

Written evidence submitted by TIER Mobility

Introduction

- 1 TIER Mobility (TIER) is a multimodal micro-mobility operator, offering both e-scooters and e-mopeds. TIER was the only e-scooter company to stay active throughout the COVID-19 pandemic in all markets to support critical workers and public transport networks. TIER is now the world's fastest-growing micro-mobility operator, recently reaching a 20% global market share while maintaining our proud status as a climate neutral company. We welcome the opportunity to respond to the Committee's e-scooter inquiry.
- 2 TIER's mission is to change mobility for good, motivated by our commitment to the UN Sustainable Development Goals¹ and the fact that over 40% of urban trips in the UK are under 2 miles², an ideal range for micro-mobility services. TIER has facilitated more than 20 million rides across more than 60 cities in 9 countries in the 1.5 years since our launch. With 40% of TIER's top leadership being based in the UK, TIER welcomes the prospect of incorporating our knowledge and experience in providing a safe and sustainable mode of transport in what we consider a home market - especially amid the challenges presented by the reduced capacity of public transport and the prospect of a car-based recovery.
- 3 TIER recognises the chair's concerns about the need to address the road safety, sustainability and modal shift implications of legalising e-scooters³. We work actively with local organisations to identify measures to reduce impact on the visually impaired such as blocking e-scooter use on the streets in areas frequently used by the visually impaired. In terms of user safety, TIER has continually improved the design of the scooter to make it safer to use and integrated various technical solutions discussed further in paragraphs 21 & 25.
- 4 TIER has solutions to ensure orderly parking to maintain a neat cityscape and ensure that e-scooters are not hazards on pavements, this includes an active Street Team that is deployed to maintain vehicles and re-park where needed, as well as a variety of parking solutions that can be customised to the local contexts. TIER also has robust operational measures that make the service carbon neutral, such as swappable batteries and e-vehicles for operations. The following are TIER's positions on the questions posed by the Committee's inquiry.

Executive Summary

- **Reform.** The UK Highway Act and Road Traffic Act are due for modernisation to allow for innovative transport modes to ease current constraints on public transport due to COVID-19 and generally to encourage the transition to more sustainable commuting modes.
- **Benefits.** The main benefits of e-scooters in light of COVID-19 are providing a physically distanced, sustainable mode of transport, and increasing mobility access through programmes targeted towards critical workers. General benefits of e-scooters include modal shift from automobiles and increasing multimodal trips; reducing congestion, commute times, stress and loss of productivity; and reducing air pollution.
- **Modal Shift.** The goal of e-scooters is modal shift away from individual car trips. 34% of e-

¹ Primary Goal: SDG 11 (Sustainable Cities & Communities) target 2 (Affordable and sustainable transport systems); Secondary Goals: SDG 9, 12, 13, 17.

² [DfT. \(2020\). Traffic Management Act 2004: network management in response to COVID-19. Statutory guidance.](#)

³ [UK Parliament. \(2020\). E-scooters inquiry launched. UK Parliament.](#)

scooter trips would have been replaced with car trips, showing promise for modal shift. While there is evidence that people use e-scooters instead of public transport and walking, this evidence also suggests that there is an overall increase in transport demand and people are not using public transport or walking less overall. Furthermore, in light of the COVID-19 recovery, substitution of public transport trips is critical. To support public transport authorities, TIER offers commute packages to public transport ticket holders.

