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**POLICY PROPOSALS FOR THE REDUCTION  
OF ACCIDENTS INVOLVING PERSONAL  
MOBILITY VEHICLES**



## POLICY PROPOSALS FOR THE REDUCTION OF ACCIDENTS INVOLVING PERSONAL MOBILITY VEHICLES

**Summary:** 1. INTRODUCTION. 2. REGULATORY FRAMEWORK FOR PERSONAL MOBILITY VEHICLES (PMVs). THE STATE OF THE ART. 3. THE ESTABLISHMENT OF COMPULSORY THIRD-PARTY LIABILITY INSURANCE FOR PMVS. 3.1. Current regulation. 3.2. Arguments and qualified opinions. 3.3. The actions of the State Prosecutor's Office for Road Safety. 3.4. Reform proposal. 4. REGISTRATION AND CATALOGUING OF PMVS. 4.1. Current regulation. 4.2. Arguments and qualified opinions. 4.3. Reform proposal. 5. LICENCE, PERMIT OR TRAINING COURSE FOR THE OPERATION OF PMVs. 5.1. Current regulation. 5.2. Arguments and qualified opinions. 5.3. Reform proposal. 6. THE FURTHER (OR IMPROVED) CRIMINALISATION OF EXISTING PMV SANCTIONS. 6.1. Current regulation. 6.2. Arguments and qualified opinions. 6.3. Reform proposal. 7. CONCLUSIONS AND PROPOSALS. 8. BIBLIOGRAPHICAL REFERENCES.

**Resumen:** Los vehículos de movilidad personal, y particularmente los denominados patinetes eléctricos, son parte de la nueva movilidad que pretende la reorganización urbana con un mayor protagonismo de las personas sobre los vehículos. A su vez, el cumplimiento de la normativa europea sobre zonas de bajas emisiones en las grandes ciudades ha favorecido su introducción. No obstante, si observamos su tasa de siniestralidad vial, en todos sus parámetros de estudio, nos encontramos con que es la única que sigue una curva ascendente, en comparación con el resto de vehículos. Esto puede achacarse al mero aumento de su número, o a otras razones; algunas de ellas, derivadas de su regulación actual.

El presente artículo pretende abordar diferentes soluciones, exclusivamente desde el punto de vista normativo, para reducir la siniestralidad urbana de los patinetes eléctricos, estudiando posibles lagunas en su regulación, en comparación con otro tipo de vehículos, y analizando su posible plasmación legal.

**Abstract:** Personal mobility vehicles, and particularly so-called electric scooters, are part of a new mobility that seeks to remake the urban landscape with greater emphasis on people over vehicles. In turn, compliance with European regulations vis-à-vis low-emission zones in large cities has favoured such a trend.

However, if we look at road accident rates for PMVs compared to other vehicles, in all study parameters, we find that the rate for these vehicles is the only one that follows an upward curve. This may be attributed to a simple increase in their numbers, or to other reasons, some of them derived from current legal regulations.

This work aims to address different solutions, exclusively from a regulatory point of view, in reducing the urban accident rate of electric scooters, studying possible legal gaps in their regulation, compared to other types of vehicles, and analysing their possible legal implementation.

**Palabras clave:** Vehículos de Movilidad Personal, Patinete eléctrico, Seguridad Vial, Movilidad Sostenible, Siniestralidad.

**Keywords:** Personal Mobility Vehicles, Electric Scooter, Road Safety, Sustainable Mobility, Accident Rate.

## ABBREVIATIONS

Art.: Article

CP [*Código Penal*]: Penal Code.

DGT [*Dirección General de Tráfico*]: General Traffic Authority

FGE [*Fiscalía General del Estado*]: State Prosecutor's Office

JCT [*Jefatura Central de Tráfico*]: Central Traffic Headquarters

LCS [*Ley de Contrato de Seguro*]: Insurance Contract Act

LTSV [*Ley de Seguridad Vial*]: Road Safety Act

OMS [Spanish acronym for World Health Organization]

RCS [*Reglamento de Contrato de Seguro*]: Insurance Contract Regulations

RGCir. [*Reglamento General de Circulación*]: General Traffic Regulations

RGCond [*Reglamento General de Conductores*]: General Drivers' Regulations

RGVeh. [*Reglamento General de Vehículos*]: General Vehicle Regulations

STC [*Tribunal Constitucional*]: Judgement of the Constitutional Court

STS [*Sentencia del Tribunal Supremo*]: Judgement of the Supreme Court

SV [*Seguridad Vial*]: Road Safety

TC [*Tribunal Constitucional*]: Constitutional Court

TS [*Tribunal Supremo*]: Supreme Court

EU: European Union

PMV: personal mobility vehicle

WHO: World Health Organization

## 1. INTRODUCTION

Traffic accidents continue to be one of the leading causes of death and injury in the Spanish population and have become a worldwide problem. In its latest "Global Status Report on Road Safety 2023" (WHO, 2023), the World Health Organisation, hereinafter referred to as the WHO, states in no uncertain terms that the number of road traffic fatalities worldwide has dropped sufficiently worldwide, with an average of 1.19 million people still dying each year and more than 50 million people being injured. These accidents continue to be one of the leading causes of "unnatural" deaths in the 5-29 age group, especially in the most vulnerable groups and vehicles such as bicycles and motorbikes.

In Europe, the figures are more encouraging than those globally, but 20,600 people were still killed on the roads in 2022, slightly more than in previous years. In the case of Spain, that same year closed with 1,746 fatalities, still higher than in previous years (Dirección General de Tráfico, 2023) and affecting both vulnerable groups and vehicles. Figures for personal mobility vehicles (PMVs) are beginning to cause concern, with 297 accidents recorded, 321 injured and 12 fatalities (Fundación Mapfre, 2023)<sup>1</sup>.

