

Electric Scooters in the European Union

Laws and Policies on Electric Scooters in the European Union: A Ride to the Micromobility Directive?*

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The conducted research shows that the EU-27 and the UK have a varied approach to electric scooters when it comes to law: some see them as means of micro-transportation or personal transport, others define them exclusively in their legislation (in a direct manner). In some countries electric scooters are not defined in legislation but other rules apply (e.g. rules on bicycles). Electric scooters' users are qualified either as pedestrians using scooters, drivers, or cyclists. The limit of 20 – 25 km/h of speed is a general benchmark. The rules on the access to pavement, pedestrian zones, and pedestrian crossings vary among the Member States (some allow it, providing speed limits; others offer only the possibility of accessing bike paths or public roads). National legislation also provides some other requirements, such as age limits for electric scooter users when riding on a road or wearing protective equipment (e.g. helmet or safety vest). The research also proves that the majority of Member States do not provide any special rules on driving licences or insurance (generally not required when using electric scooters). Finally, the article addresses a seemingly basic legal European framework on electric scooters and a possible harmonization by adopting the Micromobility Directive.

Keywords: electric transport, electric scooters, micromobility, micro-transportation, Micromobility Directive

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1 Introduction

There is a growing and easily noticeable interest in the use of stand-up electric scooters. Their popularity and accessibility make them visible elements of many European cities. Those scooters are electricity-powered, so they are contributing to the clean transition of the EU transport system. Modern products, new technologies and access to the Internet have changed perceptions and given birth to new concepts and trends in terms of vehicle ownership and accessibility. Those ideas cover, inter alia, enhancing energy efficiency,¹ strengthening prosumerism,² and reduction of emissions,³ or promotion renewable energy sources⁴ and storage of electricity.⁵

However, an increasing trend of using stand-up electric scooters results in some issues of different character. This concerns e.g. collisions caused by the users of electric scooters, the possibility of driving on the pavement, or the requirement of wearing a helmet during a ride. These circumstances led me to develop an interest in the matter of electric scooters in the EU; they also prompted me to carry out a study related to legal matters linked to the use of these vehicles in Europe.

To conduct the research on electric scooters in the European Union, covering the former EU-28 (EU-27 and the United Kingdom), I elaborate on a survey which contains some basic questions related to laws, regulations, and policies on electric scooters in each Member State (their regulatory approach).⁶ The main research issues were collected in the

¹ Compare Howard Geller et al., *Policies for Increasing Energy Efficiency: Thirty Years of Experience in OECD Countries*, 34 (5) Energy Pol'y 556 (2006); Tina Fawcett, Jan Rosenow & Paolo Bertoldi, *Energy Efficiency Obligation Schemes: Their Future in the EU*, 12(1) Energy Efficiency 57 (2019); Maciej M. Sokołowski, *European Law on Combined Heat and Power* (Routledge 2020).

² See Maciej M. Sokołowski, *Renewable Energy Communities in the Law of the EU, Australia, and New Zealand* 28(2) Eur. Energy & Env'tl. L. Rev. 34 (2019); Maciej M. Sokołowski, *European Law on the Energy Communities: A Long Way to a Direct Legal Framework*, 27(2) Eur. Energy & Env'tl. L. Rev. 60 (2018).

³ See Maciej M. Sokołowski, *Renewable Energy Communities in the Law of the EU, Australia, and New Zealand* 28(2) Eur. Energy & Env'tl. L. Rev. 34 (2019); Maciej M. Sokołowski, *European Law on the Energy Communities: A Long Way to a Direct Legal Framework*, 27(2) Eur. Energy & Env'tl. L. Rev. 60 (2018). *Renewable and Citizen Energy Communities in the European Union: How (Not) to Regulate Community Energy in National Laws and Policies*, J. Energy & Natural Res. L., DOI: 10.1080/02646811.2020.1759247 (2020).

⁴ See Pantelis Capros et al., *Analysis of the EU Policy Package on Climate Change and Renewables*, 39(3) Energy Pol'y 1476 (2011); cf. Maciej M. Sokołowski, *Discovering the New Renewable Legal Order in Poland: With or Without Wind?*, 106 Energy Pol'y 68 (2017).

⁵ See Grigorios L. Kyriakopoulos & Garyfallos Arabatzis, *Electrical Energy Storage Systems in Electricity Generation: Energy Policies, Innovative Technologies, and Regulatory Regimes*, 56 Renewable & Sust. Energy Rev. 1044 (2016).

⁶ See Maciej M. Sokołowski, *Regulatory Dilemma: Between Deregulation and Overregulation*, in *Prawo administracyjne*

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survey in five groups presenting national approach and concerning: first, recognition of electric scooters in law; second, policies on electric scooters; third, restrictions on electric scooters; fourth, authorities and law enforcement; and fifth, future plans on regulating electric scooters.⁷

The scope of the analysed issues and the specific matters addressed in each field are discussed in section 3 of this study, where legislation and policies on electric scooters of the former EU-28 Member States are presented. Section 4 of this work juxtaposes the national approaches and summarizes the article. As the study covers the European Union's law, apart from discussing the national laws and policies of individual Member States, I analyse the European legislation applicable (or ostensibly applicable) to electric scooters. Section 2 makes it possible – by providing relevant comments – to introduce a top-down approach to steer the discussion introduced by this article.

2 Searching for the EU Legal Framework on Electric Scooters

Seemingly, a basic legal European framework on electric scooters could be provided by Regulation (EU) No 168/2013 of the European Parliament and of the Council on the approval and market surveillance of two- or three-wheel vehicles and quadricycles (Regulation 168/2013). The Regulation aimed at ‘simplifying and accelerating the adoption of type-approval legislation’⁸ for the L-category vehicles (‘two-, three- or four-wheel vehicles such as powered two-wheel vehicles, tricycles and quadricycles’)⁹ establishes the harmonized rules for this category of vehicles. Apart from facilitating the legal environment for L-category vehicles, the EU action emphasizes the environmental issues (reduction of emissions from L-category vehicles) as well as safety matters (an increase in the overall level of safety). However, the most important question that should be raised at the very beginning of this discussion concerns the applicability of the Regulation 168/2013 to electric scooters. As mentioned above

wobec współczesnych wyzwań. Księga jubileuszowa dedykowana profesorowi Markowi Wierzbowskiemu [Administrative law facing contemporary challenges: Jubilee Anniversary Publication dedicated to Professor Marek Wierzbowski] (Jacek Jagielski, Dariusz Kijowski & Marek Grzywacz eds, C. H. Beck 2018); Maciej M. Sokołowski, *Regulation in the European Electricity Sector* (Routledge 2016).

⁷ The survey was sent to all the EU-28 Member States (as of June 2019); it was distributed among their national institutions responsible for transportation at the central level, diplomatic representatives, members of parliament, and experts representing academia. These preparatory steps were supplemented by other sources like legislation or media reports on electric scooters (if needed). The footnotes in s. 3 of this study contain the list of respondents to the survey.

⁸ Recital 3, Regulation 168/2013.

⁹ Recital 8, *ibid.*

in the opening sentence of this section, the Regulation ‘seemingly’ brings legislation relevant for electric scooters. Let us discuss this matter in detail.

According to its Article 2(1) the Regulation 168/2013 applies to ‘all two- or three-wheel vehicles and quadricycles as categorized in Article 4 and Annex I ... that are intended to travel on public roads’, including enduro motorcycles, trial motorcycles, and heavy all terrain quads. Article 4 comprises L-category vehicles which include ‘powered two-, three- and four-wheel vehicles ... including powered cycles, two- and three-wheel mopeds, two- and three-wheel motorcycles, motorcycles with side-cars, light and heavy on-road quads, and light and heavy quadri-mobiles’. The reference to ‘powered two-wheel vehicles’ in some way enables electric scooters to be covered by the Regulation. However – to use transport terminology – it may be necessary to use an ‘emergency brake’ before going any further by referring to Article 2(2) of the Regulation 168/2013.

