

eWheels

COMMUNITY



Regulations in Germany



<http://www.ewheels.org>





ENG

At the European level so far no agreement with respect to an EU type approval and a vehicle category for self-balanced vehicles with electric drive and brake system could be established.

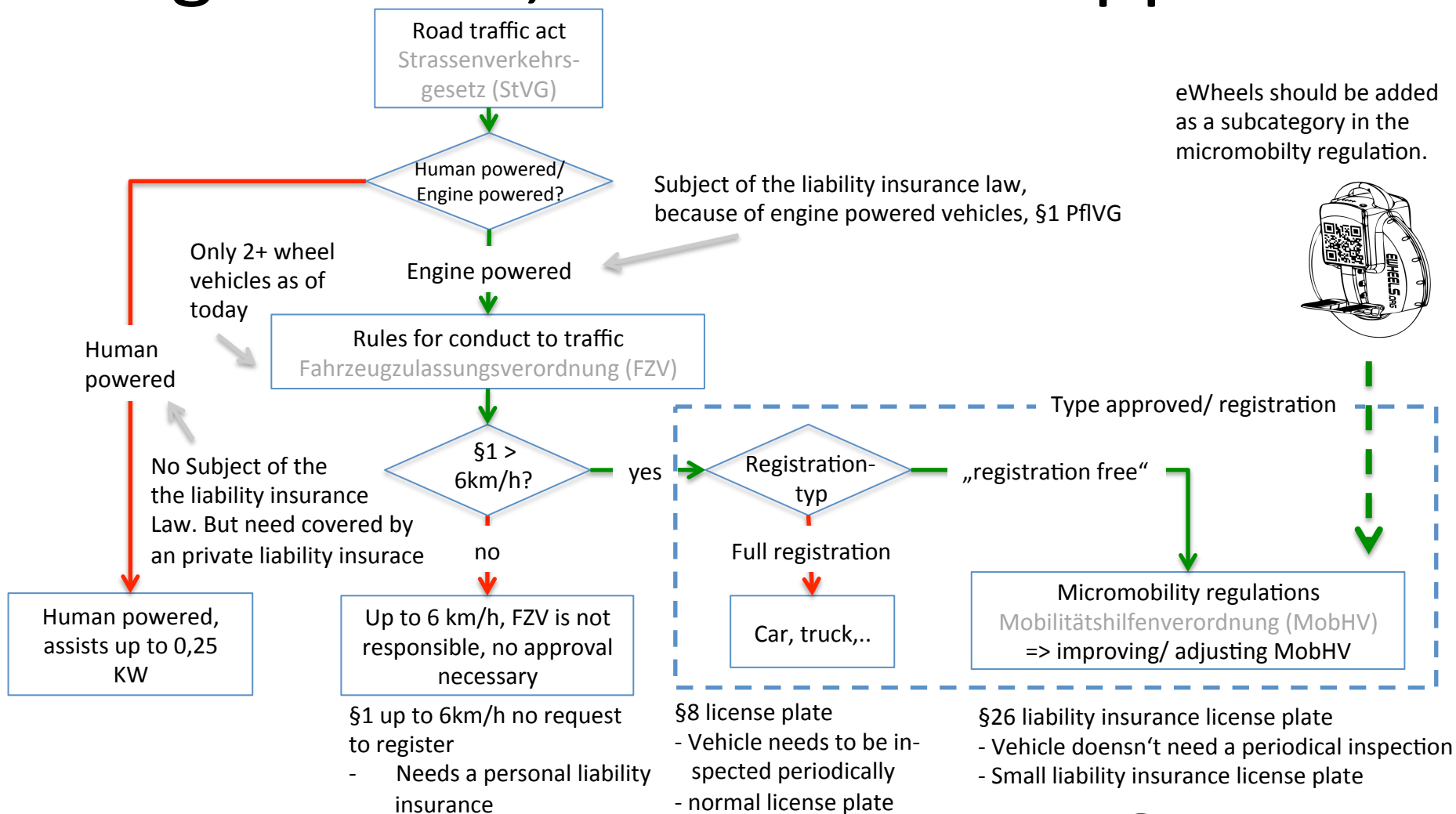
Regulations must currently be defined on a national level in each european country.

The following slides are intended to show the situation of the current regulations and show opportunities for eWheels to participate on public roads.





