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National Transport Commission
Level 3/600 Bourke Street
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Attention Tim Davern

13 December 2019

Submission – Barriers to the safe use of personal mobility devices

Consultation Regulation Impact Statement (Consultation RIS)

Summary of key points

While Victoria Walks understands the intent of the NTC's proposed approach to allow Personal Mobility Devices (PMDs) to use footpaths with a notional speed limit of 10 km/h, this is not a practical option if they are capable of travelling at much higher speeds. We therefore oppose this option.

We believe the proposed speed limit of 10 km/h on footpaths is **not practical** and **unlikely to be**:

- **Understood.** The RIS acknowledges few people understand the existing laws governing PMDs. Introducing more complex laws will not make the law better understood.
- **Abided by,** intentionally or unintentionally. There is no requirement for PMDs to have a speedometer and so it may not be possible for users to monitor their speed, even if they were inclined to do so.
- **Enforced.** It is impractical to expect Police to enforce this approach as there is no way to visually distinguish complying PMDs from non-compliant PMDs. For those that comply in design but are capable of travelling 25 km/h, limiting PMDs to a speed of 10 km/h on footpaths would be very difficult to police.

The Consultation RIS does not provide a realistic assessment of the benefits or disbenefits of PMDs and does not meaningfully engage with the option of avoiding their use altogether – prohibiting their use in any public space and prohibiting their sale in Australia. The assumed benefits are not in line with the available evidence suggesting the most common PMDs, electric scooters (e-scooters), are mainly used as an alternative to sustainable transport modes, including active modes that provide important health benefits, rather than replacing vehicle trips. They also pose risks to users themselves. If PMDs are inherently unsafe, encouraging their use seems irresponsible and inconsistent with Vision Zero.

Overall, PMDs are very likely to lead to poorer health outcomes and increased risk of injury for both users and non-users, especially people who are older or have a disability. PMD users move faster, weigh more and are harder than pedestrians, meaning they are not suited to the footpath.

Importantly, there is no reason to believe that PMD users will be safer riding on the footpath than on the road. Footpaths are not designed for fast moving vehicles and e-scooter users would face significant additional hazards when crossing streets and from cars moving in and out of driveways.

In our previous submission to NTC on this issue, Victoria Walks outlined a list of recommendations in order of preference. We acknowledge that NTC attempted to accommodate our third preference to limit the speed of PMDs on the footpath in their preferred option. However, it did not include any requirement for vehicles to be limited **by design** to 10 km/h. Therefore, our current submission focuses on how PMDs can be introduced with changes only to the road rules, not restrictions on the vehicles themselves.

Any changes to the road rules to incorporate PMD use need to be clear to users, practical and easily enforced. If PMDs capable of travelling at speeds of 25 km/h and above continue to be available for purchase or hire in Australia, then the only practical option is to restrict them from using the footpath and require them to ride on the road or bicycle infrastructure. Any option that leaves speed control to the individual operator is impractical and unworkable.

Recommendation

Treat PMDs as bicycles are treated in Victoria. This means allowing PMDs on the road, in bicycle lanes and on shared paths, but consistently prohibiting their use on the footpath. In addition:

- Funding should be provided to make roads safer for everyone, including slower speeds, reduced vehicle volumes and improving and expanding existing bicycle infrastructure.
- Police should be resourced and directed to enforce this prohibition.
- Providers of PMDs should be required to fund education campaigns persuading drivers to accept them on the road.

Introduction

Current situation in Australia

The NTC have prepared the Consultation RIS to assist in developing a nationally consistent approach to the use of PMDs. However, updates to the Australian Road Rules do not guarantee consistency across the country as states and territories have to individually adopt changes and some have already initiated incompatible positions. Footpath cycling is one relevant example of inconsistent laws across different states and territories. We note that despite Western and South Australia allowing adult footpath cycling in recent years, the majority of Australians still live in jurisdictions where adult cycling on the footpath is not generally permitted.

In Australia, there are only two places where e-scooters are currently permitted in public places – Queensland and Adelaide CBD. In [Adelaide](#), the e-scooter trial allows people to hire an approved e-scooter for use on footpaths and low speed roads within the CBD, but not take them on public transport or use private e-scooters. The scooters are limited to 15 km/h via vehicle control. In [Queensland](#), private and hire PMDs are permitted on footpaths, as well as local streets outside of the CBD. In all other regions of Australia, PMDs which are capable of travelling above 10 km/h are permitted only on private property.