The above-mentioned Article lists the types of vehicles excluded from the application of the Regulation 168/2013. According to the list, the Regulation does not cover e.g. ‘vehicles exclusively intended for use by the physically handicapped’, ‘vehicles exclusively intended for use in competition’, or ‘vehicles designed and constructed for use by the armed services, civil defence, fire services, forces responsible for maintaining public order and emergency medical services’.¹⁰ These are just a few examples from the wide range of vehicles (divided into eleven groups) not addressed by the Regulation 168/2013. For the purpose of this article two of those groups are particularly important. First, Article 2(2)(i) excludes ‘self-balancing vehicles’ from the scope of the Regulation 168/2013. Second, Article 2(2)(j) eliminates ‘vehicles not equipped with at least one seating position’ from vehicles to which the Regulation applies. Defined in Article 3 (point 71) the category of self-balancing vehicle refers to ‘a vehicle concept that is based on an inherent unstable equilibrium and that needs an auxiliary control system to maintain its balance, and which includes powered one-wheel vehicles or powered two-wheel, two-track vehicles’; whereas the seating position¹¹ is ‘a saddle accommodating either the driver or a passenger, which is used by sitting in an astride position’ or ‘any seat which can accommodate at the minimum a person with the size of a anthropomorphic manikin of a fiftieth percentile adult male, in the case of the driver’. In this light, electric scooters – which generally do not have a seat (as they are stand-up vehicles) and need additional control system (steering column) to keep their balance – are two-wheel or three-wheel vehicles excluded from the scope of Regulation 168/2013. The way they are powered (i.e. by an electric engine) is not relevant. On the contrary, a third condition which makes it possible to exempt electric scooters from the Regulation could be added here. This

¹⁰ As defined in Art. 2(2)(b), (d), and (e), *ibid.*

¹¹ Point 29 of Art. 3, *ibid.*

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concerns Article 2(2)(c) which provides an exemption from the Regulation 168/2013 for ‘vehicles exclusively intended for pedestrian control’. Case studies of how different Member States address electric scooters in their national legislations (see section 3 of this article) show that the approach represented by Article 2(2)(c) can also be applied to those electric scooters which many EU countries recognize as vehicles steered by pedestrians.

The legal environment discussed here also influences other European legal acts on vehicles. In correlation with the above-mentioned exemptions, electric scooters are not covered by Directive 2014/45/EU.¹² Despite the fact that this Directive applies to vehicles with a design speed exceeding 25 km/h (which many models of electric scooters overreach) it will not regulate two- or three-wheel vehicles of categories L3e, L4e, L5e, and L7e, with the engine displacement of less than 125 cm³.¹³ As electric scooters are not recognized by Regulation 168/2013 within its L-category, and not mentioned in the category of engine displacement, Directive 2014/45/EU is irrelevant with respect to them.

Therefore, the question is: what is an electric scooter in the light of European law? Following the exemption provided by Regulation 168/2013 one should move to Directive 2006/42/EC.¹⁴ In general, this Directive does not cover means of transport, including the vehicles addressed by Directive 2002/24/EC¹⁵ – the predecessor of the current Regulation 168/2013 – with respect to the exemption provided by the Directive on machinery. Regarding the applicability of Directive 2006/42/EC, it establishes the legal environment for ‘machinery’ (as in its title), but also for other fields including ‘interchangeable equipment’, ‘safety components’, ‘lifting accessories’, ‘chains, ropes and webbing’, ‘removable mechanical transmission devices’, as well as ‘partly completed machinery’. In this context, electric scooters fall under the definition of machinery established by Article 2(a) of 2006/42/EC.¹⁶ By applying this definition to electric scooters one may find that they match. Electric scooters are fitted with a drive system other

than powered by human or animal (an electric engine); their parts or components are linked (e.g. brakes, battery, deck, front fork, kickstand, steering column, etc.); they have at least one component which moves (a wheel propelled by the electric engine) and their parts are joined together for a specific application: to transport a rider.

3 National Laws and Policies on Electric Scooters: The EU Member States Review (EU-28)

The legal nexus discussed in the previous section raises some practical problems. While electric scooters are not vehicles under the L-category stipulated by Regulation 168/2013, some vehicles in this category could be illegally used as electric scooters (pretending to be electric scooters not covered by Regulation 168/2013). Such situation was observed e.g. in Spain, where the police identifies and immobilizes vehicles of L-category of the EU type approval used as electric scooters.¹⁷ Such cases referred to ‘a seemingly, basic legal European framework on electric scooters could’ as discussed above raises a question on the real legal regime on electric scooters. Due to the lack of the relevant EU legislation, this could be elaborated on the basis of the national approach offered by each EU Member State. Seen in this light, this section provides a review of laws and policies addressing electric scooters in the former EU-28: EU-27 and the United Kingdom.¹⁸

3.1 Austria

In Austria electric scooters (*Elektroroller*) are recognized in law¹⁹; under it, neither a driving licence nor insurance is required; however, minors – children under twelve years of age have to be supervised by persons of the minimum age of sixteen; additionally, children under the age of twelve are obliged to wear helmets when riding electric scooters.²⁰ Any offences are penalized with a maximum administrative fine.²¹ Only electric scooters with power of up to 600 W and the speed of up to 25

¹² Directive of the European Parliament and of the Council of 3 Apr. 2014 on periodic roadworthiness tests for motor vehicles and their trailers and repealing Directive 2009/40/EC (Directive 2014/45/EU).

¹³ Vehicles with the engine displacement exceeding 125 cm³ will be covered by Directive 2014/45/EU from the beginning of Jan. 2022.

¹⁴ Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast) (Directive 2006/42/EC).

¹⁵ Directive 2002/24/EC of the European Parliament and of the Council of 18 Mar. 2002 relating to the type-approval of two or three-wheel motor vehicles.

¹⁶ Defined as ‘an assembly, fitted with or intended to be fitted with a drive system other than directly applied human or animal effort, consisting of linked parts or components, at least one of which moves, and which are joined together for a specific application’.

¹⁷ Traffic Directorate General, *Personal Communication* (30 Sept. 2019).

¹⁸ When the research started UK was still the Member State; it left the EU on 31 Jan. 2020.

¹⁹ The Austrian Road Traffic Act of 1960 in Art. 88b; new provisions for electric scooters were implemented in the Austrian Road Traffic Act in May 2019.

²⁰ And one user can use only one scooter. Federal Ministry for Transport, Innovation and Technology, personal communication: 7 Nov. 2019.

²¹ Generally up to 726 EUR under Art. 99 § 3 of the Austrian Road Traffic Act. The fine can be higher if found to have been committed under aggravating circumstances – the assessments of fines are not harmonized in Austria: each authority appoints the assessments of fines individually, based on the provisions of the Austrian Road Traffic Act.

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km/h may be used on public roads.²² Electric scooters can access the lanes where cycling is allowed as well as cycle paths. In principle, electric scooters cannot be used on pavements or pedestrian paths – with an exception.²³ In terms of parking, the rules for electric scooters in Austria are similar to those for bikes.²⁴

3.2 Belgium

Belgian law recognizes electric scooters (*trottinettes électriques/elektrische scooter*) as ‘moving devices’ (*engins de déplacement*).²⁵ There are no age limits for users of electric scooters and no driving licence is required.²⁶ The same applies to helmets which are not obligatory (however, wearing them is recommended) and there is no special insurance needed for a user of an electric scooter.²⁷ What determinates the qualification of a user as a cyclist or pedestrian is the speed²⁸; the speed also influences access to the pavement and the obligation to use cycle paths.²⁹ When qualified as a pedestrian, the user of an electric scooter benefits from the priority over oncoming traffic when approaching the pedestrian crossings.³⁰ A user may access public transport with a small electric scooter.³¹ In terms of parking, electric scooters are covered by the provisions on bicycles.³²

²² *Ibid.*

²³ If local authorities allow electric scooters on pavements and/or pedestrian paths, the scooters cannot be used at the speed exceeding walking speed. This exception also determinates the possibility of electric scooters using a pedestrian crossing – a user of an electric scooter may enter (ride across) a pedestrian crossing combined with a bike path, *ibid.*

²⁴ *Ibid.*

²⁵ This category is covered in the Traffic Code of 1975 which stipulates the rules on scooters.

²⁶ Federal Public Service of Transports, personal communication: 14 Aug. 2019 & 23 Jan. 2020.

