NEW MOBILITY SERVICES

E-SCOOTER SHARING

EVIDENCE AND KEY ISSUES

Electric scooters are a new key trend in urban mobility, presented by manufacturers as a sustainable solution to the last-mile and congestion issues in cities. They are increasingly popular amongst urban commuters.

Planners are progressively taking them into account and designing policies to respond to their spatial needs. For both city planners and observers, e-scooters raise health and safety concerns. Considering how recent the phenomenon is, for the moment there is minimal evidence to support any claims regarding those. Their life expectancy is also a subject of interrogations, as current models are used on an average for three months.

In large French cities, 66% of shared e-scooters users are men, 53% have executive positions, 19% are students (6T, 2019).

69% say the main reason they use them is fun, 68% say it's to save journey time and 7% of users use them daily (6T, 2019).

LONDON CONTEXT

In the United Kingdom, e-scooters are currently not allowed on public roads, as they are classified as Personal Light Electric Vehicles (PLEV), alongside Segways or one-wheelers. Despite this, personal e-scooters being used unlawfully have progressively appeared on London streets in 2018 and 2019 and users therefore risk enforcement action by the Police. The boroughs, Transport for London and the Greater London Authority have been working in 2019 on a new bylaw for dockless mobility solutions, which if not mentioning e-scooters directly, is designed to be future-proof and have the ability to include them. They are also included in the Future of Mobility Urban Strategy document published by the Department for Transport in March 2019.

INSPIRATION FROM ELSEWHERE

Regulatory framework

European cities, like their American counterparts, have progressively put in place regulations around e-scooters. It is estimated that these are now in use in over 35 EU cities, with some experiencing as much as 12 operators (Paris). The response from public authorities has not been unified, as each has dealt with it according to their mobility needs. In terms of legislation, the EU had started some work on personal light electric vehicles safety standards in 2016, but requirements are not specific and were not built with e-scooters in mind. In June 2019, Germany passed a law requiring e-scooter users to purchase insurance, have specific technical requirements and be limited to under 20km/h (12.5mph). Under 14s cannot use them, and riding them on the pavement is forbidden, only cycle paths and roads can be used. The city of Paris has put in place fines for bad parking (35€) and pavement riding (135€). Scooters are limited to 20km/hr. Since the end of July 2019, parking on the pavement is also forbidden and e-scooters can only park in designated areas. For hire companies, the city has also put in place a fee per scooter deployed of 50 euros per scooter for the first 499, up to 65 euros for a fleet above 3,000. In France, e-scooters have been included in traffic laws that will become operational in September 2019. Ridership will not be allowed below 8 years old, and only one commuter allowed to use it at a time. The maximum speed of the engine must be 25km/h (15.5mph), and similarly to Germany specific technical requirements are also in place. Circulation will only be permitted on roads if there are no cycling lanes. Fines will be the same as currently applied in Paris, with a 1,500€ fine if riding above 25km/h. Following this, Paris will be launching a call for tender to select two to three operators for the city.

The Horizon 2020 project Gecko is looking at developing a framework for the

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governance of new mobility services that could be used across the EU. New mobility services such as e-scooters relate closely to Mobility as a Service (MaaS) and with issues of data sharing.

Operational models and integration in the mobility mix

As for other new mobility solutions which emerged over recent years, cities have experienced varied models of cooperation with e-scooter operators. The experience with some of the first private operators arriving in cities, was that vehicles were removed from some places as they did not warn authorities of their arrival and had been 'dumped' on the highway. This has led those operators to be more careful in their cooperation models (much like dockless ebikes recently). This increased co-operation was also helped by some companies already having had dealings with local authorities and national governments for other services they might provide (such as taxi and private hire services). Cities across the EU have increasingly imposed their framework on providers. Agreements vary, but one of the key stakes for local authorities is access to data and ability to integrate e-scooters into their wider available services to facilitate multimodality. Madrid, who launched their MaaS app in 2018, requires operators to share their data with them. Operators must comply and be integrated into the app if they want to operate. The city also allocates a certain number of e-scooters per district. Other cities operate on a licensing basis, with a limited number of operators selected through a procurement process.

A city's perspective: road safety and equality concerns

Safety is a key concern, and evidence has so far mostly been gathered in the United States. The American city of Austin published a report analysing 192 e-scooter usage related injuries in the span of three months. Among these, 48% were aged 18-29 and 55% identified as male. A single rider was wearing a helmet, and most of the injured were beginner users (9 or fewer uses). Los Angeles also conducted a similar study on a reduced population. In the UK, the media have raised concerns over the safety of scooters, often presenting the case of Paris (The Guardian, The Independent). In European cities, some are harshly opposed to their presence. Operators have published studies to reassure users and policy makers. According to Bird, e-scooters and bicycles share similar risks. Where space is left for them to do so, new mobility services operators will often present their services alongside policy recommendations and collaborate with cities. Both Bird and Lime have put together Safety Advisory boards and have launched training operations in some cities where they operate. User demographics also currently suffer from a lack of evidence. In Paris, two-thirds of users are male, and more than half are in executive positions. It must also be noted that a high proportion of users are tourists. More evidence needs to be gathered, but for the moment the demographical range is limited. It should be noted that in certain cities, cycling suffers from the same gender and age imbalance.

E-scooters, a sustainable solution?

E-scooters' environmental impact is a debated issue, where evidence is for the moment scarce. A first of its kind study published in early August 2019 by researchers at North Carolina State University looked at the environmental impact of e-scooters along their entire life span. They find that life cycle greenhouse gas emissions are higher for 65% of the cases of current e-scooters usage, as e-scooter often replaces foot, bike or public transport trips. This is assuming a short scooter lifespan. Above a two-year lifespan for the electrical motors, that number falls to 4%. According to a BCG study in May 2019, lifespan was approximatively three months. Most companies are trialling newer versions of their product to increase their resilience. Some commentators have described e-scooters companies as greenwashing their product. Alongside evidence on safety, companies advocate themselves as sustainable urban mobility solutions, a claim that for the moment cannot be supported by scientific evidence.

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