In the last five years, large Spanish cities have seen a continuous growth in the number of PMV users, which, according to the data, is beginning to be a worrying problem in terms of accidents, which cannot easily be explained only by reference to the number of vehicles on the road, but also require analysis of other risk factors that contribute to this excessively high incidence of road accidents. For this reason, the State Prosecutor's Office, hereinafter referred to as the FGE, has, since 2019, been warning of the dysfunction caused by the growing number of these vehicles in cities (Vargas Cabrera, 2019).

Despite this, the administrations do not start from factual, statistically verifiable, global and nationwide data from previous decades, where the phenomenon of PMVs was minimal. For example, the results of the Road Safety Strategy 2011-2020 (DGT, 2011) do not include PMVs among the types of vehicles studied. Consequently, the Road Safety Strategy 2021-2030 (DGT, 2021) does not analyse their accident rate separately up to that point. However, this analysis has been carried out since 2020 and will undoubtedly serve as a basis for this paper. In any case, it should be noted that the starting point of this paper begins precisely in 2019, at the end of the implementation of the Road Safety Strategy 2011-2020, bearing in mind, moreover, that the COVID-19 phenomenon was a decisive disruptive element for the statistical analysis of 2020 (ONSV, 2021, pp. 50 et seq.) Therefore, although both the analyses presented in the Strategy of the previous decade, which did not foresee the arrival of PMVs, and the current one, which has not been able to analyse previous statistical data, can hardly serve as a starting point to numerically study the incidence of this new means of passenger transport. The current data, after at least five years of compilation, can be a source, among others, for allowing valid conclusions to be drawn that aid the goals of this paper.

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<sup>1</sup> In this particular study, moreover, only claims reported in the press are counted.

Until 2019, official published data were scarce, and even the DGT omitted to collect accident data specific to PMVs. For this reason, entities such as Fundación Mapfre (Fundación Mapfre, 2023) and Fundación Línea Directa (Fundación Línea Directa, 2022) carried out studies to analyse the growing accident rate, mainly urban, of this type of vehicle, which have been updated up to the year 2023.

From these studies, as well as from the data provided by the DGT since 2020, or by the municipal corporations of the large cities, we can corroborate the initial hypothesis that PMVs are here to stay, that their number is increasing annually, and that growth in their accident rate, which follows the opposite line to the rest of the road accident rate, is not exclusively due to the growing number of users, but that other variables contribute to their increase, as numerous researchers have asserted: Gan-El et al. (2022) Schneeweiss et al. (2021), Stigson et al. (2021) and Tian et al. (2022), where the use of drugs or narcotic substances is also relevant (Andersson et al, 2023).

Moreover, organisations such as the Institut Metròpoli, which analyses road accidents in the metropolitan area of Barcelona, conclude that the accident rate of PMVs is three times higher than that of bicycle journeys. (Institut Metròpoli, 2021). Likewise, other entities, such as MMT Seguros and different evidence from authors state in their analyses that electric scooter accidents cause greater traumatic consequences than bicycles, because they reach higher speeds, the distance to the ground is shorter and thus, the reaction time is lower (Kleinerts et al. (2023), MMT Seguros (2023) and Uluk et al. (2022).

In order to try to alleviate this scourge that is disrupting the normal development of urban mobility, a series of strategies can be developed to analyse its root causes and to find useful solutions that may help, from different perspectives, to reduce this accident rate (Ignaccolo et al. (2022), and Turon et al. (2020)).

Of all the possible perspectives: technical, social, educational, ICT, etc., the analysis in this article will be limited to the legal-normative field, i.e. to the analysis of road legislation on PMVs.

The reason for this limitation is the legal training of the author of this paper and the need to carry out a thorough analysis of the problem in this field; an analysis which, if it were to become multidisciplinary, would necessarily exceed the scope of a research article.

The adoption of this perspective also makes it necessary to limit the scope of this analysis to state regulations. It is true that there are certain competences over traffic that directly concern the municipal sphere, through municipal ordinances, but it is understood that the analysis of this regulation could only provide specific solutions for specific municipalities, while the author aims to study the viability of reforms that could be valid for an eventual solution, even if only partial, from the legislative point of view, for the whole of Spain. This is without prejudice to what is said below concerning the regulatory capacity of the municipalities.

This article is therefore intended to provide genuine solutions, even if only from a theoretical point of view. The methodology used is based on a logical and comparative study of the concepts to be analysed, which qualitatively and quantitatively explores the starting data consisting of interviews, statistics, studies by public and private organisations, databases and other means, the result of which will be compared with the reform proposals put forward by the author.

## **2. REGULATORY FRAMEWORK FOR PERSONAL MOBILITY VEHICLES (PMVs). THE STATE OF THE ART**

PMVs are different in concept from motor vehicles and mopeds, as defined by Spanish and European regulations. This is stated by the FGE in Opinion 2/21, of the State Prosecutor's Office for the Coordination of Road Safety (Fiscalía General del Estado, 2021, pág. 5).

EU Regulation 168/2013 of the European Parliament (Parlamento Europeo, 2013) regulates the type-approval of two- and three-wheel vehicles and quadricycles. However, although Art. 2 includes all two-wheeled vehicles in its scope, it does not subsequently list PMVs in any of its categories. Therefore, it can be argued that PMVs are outside the scope of the regulation. Otherwise, it would have been a direct source of application to the Spanish State, without the need for transposition (Añón, 2016).

In 2016, the DGT defined PMVs Instruction 16/V-124 as vehicles (DGT, 2016), given the provisions of point 6 of Annex 1 of the Road Safety Act (hereinafter, LTSV), considering that they are neither pedestrians nor motor vehicles. (Cortes Generales, 2015).

Although this instruction was repealed by the later published 19/S-149 (DGT, 2019), the instruction's definition of PMVs as "vehicles" (paragraph 1, 1- b), and its determination that persons using them may not be considered pedestrians and must therefore be treated as drivers (paragraph 1, 2- a) remains. Likewise, in said instruction from 2016, it was indicated that VMPs could not be classified as "motor vehicles" (paragraph 1, 2- b).

