LONDON CYCLING CAMPAIGN

MICROMOBILITY AND ACTIVE TRAVEL IN THE UK

THE RISE OF SMALLER MODES, AND RESULTING INFRASTRUCTURE, SAFETY AND REGULATION IMPLICATIONS

A research paper by the
Policy Forum of the London Cycling Campaign

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EXECUTIVE SUMMARY

LCC is a strong supporter of all forms of active travel. Walking and cycling are the older active travel modes, while over the years, a wider range of cycle types, including electric cycles, adapted cycles and commercial cargo cycles, have become available. To these, a range of new travel modes such as electric scooters have recently been added, under the wider term of 'micromobilities,' along with the proliferation of shared cycle, e-bike and e-scooter schemes.

In this paper, while we use a wider definition of micromobility that includes pedal cycles in some contexts, we are focusing on the new electric micromobility (e-micromobility) modes notably e-bikes, e-scooters and e-cargo bikes. Such powered modes constitute active travel to a smaller (e-scooters) or greater (e-bikes) extent. It is important to understand what impacts the new powered modes will have on both travel in general and on active travel in particular, which offers benefits beyond those of transport.

Micromobility, in the widest sense, and its electrification, presents an opportunity to achieve a reduction in private motor car use and enable more and a wider range of people to move about without using motor vehicles.

In this research paper LCC's position on road danger reduction, notably in consideration of the speed and mass of the vehicle, was paramount when considering e-scooters, and micromobilities in general. The emerging evidence shows significant similarities between e-scooters with pedal cycles and e-bikes in these considerations, partly because of the similarity of speeds and mass. The common issues include a higher risk of injuries involving motor vehicles compared to other road users, and the safety gains to be had from segregated space for their use.

This paper offers arguments and options regarding the practical application of e-micromobility in the United Kingdom. It defines micromobility using mass and speed boundaries, as is increasingly the common approach, taking into account electric motor and pedalling requirements.

The paper specifically considers: the rise in two types of e-micromobility (e-bikes and e-scooters), within the last decade; the use of e-micromobility for freight deliveries; regulation, in the context of the UK Government's consultation on e-micromobility, including product (hardware) and sharing (operations) regulations; street design and parking.

KEY POINTS FROM CHAPTER 1 – INTRODUCTION

A more equitable distribution of road space and reduction in those problems which negatively impact our health is required for a humane city: a city that is calm and enjoyable, and promotes social connections with others.

Any form of e-micromobility has much more in common with cycling than public transport such as buses or trains. The ability to move around the city unencumbered by an enclosed vehicle, to choose a route and to diverge from it, is consistent throughout cycling, walking and micromobility.

KEY POINTS FROM CHAPTER 2 – WHAT IS 'MICROMOBILITY'

Speed and mass of vehicles impact the safety of streets and the opportunity for everyone to access streets without fear of road danger. It is also evident that faster and heavier vehicles produce more pollutants, which harm us, our cities and the planet.

While some doubt the longevity of micromobility and suggest that e-scooters are a fad, the sheer number of trips already occurring in cities across the world cannot be ignored. This paper considers micromobility as a collection of viable transport modes that raises a range of issues for the cycling community.

This paper accepts the basic categories of micromobility defined by the International Transport Forum (Figure 2-4) and proposes some amendments as the basis for a regulatory structure in the UK. How these types develop and interact will be key to making a variety of micromobility modes work long-term in cities.

KEY POINTS FROM CHAPTER 3 – EMERGING E-SCOOTER DATA

A simple analysis from averaging worldwide data showed a large shift to e-scooter use from private vehicles (36%) and walking (37%), with a lower shift from public transport (13%) and cycling (9%). Data from European cities, which typically have better public transport than the US, shows a greater shift from public transport. Notably, cycling experienced the lowest of all shifts in all scenarios.

There is evidence from numerous e-scooter pilot reports indicating that users have the same preferences as cyclists: riding on low-speed streets and in segregated lanes.

Charging a privately owned e-scooter amounts to a small fraction of an individual's annual CO2 emissions, based on typical annual usage patterns. While shared e-scooters also have low emissions, re-charging practices – particularly collection of scooters by van overnight – can result in higher total emissions.

KEY POINTS FROM CHAPTER 4 – THE GROWTH IN E-BIKES

Electric bicycles represent one of the most significant opportunities for a micromobility future. They allow a wider range of users to access individual mobility with all the time saving and many of the health benefits that entails.

KEY POINTS FROM CHAPTER 5 – LAST MILE DELIVERY E-CARGO MICROMOBILITIES

A coalition of personal users of micromobility, in the wider sense, and commercial e-cargo freight users could be a strong force lobbying for wider lanes to suit all users.

Adaptations to (normally electric) cycles push the boundaries of 'micro'mobility, with trailers, extra seats, extra wheels, extending beyond current regulatory categories. This raises important questions about the functionality of segregated cycle lanes, and the inclusion of larger types of commercial micromobility potentially at the expense of more vulnerable cyclists.

KEY POINTS FROM CHAPTER 6 – REGULATING MICROMOBILITY

Regulations should be applied to micromobility, and regulation has already been developed in a number of places. Usually, a national definition of mode is used to decide where on the road those vehicles can travel, while regulations about sharing operations are applied at a local authority level.