Comments by the [NSW Transport Minister](#) Andrew Constance suggest that Australia’s most populous state looks unlikely to allow e-scooters in public space:

“Ultimately they're [e-scooters] not going to form any part of the transport solution in our city. They're a danger to the community, they're a danger on the roads, they're dangerous on footpaths, and they're dangerous generally,” he claimed.

NTC Consultation Regulation Impact Statement

The Consultation RIS outlines the direction to NTC to “review the Australian Road Rules (ARRs) and identify regulatory barriers preventing the safe and legal use of ... Innovative Vehicles (or Personal Mobility Devices; PMDs) on public roads and paths”. This seems to approach the issue from a position that assumes PMDs must be accommodated in public areas.

The Consultation RIS has considered four regulatory options in addition to maintaining the status quo. These consider which road spaces PMDs could be permitted to use (pedestrian infrastructure, bicycle infrastructure and various types of roads) in conjunction with three speed approaches. NTC’s preferred option is:

- Option 3 – access permitted to most pedestrian infrastructure, bicycle paths and local roads. PMD use would be prohibited on arterial roads, requiring users to ride on the footpath at these locations.
- Speed Approach 1 – speed limit of 10 km/h on pedestrian infrastructure and 25 km/h on bicycle infrastructure and roads.

Victoria Walks’ approach

Victoria Walks’ interest in the issues paper relates to the use of the footpath and pedestrian areas by PMDs.

Decisions on how the footpath is used must be made in the context of people already using it, particularly people with limited mobility such as the elderly, frail and people using walking aids. Walking is available to nearly everyone and we strongly oppose any changes that may make it more difficult, unpleasant or unsafe

to walk. While protecting existing footpath users is our primary concern, we note that there is also a strong potential for PMDs to displace walking trips, with adverse effects on public health as a result.

Footpaths are not a place for fast moving vehicles, especially powered vehicles. Any vehicle which is permitted to be used on the footpath anywhere in Australia should have a **physically-limited maximum speed capacity of 10km/h** to avoid the user going above this speed, intentionally or unintentionally.

The Council on the Ageing, Vision Australia and Victoria Walks all strongly oppose vehicles travelling faster than 10 km/h on the footpath.

Identified benefits unlikely to be realised

Victoria Walks believes that a significant range of disbenefits associated with PMDs have not been properly considered in the Consultation RIS. These include safety risks to users and others, impacts on footpath operation, environmental impacts, health impacts and overall cost to society. Such costs probably outweigh any benefits.

The perceived benefits of PMDs identified in the Consultation RIS are predicated on the assumption that PMDs will be used as an alternative to cars. The limited evidence available suggests this is a largely incorrect assumption:

- A study in [France](#) found 44% of users would have walked in place of their last e-scooter trip and that the e-scooter hire scheme had no impact on car use.
- In early results from [Brussels](#), about three in four e-scooter trips replaced walking or public transport, and only around one quarter replaced car or motorbike trips.
- A survey of e-scooter users in [Portland](#), USA found only 34% used an e-scooter in place of a private vehicle, taxi, or ride share. E-scooters were much more likely to replace trips on more sustainable forms of transport.

Studies also find that the availability of an e-scooter hire scheme *created* trips, with 7-8% of e-scooter riders reporting they would not have otherwise made the trip. The research suggests the real attractions of e-scooters are travel time savings compared to walking and the unmeasurable 'fun factor'.

A recent [report](#) by Victoria Walks finds walking is the key way people access public transport in Melbourne, with only 21% of trips to a train station from home driven and nearly all trips to bus and tram stops walked. Replacing these trips with PMDs will do nothing to reduce congestion but will reduce the health benefits people currently get from walking.

With that context, the identified benefits of PMDs are more likely to actually be disbenefits. The previous submission Victoria Walks made to the NTC on the Issues Paper outlined the reasons, and is disappointing that the Consultation RIS does not meaningfully engage with the evidence on the benefits and disbenefits. Further material in response to the supposed benefits of PMDs identified in the Consultation RIS is provided in Appendix A.

