

National Transport Commission

Barriers to the safe use of personal
mobility devices

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Introduction

Uber welcomes the opportunity to provide a submission to the National Transport Commission's discussion paper on the *Barriers to the safe use of personal mobility devices*.

At Uber, we're constantly working to improve the transport journey and positively impact the cities and communities we serve. Our mission is centered on providing a reliable way to get from A to B, and we have a future vision for cities rooted in safe and accessible modes of mobility. By getting more people out of their private cars and into more efficient modes, we believe we can help cities make more productive use out of their limited urban space.

This is a goal we share with cities around the world, and for good reason: reducing personal car ownership has the potential to reduce congestion and pollution, and can also help cities reach their goals related to road safety and the creation of safer transport systems.

While no individual transport mode is a one stop shop for cities, a suite of transport options including personal mobility devices (**PMDs**) will empower people to improve their journey and reach their destinations efficiently and sustainably.

Micromobility at Uber

Uber's micromobility offering is JUMP —a shared fleet of electric pedal-assist bikes and scooters that can be located, reserved, and booked on the Uber app. Founded in 2010 and acquired by Uber in 2018, JUMP is a pioneer of innovative transport. JUMP has built a reputation based on strong partnerships with cities and delivering tailored, localised systems that aim to help reduce car traffic congestion, carbon emissions, and make mobility safer, healthier, and more equitable.

Responses to Discussion Questions

Question 1: Are the requirements in the proposed regulatory framework appropriate? Are there any requirements that should be removed, included or modified? Please provide a rationale to support your position

1a) A personal mobility device is a device that: has 1 or more wheels

Supported.

Restrictions on the number of wheels defining a Personal Mobility Device (PMD) will ultimately limit innovation, improvement and necessary modification of hardware.

1b) is propelled by an electric motor

Supported.

Motor wattages should not be prescriptive on the basis that it limits improvement to the quality and design of future mobility devices. Instead, the NTC should use speed limits to regulate the safety and security of PMDs.

1c) is designed for use by a single person only

Unsupported.

Investment in innovative new PMDs creates the potential for further improvements in vehicle technologies which could provide transport services for one or more passengers. A prescriptive limitation to single-user vehicles risks preventing the adoption of emerging new PMD solutions for more than one user.

Development of PMDs for 2 or more users is already underway, and has the potential to further the possibility of PMDs to support mode-shift away from personal cars to shared and active transport solutions.

Finally, a prescriptive limitation to single-user vehicles risks creating unintended consequences. For example, it would be counterproductive if today's regulations which permit bicycles in cycle lanes prohibited bicycles with a child-carrier from using cycle lanes.

1d) has an effective stopping system controlled by using brakes, gears or motor control

Supported.

1e) when propelled only by the motor, cannot reach a speed greater than 25km/h on level ground (dependent on speed approach outlined in the options)

Supported with amendment.

Using technology to regulate speed is an important tool which operators like JUMP use to promote the safe use of micromobility vehicles. However, specifying low speed caps in model Road Rules can hamper further innovation and evolution of new generation hybrids and PMDs.

To unlock the full potential of PMDs for Australian cities, flexibility will be required to enable capability to compete with cars.

Internationally, we have seen that arbitrarily low speed limits create a greater feeling of insecurity for scooter riders when they share roads with other vehicles, particularly when the speed is too low to react to real time driving conditions. This is the case in Washington DC where regulators have capped scooter speeds at a pace of 16km/h, causing public dissatisfaction.¹

Consistent with our learned experience in over 50 cities around the world, we believe the NTC should consider increasing the speed approach for PMDs on roads and shared paths to 32km/h (noting that these are maximums in the Australian Road Rules and, like with other forms of transport, there are opportunities to set appropriate limits at a city level). This would allow for further innovation of PMDs and ensure users are empowered to keep up with changing traffic conditions.

1f) is not more than

- **1250mm in length by 700mm in width by 1350mm in height**

Unsupported.