Subsequently, the FGE, through the Prosecutor's Office for Road Safety, issued an instruction, on 13 December 2018 (FGE, 2018), to local police forces throughout Spain. It addressed, among other issues, the criminal liability of PMV drivers for the offences of manslaughter and reckless injury. The lack of legal regulation was noted, urging the drafting of a UNE standard similar to the one foreseen for bicycles. As stated, its classification as a vehicle is now addressed by the DGT.

Until that date, the only reference to the conditions to be met was found in paragraph 1, 1-a. (DGT, 2016).

Subsequently, the DGT issued further instructions in this regard, such as 19V-134 of 24 May 2019 (DGT, 2019), already seen, which was in turn repealed by 2019/S-149 TV-108 of 3 December 2019 (DGT, 2019) with guidelines for action on this type of vehicle. In the latter, note the specification to consider, for all purposes, the person driving

and piloting a PMV as a driver. It is also noted that PMVs are outside the scope of EU Regulation 168/2013.

However, there has been doctrinal criticism of the abuse of Service Instructions that contain real legal regulations, without meeting the requirements of the Administration's regulatory competence. Even though Art. 21 of Law 30/1992 makes publication of the law mandatory (Moreno, 1998).

The regulation of PMVs in Spain, in terms of administrative regulations, really began in 2020, when the decisive impact that this type of vehicle could have in the field of urban mobility, as well as the high urban accident rate in our country, became apparent.

Royal Decree 970/20 (Cortes Generales, 2020) amends both the General Road Traffic Regulations, hereinafter RGCir (Cortes Generales, 2003) and the General Regulation on Vehicles, hereinafter RG Veh (Cortes Generales, 1998), among other things, to categorise PMVs and define their technical specifications.

This Royal Decree has a bearing on urban mobility, noting the high urban accident rate in our country, and seeks to act in two ways: on the one hand, by updating the reduction of vehicle speeds on urban roads, and on the other, by regulating PMVs in their relationship with other vehicles and road users.

As regards PMVs, as we have already mentioned, it amends two legal texts, as we will analyse below.

Firstly, it amends Art. 38.4 of the RGCir, introducing a geographical framework for the circulation of these vehicles: "It is forbidden to drive on crossings, interurban roads, motorways and motorways and dual carriageways in built-up areas with personal mobility vehicles. It is also forbidden to drive these vehicles in urban tunnels" (Cortes Generales, 2003).

However, it should be pointed out in this respect that in its Instruction 22/MOV 21 (DGT, 2022), the DGT clarifies that this prohibition only applies to roads with motorised traffic, as these vehicles are permitted on cycle lanes.

A change that has also been included in section 9 of the single article of Law 18/2021, on the subject of driving licences and driving licences with penalty points, (Cortes Generales, 2021) which amends Article 20(1) LTSV.

Therefore, these vehicles are basically only to be driven on urban roads, excluding tunnels, crossings, motorways and dual carriageways.

Secondly, it modifies the RG Veh, introducing in Art. 3(k) the PMV technical specifications manual, a document drawn up by the autonomous body JCT, which contains its technical requirements, among other aspects. This provision has been further developed by the DGT Resolution of 12 January 2022, (DGT, 2022) which will be analysed below.



Likewise, Article 22 bis RG Veh was introduced, establishing the authorisations, characteristics and certificates that these require: No administrative authorisation, but a certificate of circulation and the establishment of a Specifications Manual of personal mobility vehicles to be approved by Resolution of the Director-General of Traffic (Cortes Generales, 1998).

The aforementioned exclusion in Art. 1.1 RG Veh (Cortes Generales, 1998) stipulates that PMVs do not require prior administrative authorisation to circulate. They must only be in possession of the abovementioned certificate of registration guaranteeing compliance with the certificate of technical specifications.

Annex II A RG Veh introduces the definition of PMV that is currently in force:

A single-seated vehicle with one or more wheels, powered exclusively by electric motors that can give the vehicle a maximum design speed of between 6 and 25 km/h. They can only be equipped with a seat or saddle if they are equipped with a self-balancing system (Cortes Generales, 1998).

Excluded from this definition are certain vehicles as well as those falling within the scope of Regulation (EU) No 168/2013 of the European Parliament and of the Council of 15 January 2013 (Parlamento Europeo, 2013).

Similarly, PMVs are expressly excluded from the definition of a motor vehicle in Annex II A. An Additional Provision is also introduced, which updates the vehicle register, enabling the optional inclusion of PMVs registered in the municipal register in the register of the autonomous body of the Central Traffic Headquarters (hereinafter JCT).

Its Single Transitional Provision establishes a transitional regime for the obligation to hold the PMV circulation certificate, which is set at 24 months.

We have previously mentioned that the aforementioned RD 970/20 delegated to the JCT the preparation of the manual of technical specifications of the PMV; such regulation was carried out in the aforementioned Resolution of 12 January 2022 (DGT, 2022).

It scrupulously complies with this decree, taking up the definition of the PMV established in Annex II A RG Veh, differentiating between vehicles used for personal transport and those used for the transport of goods and other services.

Due to the characteristics of this article and its scope, as mentioned in the introduction, I will limit the detailed analysis only to those intended for passenger transport.

Basically, the manual allows for temporary circulation without a registration certificate until 12 January 2027 for equipment put on the market before 13 January 2024<sup>2</sup>. Those placed on the market after the latter date, and all vehicles placed on the

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<sup>2</sup> Section 33 of the Resolution of 12 January 2022 provides for this transitional regime.

market after the former date, are required to have a roadworthiness certificate, and all of them must comply with a number of basic characteristics, which can be briefly summarised as follows:

- Speed between 6 and 25 km/h
- Maximum saddle height of 540 mm, provided they have a self-balancing system.
- Two independent brakes.
- Parking stabilisation system.
- Pneumatic tyres with minimum diameter.
- Front, side and rear reflectors.
- Front and rear lighting.
- Audible warning.
- Factory marking.
- Rear identifier holder (for identification or registration label).