Considerations for regulations that allow PMDs

PMDs should be treated as vehicles

The Consultation RIS states that “*a person in, or on, a PMD is classified as a pedestrian*”. Victoria Walks **strongly opposes** a vehicle capable of travelling more than 10km/h and significantly heavier and harder than a person being classified as a pedestrian. NTC’s preferred option proposes treating PMD users as pedestrians, but also requires them to comply with certain bicycle related rules, including to:

- use the bicycle crossing light at intersections
- use the part of a separated path designated for the use of bicycles and not the part for pedestrians
- wear an approved bicycle helmet
- display lights at night.

Rather than attempting to treat PMDs as both pedestrians and vehicles, it would be much clearer if they were only one. Overseas examples suggest treating them like vehicles and not permitting them on footpaths. As PMDs are still relatively new technology and little research data is available about the safety implications and best practice for their use, overseas experience is important to consider. There are several places where PMDs have been used on the footpath previously but recently banned:

- [Singapore](#) banned e-scooters from footpaths in November following a series of PMD related injuries.
- [France](#) changed the law in October prohibiting e-scooters on footpaths.
- In September [Spain](#) classified PMDs as vehicles, meaning they are no longer permitted on footpaths.
- [Peru](#) banned e-scooters from pedestrian areas in April.

Law specialist [Trent Johnson](#) believes that “*given the speed of the [electric] scooters, they should fall under the classification of a vehicle in the transport operations road rules.*” Because they’re not classed as a vehicle, he also suggests that anyone hit by one may not be covered by third party insurance such as through the Transport Accident Commission (TAC) in Victoria and Compulsory Third Party (CTP) scheme in Queensland.

PMDs likely to have a negative impact on existing footpath users

There is limited evidence about the impact of emerging technologies on people who are already using the footpath. Of particular concern are older pedestrians and those with a disability who often rely heavily on walking and accessing public transport to travel independently. A [presentation](#) from the City of Adelaide early on in the e-scooter trial found community feedback on the trial was more negative (29%) than positive (22%). The main concerns raised were conflict with pedestrians on footpaths and e-scooter user behaviour.

Victoria Walks expects PMD use on footpaths has many parallels with footpath cycling. [Research](#) commissioned by Victoria Walks about footpath cycling found the average speed of cyclists using the footpath was 21 km/h, the same as on roads. In other words, people riding on footpaths do not slow down for the benefit of pedestrians.

Separate [research](#) about older Victorians and walking found one of the key perceived barriers for older people when walking is the presence and behaviour of cyclists. In the survey, approximately 40% of seniors identified cyclists on shared walking and cycling paths to be a factor which discouraged them from walking. The top two measures suggested to improve feelings of safety when walking relate to cyclist behaviour and speed on shared paths.

The [Monash University Accident Research Centre](#) studied the impact of electric/hybrid vehicles and bicycles on pedestrians who are blind or have low vision, which confirmed that people with vision impairment are already experiencing significant problems with these vehicles, which do not primarily use the footpath.

“The study has identified that a significant proportion of respondents indicated having experienced collisions or near-collisions with both electric / hybrid vehicles and cyclists.”

Even a footpath speed limit of 10km/h is already more than twice the walking speed of an able and agile pedestrian (approximately 4 km/h¹). The use of PMDs on the footpath with the potential to travel significantly faster than walking speed is likely to put vulnerable people off walking.

Expecting users to regulate their speed is unrealistic

Unlikely to understand the law

The recommendation that PMDs be allowed to use both footpaths and roads with different rules for each is confusing for users. Proposing to limit the speed of PMDs to 10 km/h on footpaths when they are capable of higher speeds is impractical. The Consultation RIS states that *“very few studies have found bicycle riders to travel at, or below, the recommended speed of 10km/h on footpaths or shared paths.”* There is no evidence to suggest that people who ride PMDs would be different. In fact, a [Queensland study](#) of the e-scooter share scheme found only 55% of scooter riders complied with laws, even less than share scheme bicycle riders (81%). Bicycles require the rider to provide power in order to move. PMDs can reach higher speeds without any effort on the part of the user.

Even retailers who sell e-scooters are not aware of the laws surrounding them. Although private e-scooters capable of travelling above 10 km/h are not permitted to be used in public areas anywhere except Queensland, they are widely available for sale. [The Guardian](#) contacted several retailers who all incorrectly advised that e-scooters are legal, believing that because they can be sold, they are legal to use. Victoria Walks is not aware of any retailer disclaimers online or instore that specifically state the vehicle is only permitted to be used on private property. Instead, most suggest consulting local regulations.