²⁷ *Ibid.*

²⁸ If the user of an electric scooter rides at the speed higher than footpace (> 5–6 km/h) he/she is considered a cyclist; accordingly, if he/she rides at lower speed – not exceeding the footpace (< 5–6 km/h) – he/she is qualified as a pedestrian, *ibid.*

²⁹ The speed lower than 5–6 km/h allows the user of the scooter to access the pavement. If the pedestrian’s speed exceeds 5–6 km/h the user of the scooter is qualified as a cyclist and has to ride on the cycle path or the carriageway if there is no cycle path; parenthetically, 25 km/h is the maximum speed for riding an electric scooter in Belgium, *ibid.*

³⁰ If the scooter moves faster than the limit for footpace, its user is a cyclist, so no priority is granted; moreover, the pedestrian/cyclist qualification influences the sanctions applied to pedestrians or cyclists in case of a traffic offence, *ibid.*

³¹ *Ibid.*

³² However, some parking problems arose in cities where shared schemes on electric scooters are offered, so an obligation to place scooters in dedicated parking areas was introduced in the contracts signed between the cities and shared scheme operators, *ibid.*

3.3 Bulgaria

Currently, electric scooters (*електрически скутери* – ‘elektricheski skuteri’) are not recognized by the Bulgarian law as a separate type of vehicle.³³ There is no age limit for their users, and no driving licence is needed.³⁴ The same applies to the speed limits for electric scooters (there are none), both on roads and pavements (apart from speed limits for general traffic).³⁵ The users of electric scooters do not need insurance; also, helmets are not required.³⁶ There are no restrictions as to the number of people who can ride one electric scooter at the same time or special rules on parking electric scooters.³⁷

3.4 Croatia

Electric scooters (*električni skuteri*) are categorized in Croatia as motor vehicles, whereas the users of such vehicles are pedestrians.³⁸ This was supported by the decision of the Constitutional Court, which repudiated the previous classification provided by the Road Safety Act. The Act classified electric scooters as mopeds (i.e. motor vehicles), with electric engines of power which does not exceed 4 kW and with the maximum speed on a normal road not exceeding 45 km/h.³⁹ This implied that electric scooters could be used on paved roads and that riders should wear protective helmets and high visibility vests. However, such classification was not accepted by the Constitutional Court and therefore riders of such vehicles are regarded as pedestrians.⁴⁰

3.5 Cyprus

Cypriot law does not recognize electric scooters (*ηλεκτρικά σκούτερ* – ‘elektriká skóúter’). Currently, the country is working on a legal act to cover the use of electric scooters.⁴¹

3.6 Czech Republic

In the Czech Republic electric scooters (*elektrické koloběžky*) are recognized as bikes with an additional

³³ However, the Bulgarian Executive Agency Road Transport Administration is planning to change the current situation and provide some regulations on the use of electric scooters. This concerns the adoption of legislation with requirements concerning the traffic rules for electric scooters, including speed limits, riding on the road and pavement, specifying the users of electric scooters (age limits, helmets, etc.), as well as provisions on technical requirements for electric scooters, Ministry of Transport, Information Technology and Communications, personal communication: 16 Aug. 2019.

³⁴ *Ibid.*

³⁵ Besides the permission for riding on the pavement, scooters’ users may access pedestrian crossings as well as public transport, *ibid.*

³⁶ *Ibid.*

³⁷ *Ibid.*

³⁸ Ministry of the Sea, Transport and Infrastructure, *Personal Communication* (19 July 2019).

³⁹ *Ibid.*

⁴⁰ *Ibid.*

⁴¹ Road Transport Department, *Personal Communication* (6 Dec. 2019).

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engine.⁴² No specific approach to electric scooters is provided (both the legislation and policies) and there are no plans to change it.⁴³ A user of an electric scooter is defined as a cyclist – so there is no age limit and no need for a driving licence; however the speed of electric scooters is limited to 25 km/h (maximum design speed) and other safety requirements (e.g. brakes, reflectors) are applicable by law.⁴⁴ Just like cyclists, electric scooter users under the age of eighteen are required to wear helmets.⁴⁵ Users of electric scooter cannot enter pavement – they can only ride on road or special bike trails and bike lanes; the same applies to pedestrian crossings, except from dual ones, designed for both pedestrian and cyclists.⁴⁶ Regarding these sanctions, there are no special rules for electric scooters.⁴⁷ In terms of rules on parking electric scooters, it is decided by local authorities.⁴⁸

3.7 Denmark

Electric scooters (*elektriske løbehjul*) in Denmark have been recognized in law since January 2019 by a one-year trial period legislation (order on trial scheme for motorized scooters)⁴⁹; under the legislation the same rules apply to riders of electric scooters and bicycles.⁵⁰ Therefore, no driving licence is required; however, riding an electric scooter is limited by age (fifteen years old), except minors accompanied by an adult; only one person at a time is allowed on one scooter.⁵¹ Apart from the age restrictions, using electric scooters in Denmark is limited by speed.⁵² Another limitation concerns the access to pavement.⁵³ A helmet is not

required, but a third-party insurance is needed.⁵⁴ In terms of parking electric scooters in some Danish cities, there are parking hubs assigned for rented scooters.⁵⁵

3.8 Estonia

Electric scooters (*elektrilised motorollerid*) are not directly recognized by the Estonian law.⁵⁶ The same situation applies to any policies or support schemes for the scooters and the market is left to private entities. As there are no legal restrictions on speed (for using road or pavement), or requirements for the users – anyone can ride electric scooters; no driving licence or insurance is needed; wearing a helmet is not obligatory.⁵⁷ The users may access public transport (bus, tram, trolleybus, train) carrying electric scooters and there are no special rules for parking them.⁵⁸

3.9 Finland

Generally, electric scooters (*sähköpotkulaadat*) belong to the category of light electric vehicles (*kevyt sähköajoneuvo*).⁵⁹ This concerns an electric motor vehicle other than an electric assisted bicycle or a category L-vehicle, with the maximum rated engine power of 1 kW and the maximum design speed of 25 km/h.⁶⁰ However, if the speed of electric scooter is less than 15 km/h it is not a vehicle under the Vehicle Act but is treated as a

⁵⁴ *Ibid.*

⁵⁵ Generally, electric scooters cannot be parked in a way causing danger or a nuisance for others; the trial period of 2019 has shown that in practice scooters are left everywhere (especially in Copenhagen) causing problems for pedestrians, *ibid.*

⁵⁶ The Ministry of Economic Affairs and Communications plans to deliver some regulations on electric scooters in mid-2020. The proposal includes the introduction of: the age limit (ten years old); speed limit (25 km/h and riding near pedestrians at normal pedestrian speed); access to pavement, pedestrian zones, and pedestrian crossings (crossing the road is allowed at pedestrian speed); access to bike paths and bike lanes; access to public roads (when there is no pavement, pedestrian zone, bike path or bike lanes or if those places are not be suitable for riding); obligatory helmet for riders under sixteen years of age; reflectors and lights installed on the scooter; obligatory bicycle driving license to ride on the road for 10–15 year old users; and no requirement of insurance or registration, Ministry of Economic Affairs and Communications, *Personal Communication* (25 July 2019 & 27 Jan. 2020).

⁵⁷ *Ibid.*

⁵⁸ Nevertheless, in 2018, the Ministry of Economic Affairs and Communications offered its interpretation recommending that users of electric scooters should be treated as pedestrians (so they can use pavements and pedestrian crossings when riding electric scooters); the Estonian police also shares this point of view. However, as the use of electric scooters increased in 2019 a discussion was started on the need to introduce some restrictions for the users of electric scooters (such as setting the speed limit, etc.), *ibid.*

⁵⁹ See the Finnish Vehicle Act of 2002.

⁶⁰ Ministry of Transport and Communications of Finland, *Personal Communication* (31 July 2019).

⁴² As under annex 12 of 341/2014 Decree.

⁴³ Ministry of Transport of the Czech Republic, *Personal Communication* (10 Sept. 2019 & 28 Jan. 2020).

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*

⁴⁷ The same regime applies to cyclists and the users of electric scooters; if a scooter is designed for one person, only one person can ride it and the rider can use only one scooter, *ibid.*

⁴⁸ For example, Prague 2 City District banned parking of electric scooters completely, *ibid.*

⁴⁹ One should note that the Danish rules will most likely be revised in 2020, depending on the evaluation results of the trial period, Danish Road Safety Council, *Personal Communication* (28 Nov. 2019 & 23 Jan. 2020).