In short, there is currently a detailed regulation; at least since 2020, which is expected to be completed from 2027, which determines the specificity of PMVs as vehicles other than bicycles, motorcycles, mopeds, motorbikes and motor vehicles. However, their regulation differs from that of other types of vehicles in a number of respects that could have repercussions on urban mobility, road safety and the accident rate, mainly urban, of these vehicles.

These differences in their legal regulations, with respect to one or more of the aforementioned vehicles, would be the non-obligation to wear a helmet, to take out compulsory insurance, to register and to have a licence to drive them. These issues are discussed below.

### **3. THE ESTABLISHMENT OF COMPULSORY THIRD-PARTY LIABILITY INSURANCE FOR PMVs**

#### **3.1. CURRENT REGULATION**

There is currently no legal or regulatory obligation in Spain to insure PMVs. In any case, the DGT, which is currently considering making this insurance mandatory, recommends that it be taken out (DGT, 2023). DGT Instruction 16-V/124 provides for the possibility, in any case, of voluntary insurance.

Few European countries have made third-party liability insurance mandatory. Only the following countries: France, Germany, Malta, Norway and the Netherlands have made this insurance mandatory (Centro Europeo del Consumidor, 2023).

EU Directive 2021/2118 of the European Parliament and of the Council (Parlamento Europeo, 2021) also on motor liability insurance refers to new urban mobility vehicles, without specifically mentioning PMVs. In this case, it is argued that they should fall outside the scope of Directive 2009/103, because (4) "Light electric vehicles that do not fall within the definition of "vehicle" should be excluded from the scope of Directive 2009/103/EC" (Parlamento Europeo, 2021). Along these lines (6), "Some motor vehicles

are smaller and therefore less likely than others to cause significant bodily injury or damage to property. Their inclusion in the scope of Directive 2009/103/EC would be disproportionate and would not be sustainable over time (...) and would discourage innovation" (Parlamento Europeo, 2021).

However, this does not mean that it excludes the possibility, or even the need, to provide liability insurance for this type of vehicle. Therefore, each member state can make liability insurance for PMVs compulsory.

Therefore, it can be concluded that there is also no supranational legislation requiring the establishment of compulsory insurance for PMVs.

However, some cities have regulated this obligation in their municipal ordinances, as is the case of Palencia (Ayto. Palencia, 2020) or Cordoba (BOP Córdoba, 2023). Other municipal ordinances, such as those of Madrid (Ayto. de Madrid, 2023) Barcelona (Ayto. de Barcelona, 2021) or Valencia (Generalitat Valenciana, 2020) recommend it, although they do not require it. In this regard, Art. 7 LTSV (Cortes Generales, 2015) entrusts municipalities with the regulation, organisation, management, surveillance and discipline of traffic on their urban roads. The STS of 23 January 2002 confirmed the regulatory power of local councils, by virtue of the aforementioned article, to develop the RGCir, respecting the principles of reasonableness, proportionality and congruence.

### 3.2. ARGUMENTS AND QUALIFIED OPINIONS

There are currently opinions in our society both for and against the establishment of compulsory liability insurance for PMVs. The arguments of both currents of opinion can basically be summarised as follows:

Arguments in favour of its implementation:

- It protects the victim from the insolvency of their drivers, who are often minors.
- It also protects their drivers from significant out-of-pocket expenses in the event of a claim.
- Their numbers have increased dramatically in recent years, and they now cause many accidents.
- It does not involve a large outlay.
- It would increase users' awareness that they are driving vehicles.

Arguments against making it mandatory:

- There is no EU legislation to support or oblige this.
- It involves an extra outlay for their users, often young people or people who cannot afford a different vehicle.
- It would discourage the use of PMVs.
- PMVs do not generally cause much damage when involved in accidents.

Both arguments have their weight, and although they could be discussed at length, we will now try to gather opinions that are considered privileged, as they correspond to people who belong to strategic groups related to road safety in general, or to PMVs in particular.

All respondents are in favour, with some nuance, of compulsory insurance for PMVs.

The State Prosecutor's Office for Road Safety is also in favour of guaranteeing the recovery of any civil liability that may arise from these accidents.

The Director-General of Traffic thinks that it would be advisable for drivers to have insurance that covers any damage derived from the circulation and parking of the vehicle, especially with a view to ensuring that potential accident victims are not left without recourse. The cost of such insurance is not very high, but its impact on lower accident rates, or on reducing the adverse effects of accidents, could be very significant.

The Valencia City Councillor for Traffic also considers insurance to be necessary, given the increase in accidents involving this group of vehicles.

The Professor at the University Institute for Traffic and Road Safety Research at the University of Valencia, believes that it should be compulsory for any vehicle that has the capacity to cause material damage to third parties, especially those that affect people.

The President of the Stop Accidentes association, along the same lines as above, believes that in major accidents, such as the case of fatalities, compensation could not be provided correctly, and would depend too much on the circumstances of the driver of the vehicle.

Only the President of the Association of PMV Users of the Valencian Region, without denying the positive nature of insurance covering all vehicles, argues that this obligation should be universal in nature and all vehicles must be able to be identified. Therefore, he believes that it would not be useful if vehicles such as bicycles are not also obliged to be insured, or when a vehicle cannot be identified, as many users would fail to comply with this legal obligation.

Therefore, a large majority of respondents believe that mandatory insurance for PMV users should be necessary in any case.

### 3.3. THE ACTIONS OF THE PUBLIC PROSECUTOR'S OFFICE FOR ROAD SAFETY

In 2022, the FGE's Annual Report (FGE, 2022) specifically addressed the possibility of establishing civil liability insurance for PMVs.

The coexistence of these vehicles with other vehicles of greater mass and volume, on the one hand, and with other vulnerable users, on the other, was addressed. The problem thus became twofold: drivers of PMVs as victims of accidents involving other

vehicles, and as active subjects of crimes of homicide or reckless injury, for hitting pedestrians.

This document advocates for protecting victims from being left without recourse after accidents caused by drivers of PMVs.

For this reason, the Prosecutor's Office has since held meetings with affected groups in order to study how compulsory insurance for these vehicles could be implemented.