Registration, Insurance & Approval

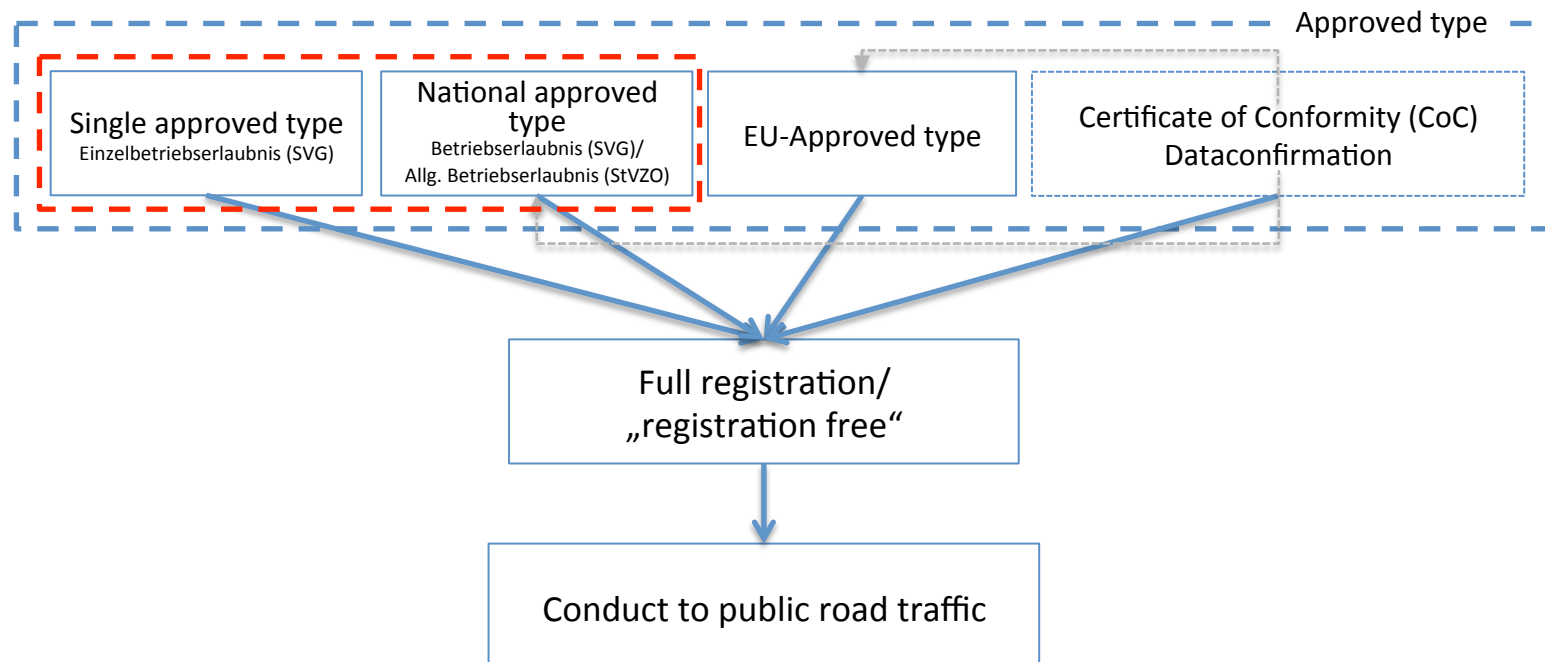


eWheels should be added as a subcategory in the micromobility regulation.





Conduct to public road traffic



Selfbalanced one or 2 wheeled vehicles are not covered by the EU type approval regulation. So every country in Europe can regulate this kind of selfbalanced vehicles in national regulations.