⁵⁰ As general rules on bicycles apply, any offences of the users of electric scooters are punishable under the regime on the cycling offences. However, one exception applies – drunk and drug driving (Blood Alcohol Content over 0.5 and zero tolerance for illegal drugs for users of electric scooters) is covered by the penalties for moped riders, *ibid.*

⁵¹ *Ibid.*

⁵² Electric scooters used on public roads must not be able to exceed 20 km/h, which is also the maximum speed allowed, *ibid.*

⁵³ Users are not allowed to ride electric scooters on the pavement – only bicycle paths or roads (if there is no bicycle path) are accessible for them; besides, users of electric scooters can also access public transport with their scooters, *ibid.*

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pedestrian assist device.⁶¹ The driver of a light electric vehicle needs neither a driving licence nor insurance; there is also no age limit for driving them. A light electric vehicle cannot be driven on the pavement.⁶² The reference to traffic rules for cyclists results in the application of the same penalties and parking rules to electric scooters as to bicycles. According to the Finnish Road Traffic Act⁶³ cyclists and bicycle passengers (also the drivers of light electric vehicles) shall wear a protective helmet when riding, although the absence of helmet is not punishable.⁶⁴

3.10 France

Electric scooters (*trottinettes électriques*) in France fall into the category of ‘personal motorized travel devices’ (*engins de déplacement personnels motorisés*).⁶⁵ As electric scooters are land motor vehicles, insurance (civil liability) is compulsory.⁶⁶ However, under French law anyone over twelve years of age can use an electric scooter (one user, one scooter) and driving license is not required.⁶⁷ Wearing a helmet is not compulsory but recommended with some exceptions.⁶⁸ Generally, it is forbidden to ride electric scooters on the pavement.⁶⁹ Accessing public transport with electric scooter depends on the internal regulations of each transport operator.⁷⁰ In terms of the market for sharing electric scooters, it is mainly private.⁷¹ The decree of October 2019 provides fines for various offenses.⁷² With respect to parking rules, electric scooters must be parked in the

⁶¹ This distinction influences the decision on whether the user of an electric scooter has to follow traffic rules for drivers of light electric vehicles (the same as for cyclists), or if he/she has to obey the traffic rules for pedestrians; besides in Finland there is no difference in speed limits for carriageway or pavement, *ibid.*

⁶² However, children under twelve years of age can ride on the pavement under the condition that they do not endanger or impede other traffic users, *ibid.*

⁶³ 267/1981; a new act – 729/2018 will come into force on 1 July 2020.

⁶⁴ *Ibid.*

⁶⁵ They are defined in a decree of 23 Oct. 2019 as vehicles without a seat, designed and constructed for the transportation of a single person and devoid of any means for transporting goods, equipped with a non-thermal engine whose maximum construction speed is more than 6 km/h and does not exceed 25 km/h.

⁶⁶ Ministry for the Ecological and Inclusive Transition, *Personal Communication* (7 Dec. 2019).

⁶⁷ *Ibid.*

⁶⁸ Exception concerns certain roads outside the built-up areas where maximum speed is less than or equal to 80 km/h; riding electric scooters on those roads makes it compulsory to: wear a helmet and high visibility vest, equip the scooter with additional light and switch the lights on while riding, *ibid.*

⁶⁹ However, the decree of Oct. 2019 allows mayors to derogate this rule.

⁷⁰ Ministry for the Ecological, *supra* 66.

⁷¹ Some communities like Dijon offer their own schemes, *ibid.*

spaces provided for this purpose or in bicycle parking facilities.⁷³

3.11 Germany

In Germany, electric scooters (*Elektroroller*) are recognized in a separate legislation.⁷⁴ As electric scooters are qualified as personal light electric vehicles, they do not require registration; however, insurance is required⁷⁵ and a small insurance sticker must be placed on the electric scooter.⁷⁶ Users of electric scooters have to be at least fourteen years old, but a driving licence is not required; the same rule applies to helmets.⁷⁷ There are no special categories of criminal offences related to electric scooters.⁷⁸ Maximum design speed for electric scooter is set for 20 km/h; generally electric scooters are to be used in bike lanes and/or on the road by one person on a scooter, except from pedestrian walkways.⁷⁹ With respect to the rules on parking, electric scooters are treated in the same way as bicycles.⁸⁰ The rules on the carriage of objects on local public transport are set at the local level.⁸¹ Germany does

⁷² This starts from 35 EUR in the event of non-compliance with the traffic (applies only if the mayor authorizes the movement of electric scooters on the pavement at a specific pace and one rides there at a higher speed) or parking rules. The decree distinguishes between minor parking offences (e.g. parking in spaces reserved for buses) and major ones (parking in bus lanes, on pedestrian crossings or disabled parking zones); major parking offences are punishable by 135 EUR fine. The same fine also applies to the instances of driving on the pavement without the mayor’s authorization. Finally, a fine of up to 1,500 EUR applies in cases of driving an electric scooter with the construction speed higher than 25 km/h, *ibid.*

⁷³ As with bikes, electric scooters can be parked on the pavement provided they do not interfere with pedestrian traffic and the safety of public roads, *ibid.*

⁷⁴ Regulation of 6 June 2019 on the use of personal light electric vehicles on the road.

⁷⁵ Due to being categorized as motor vehicles.

⁷⁶ Federal Ministry of Transport and Digital Infrastructure, *Personal Communication* (8 Aug. 2019 & 31 Jan. 2020).

⁷⁷ Users are not obliged to wear helmet, but it is recommended, *ibid.*

⁷⁸ Only misdemeanour related e.g. lack of insurance, no technical operating permit, etc., *ibid.*

⁷⁹ Local traffic authorities may introduce some exceptions regarding the use of pavement/pedestrian zones. The exceptions apply to individual cases, or specific applicants. They can also be introduced as a general permit for the use of pavement/pedestrian zones; the general permit may be indicated by an additional sign, ‘accessible to personal light electric vehicles’ (*Elektrokleinstfahrzeuge frei*), *ibid.*

⁸⁰ They can be parked on the side of the pavement when not hindering pedestrians, *ibid.*

⁸¹ Despite endorsing the carriage of personal light electric vehicles on public transport, the Federal Ministry of Transport and Digital Infrastructure cannot obligate local public companies to facilitate this access, *ibid.*

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not offer any support schemes regarding the purchase of electric scooters.⁸²

3.12 Greece

Electric scooters (*ηλεκτρικά σκούτερ* – ‘ilektriká skóúter’) are not a legal category recognized in Greece.⁸³ As a result, such issues as age and speed limits, accessing the pavement and pedestrian crossings, insurance, etc. have not yet been addressed in the Greek law⁸⁴; existing sharing schemes are private initiatives.⁸⁵

3.13 Hungary

There is an ongoing debate in Hungary on the legal status of electric scooters (*elektromos rollerek*) – a separate regulation on electric scooters does not exist in Hungary.⁸⁶ According to some remarks presented in this discussion, the current Hungarian road traffic law enables – at least in theory – the disqualification of electric scooters from traffic (as not being vehicle) and treating their users as pedestrians.⁸⁷ Also, according to some interpretation of the existing legislation, some experts claim that electric scooters (if treated as electric vehicles) should not be used on the pavement but on bicycle paths or public roads.⁸⁸

3.14 Ireland

The Irish approach to electric scooters (*scútar leictreach*) is very clear but at the same time is very strict. Their use in public places is prohibited by law. Under the current Road Traffic Legislation electric scooters are qualified as mechanically propelled vehicles.⁸⁹ As a result, they

⁸² The market for sharing schemes on electric scooters is mostly left to private entities. However, some cooperation between sharing companies and local authorities exists, *ibid.*

⁸³ Nevertheless, some expert works on regulating electric scooters have been conducted and a proposal to divide them into three categories was elaborated on; those categories would be determined by speed – where they could be treated either as pedestrians (<6 km/h), bicycles (6–25 km/h) or their use would be prohibited (>25 km/h). Apart from this, Greece also plans to introduce, inter alia, provisions on different age limits for these categories, and an obligation for safety equipment for both the electric scooter and its user, Ministry of Infrastructure & Transport, *Personal Communication* (5 Sept. 2019 & 31 Jan. 2020).

⁸⁴ *Ibid.*

⁸⁵ *Ibid.*

⁸⁶ It was only at the beginning of 2019 that electric scooters appeared in Budapest as part of the scooter sharing project. Currently, it is a test mode operation, with 200 electric scooters and its territorial range is limited. It should be noted that, on the one hand, access to some central districts of Budapest (especially to areas reserved for pedestrians) is denied to users of electric scooters; it is not a coincidence that the test range of the scooter sharing initiative does not include any of these areas, Embassy of Hungary in Warsaw, *Personal Communication* (26 July 2019 & 24 Jan. 2020).