- **Road Use.** Road use rules for e-scooters should align with that of electrically assisted pedal cycles (e-bikes) and conventional bicycles, being allowed on roads under 30mph and cycling lanes but banned from pavements.
- **Impact on Other Road Users.** The impact on other road users will be minimal if proper infrastructure is in place and all road users are properly educated of the road use standards. Research has shown that if these elements are in place then the likelihood of e-scooter riders disturbing the use of the public right of way on pavements and more vulnerable pedestrian populations is dramatically reduced. TIER has ongoing relationships with local associations for the visually impaired to reduce the likelihood of e-scooter services negatively impacting them.
- **Orderly Parking.** Parking of vehicles merits attention to reduce impacts on pedestrians. However, similarly with proper infrastructure and information to users, the impacts are significantly reduced. To address both of these issues, TIER and other e-scooter operators have taken measures to improve hardware and user education.
- **Safety.** User safety is a top priority for both cities and e-scooter operators. However, implementing mandatory use of helmets is shown to have reduced safety impacts and have disproportionate negative impacts on low-income and minority communities. A National Standard for Micro-mobility should be developed and cities and e-scooter operators should offer educational opportunities.
- **Vehicle Standards.** The e-scooter's build also impacts user safety and to achieve optimal results, standards should be aligned across the region where appropriate. Standards should also incorporate environmental impact both in the standards for the vehicle and in the shared e-scooter operations through recycling, energy, carbon neutrality, among others.
- **International Experience.** The views expressed in TIER's response reflect our substantial experience in a variety of regulatory environments. Overall, key considerations in national regulation are standardising the hardware standards and road use rules and the imperative that the national regulation make clear the extent to which devolved local authorities can regulate the industry further.

1. Is the legislation for e-scooters up to date and appropriate?

- 5 Since it is currently illegal to use e-scooters on public roads and pavements in the UK due their being classed as motorised vehicles on par with automobiles and motorcycles per the 1835 Highway Act and 1988 Road Traffic Act, the current state of legislation is neither up-to-date nor appropriate.
- 6 The public transport network is changing quickly to accommodate for social distancing, while enabling people's return to work. Not only that but with growing urban populations and the need to increase the capacity of urban transport, e-scooters are a novelty in the UK mobility landscape that should be included through the amendment of regulation.

2. To what extent do e-scooters have positive benefits (for instance relating to congestion and promoting more sustainable forms of transport)?

- 7 The following section elaborates on the positive benefits of e-scooters including:
- Providing a viable alternative, socially distanced and sustainable mode of transport
 - Potential for modal shift from car trips while minimally impacting active transport modes
 - Reducing congestion, commute times, stress and lost productivity
 - Reducing air pollution and increasing energy efficiency
 - Improving inclusivity

A Viable Alternative During and Emerging From COVID-19

- 8 In a time where ridership of public transport dropped by 85-90% and lockdown measures were in place across the world, TIER proved to be a capable and reliable operator during this crisis, supporting critical workers across Europe. Throughout the crisis, the TIER Heroes programme supported critical workers with 30,000 free rides and shifting fleets to higher need areas. To protect users, TIER implemented full e-scooter disinfection protocols and installed handle grip coverings (adhesive medical grade copper) that kill 99.8% of viruses (including COVID) and bacteria within 3-7 minutes upon contact.
- 9 Emerging from lockdown, e-scooters continue to be an important part of the mobility offerings for cities. As people return to work and heed public health guidelines by respecting social distancing, capacity of public transport and road space for cars have decreased while infrastructure and funding for expanded cycling and active transport has increased. E-scooters are an opportunity to offer additional alternative modes of transport.
- 10 During COVID-19, e-scooter rides have increased in duration by about 20% indicating that these rides may have replaced previously multimodal trips including public transport. The geographical location of the start to e-scooter rides also shifted more towards residential areas, indicating again that e-scooters offered an alternative to public transport. During the recovery period, this substitution is critical. TIER has introduced a programme, Commute With TIER, that allows public transport subscribers to access reduced fares on e-scooters. This helps public transport authorities retain subscription levels, while offering a safe alternative to commuters.

Modal shift and multimodal transport

- 11 Two of the most prominent benefits of e-scooters are to increasingly reduce the dependency on cars, and amplify, while diversifying mobility choice for citizens. E-scooters provide a reliable alternative for short trips - which accounts for most of the inner-city journeys.
- almost 60% of shared micro-mobility users (e-scooters and e-bikes) drive less often⁴
 - 34% of shared e-scooter users would have used a car otherwise⁵
- 12 A common concern amongst cities and governments is that new forms of micro-mobility such as e-scooters present a direct competition to public transport and active transport modes such as cycling and walking.
- **Walking.** According to reports from France and the US, walking is the mode of transport most often substituted by e-scooter rides. The same research indicates that only 6% of e-scooter users walk or cycle less overall, and in fact they appear to be commuting more than previous

⁴ [City of Santa Monica, 2019. Shared Mobility Device Pilot Program User Survey Results](#)

⁵ [PBOT. \(2018\). 2018 E-Scooter Findings Report. Portland.](#)

levels⁶.