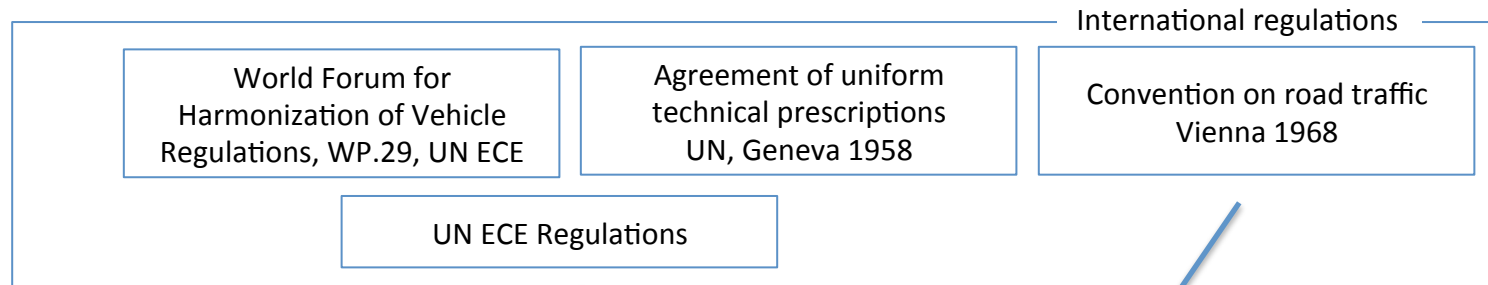




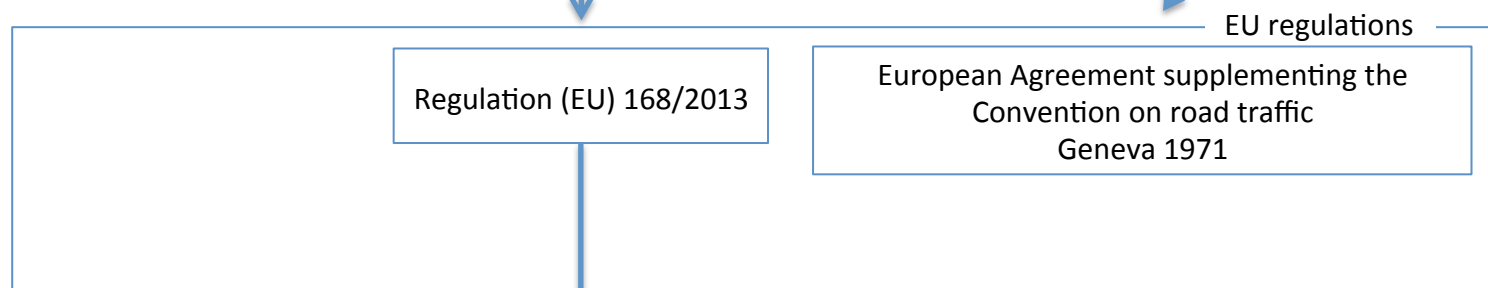
Derivation of regulations



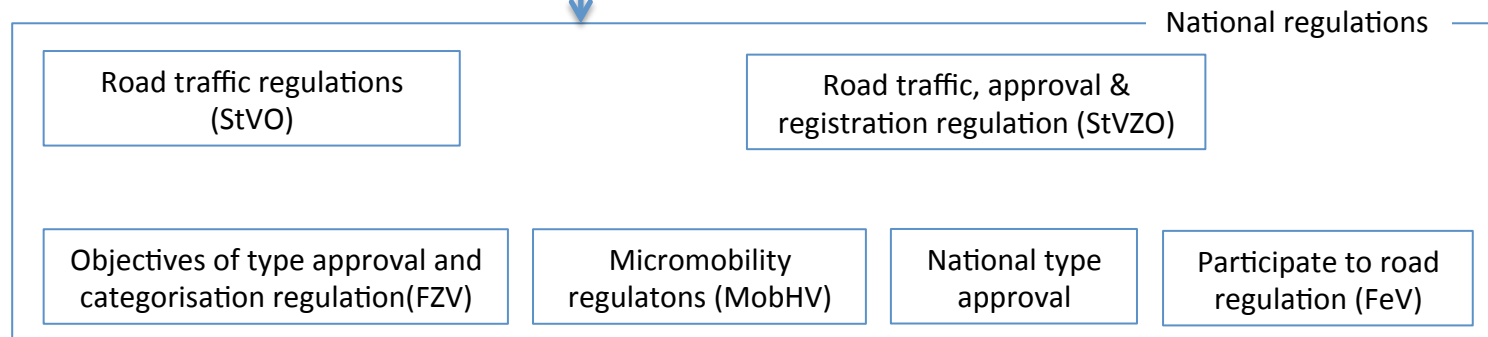
global



Europe

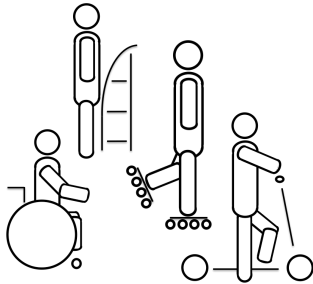


Germany





Vehicle categories compared



No subject of StVZO:
Walking aids and mechanical wheelchairs, Skelleton, baby buggy, Scooter, bicycles for kids and similar non motor powered or with power assistet vehicles with a max speed of 6km/h by design.
No vehicle covered by categories of StVZO
§16 StVZO



Subject of FZV/ MobHV/ PfIVG:
Standuptransporters with 2 wheels in parallel **and integrated electronic balancing, drive, steering and brake technology.**
„registration free“
Liability Insurance plate
§3 (2) 1. g FZV

All other categories require mechanical brakes.