⁸⁷ *Ibid.*

⁸⁸ *Ibid.*

⁸⁹ Road Safety Division, *Personal Communication* (10 July 2019).

cannot be used in public places without a licence, registration, tax, insurance, roadworthiness requirements.⁹⁰ As electric scooters are unable to fulfil these requirements, they cannot currently be used in public places.⁹¹

3.15 Italy

Until 2019, there was no specific legal framework on electric scooters (*monopattino elettrico*) established at the national level in Italy.⁹² In mid-2019, the Italian Ministry of Transport issued a decree, allowing municipalities to permit the use of electric scooters in pedestrian areas and on roads, limited by speed. Monowheels and hoverboards with the speed below 6 km/h were allowed to enter pedestrian areas; segways and mopeds slower than 30 km/h could also be used on the roads; in some cases identification plates and insurance liability coverage was necessary.⁹³ Current law treats electric scooters with maximum speed of 20 km/h and engine power not exceeding 500 W for the purposes of access to road simply as bicycles.⁹⁴ Under the new law electric scooters can be used in pedestrian areas at speeds below 6 km/h, up to 20 km/h on cycle paths, or 30 km/h on roads – however, in this case one has to wear a high visibility vest or reflective braces.⁹⁵

3.16 Latvia

Latvian legislation recognizes electric scooters (*elektroskrejriteņi*) in a general way. There is no specific regulation on them, but electric scooters can currently be qualified either as sport or leisure equipment or bicycles.⁹⁶ In terms of the latter, despite the current lack of the age limit,⁹⁷ one should note that in Latvia using a bicycle in the traffic is allowed for those over twelve

⁹⁰ *Ibid.*

⁹¹ *Ibid.*

⁹² The only relevant provision was in the Road Traffic Code’s Art. 190 which prohibited the use of boards, skates and other instruments that enhanced the speed of pedestrians (*acceleratore di velocità pedonale*); such instruments were not allowed to be used on the road, but only on the pavement and other areas not used by vehicles, L. Carpaneto & S. Dominelli, *Personal Communication* (8 Jan. 2020).

⁹³ *Ibid.*

⁹⁴ 160/2019 of Dec. 2019.

⁹⁵ La Stampa, *Monopattini elettrici come bici: ora possono liberamente circolare in città* [Electric scooters as bikes: they can now freely move around the city], <https://finanza.lastampa.it/News/2020/01/01/monopattini-elettrici-come-bici-ora-possono-liberamente-circolare-in-citta/MjdfMjAyMC0wMMS0wM-V9UTEI> (accessed 22 Jan. 2020).

⁹⁶ The Ministry of Transport is working on the amendments to Road Traffic Law and Cabinet Regulation No. 279 ‘Road Traffic Regulations’ for electric scooters; this should come into force in the middle of 2020, Ministry of Transport of Latvia, *Personal Communication* (10 July 2019 & 23 Jan. 2020).

⁹⁷ This will change with the passing of the already-mentioned amendments including e.g. the establishment of age limit – fourteen years old, *ibid.*

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years old and does not require any licence.⁹⁸ The bike-qualification implies the obligation on minors to use a protective helmet – this concerns children under the age of twelve, e.g. as a passenger.⁹⁹ Another qualification regarding speed can also be applied to electric scooters. If an electric scooter exceeds the speed of 25 km/h it is no longer treated as a bike but as a moped.¹⁰⁰ In terms of the accident statistics, several collisions involving users of electric scooter have been registered (see Conclusion of this article).¹⁰¹

3.17 Lithuania

Electric scooters (*elektriniai paspirtukai*) are covered by law of Lithuania.¹⁰² Users of electric scooters are qualified as cyclists and electric scooters are considered motorized bicycles (up to 1 kW and 25 km/h; parenthetically, the same rules apply to bicycles, motorized bicycles, and electric scooters.¹⁰³ If an electric scooter has up to 1 kW of power and reaches maximally 25 km/h, no driving licence is needed; insurance for the users of electric scooters is also not required.¹⁰⁴ A helmet is obligatory for users under 18 years of age, while for users over eighteen years old it is only recommended.¹⁰⁵ One rider can ride one electric scooter.¹⁰⁶ If there is no bicycle path, bicycle lane or roadside the user of an electric scooter may enter the pavement or the carriageway.¹⁰⁷ When riding near pedestrians the maximum speed has to be close to the pedestrian walking speed (3–7 km/h). Regarding pedestrian crossings, users of electric scooters cannot access them when riding.¹⁰⁸ Cyclists are obliged to use a brightly coloured vest.¹⁰⁹ Accessing public transport with

⁹⁸ *Ibid.*

⁹⁹ Bike riders can use bike lanes, pavement, pedestrian crossings (the same applies to users of electric scooters). There is no specific speed limit for riding a bike on the pavement. However, when riding there one must choose the speed that does not endanger or interfere with pedestrians and, if necessary, travel at the speed not exceeding the pedestrian speed – this applies to electric scooters, too, *ibid.*

¹⁰⁰ *Ibid.*

¹⁰¹ Despite this, no obligatory insurance is required for the users of electric scooter although some voluntary insurances policies are offered; regarding other obligatory safety equipment, electric scooters must be equipped with driving lights, *ibid.*

¹⁰² The Law on Road Traffic Safety of the Republic of Lithuania and by the Road Traffic Rules.

¹⁰³ Ministry of Transport and Communications of Lithuania, *Personal Communication* (12 Aug. 2019 & 24 Jan. 2020).

¹⁰⁴ *Ibid.*

¹⁰⁵ Riding an electric scooter without a helmet results in a general fine of 10–12 EUR, *ibid.*

¹⁰⁶ The rule is: one vehicle – one driver. In the absence of a special seat, it is forbidden to carry passengers on an electric scooter; however, one may transport a cargo including another electric scooter to the charging point, *ibid.*

¹⁰⁷ *Ibid.*

¹⁰⁸ To access the crossing, the user has to dismount and push the vehicle (the same rules as for cyclists), the only exception being those bicycle crossings when riding a scooter is permitted, *ibid.*

an electric scooter depends on the local authorities and the transport provider.¹¹⁰ Local authorities also decide about the rules for parking electric scooters.¹¹¹

3.18 Luxembourg

Despite the lack of specific legal solutions,¹¹² electric scooters (*trottinettes électriques/Elektroroller*) in Luxembourg are treated like bicycles if they meets certain conditions: the scooter is a road vehicle with at least two wheels, with or without a seat; it is powered exclusively by an electric motor whose maximum continuous rated power does not exceed 0.5 kW; its maximum design speed by construction does not exceed 25 km/h.¹¹³ All provisions laid down for bicycles apply with the exception that electric scooters can only be used on public roads by users no younger than thirteen years old.¹¹⁴ Neither a driving licence is needed, nor a helmet required; the same applies to insurance.¹¹⁵ Electric scooters cannot enter pedestrian crossings and they are not allowed on the pavement; however, if the pavement is open to bicycles, electric scooters can also enter.¹¹⁶ Generally, scooters can be used on cycle paths and roads.¹¹⁷ There are no special rules on parking electric scooters in Luxembourg either.¹¹⁸

¹⁰⁹ With reflective elements or a white front lamp and a red rear lamp (in the daytime, on the carriageway); similarly, at night-time cyclists must use a brightly coloured vest with reflective elements and a white front lamp with a red rear lamp (on the road, but it is in fact used everywhere), *ibid.*

¹¹⁰ In general, it is not possible to carry an electric scooter on the bus – the same rule applies to bicycles. However, there are some types of buses where electric scooters or bicycles can be carried, on the back of the bus or inside the bus; additionally, it is permissible to carry electric scooters on the bus if they can be folded, *ibid.*

¹¹¹ *Ibid.*

¹¹² In 2019, the Luxembourg City demanded Bird, the US operator of electric scooters, to remove its scooters from the city – which consequently happened. Moreover, applications for permission to operate sharing schemes of electric scooters were rejected based on the police regulation which prohibits ‘unnecessarily obstructing roads, squares, and other parts of public routes’, see RTL, *Bird Scooters Removed from Luxembourg City*, <https://today.rtl.lu/news/luxembourg/a/1419273.html> (accessed 22 Jan. 2020); RTL, *Mayor Argues Bird e-scooters Prohibited by Police Regulation*, <https://today.rtl.lu/news/luxembourg/a/1421878.html> (accessed 22 Jan. 2020).