- **Cycling** was the mode of transport least often substituted by e-scooter rides⁷. The ITF acknowledged that these substitutions, while not ideal, may be necessary in the short term to achieve the transition to reduce reliance on cars⁸. Seeing as there has been an increase in cycling by up to 70% in some areas of the UK, e-scooters will rather be addressing those commuters whose mobility needs are not currently met.
- **Public transport** is also substituted by e-scooter rides in these reports, though to a lesser extent. Similar to walking, only 6% of users report taking public transit less often indicating an increase in overall mobility⁹. Particularly in the context of the COVID-19 recovery period, substitution of public transport is critical.

Reducing congestion, commuting time and stress

- 13 E-scooters can contribute to reducing the reliance on cars, which in turn contribute in reducing congestion of urban areas. Additionally, decongestion is positively correlated with stress reduction¹⁰. Reducing congestion translates to reducing average commuting hours as people spend less time in traffic. The average person residing in Manchester spends around 156 hours in traffic per year, while the average person living in London 227 hours, resulting in a loss of productivity equivalent to between £1,157-1,680 per person, annually¹¹. If 34% of these commuters replace car trips with e-scooter rides, as the previous data shows, there is great potential for reducing congestion, commuting time, stress and loss of productivity.

Reducing air pollution and increasing energy efficiency

- 14 Switching from car trips progressively to e-scooters would translate into a substantial decrease of greenhouse gas (GHG) emissions and the associated air pollution. In the UK, road transport made up around a fifth of the UK's total GHG emissions¹². E-scooters are a zero emission mode of transport. If one factors in both direct and indirect emissions, e-scooters are among the cleanest motorised modes of transport, having the lowest average GHG emissions¹³. This is particularly the case when e-scooters operators have swappable batteries, enabling less use of vans for charging; the use of e-vehicles in operations; and the use of green energy in operations. These are all factors that TIER integrates in operations to deliver on the promise of a sustainable alternative transport mode. Promoting sustainability in the e-scooter industry is elaborated on later.
- 15 Supporting the use of e-scooters would mean gaining energy efficiency, as there's a significant difference in terms of energy usage between an average gas vehicle and an e-scooter. In fact, e-scooters can travel up to 83 miles with the same amount of energy it takes a fossil-fuel powered car to travel less than 1.24 miles¹⁴.

⁶ [6t-bureau de recherche, 2019. Usages et usagers de services de trottinettes électriques en free floating en France.](#)

⁷ [Agora Verkehrswende. \(September 2019\). Shared E-Scooters: Paving the Road Ahead: Policy Recommendations for Local Government.](#)

⁸ [International Transport Forum. \(2020\). Safe Micromobility \(Corporate Partnership Board Report\). OECD Publishing.](#)

⁹ [ibid.](#)

¹⁰ [Frakt, A. \(2019, January 21\). Stuck and Stressed: The Health Costs of Traffic. The New York Times.](#)

¹¹ [Road Safety UK, 2019.](#)

¹² [Office for National Statistics, Road transport and air emissions in the UK.](#)

¹³ [Hollingsworth, J., Copeland, B., & Johnson, J. X. \(2019\). Are e-scooters polluters? The environmental impacts of shared dockless electric scooters. Environmental Research Letters, 14\(8\), 84031.](#)

Improving inclusivity

- 16 On-demand mobility empowers people to choose their preferred types of transport, enhancing user choice and accessibility on how and when to move. Dockless e-scooters enjoy greater adoption rates by lower-income groups, boosting inclusivity¹⁵. In addition, micro-mobility can effectively complement and support existing public transport networks by increasing mobility supply in underserved neighbourhoods; thus addressing uneven access.
- E-scooters were shown to be adopted by minority communities at a higher rate compared to shared bikes¹⁶.
 - 7-8% of e-scooter users reporting that they would not have walked or cycled due to their physical condition, indicating that e-scooters also provide people with mobility challenges an alternative mode of transport¹⁷.

