

# ‘TICKING TIME BOMBS’ ON THE ROADS? ELECTRIC SCOOTER LAWS IN THE EUROPEAN UNION\*

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*The rise of dockless electric scooter (e-scooter) fleets in the cities in the European Union happened almost overnight (Overstreet 2021). There were, for example, more than 15,000 scooters available for hire on the streets of Paris (BBC 2019), and in Cologne, authorities expected as many as 40,000 users by the end of 2019 (Schumacher 2019). It is estimated that currently there are over 360,000 e-scooters available for hire on European streets (O’Brian 2021).*

## **Keywords**

e-scooter, environmental impact, protection of road users, regulatory policies

## **1. Background**

Proponents of e-scooters highlight their *potential* to replacing short distance passenger car journeys, serving as a first and last mile to public transportation networks, and help to solve the urban transport challenge of poor air quality stemming from increased congestion as well (Hirst 2021).

The operation of e-scooters results in both *direct and indirect environmental impacts*, which can be significant without corrective measures. Analysis undertaken by the International Transport Forum (OECD/ITF 2020) demonstrates factors that influence the direct environmental impact related to average daily distances, vehicle lifetime, operator collection practices, vehicle weight and material choice in manufacturing. It should also be highlighted that following the COVID-19 public health crisis, the *necessity and popularity* of reallocating space away from passenger cars has grown (Transport and Environment 2021).

However, emerging data on the risks of e-scooters highlights significant *safety risks*, with risks of accidents potentially seven times greater than the use of bicycles. Several risk factors contribute to the probability of users being involved in accidents and the severity of the incident, including experience, use of alcohol and drugs and awareness of rules and protective equipment (Eurocities 2020). A study of accidents in Copenhagen noted that riders primarily sustained facial bruising and lacerations and were sometimes under the influence of alcohol or drugs (36.6%) (Blomberg et al. 2019). Around one-third of accidents occurred between 23:00 and 07:00, which may indicate a safety benefit to regulating the operation of scooters during hours in which riders are more likely to be involved in an incident. In another study of patients involved in e-scooter or e-bike accidents, 8.4% of those involved were pedestrians; three-quarters of those pedestrians were vulnerable road users, either between the ages of 0-14 or older than 60 years of age (Siman-Tov et al. 2017).

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Options available to authorities can include *soft measures to improve user behaviour*, through safety pieces of training and awareness raising on rules, and stronger regulatory measures that target the cause of a crash or mitigate impact, such as limits on riders per e-scooter and the use of phones while riding. Insurance provided by operators can be an important element to consider for the safety of users when accidents happen. This should cover damages that arise from collision, liability for third parties and their property as well as medical costs. Many of the *measures associated with the protection of vulnerable road users* can also apply, such as passenger car speed restrictions, traffic calming measures, separated bicycle lanes or similar (Eurocities 2020).

In conclusion, e-scooters have brought *challenges* for cities. Like other vehicles using the road, e-scooters need to operate within an adequately personalised regulatory framework. Over the last couple of years, cities have reacted to the trend of shared micro-mobility in different ways, ranging from total prohibition to total openness, with many variations in between. Some have adapted policy over time by reacting to developments on the ground, including responding to reactions from the public. This has, in turn, resulted in widespread, yet dissimilar, amendments to national regulations. Latecomers have usually taken a more restrictive approach than early adopters (Twisse 2020).

## 2. Overview of Policy Relating to E-Scooters

*Austria* recognizes and legally states the distinction between electric scooters and other motor-driven vehicles like mopeds, electric bikes, motorized bicycles, etc. The country does not require any license or insurance for electric scooters. However, there are some age restrictions: 12-year-olds who want to ride an e-scooter must be supervised by people of at least 16 years of age. Furthermore, children that are younger than 12 years must wear helmets. Scooters with a maximum power output of 600W and 25 km/h max speed can be operated legally on public roads. Austria's parking rules for e-scooters are the same as those for bikes. All offences lead to administrative fines (Noor 2021).

*France* has categorized electric scooters as „*personal motorized travel devices*.” In September 2019, a *new mobility bill* added e-scooters to France's traffic law with measures including a minimum age (children as young as 8) and guidelines on where they can be used. E-scooters are banned from pavements, their speed limit on roads is 20 km/hour and it is mandatory for helmets to be worn by children under 12 years of age. In October 2019, various fines for e-scooter violations and offences were decreed (Noor 2021). In *Lyon*, a shared e-scooter operator has introduced a speed limiter that is based on a global positioning system (GPS) where, within the city's pedestrian zone, vehicles are restricted to 8 km/hour. Paris aims to limit the number of providers operating in the city, with a tender to select up to three operators, which will be allowed to continue providing their service. The national mobility bill hands local authorities the power to limit the number of vehicles and operators, and impose additional requirements on maintenance, noise and pollution. In June 2021, Paris threatened to ban e-scooters if their operators don't enforce speed limits and other rules after a pedestrian was knocked down and killed by two riders who fled the scene. Critics say the aforementioned rules are hardly enforced, and abandoned scooters are often seen scattered on sidewalks and squares. Confirming the above, deputy mayor *David*

*Belliard*, in charge of transportation, said he had summoned executives from the three e-scooter operators, Lime, Dott and Tier, telling them he had received „lots of negative feedback about scooters on sidewalks, the sense of insecurity, and scooters abandoned in the streets.” (France24 2021).