¹¹³ They are also defined by law – Art. 2.15 of the Grand-ducal decree of 23 Nov. 1955, regulating traffic on all public roads, classifies an electric scooter as a bicycle; the use conditions for bicycles are laid down in the national Highway Code, Ministry of Mobility and Public Works, *Personal Communication* (31 Jan. 2020).

¹¹⁴ *Ibid.*

¹¹⁵ *Ibid.*

¹¹⁶ *Ibid.*

¹¹⁷ Delano, *E-scooter Legal Recommendations Expected End-2019*, <https://delano.lu/d/detail/news/e-scooter-legal-recommendations-expected-end-2019/208550> (accessed 22 Jan. 2020).

¹¹⁸ Ministry of Mobility, *supra* 113.

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3.19 Malta

Under the current legislation Malta¹¹⁹ riding electric scooters (*skuters elettrici*) on public roads is forbidden unless the user has reached the age of sixteen and is in possession of a valid driving licence for the relevant category.¹²⁰ When riding on public roads the speed limit of 20 km/h applies, whereas 10 km/h is the maximum speed for riding electric scooters on footpaths, promenades, pedestrian zones, or shared footpaths and cycle paths.¹²¹ A helmet is not required, but recommended. When riding on public roads a high visibility vest and a third-party risks insurance is needed.¹²² Only one person can ride a scooter at a time. Electric scooters are not allowed on public transport, except on route ferries.¹²³ With respect to parking rules, electric scooters can be parked on pavements, promenades or footpaths and in pedestrian zones only in a way which do not obstruct the free flow of pedestrian traffic.¹²⁴

3.20 Netherlands

Dutch authorities are currently working on a new system for the admittance of electric vehicles.¹²⁵ Nevertheless, under the currently binding legislation, the rules of European or national approval are applied to electric scooters (*elektrische scooter*), i.e. manufacturers have to apply for a European or national type approval.¹²⁶ Only when electric steps (scooters) receive a European type approval or national admission they are treated as special mopeds, *bijzondere bromfiets* (light and slow vehicles with specific characteristics).¹²⁷ The regulatory framework for national approval has been in place since May 2019; it determines whether vehicles, including special mopeds and electric scooters, demonstrate enough safety and durability to be used on public roads.¹²⁸ The national approval (granted by RDW – Road Traffic Service) results in the application of the following rules:

¹¹⁹ The Micromobility Regulations of 2019.

¹²⁰ These are categories: A, AM or B, Ministry for Transport, Infrastructure and Capital Projects, *Personal Communication* (14 & 31 Jan. 2020).

¹²¹ *Ibid.*

¹²² *Ibid.*

¹²³ *Ibid.*

¹²⁴ Misbehaviour is subjected to a fine or towing away. Additionally, there is an obligation to prevent hindering the use of pavements, promenades or footpaths by persons with mobility impairment or impeding the access to such areas, *ibid.*

¹²⁵ Ministry of Infrastructure and Water Management, *Personal Communication* (28 Oct. 2019 & 28 Jan. 2020).

¹²⁶ *Ibid.*

¹²⁷ Only then they are allowed on public roads. This status is granted by the Ministry of Infrastructure and Water Management. See RDW, *Elektrische steps in Nederland* [Electric steps in the Netherlands], <https://www.rdw.nl/particulier/nieuws/2019/elektrische-steps-in-nederland> (accessed 15 Nov. 2019).

¹²⁸ This concerns, among others, the ability to stop with a minimum deceleration; the redundancy of braking system; lights fitted to conform with UN-ECE regulations; rigid structure of the vehicle, Ministry of Infrastructure, *supra* 125.

the maximum construction speed of 25 km/h; the minimum age for riders must be sixteen years old; riding on bicycle paths, and mandatory insurance.¹²⁹

3.21 Poland

Currently, Polish law does not recognize electric scooters (*hulajnowi elektryczne*) as a separate category of vehicles.¹³⁰ The current law does not explicitly indicate the status of their users, so the users' rights and obligations – the provisions of the Act on Road Traffic – do not include the possibility of using electric scooters on public roads. The same applies to roads in residential areas and internal roads located in traffic zones; moreover, electric scooters' users cannot be treated as pedestrians or cyclists. However, a proposal of a new legislation amending, inter alia, the Act on Road has been elaborated – the proceedings are ongoing.¹³¹

3.22 Portugal

There is no separate legislation precisely regulating the use of electric scooters (*scooter elétrico*) in Portugal.¹³² Nevertheless, rules for bicycles are currently applicable to electric scooters.¹³³ This concerns, e.g. an obligation to wear a helmet.¹³⁴ However, interpretations stating that

¹²⁹ *Ibid.*

¹³⁰ Ministry of Infrastructure of Poland, *Personal Communication* (22 Nov. 2019).

¹³¹ Projekt ustawy o zmianie ustawy – Prawo o ruchu drogowym oraz ustawy o elektromobilności i paliwach alternatywnych, 30 lipca 2019 r. [Proposal for an act amending the act on road traffic and the act on electromobility and alternative fuels, 30 July 2019], <https://legislacja.rcl.gov.pl/projekt/12323652/katalog/12622444#12622444> (accessed 15 Nov. 2019). The scope of the proposal covers the determination of the legal status of personal transport devices including electric scooters (under the proposal scooter is a device structurally designed for movement only by the driver of this device, with width not exceeding 0.9 m, length not exceeding 1.25 m, unladen weight not exceeding 20 kg; it is equipped with an electric drive, the design of which limits the travelling speed to 25 km/h) (as proposed, it is covered by the definition of a bicycle). The proposal also covers the minimum age for using electric scooter – due to bike qualification, minors under ten years old will not be allowed to use personal transport equipment, as this is the age-limit for the possibility of obtaining a bicycle card, i.e. one of the documents confirming the right of a person under eighteen to ride a bicycle. Another issue covered by the proposal is the possibility of electric scooters' riders using the pavement or pedestrian paths. This would be permissible when the width of the pavement along the road on which traffic is allowed at a speed greater than 30 km/h is at least 2 m and there is no separate road/lane for bicycles; however, the user of an electric scooter using the pavement or a pedestrian path, will be obliged to ride slowly, exercise extreme caution and give way to pedestrians.

¹³² Embassy of Portugal in Warsaw, *Personal Communication* 16 Sept. 2019.

¹³³ Article 112(3) of the Highway Code.

¹³⁴ Article 82(5) of the Highway Code.

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wearing a helmet when riding an electric scooter is not compulsory are also available. Just like for bicycles, there are no special requirements for driving electric scooters.¹³⁵ The bike's regime makes bike speed limits applicable to electric scooters; the same rules apply to riding on bike paths and using pedestrian crossings – which is not permitted.¹³⁶

3.23 Romania

Presently, the Romanian national law recognizes only those scooters which are subject to Regulation 168/2013 – so, as already discussed in this article (section 2), it does not cover electric scooters (*trotinetele electrice*). Hence, there is no separate national regulation for electric scooters, and a general approach is applied. However, there are ongoing advanced discussions to qualify such vehicles either as bicycles or pedestrians depending on their maximum speed.¹³⁷ Moreover, in June 2019 a draft law was proposed in the Parliament.¹³⁸

3.24 Slovakia

Under the previous regulatory regime, electric scooters (*elektrokolobežky*) were recognized in Slovakia under a national category,¹³⁹ defined as 'a scooter with an auxiliary motor'.¹⁴⁰ A person using a scooter with an auxiliary

motor was considered a pedestrian.¹⁴¹ This influenced, inter alia, the possibility of using electric scooters on the pavement, or accessing pedestrian crossings. Nevertheless, Slovakia has recently changed the legal status of electric scooters: a scooter with an auxiliary motor will be considered a non-motorized vehicle and its user a driver, introducing the minimum age of fifteen years old for riding on roads.¹⁴²

3.25 Slovenia

Electric scooters (*električni skuterji*) in Slovenia are currently treated as special road vehicles¹⁴³; they can only be used on the pavement, foot and cycle paths, or in the pedestrian and underground areas – depending on their size.¹⁴⁴ The users of electric scooters are obliged neither to obstruct nor endanger pedestrians and cyclists, and they have to adapt their speed to the conditions of traffic; moreover, their speed must not exceed the maximum pedestrian walking speed.¹⁴⁵

3.26 Spain

In Spain, electric scooters (*patinetes eléctricos*) are qualified as a new category of vehicles – similar, but not equal, to bicycles or electric bicycles – regarding their legal status they could be placed between pedestrians and motor vehicles.¹⁴⁶ Despite the lack of age limits at the national level (apart from an obligation to wear a helmet for users under sixteen), some municipalities have introduced the minimum age of sixteen years old for using electric scooters in general.¹⁴⁷ The user of an electric

¹³⁵ National Road Safety Authority 2019, *Personal Communication* (28 Nov. 2019).