3. Where in the urban environment could e-scooters be used (e.g. road, pavement, cycle lanes)?

- E-scooters should be permitted on 30mph and lower speed roads (if no cycle lane is available) and cycling infrastructure (lanes and tracks). E-scooters should be banned from pavements.
- 17 Due to the similarity in speeds (12.5-15.5mph), e-scooters operate harmoniously with other vehicles on low-speed roads, cycle lanes, and cycle tracks. E-scooters should align with current road use rules of electrically assisted pedal cycles (e-bikes), which in turn align with bicycle road use rules. This includes:
- operating in cycle lanes when provided and keeping within the lane when doable;
 - no operating on pavements;
 - operating in bus lanes with caution to avoid embarking or disembarking passengers and running busses that are maneuvering to or from the kerb;
 - and operating on cycle tracks with caution around pedestrians and observing where lanes are segregated.
- 18 On 30mph roads e-scooters should be allowed to operate, however a protected mobility lane should be provided to reduce the user safety risks due to the speed differential. On 20mph roads, micro-mobility vehicles should be allowed to operate with an unprotected mobility lane, with preference for a protected mobility lane. Research shows that e-scooter users are most likely to illegally ride on pavements where the level of separation from automobile road traffic is minimal. This is minimised on shared roadways when there is a protected mobility lane for micro-mobility vehicles¹⁸. Additional measures to consider to minimise risk to e-scooters, bicycles and pedestrians is to reduce car speed on the road network, implement sufficient cycle ways and parking areas and have dedicated micro-mobility boulevards that are blocked for cars^{19,20}.

4. How could the implications of the above question impact other road users and pedestrians, including people who have visual impairments or use mobility aids?

- 19 **Road Users.** Since people are not cycling or walking less overall because of e-scooters, this means that additional users are being added to cycling infrastructure²¹. Therefore, resources will

¹⁴ [Reed, T., 2019. Micromobility Potential in the US, UK and Germany.](#)

¹⁵ [Populus. \(July 2018\). The Micro-Mobility Revolution: The Introduction and Adoption of Electric Scooters in the United States \(Populus Research Report\).](#)

¹⁶ [Populus. \(November 2018\). Measuring Equitable Access to New Mobility: A Case Study of Shared Bikes and Electric Scooters. Populus.](#)

¹⁷ [Gt-bureau de recherche, 2019. Usages et usagers de services de trottinettes électriques en free floating en France.](#)

¹⁸ [International Transport Forum. \(2020\). Safe Micromobility \(Corporate Partnership Board Report\). OECD Publishing.](#)

¹⁹ [Polis. \(November 2019\). Macro managing Micro mobility: Taking the long view on short trips. \(Discussion Paper\). Polis.](#)

²⁰ [Ibid \(ITF\).](#)

²¹ [Ibid \(ITF\).](#)

need to be invested to keep the cycling lanes safe for all users to accommodate. The efforts to expand cycling infrastructure in the UK as part of the emergency active travel fund are encouraging and addressing this need. Though continued support and maintenance is imperative.

- 20 **Pedestrians & Vulnerable Populations.** As explained in paragraphs 19, the circumstances under which e-scooter riders utilise pavements are due to insufficiently safe cycling infrastructure. So providing sufficient infrastructure will act preventatively to reduce negative impacts on pedestrians.
- 21 Improperly parked vehicles also impact pedestrians and vulnerable populations. In a study conducted in Copenhagen 7% of injuries involving e-scooters were attributed to tripping over improperly parked vehicles²². While this is not a large proportion, the shared e-scooter industry, including TIER, is working hard to minimise these and other accidents involving e-scooters in order to achieve Vision Zero. The following solutions have been developed among others
- **Improved Hardware:** TIER e-scooters are designed with a dual kickstand which makes the vehicle more stable than a traditional kickstand when parked. They have a higher weight than earlier scooter models, which makes them less prone to falling over due to high speed winds.
 - **Partnerships:** TIER strives to form working relationships with local associations that work with populations adversely affected by our service. In Sweden, TIER partnered with the local visually impaired association to block e-scooter access to the street on which the offices and services for clients were located.
 - **Parking Bays:** Users are required or incentivised to end their ride in geofenced areas that are dynamically adjusted by the shared e-scooter operators. Also, the addition of signage where mandatory parking is implemented, helps create visual cues for users to park properly.
 - **Tilt Sensor:** TIER e-scooters are equipped with tilt sensors that are connected to the software that our operations team use, enabling them to detect fallen over scooters and reposition them in a timely manner.
 - **Reporting:** TIER e-scooters have customer service numbers on them, allowing the public to report improperly parked vehicles, initiating our operations team to respond. Furthermore, users who improperly park repeatedly can be held accountable as made clear in our terms & conditions.
- 22 To better understand the needs and impacts of e-scooters, TIER partners with local associations for the visually and otherwise impaired. It is through these partnerships that challenges can be addressed dynamically and directly. Shared e-scooter providers should be encouraged by municipalities to maintain such essential community relationships. TIER also works closely with partner cities to develop new solutions.