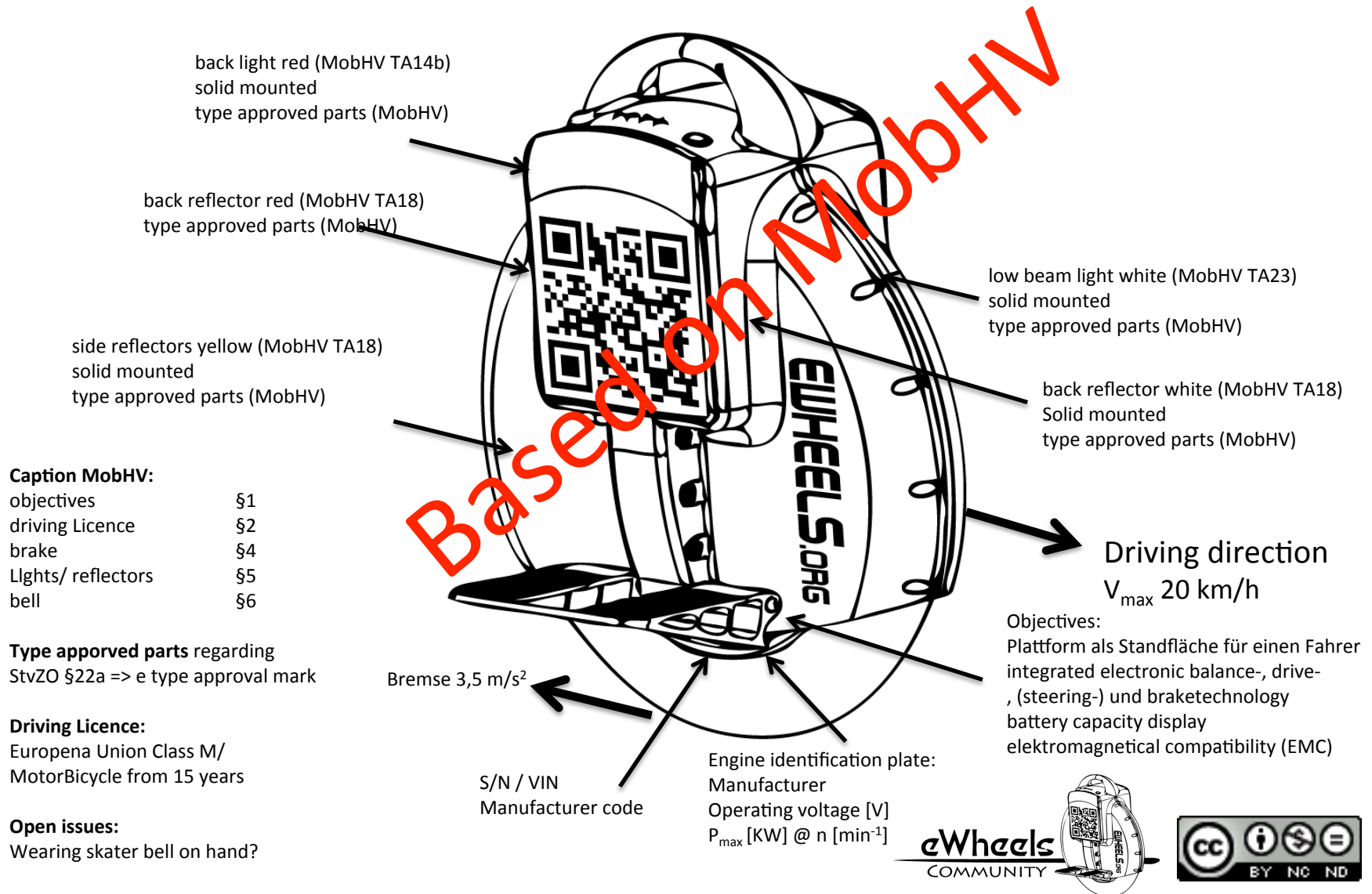
Subject of FZV/ PfIVG:
Light motor bikes (>45 km/h, >50 cm³ & <125 cm³, max 11 KW), small motor bikes (max 45 km/h, <50 cm³, max 4 KW, 2 or 3 wheels)
Motor powered invalid wheelchair (up to 15 km/h)
„registration free“
Liability Insurance plate
§3 (2) 1. c) – e)





Options eWheel street legal

Requirements MobHV (micromobility regulations) – derived requirements



Caption MobHV:

objectives	§1
driving Licence	§2
brake	§4
Lights/ reflectors	§5
bell	§6

Type approved parts regarding
StvZO §22a => e type approval mark

Driving Licence:
Europa Union Class M/
MotorBicycle from 15 years

Open issues:
Wearing skater bell on hand?





Conclusion

- Currently eWheels are not allowed to ride on public road. There're ambitions to get this changed.
- According to current regulations eWheels are vehicles that could participate on public road a with insurance plate, if defined as a category and have a type approval.
- eWheels can not be compared to the bikes with assisted power because they're driven by human power and only have a power on demand and pedal-assistance.
- The simplest and fastest possibility way to integrate eWheels in regulations is to create a subcategory in the existing micromobility regulation (MobHV).