¹

https://ddot.dc.gov/sites/default/files/dc/sites/ddot/page_content/attachments/2019.11.7%20Shared%20dockless%20TC%20Comment%20Response.pdf

Prescriptive definitions provide limited opportunity for industry to innovate hardware. Outcomes focused regulation should be preferred. In particular, proposed limitations on width are unclear and undefined (especially with regard to the inclusion of baskets, handlebars and other fixtures).

It is critical that model regulations preserve sufficient room for the safe introduction of new hardware in order to create solutions to ongoing challenges in the evolution of micromobility. This is especially important for the introduction of new, innovative safety hardware and use cases (whether that be multiple-user, safe cargo storage, or advances in autonomy).

We recommend the NTC remove this requirement.

1g) 60kg when the vehicle is not carrying a person or other load

Unsupported.

Heavier vehicles can create a more accessible experience for people with mobility issues and can result in a safer device if there is room for new safety features. Further, heavier vehicles are less likely to be tipped over/vandalised and create less right of way challenges for cities.

We encourage the NTC to remain flexible about weight and avoid withholding the advancement of safety and riding features to a public detriment.

We recommend the NTC remove this requirement.

1h) is not equipped with

- ***any object or fitting not technically essential to the device that protrudes from any part of the vehicle so that it likely increases the risk of bodily injury to any person***
- ***any object or fitting that, because it is pointed or has a sharp edge, likely increases the risk of bodily injury to any person.***

Supported, with caution

Advancements in hardware innovation which promote the safe use of PMDs are likely to include fixtures (especially to promote the sustainable use of vehicles through improvements over time). For example, objects and additional fittings can create safety solutions such as helmet carriers for shared PMDs and mobile phone holders. This requirement also has the potential to limit use cases that allow for cargo e-scooters or other commercial utilities.

We recommend that the NTC ensure this requirement is implemented in a way that only restricts the use of objects or fittings which are demonstrably unsafe.

Question 2: Is 60kg a suitable maximum weight for a PMD? If not, what is a more suitable weight and what other factors should be considered? Please provide a rationale to support your position

Heavier vehicles can create a more accessible experience for people with mobility issues and can result in a safer device if there is room for new safety features. Moreover, heavier vehicles are less likely to be tipped over/vandalised and create less challenges for cities.

We recommend that the NTC remove this requirement and instead focus on the outcome it is trying to achieve through this provision.

Question 3: Should children under the age of 16 years old continue to be permitted to use a motorised scooter incapable of travelling more than 10km/h on level ground on roads and paths? Or should they be able to use any device that complies with the proposed PMD framework? (see Appendix A). Please provide a rationale to support your position.

Children under 16 years old should continue to be permitted to use a motorised scooter incapable travelling more than 10km/h on level ground footpaths. We recommend that users under the age of 16 are not permitted to ride PMDs on public roads, in order to promote road safety.

We recommend that road rules do permit minors to be passengers in future PMDs that are built to accommodate more than one passenger.

Question 4: Do you agree with the criteria selected to assess the options? Are there any key impacts not covered by these criteria? (page 24 in the consultation document)

The NTC should consider environmental and traffic impacts as one of the criteria in the impact assessment. Shared PMDs in particular have the potential to replace personal car trips - which can have a profound impact on traffic congestion, air pollution and economic efficiency.

The NTC should also consider overall impact on public transport usage. Shared PMDs enable first and last mile trips that connect to public transport, thus expanding the reach of existing network. They can also alleviate the pressure on saturated transport lines at peak times.

Question 5: When considering the safety risk assessment, access and amenity impacts, broader economic impacts, as well as compliance and enforcement impacts; has the impact analysis sufficiently considered all relevant variables and available evidence? What other factors could be included in the analysis? Please provide any additional evidence. (See Appendix E - Impact Analysis)

A variable that is unconsidered by the NTC is autonomy and innovation. When conducting a thorough risk assessment, we believe it is important to include advances to technology which could alter how and where PMDs are used by the public.