5a. Should there be advice or compulsory requirements to use specific safety equipment when using an e-scooter?

- 23 There should be no mandatory helmet requirement for e-scooter users, though governments and e-scooter operators should provide guidance and encourage the use of cycle helmets. Enforcing such regulation is difficult and has shown to have negative impacts on the adoption of sustainable modes of micro-mobility such as e-scooters. These negative consequences include:
- **Usership.** 71% and 37% of respondents to a French survey stated that the prospect of mandatory use of helmets and reflective armbands respectively, would disincentivise them from using e-scooters²³. Considering the case of bike share companies, cities that require helmet use suffer from low ridership and even plays a role in the demise of companies due to the added costs and reduction in usage²⁴.

²² [Injury from electric scooters in Copenhagen: a retrospective cohort study](#)

²³ [6t-bureau de recherche. \(June 2019\). Uses and Users of Free-floating Electric Scooters in France.](#)

- **Equality.** It is a requirement that will harm lower-income users more than middle and upper income users; thereby reinforcing existing social inequalities. In a news report from Dallas, Texas, USA it was reported that 86% of arrests and citations for not complying with helmet use requirements were in low-income neighborhoods, while none were made in an area used for recreational biking purposes²⁴.
 - **Enforcement.** It is a requirement that will be very costly for any municipality or local law enforcement to monitor and enforce properly.
- 24 Rather than pursuing compulsory helmet use for e-scooters, issuing guidance similar to cycling rules in the UK and other avenues can be more impactful in protecting e-scooter riders. Collaborative educational efforts to educate users and the public about safe scooter riding and safe road behaviour when driving/cycling/walking next to scooters can be far more impactful.
- **Helmet Solution.** TIER has developed a helmet solution, with a foldable helmet housed in a helmet box affixed to the e-scooter. Pilots are being conducted in several European cities, with data being gathered on user adoption and the impact on safety and adoption. TIER is willing to share the results of this research with the Committee, upon completion.
 - **Safety Training.** For example, TIER conducts safety related events in collaboration with community based organisations and partner cities. In Berlin, TIER partnered with the Ministry of Transport to host a riding school and helmet use workshop. In Paris, TIER participated with the grassroots initiative “Paris sans Voiture,” by hosting educational and practical workshops on e-scooter riding etiquette and safety, both for riders and the greater community.
 - **Safety Standards.** TIER recognises that it is important that micro-mobility riders are competent riders and understand and follow the rules of the road use. This is why e-scooters should be included in a National Standard for Micro-mobility. Furthermore, e-scooters use should be included in the Bikeability Plus training curriculum so that users are taught from a young age the relevant operating procedures and rules, particularly if these vehicles are all sharing the cycling infrastructure. This will promote a culture of micro-mobility awareness and integrate these new forms of mobility in a continuous way.
 - **Vehicle Standards.** Specifying vehicle safety standards will further reduce the likelihood of accidents by improving the quality and safety of the hardware, which is discussed further in paragraphs 25-28.

5b. Should there be safety and environmental regulation for the build of e-scooters, and what this might entail?

