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## ***Study: uses, risks and accident rate of Personal Light Electric Vehicle (PLEV), before and after lockdown\*.***

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**Electric scooters, electric balance unicycle, hoverboards...: users who are less stigmatised since the deconfinement, but who remain vulnerable and poorly protected.**

***Electric scooters, Segways, electric skateboards, hoverboards... the development of new urban transportation modes observed in recent years has accelerated after lockdown. This development is accompanied by risks and accidents: safety and prevention remain key issues in a much more serene climate between PLEV users and other users of public space.***

***In order to analyse the use, risk taking and accident rate of users of Personal Transportation Vehicle (PLEV), Fédération Française de l'Assurance (FFA), Assurance Prévention and Fédération de la Micro-Mobilité (FP2M), have launched a major study\* on the subject carried out by Smart Mobility Lab. It collects the vision of PLEV users, but also of other users of public space, before and after lockdown.***

### **Installed use of Personal Transportation Vehicle**

PLEVs now occupy a significant place among urban and peri-urban transportation modes: **22% of respondents say they have used them at least once and 11% say they are regular users** (at least once a month). The electric scooter is very largely the 1<sup>st</sup> PLEV used, followed to a lesser extent by the electric balance unicycle, the electric skateboard, Segways and the hoverboard.

Due to the plurality of PLEVs, the practice is very varied in terms of frequency, distances, and circumstances of use. **1 in 2 daily PLEV users use self-service electric scooters.**

The study reveals a **very different practice between the owners of PLEVs and the users of self-service PLEVs, free floaters**. The owners have a regular and established practice (nearly 2/3 have already travelled more than 1,000 km) and cover long average distances. Usage is spread out over the day and focuses on business and school trips. On the other hand, among the free floaters, the practice is more occasional, more focused on leisure activities and more recent (3/4 have been using them for less than a year).

**Since the health crisis, 27% of French people say they have changed their usual means of travel. Thus, 72% of 18-34 years old are considering using PLEVs to travel.**



## An ambivalent perception of PLEV in the public space

The ambivalent image of PLEVs among users of public space has changed after lockdown. In February, **dangerousness** was the primary characteristic attributed to PLEVs (42%). In the second wave of the study, carried out in September 2020, this first place is now occupied by gains in autonomy and time reflecting the **utilitarian** and **practical** nature of these machines.

However, 31% of French people believe that this mode of travel is inconvenient for other users. It is the least respectful of others.

**For their part, PLEV users feel that the road infrastructure, signage, and traffic regulations are not adapted to their practice.** At the same time, they admit that their behaviour is not always exemplary: non-compliance with regulations and the road-safety code, changing direction not indicated, traffic between cars, on pavements, etc.

**Pop-up bike lanes, the temporary cycle paths created following the health crisis, are initiatives that are perceived very favourably by cyclists and PLEV users, less so by motorists and motorised two-wheelers.** Overall, 65% of users of public spaces say that they help to combat air pollution, 62% say they are useful, 59% say they facilitate travel within cities, 51% say they encourage the use of new modes of transport and 50% say they help to improve user safety.

## A sense of vulnerability and a proven lack of protection

**With an average confidence score of 6.4/10 compared with an average of 7.2 among all users of public spaces, PLEV users are the ones who consider themselves the least safe for their daily journeys.** They consider that they are very exposed to other users, particularly truck drivers and public spaces.

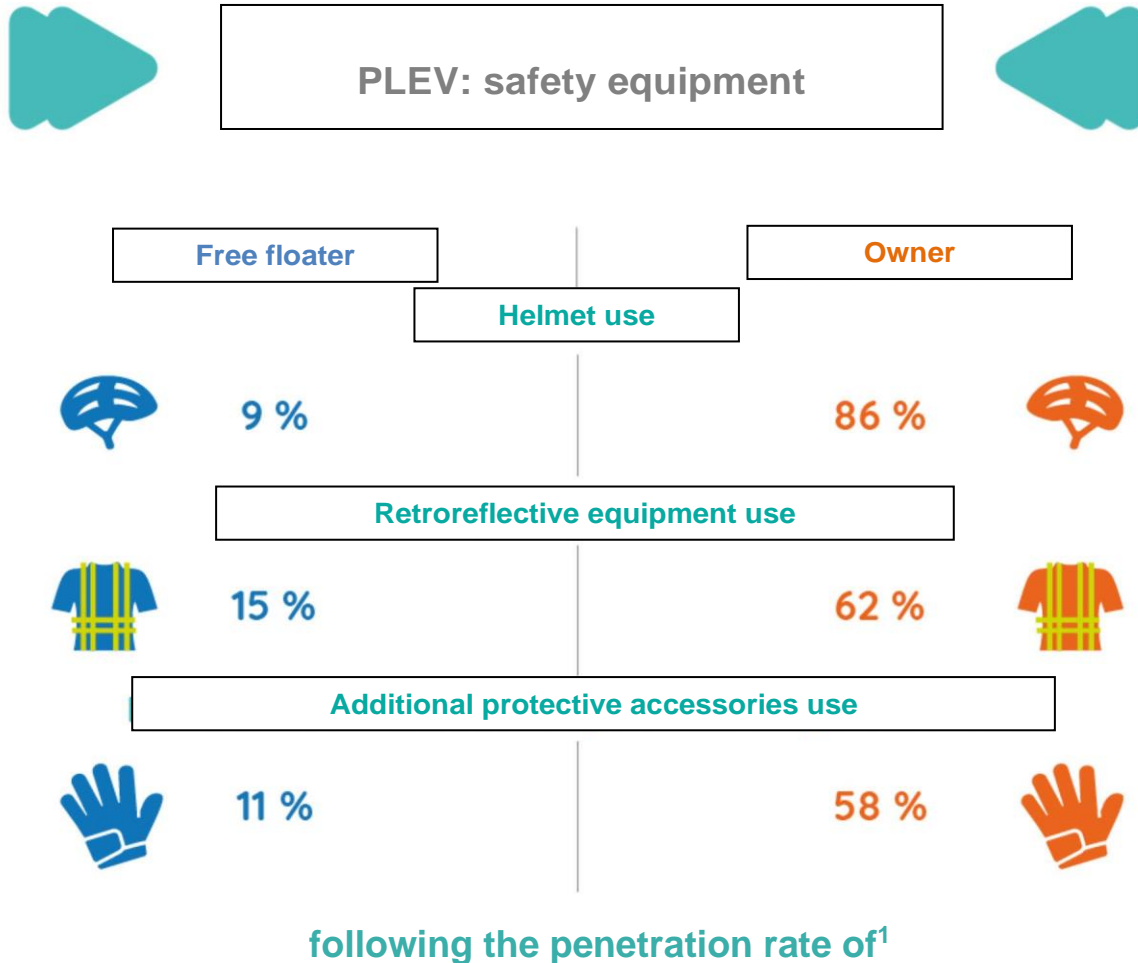
The study highlights **safety shortcomings linked to machines that are still insufficiently equipped** (light, buzzer, retro-reflective elements, etc.).

