minute via the operator's mobile application. By contrast, devices like electric unicycles and electric skateboards have remained considerably more niche.
- 3.9 To support a 'green' restart of local travel and help mitigate reduced public transport capacity, in July 2020, the DfT made regulations allowing trials of rental e-scooters to be established, with usage data collected to provide evidence on key policy areas such as road safety. All trial proposals had to come from local authorities. The DfT also issued vehicle orders under s44 and s63(5)-7 of the Road Traffic Act 1988 for vehicles of particular operators assessed as being suitable to participate in trials.
- 3.10 As the largest and most complex urban environment in the country, the biggest potential market for any future rental sector, and given the Mayoral commitment to Vision Zero, it was agreed that London should demonstrate a safety-first approach with a centrally contracted and co-ordinated multi borough trial to contribute evidence to the DfT and ensure we could contribute views while any legislative approach by the DfT was formulated, with the goal of enhancing safety, and proving the benefit of a unified approach to contracting these services in a major city with multiple local authorities.

- 3.11 This paper describes the resultant London e-scooter trial, how that trial differs from other micromobility rental schemes run in London using bikes and e-bikes, TfL's current overall strategy and policy work on micromobility and what is currently known about plans for legislation in this area. For completeness, TfL is not aware of any indication to date that the DfT is currently interested in running trials or reconsidering the legal status of the other types of electric micromobility vehicle mentioned earlier in this paper that are currently illegal for use on public highways (for example, electric unicycles).

4 Current position and TfL Strategy

London e-scooter trial

- 4.1 Following the 2020 announcement about e-scooter trials, TfL and London Councils set about establishing a group of London Boroughs that were willing to co-host a TfL contracted e-scooter trial. We then initiated a competitive process to select operators to run it.
- 4.2 A 'safety-first' approach was taken to developing the specification for the trial against which prospective operators would bid which included mandatory training for new riders, additional vehicle features such as lights that stay on throughout rentals and unique vehicle identification numbers both being displayed and linked to the operational data collected. The use of geofencing to restrict parking to agreed locations was mandated, and geolocation technology was also required to slow vehicles down to a lower speed limit where required by the local highway authority. Alongside the development of the specification, TfL carried out engagement with groups representing people with protected characteristics to ensure that their concerns were considered as part of the trial and continues to do so. This led to the development of an Equality Impact Assessment, which was published on TfL's website and is kept up to date.
- 4.3 The operators selected were Dott, Lime and Tier, and the trial launched in June 2021, with five London boroughs and 600 e-scooters operating at a lower speed limit than the national maximum (12.5mph instead of 15.5mph). The trial grew to become one joined up riding zone, in August 2021, when Westminster joined, linking the initial participating boroughs to the east and west. There are now 10 boroughs participating: Richmond, Ealing, Hammersmith & Fulham, Royal Borough of Kensington & Chelsea, Westminster City Council, Camden, City of London, Lambeth, Southwark and Tower Hamlets (including the Canary Wharf estate).
- 4.4 The fleet size has grown to over 4,500 scooters and there are now over 500 parking bays. There have been over 2.25 million trips, covering more than five million kms, and London now has the largest trial in the UK. To date there have been 25 serious injuries and no fatalities. The latest trial statistics can be found on our [website](#), and a map of the current trial area is shown below.



- 4.5 TfL's operator contracts are currently being re-tendered, after the DfT permitted trials nationally to be extended to 31 May 2024. This re-tender has enabled us to go further on safety, specifying minimum wheel sizes for the first time to improve rider safety when navigating imperfections in road surfaces. We have been able to approach this re-tender with the benefit of everything that has been learnt operationally since the trial launched. It will also enable us to see how effective emerging technology can be, for example in detecting when e-scooters are being used on pavements.
- 4.6 It is not yet possible to say what the future of e-scooter rental in London looks like, because there has not yet been confirmation from the DfT as to what will happen with trials beyond 31 May 2024. There could be further extensions, or legislation may be introduced that changes the legal status of privately owned e-

scooters which could alter rental arrangements. However, TfL would wish to ensure that in respect of any future rental schemes, it could continue to contract with operators that have robust safety credentials.

Bike and e-bike rental

- 4.7 As noted above, a long-standing mode of transport which has been included in the definition of micromobility is cycling, and private sector dockless bike and e-bike rental is now prevalent in some areas of London. Cycle hire is outside the scope of this paper, but dockless bike rental is relevant to this paper given the potential impact that badly managed schemes can have on the public realm and pedestrian safety, and the differing regulatory arrangements compared to the e-scooter trial.
- 4.8 Whereas rental e-scooters can only be used in London as part of the London trial, there are no controls around bike and e-bike rental (either in London or elsewhere in the UK). As such, TfL has no direct control over the dockless bike market and has no say over which companies provide rental bikes, in which parts of London, or to what standards – even though in most cases the rental bikes are provided by the same companies as our e-scooter fleets.
- 4.9 As a result, local arrangements for dockless bike rental tend to be made between individual London borough councils and operating companies (though even this is not a legal requirement). Given the varied approaches of different boroughs, these local arrangements have led to a patchwork of different bike rental options across London. This causes difficulty because the local expectations and requirements that are sought by different boroughs lead to confusing situations for customers. For example, in some boroughs it is not possible to hire an e-bike whereas in other boroughs there are up to four different companies to choose from, some boroughs require parking on the carriageway, some allow parking on the footway, some use marked bays, some allow bikes to be left anywhere and some have a hybrid of all these elements.
- 4.10 This often leads to dockless bikes being left near the end point of the last rider's journey, often having an impact on the accessibility of the public realm. For consistent parking arrangements to be made, to get the best out of these active travel rental services and ensure the public realm is not negatively impacted by their implementation, a centralised approach to scheme design is needed. The DfT's decision to enable TfL to design and contract with providers for the e-scooter trial for London has enabled this, and we hope that in time it will be possible to take a comparable approach with bike rental too.