*Finland* classifies electric scooters as lightweight electric vehicles. This category constitutes vehicles with a motor of a maximum of 1000W and a top speed of 25 km/h. However, if your electric scooter is slower than 15 km/h, then it will be categorized as a „pedestrian-assisted device.” As an e-scooter owner in Finland, you don't need insurance or a driving license. Although not punishable by law, helmets are strongly recommended. Furthermore, you must not drive on the pavement (Noor 2021).

Similar to Finland's legislation, *Germany* declares electric scooters as lightweight electric micro mobiles meant for personal use. These lightweight electric vehicles do not need to be registered; however, they do require insurance. After the insurance process is complete, a sticker is attached to the scooter to indicate that it has been insured. The minimum legal age for riding an e-scooter in Germany is 14 years. Helmets, like other countries, are recommended but not mandatory. Moreover, no driving license is needed to operate an electric scooter. Germany has the same parking laws for e-scooters as for bicycles. Finally, only one person can use a scooter at a time (Noor 2021).

Up till 2019, there was no formal legislative framework in *Italy* regarding the use of electric scooters. Only around the mid of 2019, a national-level set of policies was formed. The Italian Ministry of Transport decreed that electric scooters (which are popular in Milan, Turin and Rimini) can be legally operated on roads and pedestrian areas. However, this accessibility was limited by the speed of the scooters. The law sets a minimum age of 14 and wearing a helmet is mandatory for those under 18. E-scooters can be driven at a maximum speed of 25 km/hour on carriageways where bicycles are allowed and 6 km/hour in pedestrian areas (Twise 2020).

The legal policies revolving around e-scooters are tricky in *Hungary*. This is because a distinct category for electric scooters does not exist as of now. There are two interpretations of the current law of Hungary for electric scooters. One side affirms that according to the legislative texts, electric scooters do not count as traffic, but rather as pedestrians. Therefore, they cannot be qualified as vehicles. On the other hand, some other experts have claimed that once the dispute is settled and electric scooters are considered electric vehicles, they should be allowed on cycle paths and roads, but not on pavements. Perhaps there is still some more time until we see this debate come to a logical resolution, but until then, the theory forbids the use of electric scooters (Noor 2021).

*Belgium* refers to electric scooters as „moving devices.” When it comes to e-scooters, the law in Belgium is very lenient compared to other places in the world. There is no age limit at all, meaning children can ride electric scooters as well. Furthermore, no license, insurance, or registration is required. Helmets are recommended but not obligatory (Noor 2021). The rider's speed defines whether they can access the pavement or not. For instance, if they are slow enough to be categorized as a pedestrian, they can ride on the footway. But if they're faster (more than 5-6 km/h), they can only ride on cycle paths, where their speed is limited to 25 km/hour, which mirrors the requirement for e-bikes (Twise 2020). According to recent news, the

Brussels parliament wants to get tougher on shared e-scooters and bicycles by introducing special parking areas, speed limits and fines if the vehicles are dumped in the street. *Arnaud Verstraete*, leader of the Greens in the Brussels-Capital Region's parliament, in the last days of October 2021, put forward a plan for stricter rules with the support of the ruling parties in the parliament. It is expected to be voted on in early 2022 (Westendarp 2021).

*Sweden* classifies electric scooters as electric bikes in some conditions. If an electric scooter has a continuous power output of 250W, a max speed of 20 km/h, and can only be used by one person at a time, it is legal (Noor 2021). E-scooters must have brakes, and an audible warning device, such as a bicycle bell, and riders younger than 15 years of age are required to wear a helmet (Twisse 2020).

## Conclusion

The *European Commission* is also looking at e-scooters and micro-mobility in general, with guidelines for use under consideration at the moment. Technical standards are also being considered under possible plans for standardisation or type approval for certain categories of devices (Sokolowski 2020; Bosetti 2021).

In the future, the success of electric scooters won't come from public interest – it's already there. Adding another type of mobility into city planning may seem daunting, but if anything, it will force our cities to respond properly to new challenges.

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