The rapid uptake of some e-micromobility modes as a novelty could lead to overstating the risks involved, and consequent over-regulation of all micromobility – including cycling.

The 'novelty' of e-micromobility modes, combined with the ease of access through an app, may encourage constituencies who do not cycle to try out micromobility.

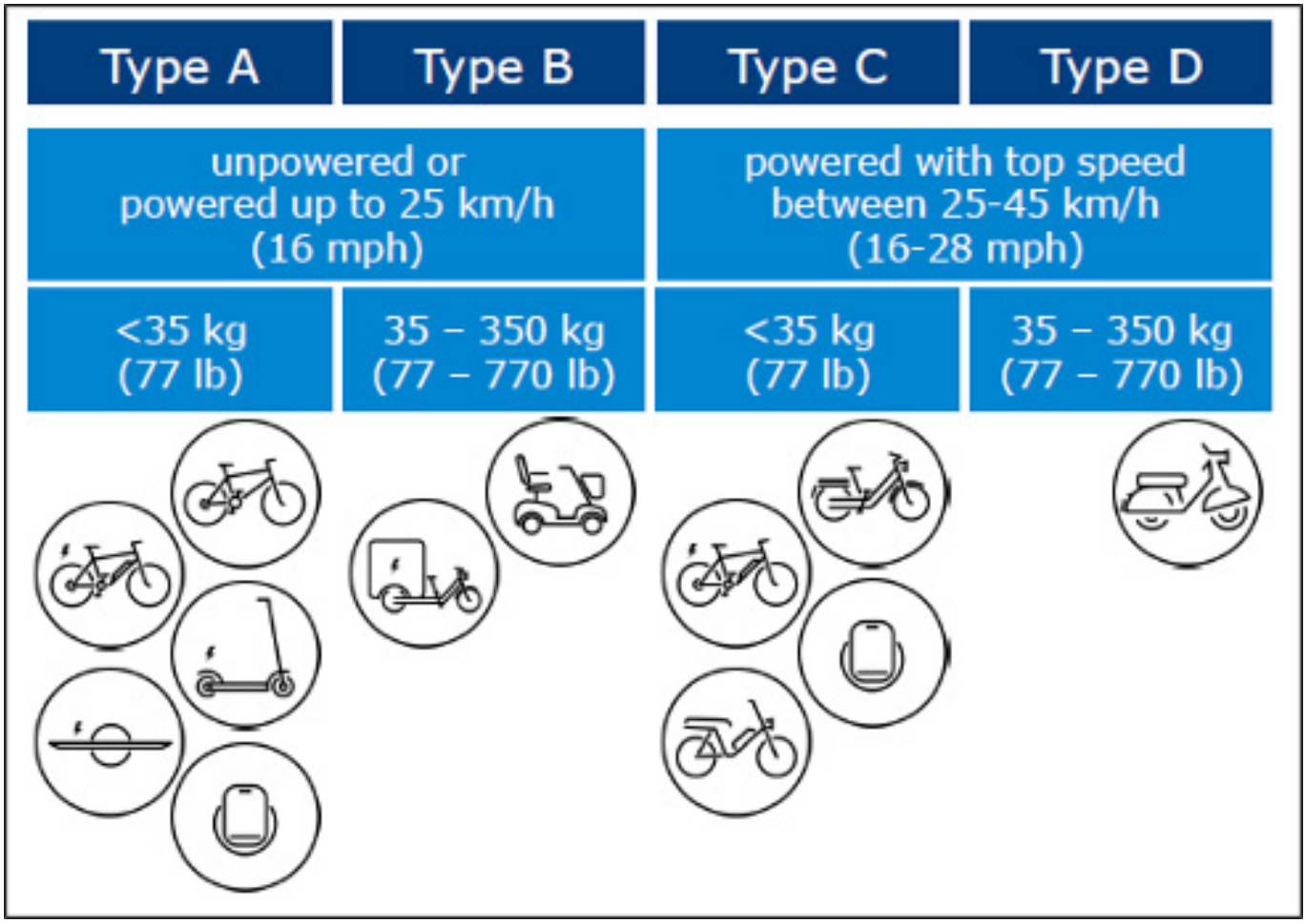
KEY POINTS FROM CHAPTER 7: INFRASTRUCTURE AND DESIGN FOR MICROMOBILITY

Increased pressure on cycle routes is not a bad thing – it indicates the need for more road space reallocation. The implications of greater mode share for micromobility could be significant: many roads free from motor traffic, larger cycle lanes and freight delivered by e-bike and electric vans rather than diesel-powered lorries

Using the types of micromobility defined in Chapter 2, the chapter discusses how micromobility might open up new, safe and equitable layout options for UK streets.

Getting parking right is difficult but crucial: both for sharing schemes and for personal e-micromobility vehicles. The UK has the advantage of coming late to the regulatory sphere in that it can draw on the successes of other countries' e-micromobility parking solutions.

Planning policies may need to be adjusted to provide space to securely park (and charge where relevant) significant numbers of micromobility devices, both at home and at various destinations. Just as different kinds of streets require different types of infrastructure, different destinations need different kinds of parking.



Proposed micromobility definition and classification from the ITF's Safe Micromobility report (Source: Safe Micromobility, International Transport Forum, 2020)