It is unreasonable to rely on users to understand more complicated laws when evidence suggests both e-scooters and retailers do not understand the current law. In particular, it is impractical to expect users to distinguish between local and arterial roads, with only sporadic speed signs positioned for the attention of drivers, who are likely to be undertaking much longer trips and therefore more likely to see the signs.

Unlikely to obey the law

A recent [article](#) by the Centre for Accident Research and Road Safety in Queensland found that *“almost half the shared e-scooters (312, 45%) were ridden illegally”*. However, the study didn’t even assess whether riders observed were riding below the 25 km/h speed limit.

Even for users who are aware of the 10 km/h restriction and want to comply with it, this would be difficult as most devices don’t have a way of measuring speed. The Consultation RIS recognises:

“It would be difficult for a PMD user to comply with a variable speed limit (i.e. Speed Approach 1) without some form of speed measuring device fitted. While many PMDs on the market are

¹ Austroads 2017, *Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings*, Ed 3.1, AGTM06-17, Austroads, Sydney, NSW.

designed with some form of speed measuring device, many others are not, and it may be impractical to retrofit or expect compliance with third party speed measuring devices, e.g. phone apps.”

Impractical to enforce

It is impractical to expect Police to enforce a 10 km/h speed limit as there is no way to visually distinguish complying PMDs from non-compliant PMDs. For those that comply in design but are capable of travelling 25 km/h, limiting PMDs to a speed of 10 km/h on footpaths would be very difficult to police. With little prospect of enforcement, there would be little incentive for PMD users to comply with the law.

Even if it were practical, it is not clear that Police would be willing to enforce any speed limit.

A recent [discussion paper](#) on micro mobility from the European transport organisation POLIS suggests operators of e-scooter share programs “*adjust their apps and vehicles to make sure users have no other [option] but to comply with speed limits*”.

Safety

Users of PMDs are themselves vulnerable road users. The Consultation RIS reports that injuries following a PMD crash are similar to bicycle crashes, both for users and any pedestrians involved. Allowing PMDs anywhere on the road network is likely to increase injuries to both users and others.

Safety of PMD users

The research around e-scooters suggests that they are unsafe for users in the current infrastructure environment, both on road and on footpaths.

- The Consultation RIS cites findings from the Royal Australia College of Surgeons’ that 134 people presented at emergency departments in central Brisbane for treatment of an e-scooter-related injury. This was over about two months.
- In [Adelaide](#), nine e-scooter related injuries were reported between February and May this year.
- Research from [Auckland](#) estimates the healthcare costs associated with e-scooters at more than \$1.3M (NZD), “*more than 35 times the licensing fees companies pay to get their scooters on the road*” according to one [report](#).
- In [Portland](#), 84% of reported injuries related to e-scooters were from users falling off the device.

The [discussion paper](#) by the European transport organisation POLIS highlights that cars and trucks are the major source of risk on roads and outlines key steps to improve the safety of PMD users:

- reduce vehicle speeds, including area-wide traffic calming
- reduce vehicle volumes
- reallocate road space from cars to other modes (including PMDs and bicycles), helping to reduce footpath conflict.

“The rise of shared micromobility has brought with it the need, and the incentive, for cities to ‘unlock the asphalt’ for other modes, revive their public realm, and enable more citizens to step out of car-dependency.”

Simply making changes to the road rules without any changes to infrastructure or the PMDs themselves is unlikely to be enough to be able to provide for the safe use of PMDs on any part of the existing road

infrastructure. Changing the law to accommodate their use should be supported by significant and ongoing investment to make roads safer for everyone and improve and expand existing bicycle infrastructure. NTC's preferred option restricts PMDs from using arterial roads presumably due to safety concerns, however it doesn't consider how the road environment itself can be changed to safely accommodate them.

Allowing PMDs on footpaths will not make them safer for users

It is critical to understand that there is no reason to believe that users would be safer on the footpath than on the road. The closest equivalent for which there is Australian data regarding vehicles on the footpath is bicycle riders using the footpath. The [Footpath Cycling Discussion Paper](#) prepared by MRCagney investigated the use of the footpath by cyclists. It found that "footpath cycling is accompanied by a distinct set of safety risks for cyclists, particularly associated with visibility between motor vehicles and cyclists at intersections and driveways." Importantly, footpaths are not designed for vehicles – most are narrow, often in poor condition, with overhanging trees and high fences blocking views of vehicles coming out of driveways. The report describes Australian research that estimated the crash rate for cyclists on the footpath was 5.6 times that of cyclists on the road.