TfL strategy/policy position

- 4.11 TfL has been considering the future of micromobility in London in relation to both rental services and vehicle standards. Based on the experience to date of contracting and managing the e-scooter trial (while having no direct control over the rental e-bikes from the same companies), we have worked with other local authorities, and strategic transport authorities around the UK to develop policy proposals for how legislation might enable these markets to be unified in future.

- 4.12 The work done with other local authorities was compiled and [published](#) by the Urban Transport Group (UTG) in March 2022. This work made the case that in respect of all major prospective urban micromobility rental markets, three key elements of control were likely to prove essential irrespective of the vehicle type being rented out:
- (a) enabling cities to tailor rental services to suit their local circumstances;
 - (b) accessing operator usage data; and
 - (c) ensuring effective interaction between strategic transport authorities and local authorities.
- 4.13 While the timing for any new legislation is not yet known, the DfT's response to the above proposition was favourable, and initial plans for new legislation outlined by the government in May 2022 suggested that there was consensus that this approach represented a sensible way forward. On this basis, TfL is considering how the future London micromobility rental market may be able to evolve if new powers for TfL are granted.
- 4.14 In relation to vehicle standards for as yet unregulated electric micromobility vehicles, our focus has been on recommendations for e-scooter safety, both in terms of construction and use. The work on recommendations for e-scooter vehicle standards was also developed in partnership with other city authorities and published by the UTG.
- 4.15 The published recommendations focussed on the construction of e-scooters as well as requirements for riders – irrespective of whether the vehicles are rented or privately owned. The full recommendations can be found in UTG's report, [‘The future of e-scooters’](#). To summarise, it was recommended that if all e-scooters are to be fully legalised for use on UK highways:
- (a) the DfT should set rigorous construction and technical standards at national level, as for other vehicle types; and
 - (b) there should be national minimum requirements around the use of e-scooters in terms of their use on the highway (and which parts specifically), and it would be essential to state what offences would apply for riders in relation to enforcement, where establishing first principle requirements around licensing and vehicle registration were likely to be key.
- 4.16 The main safety risks that these recommendations address include danger to riders, pedestrians and other road users in terms of collisions, falls, head injuries; fires caused by defective batteries; harm to walking, cycling and the urban realm; waste from ruined vehicles; increased highway maintenance costs and difficulty in stopping vehicles for enforcement and crime prevention.

Proposals for legislation

- 4.17 As stated above, the timing for any new legislation is not yet known. However, in 2022, the DfT explained that to address the legality of e-scooters, the intention was to create via new primary legislation a new class of traffic called low speed zero emission vehicles (LSZE). At the same time, powers would be created to

enable the Secretary of State to be able to make regulations relating to vehicles that will be defined as LSZE so far as their construction and use is concerned, and separately, controls around how they are rented out.

- 4.18 By creating a new class of traffic rather than referring to e-scooters explicitly on the face of the primary legislation, there would potentially be scope for a range of vehicles to occupy this class, in time. Each would be able to have its own bespoke requirements for roadworthy construction, and details could be specified about what is required of the rider, driver or operator (as the case may be) of the vehicle type in question. TfL supports this approach, subject to the safety standards that are introduced being sufficiently robust.
- 4.19 In relation to the rental of these vehicles, we understand that permission would need to be sought for rental schemes to commence, to avoid an unlicensed market which would negatively affect the urban realm. We understand that dockless bike rental would also be included in these arrangements, not because bikes and e-bikes are to be reclassified as LSZE, but due to the similarities between app based rental schemes. No details have yet been published, however we believe that the intention is for new powers to sit at local transport authority level.
- 4.20 TfL is in favour of legislation being progressed and is keen to work with the DfT to ensure the detail enables arrangements to work well in practice. We hope that an introductory date can be agreed soon to establish much needed regulatory safeguards around vehicle standards and the rental market, and to enable TfL and London boroughs to do any requisite preparatory work as highway authorities for a newly legalised vehicle type arriving on London's streets.

5 Financial Implications

- 5.1 Similarly, it is not yet clear what the financial implication for TfL may be. TfL has incurred some cost in establishing the e-scooter trial and so have the participating London boroughs. A structure of operator charges accompanies the trial and pursuant to this, under the associated contracts, the operators make a financial contribution towards administrative costs of the trial, as part of their tenure as e-scooter rental service providers in London. With dockless bike rental, all arrangements are made directly between operating companies and individual London borough councils. Whether and how this may change in the future, and with what affect, is not yet known.

List of appendices to this report:

None

List of Background Papers:

None

Contact Officer: Thomas Ableman, Director of Strategy & Innovation
Email: thomasableman@tfl.gov.uk