**In terms of safety in terms of use, there are very different practices depending on the type of user who owns or rents the equipment.**

**PLEV owners are more inclined to protect themselves against risks:** 86% wear a helmet, 62% use retro-reflective equipment, 58% use additional protective accessories, **66% of owners are aware that civil liability insurance is compulsory and 62% have taken out such insurance.**

**On the other hand, among free-floating rental companies,** only 1 in 10 electric scooter users wear a helmet, 15% wear retro-reflective equipment, and 11% wear other accessories. Furthermore, **only 2 out of 10 users of self-service electric scooters have ever checked whether they are covered by insurance when renting and only 45% are aware that insurance is compulsory.** This is the category of public space users least aware of the new PLEV regulations: 52% are unaware of the ban on driving on pavements, 49% are unaware of the 25 km/h speed limit, and 60% are unaware of the ban on driving at 2.





and particularly kick scooters

a quarter

of all road users have already been exposed to a dangerous situation in connection with an PLEV.

The categories of road users most concerned by accidents involving PLEVs are pedestrians (35%) and motorists (18%). Young PLEV drivers (under 30 years of age) are over-represented in accidents. **68% of accidents involving a PLEV imply non-compliance with regulations**, including speeding (40%) and driving on the pavement (30%). 29% of accidents occur because of an unexpected event, such as an unforeseen obstacle in the lane (32%) or a driving error on the roadway (20%). 22% of accidents occurred because of faulty infrastructure: a road in poor condition (39%), a lack of bike paths (38%).

In high-risk areas, **45% of accidents occur on the roadway, 28% on pavements and 22% on bike paths**. Pedestrian crossings and intersections are particularly accident-prone (38% of accidents).

The majority of these PLEV accidents are falls (65%) and collisions (33%). While in 60% of cases, PLEV injuries are minor, in 2 out of 10 cases, users had to go to the emergency room and 11% were hospitalised.

In addition, the 2019 Road Safety Report, which for the first-year isolates PLEV users, counts 10 deaths.



<sup>1</sup> il manque une partie sur le pdf

## Raising awareness and protecting users

"The study underlines the lack of knowledge of the prerequisites for conducting a PLEV, the obligation of insurance. To be responsible is to be insured for oneself and for others. PLEV users have the same responsibility as those using a car or motorbike and must therefore be insured for civil liability for the protection of all. Insurance is also compulsory for self-service machines: it is therefore essential to check that the hire company has taken out insurance on behalf of its customers.", explains **Stéphane Pénet, Deputy General Delegate of the Fédération Française de l'Assurance (FFA).**

"This study, carried out before and after lockdown, demonstrates the growing place of PLEVs in the public space, but also the emergence of new risks on the road. The French must continue to raise awareness of the need to share public space in a peaceful manner to guarantee everyone's safety. **Eric Lemaire, President of Commission Route de l'Association Assurance Prévention,** comments.

"Personal transport vehicles will be increasingly present in our cities. The need for a better understanding of the road will lead to the appearance of new, better equipped and more efficient vehicles in terms of safety. This study also shows the important need to know how to live together, how to be equipped and how to be insured. Professionals and users have this responsibility, and this will require more pedagogy and awareness-raising", concludes **Fabrice Furlan, President of the Professionals Micro-Mobility Federation (FP2M).**

\* Study by the French Insurance Federation (FFA), Prevention Insurance and the Federation of Micro-Mobility Professionals (FP2M), carried out by Smart Mobility Lab. Quantitative study carried out in 2 phases: from 21 February to 5 March 2020 with 5,014 respondents and from 5 to 11 September 2020 with 1,013 respondents throughout France aged 18 and over. Qualitative study carried out with 65 participants in 8 focus groups in Paris and Lille from 21 to 31 January 2020.

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<sup>i</sup> French Insurance Federation