It also points out the overlap with the legislative study agenda of the Ministry of Economic Affairs and Digital Transformation, which in the preparation of the draft amending the legal and regulatory rules relating to civil liability and insurance in the circulation of motor vehicles, in the prior public consultation, when citing the potential goals and solutions of the future regulation pursuant to the provisions of Article 133 of Law 39/2015, of 1 October (Cortes Generales, 2015) states that the emergence of these new vehicles in urban settings "makes it advisable to establish compulsory insurance systems that safeguard due compensation for injured parties in accidents caused by these vehicles" (FGE, 2022), expressly raising the question as to whether there should be an obligation to insure, and if so, whether it should be regulated within the framework of the current compulsory motor insurance or by means of a specific insurance. In other words, there is the dual perspective of insuring PMVs or insuring their drivers.

Along the same lines, Opinion 2/21 of the State Prosecutor's Office of the Road Safety Chamber states that in cases of lack of insurance in PMVs, "the cost of these (injuries or death) is unjustly borne by victims, violating their right to appropriate relief" (Fiscalía General del Estado, 2021). Therefore, it urges prosecutors to make a special effort to investigate possible civil liability insurance in order to mitigate the damage caused to the victims of accidents in which PMVs are involved.

### 3.4. REFORM PROPOSAL

There is almost general agreement that the protection of the victims of an accident involving a PMV requires that the circulation of PMVs be covered by civil liability insurance to cover the financial consequences of the civil liability arising from the accident.

It would be sufficient to amend Art. 1 of the Regulation on compulsory civil liability insurance for the circulation of motor vehicles (Cortes Generales, 2008) by including PMVs therein. In any case, in March 2023, the ministry of economic affairs and digital transformation and the ministry of justice approved a draft bill amending the revised text of the law on civil liability and insurance in the circulation of motor vehicles, where, among its goals, a commission of experts is commissioned to "carry out a study to assess the suitability and characteristics of a compulsory insurance to cover damage to third parties caused by the new personal mobility vehicles" (Ministerio de Justicia, 2023).

## 4. REGISTRATION AND CATALOGUING OF PMVs

### 4.1. CURRENT REGULATION

As in the previous case, there is currently no legal or regulatory obligation at the state level to register a PMV. Only some vehicles similar to PMVs, such as vehicles similar to mopeds due to their modifications or technical specifications that lead them to be considered as category L1e-B vehicles or two-wheeled mopeds, will require registration, homologation, registration plates, technical inspection, compulsory insurance and a driving licence. Neither the RGVEh nor the Manual of Technical Specifications require the registration of PMVs in a municipal register. Only the respective municipal ordinances may establish, where appropriate, such an obligation.

Currently, the regulations in force, with Single Additional Provision of Royal Decree 970/2020 of 26 November (Cortes Generales, 2020), establishes that local councils may register PMVs, thus providing a means of identifying these vehicles, and may communicate this information to the DGT. In reality, however, very few local authorities have implemented measures such as these, and they are relegated to PMVs that carry out economic activities, such as those for the transport of goods and services and those associated with tourism or shared use.

In the absence of state regulation, currently only Municipal Ordinances may regulate the establishment of a census of PMV, compulsory or voluntary, in the exercise of the power conferred on them by Art. 128.1 of Law 39/2015, of 1 October (Cortes Generales, Madrid) within the framework of state legislation or, where appropriate, regional legislation. Nor is the registration of such vehicles compulsory.

Nor does the registration sticker, envisaged in the Specifications Manual, but which has not yet been developed, appear to have characteristics similar to those of a registration plate similar, for example, to those for mopeds. However, it is progress compared to the lack of identification prior to the entry into force of this legal text.

Here, we should ask ourselves whether a municipal or national register for PMVs should be compulsory to make it easier for them to be monitored. Also, whether it would be appropriate to require registration of PMVs to assist in this monitoring, and whether both measures, registration and cataloguing, would help to reduce road accidents or mitigate their consequences.

### 4.2. ARGUMENTS AND QUALIFIED OPINIONS

Again, interviews are used to analyse arguments and opinions about this regulatory possibility of PMVs.

Those interviewed were unanimous in considering it necessary to demand a certain degree of control of PMVs through correct identification and census-taking, albeit with nuances from each of the experts consulted.

The Prosecutor is also in favour of identifying and monitoring PMVs due, for example, to their involvement in road accidents.

The Director-General of Traffic believes that identification is key to promoting responsible behaviour on the part of drivers of these vehicles towards other road users, as well as facilitating the location of personal mobility vehicles (PMVs) at all times and reducing their theft rate. The DGT is already working on the creation of a register of urban mobility vehicles, so that, in a first phase, local councils can upload the information they have, and then the DGT will directly enable a very simple procedure, available electronically, to register and identify PMVs.

The university professor stresses the need to control vehicles in order to be able to identify, sanction and re-educate. The question arises as to how to identify these vehicles, as it is not easy to attach a number plate to them in a way that makes them visible.

The councillor also stresses the need to control and know the real number of these vehicles in our cities, in order to plan and organise urban infrastructure. He also believes that registration would allow them to be more closely monitored.

The representative of the victims' collective, in the same sense as the previous speakers, argued for the need to monitor and identify PMVs where they flee from the scene of accidents, and was in favour of making the registration and cataloguing of PMVs compulsory.

The representative of PMV users also points out the absolute necessity of identification, by means of number plates, of vehicles with users who engage in inappropriate behaviour.

Therefore, there is unanimity among the interviewees that there is a need for some form of identification and registration of PMVs, mainly for the purpose of monitoring compliance with legal and regulatory requirements set by the regulations, and to ensure their liability in case of any accidents in which they are involved. They also favour the establishment of a registration system to achieve these goals.

Along these lines, reports from organisations such as the RACC, which in its annual report on mobility in PMVs (Real Automòbil Club de Catalunya, 2023), includes, among its recommendations, the promotion of PMV registration to minimise the risk of theft and facilitate the recovery of stolen vehicles.