Question 6: What do you believe is the most appropriate road infrastructure for PMDs to access: footpaths, separated paths, bicycle paths and/or roads? Please provide a rationale to support your positions

The most appropriate road infrastructure for PMDs is shared paths (separate, on road, cycle lanes).

One of the most frequently cited obstacles for people to trial a shared micromobility vehicle is the insecurity created by a lack of cycle lanes and shared paths.² In order to increase the modal share of zero-emission modes, it is crucial to prioritise the allocation of public space for safer infrastructure. This infrastructure should be composed of cycle lanes, if possible separated from road traffic, and parking spaces dedicated to shared and active modes. Additional rules such as the 2-way traffic possibility for micromobility in one-way streets, or the possibility to turn right at a red light, can further help make micromobility more attractive than driving a car in cities.

For example, in Lisbon, city planners have put in place parking zones that welcome all dockless vehicles. In Paris, the city has committed to build 2,500 dedicated parking spots for scooters across the city. Paris authorities are also investing in new and improved cycle lanes which has contributed to a 54% increase in cycling between 09/2018 and 09/2019.³ These cycle lanes also allow for scooter use, creating another appealing alternative to the personal car.

Question 7: What is an appropriate and safe maximum speed that PMDs should be permitted to travel across the various infrastructure: (a) pedestrian areas, (b) bicycle areas, and (c) roads? Please provide a rationale to support your position.

The NTC should define a PMD according to a 32km/h speed category as opposed to setting differentiating speed standards according to fast changing infrastructure elements. In doing so, the Australian Road Rules would preserve the ability of States and Territories to make

² <https://researchmgt.monash.edu/ws/portalfiles/portal/33966117/24939805.pdf>

³ <https://www.thelocal.fr/20191016/why-paris-cyclists-are-more-numerous-than-ever>

determinations about road safety outcomes and provide flexibility to make changes as both infrastructure and technology evolves.

A national framework should include enough flexibility to allow state and local governments to deliver a micromobility program which is suitable to the local built environment and transport network. State and local governments are best placed to know how people currently move around cities and communities, gaps in the local transport network and opportunities to encourage transport interchange.

Question 8: Do you agree with the overall assessment that Option 3, Speed Approach 1 is the option that best balances mobility and safety? If not, which option and speed approach do you prefer? Please provide a rationale to support your position.

Infrastructure:

We believe Option 3 (Permit the use of PMDs on most pedestrian infrastructure, bicycle paths and local roads) best balances mobility and safety. Permitting access to paths as well as local roads would likely have a positive impact on enabling PMDs to be used practically for short to medium distance commuting. However, only allowing access to paths and lower speed roads (less than 50km/h) will make medium to long commutes difficult. Exposing PMDs to motor vehicles at speeds up to 50km/h is expected to have a moderate negative impact on safety risk to PMD users. There is also likely to be some associated increase in safety risk to other path users as they become more exposed to PMDs.

Speed

See answer outlined in Question 7.

Conclusion

PMDs have the power to transform the connectivity and liveability of our cities. Like ridesharing, micromobility offers an efficient and reliable transport alternative to supplement existing transport systems and reduce reliance on the personal car.

However, in order for micromobility to successfully integrate into Australian cities, regulation needs to enable future innovations and the timely deployment of new, safe technology. In doing

so, regulators should consider defining PMDs with long term technological advancement in mind so as to allow for further improvements to safety, utility and efficiency.

The flow on effect of expedient and fulsome regulation of innovative vehicles will allow states to administer laws thoughtfully and comprehensively and ultimately deliver benefits to the constituents and communities they serve.

We look forward to continuing to work with the NTC on the adoption of innovative vehicles in Australian Road Rules and welcome further consultation on how Governments can unlock the benefits of micromobility.