- 25 **Safety Standards.** TIER believes that any vehicles allowed on the road for use must be safe. The following are the German regulations for minimum safety standards. Adopting the following standards to an extent that is appropriate in the UK context will promote alignment across the region allowing for standardised safety by design requirements.
- **Brakes:** 2 independent brakes; deceleration value of $\geq 3.5 \text{ m/s}^2$; in the event of failure of one brake, the minimum deceleration of the other brake is at least 44% of total braking efficiency without leaving a lane.
 - **Lights and Reflectors:** A white headlight, a white front reflector, a rear light, a red rear reflector, lateral yellow reflectors on both sides
 - **Bell:** An integrated working bell
 - **Battery:** Battery must comply with the EU standard EN 15194; Electromagnetic compatibility must comply with ECE-R10
 - **Throttle:** The throttle lever must change to the neutral position within one second
 - **Standing Base:** The base that the user stands upon must be coated with an anti-slip surface
 - **Other Safety Features:**
 - Anti manipulation measures according to EN 15194 must be in place.
 - Vehicle must provide effective protection against direct contact with all live components.

²⁴ [Cohen, J. \(2017, April 18\). Did Seattle's mandatory helmet law kill off its bike-share scheme? The Guardian.](#)

²⁵ [Semler, C. \(2019\). Two Ways Bike Helmet Laws Won't Protect Bicyclists. Kittelson & Associates, Inc.](#)

- Vehicle must provide protection against unintentional adjustment of all controls and components.
 - A factory badge displaying the following details must be stuck on the vehicle: The manufacturer; The type of vehicle; The maximum speed; Class approval number; The vehicle identification number
- 26 **Braking Mechanisms.** The braking mechanisms of e-scooters are crucial for ensuring user safety. The most intuitive braking mechanism for e-scooter riders is having two independent hand-operated brake levers. Mudguard brakes should not be allowed on e-scooters based on the following considerations:
- **Loss of functionality in the rain.** The foot brake loses effectiveness and can spontaneously stop functioning during rainy weather and therefore presents a safety risk for users who rely on it. The consistent functionality of a foot brake is difficult to test, especially when the tyres are wet.
 - **Less effective for lighter users.** The brake's effectiveness depends on the force and the physical conditions of the user. According to the German PLEV tests the mudguard brake requires the force of a 70kg person for effective braking, which a smaller person cannot fulfil. This rather endangers potential users than providing an additional braking mechanism. It also does not promote an inclusive service accessible to the widest range of users.
 - **Wear & Tear.** Due to the design of a mudguard brake, this feature receives a lot of wear and tear and is prone to damage. However, this is not easy to assess for a user and the degree of effectiveness is only apparent when the user is actively braking. While on-the-go repairs can be made, the relative durability of hand-operated brake levers ensures that users are safer.
- 27 **Speed Limit.** One German standard that compromises the safety of e-scooter users is the maximum speed limit, which was set at 12.5mph. For the United Kingdom's minimum standards, TIER believes that 15.5mph is more appropriate in order to align with the standards of e-bikes. The e-scooter industry has increased the size of the wheels to better cope with variable road surfaces and increased the weight through more robust stem and baseboard designs, all to promote safety of users while delivering an enjoyable user experience.
- 28 Capping the speed of e-scooters below the speed of e-bikes, while requiring operation in cycle lanes near automobile road traffic endangers e-scooter users rather than promoting safety²⁶. Speed limits should thus be considered in the context of the speeds of the vehicles that micro-mobility will be used around. If e-bikes using cycling infrastructure have a motor that stops the assist at 15.5mph, this means cycles will be traveling at a faster speed than e-scooters, not to mention cyclists who ride at a slower pace. This mismatch of speeds may make slower riders feel unsafe sharing the infrastructure provided. An appropriate speed limit, coupled with the continual improvements to vehicle design, the safety of all road users will be enhanced.
- 29 **Sustainability Standards.** In order to achieve desired decarbonisation, align with SDG target 11.2 and meet transport demand in the UK, environmental sustainability must be at the core of the standards that are set for all modes of transport including e-scooters. TIER recommends considering the following topics in any regulation regarding standards for e-scooters. The specific mechanisms through which these topics are encouraged, be it through tax benefits or mandatory requirements for operating.
- 30 The following list is our proposal of requirements prioritised from top to bottom.
- **Green Energy.** E-scooters operators should be incentivised to use energy from renewable sources in all offices and warehouses they are operating in. Companies should be encouraged to charge e-scooters batteries and their operations e-vehicles by using green energy.