#### 4.3. REFORM PROPOSAL

The proposed legislative changes could be twofold: compulsory registration and cataloguing in a manner similar to mopeds. However, as we have seen above, Art. 1 RGVeh (Cortes Generales, 1998) requires every registered vehicle to be catalogued in the JCT register. Mandatory registration of PMVs would therefore be sufficient to make such registration equally necessary.

Thus, by simply amending Art. 25 RG Veh (Cortes Generales, 1998), this double obligation would be introduced in road regulations. It would also be coherent, systematically speaking, to amend Art. 22a RG Veh (Cortes Generales, 1998) along the same lines.

Also, the regulation of the Specifications Manual (DGT, 2022) should be modified to include an identification holder of similar dimensions to those of mopeds, including not the identification or registration sticker, but a number plate. Or, eventually, perhaps a larger label or identifier.

Annex XVIII I(A)(d) could also be amended to include PMVs, in addition to mopeds or motorcycles. Similarly, its dimensions in Annex IV.

Finally, Art. 68.1 LTSV (Cortes Generales, 2015) should be amended.

## **5. LICENCE, PERMIT OR TRAINING COURSE FOR THE OPERATION OF PMVs**

### **5.1. CURRENT REGULATION**

At present, drivers of PMVs do not need to obtain a licence or permit, nor do they need to pass any training course.

It can be analysed whether the legislator has established any requirements such as a permit, licence or mandatory training course for risky activities that are in some way similar to driving PWVs. The systematic nature of this work requires only that they be listed.

In this respect, the driving of small boats, the keeping of potentially dangerous animals and the possession of dogs can be listed. In all three cases, Spanish legislation has gone from having no regulation at all to requiring civil liability insurance and specific licences or courses to drive or acquire such vehicles. The three cases listed above are presented, albeit succinctly, given the brevity of this paper.

In the case of boats, Royal Decree 875/2014 of 10 October 2014 (Cortes Generales, 2014) regulates the navigation authorisations that allow the steering of recreational vessels. The basic qualification is the sailing licence, which authorises the operation of vessels up to six metres in length, subject to certain conditions. Such a basic licence necessarily requires a six-hour theoretical and practical course.

For the possession of potentially dangerous animals, Royal Decree 287/2022 of 22 March (Cortes Generales, 2002) regulates the conditions for owning this type of animal, requiring a licence that requires an age of majority, a certificate of physical capacity, a certificate of mental attitudes, civil liability insurance and no criminal record.

Likewise, for dog ownership, Law 7/2023 of 28 March on the protection of the rights and welfare of animals (Cortes Generales, 2023) establishes in its Art. 30 the need for a free training course. Liability insurance is also required.



It can be seen, therefore, that risk activities that were previously unregulated have been progressively regulated and have been demanding requirements that, it is suggested, could also be demanded of PMVs.

## 5.2. ARGUMENTS AND QUALIFIED OPINIONS

As in the previous sections, the following is the opinion of the experts interviewed on the possibility of introducing a compulsory course or licence for driving PMVs.

The Prosecutor believes that, perhaps at minimum, a strong information campaign or the inclusion of basic notions of road safety education at primary or secondary school might be necessary. The sharp increase in PMV users would seem to justify such a requirement.

The Director-General of Traffic, on the other hand, is not in favour of implementing the above and prefers a type of voluntary training. The DGT is aware that, as regards shared PMV services, various tenders award points to bidders that have offered free training classes to users, usually in the form of digital courses to be completed upon registration on the vendors' application.

Teachers believe that training is a vital and basic element for road safety. Road users must know the rules of the road, and, when using PMVs, should not think of themselves as pedestrians or believe that their use is not regulated. Knowing the basic rules, some road safety concepts and the main risk factors that can affect them, such as distractions, alcohol, drugs, etc., is vital for the safe circulation of these vehicles and for other users.

The traffic councillor is in favour of this, as the applicable regulations are very complex, and a minimum of training is essential.

The victims' representative also points out that it should be compulsory, as PMVs mix with other road users and ignorance of many of the rules can and does lead to completely avoidable road accidents.

The representative of the PMV users, however, disagrees with the general opinion, pointing out that it is not necessary for bicycles, and that it would be impossible to monitor the users of rental vehicles.

Therefore, there is a majority view, with some disagreement, that some form of mandatory minimum training should be required for PMV drivers. There is disagreement on the specific form of implementation, be it a permit, a training course or the introduction of compulsory education.

Along these lines, reports from organisations such as the RACC, which in its annual report on mobility in PMVs (Real Automòbil Club de Catalunya, 2023) includes among its recommendations the promotion of training for PMV drivers. Similarly, Fundació Línea Directa (Fundación Línea Directa, 2022) is also concerned about the

lack of awareness of the regulations and the lack of compliance with the DGT's recommendations.

### 5.3. REFORM PROPOSAL

Requiring a licence, permit or training course to drive PMVs would help to reduce their accident rate in our country. Specifically, by combining this measure with one of the other measures studied.

One possibility would be the introduction of a specific permit or licence for driving PMVs. Therefore, Art. 1 RGCond (Cortes Generales, 1997) should be amended to include PMVs.

## 6. THE FURTHER (OR IMPROVED) CRIMINALISATION OF EXISTING PMV SANCTIONS

### 6.1. CURRENT REGULATION

For a detailed analysis of the current legislation on PMVs in terms of penalties, having discussed in this paper's introduction the administrative road regulations affecting them, it is necessary to distinguish between the possible offences related to the driving of PMVs in the administrative and criminal spheres. This makes it possible to analyse whether reforms are needed, and on which specific points, in order to subsequently draw conclusions about what could be improved in these regulations and to what extent this could help to reduce the accident rate, which has been rising sharply as these vehicles have continued circulating in our cities. Given the limited length of this article, I will only present the analysis of the criminal law perspective, as I believe that this is more in line with the author's profile and the purpose of the proposed reforms.