¹³⁶ *Ibid.*

¹³⁷ Romanian Automotive Register, *Personal Communication* (2 Sept. 2019 & 31 Jan. 2020).

¹³⁸ According to the recent version of the proposal, an electric scooter would be defined as a vehicle with two or three wheels and a handlebar, used for the transportation of a single person. The said vehicle is not provided with a seating position or is equipped with a seating position for the driver; the seating's reference point is at the height of 540 mm or less in the case of two-wheelers, or at the height of 400 mm or less in the case of three wheels. The maximum speed of the vehicle is more than 6 km/h, but does not exceed 25 km/h; moreover, the vehicle is equipped with an electric motor. The reference point of the seating position is set out in Regulation 168/2013. Furthermore, the proposal covers access to bike paths, the age of the user (only persons over fourteen years of age can ride electric scooters on public roads, and those under eighteen must wear a helmet), as well as lighting and reflecting devices, DIGI 24, *Proiect. Trotinetele electrice, introduce în Codul rutier. Pe unde și în ce condiții veți putea circula cu ele* [Proposal. Electric scooters, introduced in the Road Code. Where and under what conditions you will be able to travel with them], <https://www.digi24.ro/stiri/actualitate/social/proiect-trotinetele-electrice-introduse-in-codul-rutier-pe-unde-si-in-ce-conditii-veti-putea-circula-cu-ele-1151273> (accessed 15 Nov. 2019).

¹³⁹ It is 'category V', i.e. vehicles which cannot be assigned to other categories.

¹⁴⁰ A vehicle which maintains the original characteristics of a scooter, and, in addition to human power, is powered by an auxiliary electric engine capable of reaching the maximum speed of 25 km/h, Ministry of Interior of the Slovak Republic, *Personal Communication* (7 Aug. 2019 & 23 Jan. 2020).

¹⁴¹ *Ibid.*

¹⁴² This happened by amending Act No. 8/2009 on Road Traffic which besides the age limitation provided such rules as: access to footpaths and cycle lanes (their right-hand side) as well as to pedestrian crossings and cycle passages – in both cases the user will be obliged to watch out for pedestrians. Other specific provisions concern holding the handlebars with both hands when riding the scooter, except when user must give turning signals. Additionally, the user of an electric scooter is not allowed to carry objects which would make controlling the scooter difficult or endanger other road users; neither is he/she allowed to transport passengers, or to ride/walk a dog or other animal while riding the scooter, *ibid.*

¹⁴³ Section 97 of the Road Traffic Act stipulates their status.

¹⁴⁴ Slovenian Traffic Safety Agency, *Personal Communication* (11 Nov. 2019).

¹⁴⁵ Nevertheless, the use of special vehicles equipped with an engine whose speed exceeds the pedestrian speed (like go-karts, snowmobiles, miniature motor vehicles, etc.) is not permitted in the road traffic – anyone who breaks this rule could be subjected to a 500 EUR fine. In this context, according to the Slovenian Traffic Safety Agency, the Road Traffic Rules Act requires certain amendments for the part that defines the use of special vehicles powered by an electric engine whose speed exceeds that of pedestrians' – the changes will be delivered in the coming months, *ibid.*

¹⁴⁶ Traffic Directorate General (2019).

¹⁴⁷ Regardless of the lack of specific policies on electric scooters at the national level, one should note that some regional and

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scooter is qualified as a driver (the administrative sanctions apply for any infringements to the road safety law); however, a driving licence is not required.¹⁴⁸

3.27 Sweden

Sweden offers a general approach to electric scooters (*elsparkcyklar*); an electric scooter is qualified as a bike if it meets the following conditions: it is constructed for one person; made to be driven by the rider; with the maximum speed of 20 km/h; has either an electric engine with a continuous rated power of maximum 250 W or is self-balancing.¹⁴⁹ In case of exceeding the speed limit or the limit of continuous rated power, an electric scooter could be classified as a moped class II.¹⁵⁰ The user of an electric scooter is qualified as a driver; however, neither a driving licence nor insurance is needed.¹⁵¹ Apart from the speed limit of 20 km/h (which determines the qualification of an electric scooter as a bicycle), the limit of the walking speed applies to electric scooters used on the pavement and pedestrian crossings.¹⁵²

local governments have started offering subsidies aimed at electric scooters. Local authorities are also active in terms of managing public space – several local regulations establish the requirements regarding the clearance of pavements and parking of electric scooters; this includes the cooperation with private entities providing sharing schemes of electric scooters. The previously mentioned sharing schemes are operated under a licence granted by local authorities; what should be emphasized here, is the obligation to insure electric scooters hired in the sharing schemes), *ibid.*

¹⁴⁸ Regarding the limitations related to the use of electric scooters, a proposed regulation (Jan. 2019) offers a maximum speed limit of 25 km/h for electric scooters. The same proposal introduces the prohibition of using electric scooters on the pavement or in the pedestrian areas while in the urban areas scooters can access pavements. When entering pedestrian crossings, the users of electric scooters have to carry or push them while walking – riding through the pedestrian crossing is forbidden, *ibid.*

¹⁴⁹ See 2 § of Act (2001:559) on Road Traffic Definitions.

¹⁵⁰ However, as the Swedish Ministry of Infrastructure explains, it is unlikely that an electric scooter will meet all the requirements of this class of moped, hence, it will be excluded from the use in traffic, Ministry of Infrastructure of Sweden, *Personal Communication* (22 Nov. 2019 & 24 Jan. 2020).

¹⁵¹ Obeying traffic rules is enforced by fines provided by the Road Traffic Regulation (1998: 1276). Swedish law does not stipulate the age limit for using an electric scooter – it only determines the obligation to wear a helmet by riders under fifteen. Nevertheless, private entities offering the rental of electric scooters introduced their own age limits for users of their services, *ibid.*

¹⁵² In addition, the user must make way for pedestrians and other vehicles. Only one person can ride an electric scooter at a time; however, the user of a scooter may transport a cargo if the scooter can be navigated safely, without hindering other traffic users. Regarding the parking of electric scooters, the rules are adopted locally, e.g. some Swedish towns have set areas where parking of electric scooters is not allowed. Accessing public transport with electric scooters is also regulated by local

3.28 United Kingdom

In the United Kingdom electric scooters are treated like any other motor vehicle.¹⁵³ This results in the requirement that electric scooters are constructed and used safely, including certain obligations imposed on their users, i.e. the necessity to have insurance, a driving licence, number plates, and helmets.¹⁵⁴ As the legislations was not adopted with personal vehicles in mind (such as electric scooters), their users may find it a challenge to comply with the legal requirements for motor vehicles (and so for electric scooters, too) listed above – it is illegal to use a powered transporter on a public road without it complying with these legal requirements.¹⁵⁵

4 Conclusion

The conducted research clearly shows that electric scooters are becoming vehicles of interest to EU Member States (former EU-28). This is manifested in the legal recognition of electric scooters in the regulatory framework of the Member States, or at least in the will to regulate the position of scooters in the near future. However, even in case of no direct regulatory regime on electric scooters some general rules apply. Table 1 below juxtaposes the legal issues related to the use of electric scooters in EU Member States and the United Kingdom.