²⁶ [ITDP. \(2018\). Scooters Are Not A Public Safety Crisis, but Cars Still Are. Institute for Transportation & Development Policy.](#)

Operations using e-vehicles and e-cargo bikes should be encouraged as well to reduce operational environmental impacts of using diesel or combustion vehicles.

- **Higher Recycling Standards.** E-scooter companies should provide, in accordance with the UK recycling regulations, a proof of partnering up with local recycling companies for the disposal and the recycling of electronic parts and hazardous waste such as batteries.
- **Environmental Impact.** It is of the utmost importance to be aware of the ecological impacts of electric vehicles. For this reason TIER recommends that operators should provide:
 - Product Carbon Footprints or Life Cycle Assessment (LCA) of their vehicles
 - Corporate Carbon Footprint of the entire company
- **Recycling & Recovery Rate.** In order to keep products in use for longer and thus reduce waste by improving a continual use of resources, TIER suggests that operators should report and disclose the Recyclability & Recovery rate of their vehicles.
- **Climate Neutrality.** As the e-scooter industry is moving fast and multiple providers have already announced their existing or future plans to offset carbon emissions, climate neutrality within scope 3 of the greenhouse gas protocol should be highly encouraged by UK authorities.
- **Social Accountability.** E-scooter providers should present proof that e-scooters are manufactured in compliance with the highest social standards. This is relevant in order to provide a holistic framework which allows e-scooters operators to demonstrate their dedication to the fair treatment of workers. TIER suggests encouraging operators to manufacture in compliance with ISO14001 and to provide certifications such as the SA8000 Certification, which is the world's leading social certification programme. E-scooter operators should also promote fair working conditions for employees.
- **Waterproof Batteries.** With respect to vehicle design, TIER suggests that all operators should design their e-scooters so that water and dust is prevented from entering the batteries, verified through the standard IP67 certification for their e-scooter batteries.
- **Extended Lifespan.** In order to prevent unnecessary waste of resources, operators should channel their energies in improving the lifespan of e-scooters. For this reason TIER recommends UK authorities to set up a universal and comprehensive methodology for measuring lifespan of the vehicles. In addition to that, UK regulation should establish a minimum threshold of e-scooter lifetime.

31 By setting up these new standards for the eScooter industry, the UK would become leader in the market regulation and at the forefront in electric micro-mobility legislation.

6. What has been the experience of other countries where e-scooters are legal on the roads?

32 TIER is pleased to share our cumulative experience as a shared micro mobility provider in 12 countries. The regulatory framework within which we currently or previously operate e-scooters in these countries varies, therefore we are in a unique position to comment on our relative experiences as a company. Broadly speaking, successful e-scooter services to meet the needs of partner cities are more likely when:

- national regulation clearly delineates the scope of local authority,
- safety standards and road use rules are clearly regulated on a national level,
- when cities designate one department responsible for managing micro-mobility services and assign a point-of-contact
- and when there is regular communication setup between the local authorities and e-scooter operators.

33 Germany

- Cities have autonomy in regards to adapting e-scooter operations to municipal conditions.
- TIER is active in 37 cities in Germany with two different models of operating in partnership with the cities: voluntary codes of conduct and special use permits (only in Düsseldorf and Bremen).
- Most cities opted for voluntary non-binding city agreements setting rules in regards to fleet size, data sharing, sustainability and communication.

- **Münster.** A voluntary code of conduct has been signed between the city and TIER, the sole e-scooter operator. The key to successful e-scooter services in Münster are the regular reporting, data-sharing and excellent communication between the city and TIER. The city has designated a responsible department and point of contact, which helps to streamline problem solving and communication.