However, I cannot fail to make specific reference to one particular issue which concerns the administrative field: the use of helmets, although various municipal ordinances across Spain have begun making these compulsory. However, the legal regulation of their use was established by Law 18/21 of 20 December on the reform of the LTSV with regard to the points-based driving licence which, in its Art. 47(2), establishes that "The driver of a personal mobility vehicle must use a protective helmet in the terms established by the implementation regulations" (Cortes Generales, 2021). In the absence of regulatory regulation, which should be in the RGCir, for the time being, in my opinion, the municipal regulation of its prohibition lacks sufficient legal coverage. This view is also held by the DGT Instruction 2019/S-149 TV 108 (DGT, 2019).

The offences related to driving in general, and to the driving of PMVs in particular, can be categorised into two different instances: on the one hand, offences of reckless homicide and injury, and on the other hand, strictly speaking, offences against road safety. The two instances will be examined below, with the specificities of the PMVs in each of them.

We will not merely conduct a basic study of these articles, given the characteristics and the systematic approach of this work but will mainly focus on the approach to the

criminal conduct in which these conducts are applicable to PMVs and on the cases in which, unlike other types of vehicles, they are not applicable thereto.

The offences of reckless homicide are contained in Arts. 142 and 142 bis CP, drafted pursuant to LO 11/2022 of 13 September (Cortes Generales, 2022).

Art. 142 CP does not even single out the driver of a vehicle (any vehicle) for punishment, but rather any reckless conduct, serious or less serious, with the exclusion of minor reckless conduct, resulting in the death of another person. It contains specificities for drivers of motor vehicles and mopeds, both in terms of the penalties to be imposed and in terms of the objectification and categorisation of the type of negligence in relation to an infringement of administrative traffic regulations.

STS 421/2020 of 22 July, among many others, has provided guidelines on how reckless conduct should be classified, although this judgement refers to the wording in force until 2019, when it was amended by LO 2/2019, of 1 March (Cortes Generales, 2019) and, subsequently, by LO 11/2022 of 13 September (Cortes Generales, 2022). The Supreme Court appropriately classified reckless conduct, indicating which acts fall outside the scope of criminal law (Lanzarote Martínez, 2020).

For the purposes of this paper, it can be concluded that PMV drivers commit this offence when they cause a death through reckless driving. The relatively objective nature of how reckless conduct is classified does not apply to these drivers<sup>3</sup>, although it could serve as an analogous guideline. Nor, obviously, does the penalty of disqualification from the right to drive motor vehicles and mopeds apply to them.

The offence of Art. 142 bis CP would also be applicable to PMV drivers, with the particularities also set out in the previous article. However, this is an exceptional and optional article, and it is difficult to apply it to urban areas. There have been no cases, to date, of its application to PMV drivers.

Analogous to the offences of reckless homicide, the offences of reckless injury are regulated in Articles 152 and 152 bis CP, drafted pursuant to LO 11/2022 of 13 September (Cortes Generales, 2022).

For these two offences, the clarifications made for the offences of reckless homicide can be reproduced in terms of their applicability to PMV drivers. The conclusions of this section will discuss possible problems that this raises, as well as possible changes to the wording, within the teleological approach of this paper.

In addition to offences against persons, in Chapter IV, Title XVII, offences against collective security, of Book II of the CP, we find crimes against Road Safety, in Articles 379 to 385 ter. These include driving under the influence of alcohol or drugs, refusal to

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<sup>3</sup> Along these lines, the reform introduced in the CP by LO 2/2019 of 1 March tends towards an objective consideration of reckless conduct, in the sense that it at least considers there to be less serious (if not serious) reckless conduct when there is a serious infringement of administrative regulations and this has been decisive in producing the result.

take tests for these substances, driving at excessive speed, reckless driving, driving without a licence or creating a traffic hazard. Except in the latter case, provided for in Art. 385 CP, where the perpetrator does not necessarily have to be the driver of a vehicle, the rest always refer to driving "a motor vehicle or moped".

PMVs, *stricto sensu*, do not meet the definition of a motor vehicle or moped for criminal purposes. We have mentioned that this is a category of vehicles defined autonomously and separately from motor vehicles and mopeds in Annex II RGVeh. According thereto, they cannot be included in the scope of application of the EU Regulation 168/2013 (Parlamento Europeo, 2013) as determined in Art. 2.1 and by exclusion in Art. 2.2. Therefore, PMVs as defined in the definition of the RGVeh fall outside the scope of criminal law, as they cannot reach the minimum category of motor vehicle or moped.

A special case could be considered in Art. 383 CP, which only refers to "the driver", while the rest of the offences refer to "driving a motor vehicle or moped". However, the interpretation of this expression must be carried out systematically, since this article refers to "the tests (...) referred to in the previous articles", which means that these are the same tests that these articles foresee as offences for "driving motor vehicles and mopeds", since the rest of these tests, which are compulsory for PMV, are not foreseen as an offence in Art. 379.2 CP. This is the criterion maintained by the State Prosecutor's Office in Conclusion One of Opinion 2/2021 of the Prosecutor's Office for the Coordination of Road Safety: "PMVs are not motor vehicles or mopeds and cannot, therefore, be considered as an instrument of criminal road danger offences" (Fiscalía General del Estado, 2021). The same is true of the doctrine (Andrés Domínguez, 2020).

Therefore, with the exception of Art. 385 CP, such acts cannot be carried out by a PMV driver, so these offences are not applicable to them in any case. This is unless the specific technical specifications of the vehicle make it, in fact, not an PMV but a moped or a motorbike.

Therefore, PMV drivers will only be able to commit the offences of manslaughter or reckless injury, as the case may be.

## 6.2. ARGUMENTS AND QUALIFIED OPINIONS

In the interviews with experts and representatives of user groups affected by the circulation of PMVs, we have focused on two different aspects: on the one hand, the problem of regulating the use of PMVs and, on the other hand, the convenience of providing specific information and sanction campaigns for the drivers thereof.

On the first question, the Public Prosecutor believes that the regulation of various aspects of the use of PMVs in training and education is insufficient.

