



e-Scooter Safety: From research to action?

25 January 2022

E-scooters in Germany: How to overcome the safety challenges?

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Keiner kommt um. Alle kommen an.

Key elements of the German PLEV Ordinance (in force since mid June 2019)

- Electrically propelled **motor vehicles**
- Maximum design speed: 6 – 20 km/h
- Mandatory: handlebar, lighting, bell



national vehicle operational approval, insurance

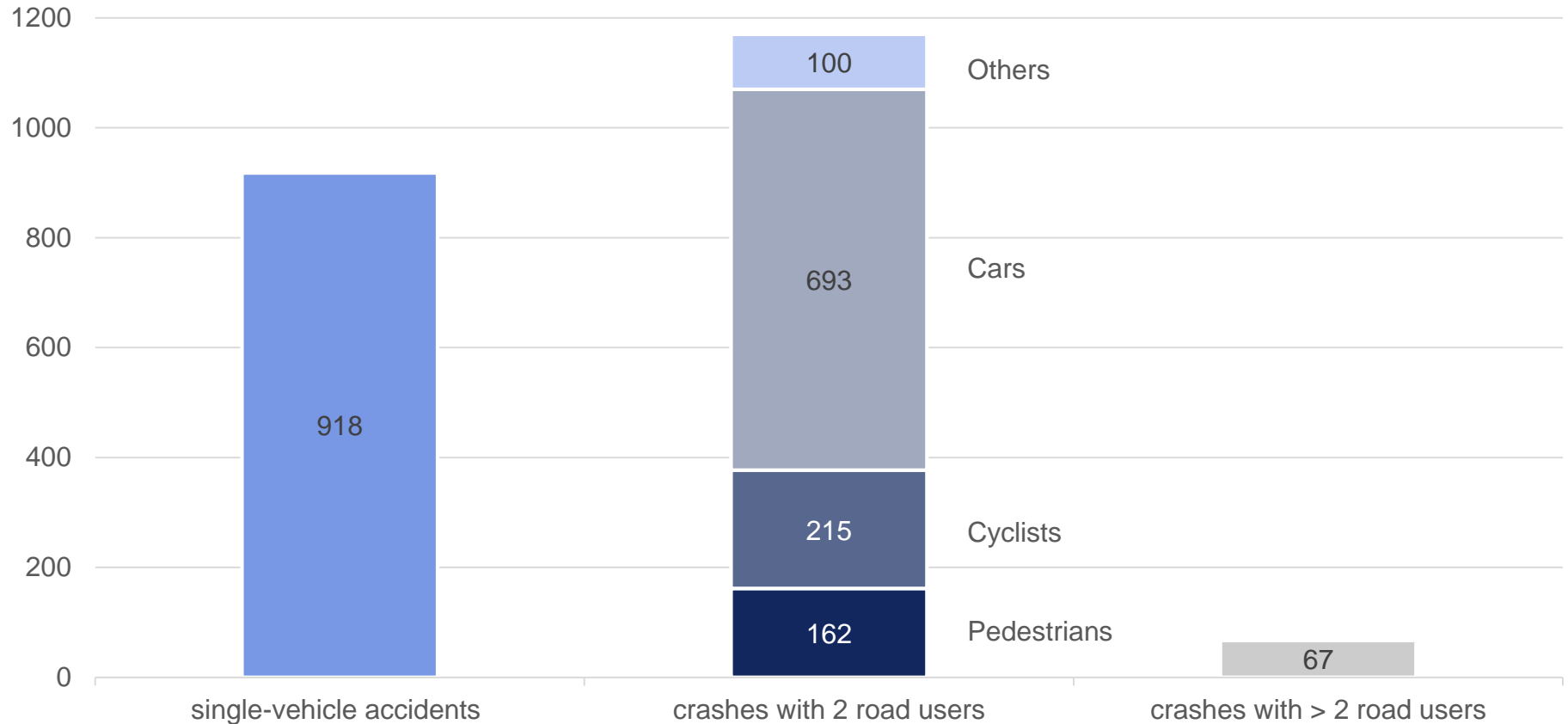
- Minimum age: 14
- To be used on cycling infrastructure or roads
- Evaluation until September 2023