In Queensland, where e-scooter users are required to travel on the footpath (contrary to standard practice internationally) the [Centre for Accident Research and Road Safety – Queensland](#) found "*it is unclear whether the current rules for e-scooters [in Queensland] are appropriate for reducing the safety risks for riders and pedestrians.*"

Although the NTC recommend limiting PMDs to 10 km/h on the footpath, unless they are physically limited to this speed users are likely to travel faster, increasing the risks to themselves and other footpath users. Research by the [Victoria Transport Policy Institute](#) (USA) suggests:

"If enforcement of maximum speeds is not a realistic possibility, PMDs that have the capability of moving faster must be prohibited from pedestrian facilities where they might endanger other users."

If you have any queries regarding this submission please contact Jo Eady, Senior Advisor on jeady@victoriawalks.org.au or 9662 3975.

Yours sincerely,

Ben Rossiter
Executive Officer

Appendix A – further response to purported benefits of PMDs

Greater mobility choice

PMDs are not suitable for people who are currently unable to walk as they generally require good balance, dexterity and reaction times. To hire an e-scooter requires the use of an app, immediately ruling out anyone without access to a smartphone or reluctant to use technology. Therefore the use of PMDs is likely to be nearly exclusively by people who already have the widest mobility choices.

Environmental benefits (reduced pollution, greenhouse gas emissions, noise and use of resources)

This ‘benefit’ incorrectly assumes that most PMD use will be used in place of a car.

If a person changes from walking, cycling or public transport to using a PMD, there will in fact be disbenefits that accrue. As discussed previously, this is the majority of e-scooter users in studies to date. A [life cycle assessment](#) of e-scooters found an increase in emissions associated with changing from other modes to e-scooters in 65% of simulations. Even assuming improved scooter lifetimes and collection practices, e-scooters still produce more greenhouse gas than bicycles and in nearly every scenario involving a bus with high ridership.

Reduced traffic congestion

This ‘benefit’ incorrectly assumes that most PMD use will be used in place of a car.

The Consultation RIS quotes an unpublished TMR source that up to 75% of car trips between 2 and 5 km could be replaced with innovative vehicles. Based on the evidence currently available, this figure seems to be completely fanciful. However it does highlight that the few PMDs which replace vehicle trips are likely to be for short trips. A [presentation](#) from the City of Adelaide early on in the e-scooter trial found the average distance travelled on an e-scooter was 1.25 km.

Short vehicle trips tend to use the local road network, which are rarely key congestion points. So even in the extremely unlikely situation that a significant proportion of short vehicle trips were converted to PMD trips, there is unlikely to be any appreciable impact on congestion.

A large proportion of short vehicle trips are also undertaken away from the central city where hire schemes tend to operate. This means many people would have to purchase private PMDs in order to use them. For people who currently drive, the sole, measurable benefit of using a PMD – time savings – would not be applicable, removing the attraction of replacing a driving trip with a PMD trip.

Direct cost savings to users (reduced spending on travel, vehicle maintenance, garaging)

This ‘benefit’ incorrectly assumes that most PMD use will be used in place of a car.

People are unlikely to sell their car as a result of having access to a PMD and so will continue to have associated costs such as registration, insurance, depreciation, maintenance and finance. According to a 2019 [article](#) based on the Australian Automobile Association’s (AAA) Transport Affordability Index, fuel represents only around 23% of the total cost of owning a car, not including the purchase price or depreciation. The article also refers to research by RACQ which found “*depreciation was actually the biggest ongoing motoring*

cost in Australia". Therefore using a car less as a result of using a PMD instead is unlikely to have significant direct cost savings to users except for the few that are able to sell their car as a result.

Health and fitness benefits

This 'benefit' incorrectly assumes that most PMD use will be used in place of a car. PMDs by their nature require significantly less physical effort than walking. As most PMD users are likely to change from walking, increasing the use of PMDs will result in **reduced** public health benefits. Even those who change from driving are unlikely to get much health benefit as a result of using a smaller, motorised device.