34 **Finland**

- Minimal regulation by classifying e-scooters as bicycles under national law.
- Cities enjoy a considerable degree of autonomy to shape e-scooter operation according to their specific requirements.
- All four cities TIER is currently working with chose voluntary agreements as the most suitable tool to pursue and ensure their needs. Strong communication through regularly scheduled exchange between cities and TIER continues to solidify a positive working relationship. The voluntary agreements have shown to provide flexibility to address the needs of both the city and TIER efficiently.

35 **France**

- The national decree legalising e-scooters classified them in the “new vehicles categories” in the French Highway Code. The national decree legalised other micro-mobility vehicles such as hoverboards and eSkates as well. Any future micro-mobility vehicles would also have to go through the process of being legalised under the French Highway Code, which is inadequate for the rapid pace of innovation happening in the transport field.
- Cities can regulate e-scooters further by making certain requirements stricter or even banning e-scooters outright.
- If municipalities choose to allow e-scooters, the French Mobility Law restricts them to either a competitive tendering process or a licensing scheme.
- This restriction at the national level does not allow municipalities to adopt a voluntary code of conduct with e-scooter operators, which is a successful endeavor throughout Germany, Austria and the Nordic countries.

36 **Austria**

- Austrian National regulation regulates e-scooters as bicycles.
- The shared e-scooters industry is mainly regulated by municipalities.
- **Linz** regulates shared e-scooter providers based on a code of conduct, which include different aspects such as: Maintenance & Quality Control, Safety measures, Climate & Environmental Compatibility.
- One of the key successes in Linz is the close cooperation between the municipality and TIER. Moreover, in order to raise local labor standards, the city of Linz banned operators from adopting a business model based on the gig economy, and required operators to have green operations.

37 **Denmark**

- Denmark temporarily legalised the use of e-scooters on roads for a one-year trial, specifically setting standards for operation in bicycle lanes, to cap speed limits at 12.5mph and to impose an age limit of at least 15 years of age for users²⁷.
- The legislation was crafted and passed without the consultation of municipalities and did not outline the extent to which cities could further regulate and manage shared e-scooters.
- **Copenhagen.** There were no established lines of communication between the city and e-scooter providers and the interactions began negatively in regards to improper use of public space notifications. An uncompleted licensing process is still in place as the municipality continues to passively manage the service in a state of continued ambiguity.
- There is forthcoming national regulation so the municipality put their local level process on hold pending the outcome of the national legislation.

38 **Spain**

- E-scooters are legal through temporary national legislation. The legislation devolved regulation concerning parking, compulsory helmets, or additional safety measures such as helmet use to

²⁷ [Hofverberg, E. \(2019\). Denmark: Copenhagen Limits Number of Electric Scooters on Its Streets. The Law Library of Congress.](#)

municipalities. Municipalities are also allowed to legalise the use of e-scooters on pavements if they so choose. Permanent regulation and update to the General Regulation of Vehicles is forthcoming.

- **Madrid** passed their own local ordinances to regulate the use of e-scooters in their jurisdictions out of necessity before the national regulation was in place.
- The parameters of the year-long license scheme were not optimal to meet the e-scooter demand in a dynamic way and to ensure healthy and viable competition between operators.
- As a result, nine e-scooter operators have since stopped Spanish operations, including TIER.
- The inefficiencies in the dynamics between national and local legislation were due to the lack of clarity regarding the extent to which cities could regulate the use of public space and thus e-scooter providers.

39 **Netherlands**

- E-scooters are currently classified as “special mopeds” resulting in regulatory hardware hurdles that so far, neither e-scooter OEMs nor sharing providers could overcome without significant hardware adaptations. The Ministry of Transport is working on updating national regulation that has the potential to decrease the current barriers for e-scooter providers,
- Two cities have taken steps to encourage e-scooter providers to begin operations (Breda and Rotterdam). Breda has applied to begin an e-scooter pilot and Rotterdam has issued a licensing scheme.

Conclusion

- 40 TIER thanks the Committee for the opportunity to respond to the e-scooter inquiry and is pleased to provide any additional information needed. Creating clear and thought-through regulations to begin e-scooter trials and for the long-term is an important part of ensuring that the service is adopted by people and to minimise the adverse impacts of integrating a new mode of transport. TIER highlights the importance of working with local authorities and experienced operators to craft regulations that are optimal for all stakeholders.

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