Accidents involving e-scooters in Germany

Period and road users involved	Casualties	Killed	Seriously injured	Slightly injured
01-12 2020 all road users	2.297	5	387	1.905
subset e-scooter users	1.844	5	344	1.535
01-09 2021	3.826	4	551	2.771

(as of 5 January 2022)

Road users involved in e-scooter accidents in Germany in 2020



Further insights from 2020 I

- > 80% of the casualties: e-scooter users
- main responsible: 70.9% e-scooter users
- **age** of e-scooter users involved in accidents with casualties:
 - 76% < 45 years
 - 33,7% < 25 years
 - most involved and main responsible: age group 25 to 35 years

Further insights from 2020 II

- main **misbehaviour**:
 - drunk driving
 - wrong use of the road
 - unadapted speed

- main known **accident types**:
 - driving accident (loss of control)
 - turning into a road or crossing it
 - accident between vehicles moving along in carriageway

Campaign: Ride without risk!





ONE BEER TOO MANY – ONE LICENCE LESS!

**RIDING AN E-SCOOTER UNDER THE INFLUENCE
CAN COST YOU YOUR DRIVING LICENCE.**



German
Road Safety Council


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Federal Ministry
of Transport and
Digital Infrastructure

on the basis of a decision
by the German Bundestag







RIDE WITHOUT RISK!




USE THE CYCLE PATH.
E-scooter riders are required to use cycle paths (or the road if these are not available).




NEVER RIDE ON FOOTPATHS.
It is not permitted to use footpaths or ride in pedestrian zones.




RIDE ALONE.
It is not permitted for two people to travel on an e-scooter. Doing this will lead to a fine.



RIDE SOBER.
Being over the 0.05% limit risks at least a fine (€500), a 1-month driving ban and 2 licence points.



PARK WITH CARE.
Always leave the e-scooter in a place that does not hinder anyone or block their way.



WEAR A HELMET.
Even though it is not mandatory to wear a helmet, we strongly recommend you do.

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THE FEATURES AN E-SCOOTER SHOULD HAVE



1. The personal light electric vehicle must have a handlebar and may achieve a maximum speed of 20 km/h.
2. Its power must be limited to 500 watts (1,400 watts in the case of self-balancing vehicles).
3. Two brakes that work independently of one another are mandatory. They must also be able to bring the vehicle to a standstill and engage at full speed.
4. A bell is likewise mandatory, as are front and rear lights.
5. The vehicle may weigh no more than 55 kilograms (kerb weight). Also, it may not be more than 70 centimetres wide, 1.4 metres tall and 2 metres long.

BEFORE USE

OBSERVE THE MINIMUM AGE

You do not need any kind of driving licence to use an e-scooter, but users must be at least 14 years of age.

PUT YOUR SMARTPHONE AWAY

Put your phone in your pocket before you set off. Holding a smartphone in your hand while using a vehicle is a violation of the Road Traffic Act (StVO).

WEAR THE RIGHT SHOES

Wearing sturdy footwear allows you to stand on an e-scooter safely. You can soon become unstable if wearing flip-flops, especially when accelerating or when taking corners.

CHECK THE INSURANCE PLATE

As e-scooters are considered personal light electric vehicles/motor vehicles, they are subject to compulsory insurance. A new insurance plate is needed every year.

CHECK THE LIGHTS

E-scooters must be equipped with functioning front and rear lights so that they are visible in the dark.