Summarising the approaches presented by the EU Member States and the UK on electric scooters, one may find extremely strict approaches (e.g. Ireland) or as free as in Estonia, or Bulgaria. The latter, free approach, often comes from lack of legal recognition of electric scooters in law – while the majority of European countries covered by the study addresses electric scooters in national law (twenty-one out of twenty-eight).¹⁵⁶ However, this recognition differs country-by-country. In this way, electric scooters can be recognized in law as means of micro- or personal- transportation (like in Belgium, France or Germany) or they defined directly and solely as specific scooters (Slovakia). Where electric scooters are not defined in law, other rules apply (mainly rules on bicycles).¹⁵⁷ In terms of the status of the user – it may

authorities, e.g. it is not allowed on the underground in Stockholm, *ibid.*

¹⁵³ See the Road Traffic Act 1998. Another legislation applicable to electric scooters is the Highway Act 1835. Under it, riding a vehicle on the pavement is considered an offence; the same applies to using a powered transporter (electric scooter) in spaces that are set aside for use by pedestrians, cyclists, or horse-riders – such use is illegal. Other infringements of driving standards and speeding offences are also applicable to users of electric scooters, Department for Transport, *Personal Communication* (17 Sept. 2019).

¹⁵⁴ *Ibid.*

¹⁵⁵ *Ibid.*

¹⁵⁶ See Table 1.

¹⁵⁷ For example, Latvia, Portugal, Sweden, cf. the Czech Republic.

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Table 1 *Legal Status of Electric Scooters in the Former EU-28 (EU-27 and the UK)*

<i>EU-27 & the UK</i>	<i>Electric Scooters Recognized in Law</i>	<i>Age Xlimit</i>	<i>Speed Limit</i>	<i>Access to Pavement, Pedestrian Zones, Pedestrian Crossings</i>	<i>Access to Bike Paths and Bike Lanes</i>	<i>Access to Public Roads</i>	<i>Obligatory Helmet</i>	<i>Other Obligatory Safety Equipment</i>	<i>Driving Licence Required</i>	<i>Insurance Required</i>
AT	yes	yes	yes	in general no	-	-	yes (minors)	-	no	no
BE	yes	no	yes	yes	yes	yes	recommended	no	no	no
BG	no	no	no	yes	yes	yes	no	-	no	no
HR	yes	-	-	-	-	-	-	-	-	-
CY	no	-	-	-	-	-	-	-	-	-
CZ	yes	no	yes	no	yes	yes	yes (minors)	yes	no	no
DK	yes	yes	yes	no	yes	yes	no	-	no	yes
EE	no	no	no	yes	yes	yes	no	no	no	no
FI	yes	no	yes	-	depends on the speed	depends on the speed	yes	-	no	no
FR	yes	yes	yes	in general no	-	yes	recommended (generally)	yes	no	yes
DE	yes	yes	yes	in general no	yes	yes	recommended	no	no	yes
EL	no	-	-	-	-	-	-	-	-	-
HU	no	-	-	-	yes	depends on the speed	-	-	-	-
IE	yes*	-	-	-	-	-	-	-	-	-
IT	yes	-	yes	-	-	yes	-	yes	-	-
LV	yes**	yes**	yes	yes	yes	yes (with restrictions)	yes (minors)	yes	no	no
LT	yes	yes (carriageway)	yes	in general no	yes	in general no	yes (minors)	yes	no	no
LU	yes	yes (roads)	yes	in general no	yes	no	no	-	no	no
MT	yes	yes	yes	yes	yes	yes	recommended	yes	yes	yes
NL	yes	yes	yes	-	yes	-	-	yes	yes	yes
PL	no	-	-	-	-	no	-	-	-	-
PT	yes	-	yes	no	yes	-	different interpretations	-	no	no
RO	no	-	-	-	-	-	-	-	-	-
SK	yes	yes (roads)	yes	yes	yes	yes	no	yes	no	no

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EU-27 & the UK	Electric Scooters Recognized in Law	Age Xlimit	Speed Limit	Access to Pavement, Pedestrian Zones, Pedestrian Crossings	Access to Bike Paths and Bike Lanes	Access to Public Roads	Obligatory Helmet	Other Obligatory Safety Equipment	Driving Licence Required	Insurance Required
SI	yes	-	yes	yes	-	no	-	-	-	-
ES	yes	yes (locally)	-	-	-	-	yes (minors)	-	no	-
SE	yes	no	yes	yes	yes	yes	yes (minors)	no	no	no
UK	yes	yes	-	no	no	yes	yes	yes	yes	yes

*use of electric scooters in public place is prohibited by law

**from mid-2020 (as expected)

be a pedestrian using a defined type of vehicle,¹⁵⁸ a driver,¹⁵⁹ or a cyclist¹⁶⁰; this depends on the discussed recognition.

Regarding the speed limits – usually, the road rules apply; however a limit of 20–25 km/h of speed is a general benchmark used in the majority of the EU countries.¹⁶¹ In terms of the access to the pavement, pedestrian zones, and pedestrian crossings – this varies among the Member States; some countries allow it, providing some speed limits by taking into account the pedestrian speed; others limit it, allowing electric scooters access only to bike paths or public roads.¹⁶² The latter results in some other requirements such as the age of the user of an electric scooter when riding on the road,¹⁶³ or some safety equipment like helmet or a high visibility vest which should be worn by the rider (in most cases a helmet is not obligatory; although minors using electric scooters are usually an exception).¹⁶⁴ Finally, the majority of Member States do not provide any special rules on driving licences or insurance which are generally not required when using electric scooters.¹⁶⁵

¹⁵⁸ See Belgium, Croatia, Estonia, Hungary, cf. Poland, Romania, Slovakia.

¹⁵⁹ Finland, Spain, Sweden, cf. Slovakia.

¹⁶⁰ See Belgium, Lithuania, the Czech Republic, cf. Finland.

¹⁶¹ 25 km/h in Austria, Belgium, the Czech Republic, Estonia, Finland, France, Latvia, Lithuania, Luxembourg, the Netherlands, Slovakia, Slovenia, Spain, and 20 km/h in Denmark, Germany, Italy, Malta, Sweden.

¹⁶² See Belgium, Bulgaria, Estonia, Latvia, Malta, Slovakia, Slovenia, Sweden, cf. Austria, the Czech Republic, Denmark, Finland, Germany, Hungary, Lithuania, Luxembourg, the Netherlands, Poland, the United Kingdom.

¹⁶³ For example, Latvia, Lithuania, Slovakia, cf. Spain.

¹⁶⁴ See Austria, the Czech Republic, Finland, Italy, Latvia, Lithuania, Malta, the Netherlands, Spain, Sweden, cf. Belgium, France, Germany, Portugal, Slovakia, the United Kingdom.

¹⁶⁵ Compare Denmark, France, Germany, Malta, the Netherlands, the United Kingdom.

With respect to the future of national regulatory regimes on electric scooters in the EU, one should notice the opinions on the need of providing the pan-European benchmark. This requires some legislative activity which was initiated by the Commission, and then furthered by the European Parliament and the Council of the European Union. The discussions with the representatives of the Member States, conducted for the needs of this article, have shown some areas for harmonization of national approaches in terms of electric mobility devices, including electric scooters. This could cover, inter alia, technical requirements, safety elements related to the usage (e.g. mandatory helmet, speed limits, age limit, Blood Alcohol Content (BAC) limit) or at least the promotion of safety approaches, or sharing best practices between the Member States. Moreover, the proposed harmonization (if applied) should also address the sustainability concerning the facilitation of the access and use of electronic scooters seen through the prism of the European Green Deal.

Additionally, the joint EU framework should cover the duties of commercial operators of electric scooters, since some problems related to shared schemes occur. These issues include collisions and reckless parking.¹⁶⁶ Parenthetically, safety issues made some Member States review the situation of electric scooters and incidents involving them alongside their regulatory framework.¹⁶⁷ Finally, maintaining the local approach should be possible (parking, access, etc.), enabling the local authorities to provide the necessary adjustments for the needs of local traffic. The discussed harmonization could be conducted by adopting e.g. the Micromobility Directive covering the fields listed above.

¹⁶⁶ For example, the police in Latvia recorded more than fifty road traffic incidents involving electric scooters, in which thirty persons were injured, and two persons were killed, Ministry of Transport, *supra* 96.

¹⁶⁷ For example, Ireland, Denmark, and Sweden.

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Nevertheless, not all Member States have a position on the above-mentioned harmonization, support it or see the need to conduct it – which this research has also revealed. Finally, harmonizing the rules on electric vehicles may be difficult in reality. Due to different

approaches and legal solutions offered for electric scooters – as analysed in this article and highlighted in Table 1 – it seems quite difficult to combine them in order to find the common ground necessary for joint EU approach.