The Director-General of Traffic, for his part, considers Spain to be one of the few countries in Europe with a specific national regulation on this category of vehicles, together with Germany, France and Italy, with the regulation of the compulsory use of helmets still pending. The suitability of these regulations is a matter of public debate, and

there will always be those in favour of one or the other solution, but it must be borne in mind that the PMV is still a very new type of vehicle and is constantly evolving.

The professor from the University of Valencia believes that there is a very basic but insufficient regulation for this type of vehicle: from protection systems to training, insurance and other relevant aspects of road safety.

The traffic councillor believes that the DGT should take a more decisive approach to regulation because there is too much disparity in criteria between municipalities, and there are also general regulatory gaps that distance these vehicles from the regulation of motor vehicles and mopeds.

The representative of the victims' collective also responds in the negative, as the regulations depend on each city council. For this reason, a single, detailed state regulation is necessary to avoid the problems currently affecting the accident rate of these vehicles.

The representative of PMV users, on the other hand, disagrees with the above views, considering that further regulation of PMVs will not solve the problem and PMVs should be treated like mopeds.

Therefore, there is a general view, with some exceptions, that there is a need for further regulation of PMVs to bring it closer to the existing regulation of motor vehicles and mopeds.

As regards the other aspect, the Director-General of Traffic is in favour of their use, pointing out that his institution has carried them out on several occasions, and that information campaigns are a very useful tool to raise road users' awareness of the importance of safety. In the future, such campaigns, together with surveillance campaigns, will be a tool that will continue to be used for this purpose.

Dr Ignacio Lijarcio and the Prosecutor agree in their assessment of the problem and point out the importance of training for PMV drivers; especially considering that currently no permit, licence or course is required to drive these vehicles.

When addressing the issue, the councillor emphasises the specificities of these silent, fast vehicles and the way they interact with pedestrians and drivers of other vehicles, stressing the need for training and knowledge of a single nationwide regulation.

The president of the victims' association also points out that training should be compulsory, given the characteristics of these vehicles, and considers that ignorance of the regulations leads to the occurrence of perfectly avoidable road accidents.

The representative of PMV users, on the other hand, considers that there is no need for this training or the establishment of a course for PMV users, arguing that bicycles and PMVs should be regulated in the same manner.

Thus, we can conclude that, also in this case, with the exception of the President of the Association of PMV Users of the Valencian Region, more training of PMV drivers

in the current regulations is necessary in order to reduce the accident rate of these vehicles.

Similar conclusions have also been reached in reports from other organisations, such as the RACC, which in its annual report on mobility in PMVs (Real Automòbil Club de Catalunya, 2023) includes, among its recommendations, an increase in the control of antisocial behaviour that puts safety at risk. Similarly, Fundaci3n L3nea Directa (Fundaci3n L3nea Directa, 2022) also reports that 72% of PMV drivers admit to driving on pavements, and 50% drive without helmets, emphasising the need to control these risky behaviours.

### 6.3. REFORM PROPOSAL

In addition to the aforementioned reform of the RGCir, it would be sufficient to include a mention of PMVs in the four articles referring to injury or reckless homicide: "If the (offence) was committed using a motor vehicle, moped or personal mobility vehicle, the penalty shall also be disqualification from the right to drive motor vehicles, mopeds and personal mobility vehicles".

With regard to offences against road safety, it is considered necessary to include PMVs in the offences provided for in Arts. 379 to 384 CP. As in the previous case, the amendment would consist in including the mention of PMVs alongside with motor vehicles or mopeds, in Arts. 379.2, 380.1, 382 bis.1, 383, 384, where appropriate, and 385 bis.

Similarly, the penalties to be imposed should include "the disqualification from the right to drive motor vehicles, mopeds and personal mobility vehicles".

The provisions on penalties in the general part of the CP should be amended accordingly.

## 7. CONCLUSIONS AND PROPOSALS

On the basis of the above analysis, a series of proposals for possible legal amendments to the regulations affecting PMVs are briefly set out below.

Naturally, its content builds on the above analysis and does not obviate some of the real difficulties that have been raised in the collected opinions. Reality, in any case, may make actual implementation more difficult.

They can be summarised as follows:

1. Making insurance compulsory for PMVs by amending Article 1 of the Regulation on compulsory civil liability insurance for motor vehicles, approved by RD 1507/08 (Cortes Generales, 2008), including PMVs in the broad definition of "motor vehicles".

2. Amending Art. 2.1 RGVeh (Cortes Generales, 1998), adding the need to include PMVs in the JCT Register, in addition to registered vehicles, for the purposes indicated therein.

3. Establishing some form of training for PMV drivers. This could possibly take the form of a compulsory training course for driving PMVs, for example, by introducing such a requirement in Art. 59.1 LTSV. This could take the form of a specific licence, or a mere theoretical and practical course similar to the basic recreational boating licence.

4. Amending Art. 116.1 RGCir (Cortes Generales, 2003), which develops Art. 47(2) LTSV (Cortes Generales, 2021), to include PMVs, making it compulsory to use helmets when driving these vehicles.

5. Mandatory use of dipped beam on PMVs between sunset and sunrise, as well as on insufficiently lit roads, amending Art. 101.1 RGCir (Cortes Generales, 2003) to include PMVs alongside motor vehicles and mopeds.

6. Classifying the absence of an identifier or registration label for a PMV as a serious administrative offence. This obligation should be included in Art. 76 p LTSV (Cortes Generales, 2021) with the reference to registration plates of motor vehicles and mopeds.

7. Including PMVs in Arts. 142, 142 bis, 153 and 153 bis CP (Cortes Generales, 1995), alongside motor vehicles and mopeds, for the purpose of the penalty of disqualification from the right to drive such vehicles.

8. Including PMVs in Arts. 379.2, 380.1, 382 bis.1, 383, 384, where applicable, and 385 bis CP (Cortes Generales, 1995), alongside motor vehicles and mopeds, also including the penalty of disqualification from the right to drive such vehicles.

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