MORE INFORMATION AT WWW.RUNTERVOMGAS.DE

IMPRINT

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www.dvr.de

As at:
October 2019



NEW SCOOTERS ARE TAKING OVER THE STREETS

Tips for using e-scooters safely

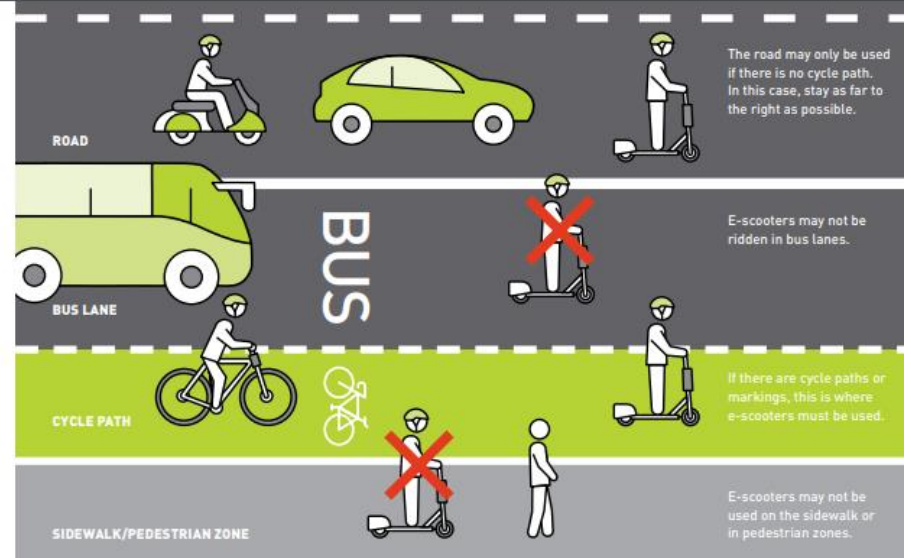


FIVE NO-NOS

-  **×** **SAME BLOOD ALCOHOL LIMIT AS IN A CAR**
Drivers are committing an offence if their level is at least 0.3‰ and their conduct is conspicuous. From 0.5‰, they risk at least a fine, a one-month driving ban and two points on their licence. There is a ban on alcohol for novice drivers and drivers under 21.
-  **×** **NOT IN PAIRS**
E-scooters are designed to be used by one person only.
-  **×** **NOT SIDE BY SIDE**
Personal light electric vehicles must be ridden one behind the other.
-  **×** **NOT ON THE SIDEWALK**
E-scooters may not be ridden on the sidewalk. If a path is shared with pedestrians, the pedestrians have priority. You must go at a walking pace in traffic-calmed areas.
-  **×** **NO BAGS ON HANDLEBARS**
The handlebar must remain free of bags and other items.

FIVE REQUESTS

-  **✓** **WEAR A HELMET**
E-scooter users should always wear protective headgear.
-  **✓** **PRACTICE BEFORE YOUR FIRST JOURNEY**
Acceleration, corners and braking are often underestimated. Uneven surfaces can likewise soon result in a fall.
-  **✓** **GIVE SIGNAL BEFORE TURNING**
Whether turning left or right, you must signal a change in direction.
-  **✓** **PARK WITH CARE**
Parking on the sidewalk is permitted as long as no people or routes are obstructed. Please observe the local regulations.
-  **✓** **PUSH IN PARKS WITH NO CYCLE PATHS**
E-scooter users must use cycle paths. If there are no such paths in a park, you must get off and push.



Recommendations and suggestions I

Vehicles/technology

- Reconsider mandatory indicators
- More reflective elements on the vehicles
- Reconsider automatic speed limits for certain situations

Infrastructure

- Creating/improving safe cycling infrastructure
- Setting up parking zones

Recommendations and suggestions II

Behaviour

- Minimum age 15 and mandatory permit
- Integrating a change of perspective in drivers' education
- Higher sanctions for riding on sidewalks

Sources

German PLEV ordinance „Elektrokleinstfahrzeuge-Verordnung“

<https://www.gesetze-im-internet.de/ekfv/BJNR075610019.html>

Picture, Gesamtverband der Deutschen Versicherungswirtschaft, Pressefoto

<https://www.gdv.de/resource/blob/56782/6f2b97cbde23b835004cf2fc757e67e3/e-scooter-medienfoto-2020-2-download-data.jpg>

Accident Statistics, German Federal Statistical Office

- **2020:** https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Verkehrsunfaelle/Tabellen/sonderauswertung-unfaelle-e-scooter.xlsx?__blob=publicationFile

- **2021:** <https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Verkehrsunfaelle/Tabellen/e-scooter.html?nn=211928#230602>

Campaign Ride without risk!

<https://www.dvr.de/praevention/kampagnen/roll-ohne-risiko>

DVR recommendations concerning e-scooters

https://assets.ctfassets.net/u6w11btvnp5g/6ychLQUMx3km9GoaxG3ojZ/cb3138d69c962ee633b5f26333d4193a/RvG_EScooter_Broschu_re_en.pdf

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Thank you very much for your attention.

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