15 February 2019

National Transport Commission
Attn: Luis Gutierrez
Public submission – Developing technology-neutral road rules for driver distraction
via: lgutierrez@ntc.gov.au

Dear Mr Gutierrez,

Re: Issues Paper – Developing technology-neutral road rules for driver distraction

This is a joint submission by the Amy Gillett Foundation, Cycling Australia, We Ride Australia, Bicycle New South Wales, Pedal Power (ACT) and WestCycle to the public consultation on the Issues Paper: Developing technology-neutral road rules for driver distraction (**Issues Paper**). The submission was compiled by the Amy Gillett Foundation, the national cycling safety organisation and incorporates perspectives from road safety experts and cycling groups. Collectively we reviewed the Issues Paper with one question in mind:

Does the Issues Paper adequately address the impact of driver distraction on the safety of people riding bicycles?

We note that the Issues Paper includes a number of case studies that identify instances in which cyclists have died as a result of driver distraction. While this is a distressing reminder, we are encouraged that the authors have recognised driver distraction as a real issue for the safety of people external to motor vehicles, such as cyclists, who are among our most vulnerable road user groups.

In this submission, we address the issues and questions from a cycling safety perspective and highlight the importance of considering the issues and any responses with cyclists and other vulnerable road users at the forefront. We would welcome the opportunity to engage in the next stages of this process either in person or in writing.

Please do not hesitate to contact me directly if you have any questions or require any additional information.

Yours sincerely,

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On behalf of the Joint Contributors

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Introduction

We welcome the opportunity to contribute to the Issues Paper*: Developing technology neutral road rules for driver distraction* (Issues Paper), to highlight the specific safety issues of vulnerable road users, particularly cyclists. In preparing this submission, we have considered the questions raised in the Issues Paper and have identified:

- The problem for cyclists
- Key issues for cyclists
- The case for action

By way of introductory comments, we note that cycling is still a relatively emerging mode of transport in Australia, notwithstanding increasing recognition of its benefits from a range of perspectives, including health and wellbeing, environment, congestion, and liveability, to name a few. Increasingly governments across Australia are recognising the importance of cycling and other forms of active transport as an important element of future transport strategies.

Unfortunately, however, meaningful provision for cycling, including investment in policies, programs and infrastructure designed to increase participation and improve safety, is sorely lacking. We are also hampered by a lack of meaningful data on participation rates, specifically exposure data - we know very little about cycling in Australia in terms of the number of people who ride, where they ride and the number of hours they are on the road and exposed to risk. Without a meaningful denominator, it is difficult to calculate rates that can be tracked over time.

What we do know is that cyclists are still overrepresented in terms of deaths and serious injury. While the rates for motorists and other road users are decreasing, this is not the case for cyclists. In 2017 there were 38 deaths of cyclists and 39 cyclists lost their lives in Australia in 2018.

We also know that the rates of serious injury of cyclists are increasing. In the last nine years in Victoria, data from a recent study (link) has shown that the rate of serious injury of cyclists admitted to hospital has more than doubled, while the rate for other road users has remained static.

We direct the NTC to three reports that have reviewed cyclist crash data to provide insights into the key factors involved in cyclist crashes.
- Australian cycling safety: casualties, crash types and participation levels (link)
- Road crashes involving bike riders in Victoria, 2002-2012 (link)
- Bicycling crash characteristics: an in-depth crash investigation study (link)

However, we caution the NTC with regard to the data on crashes. Factors that are anecdotally critical in crash events, such as driver distraction, are underreported, or not reported at all, for example, driver distraction from the use of mobile phones to talk or text, or distraction within the vehicle due to passengers etc. In addition, the social determinants are largely absent from the data, so we do not know the impact of situational distress (e.g. driver is upset or angry) or life factors (e.g. recent job loss, family issues) on driver behaviour. Also missing is research and data which helps to identify groups of drivers who are more prone to distraction, and to develop targeted responses.

Improving road safety is an intractable, difficult problem. For meaningful change in road user safety and a reduction in the death and trauma of vulnerable road users, the broader, conceptual issues that underlie the current road safety approach in Australia need to be considered and a shift is needed. Specifically, vulnerable road users must be included in the demonstrable actions and performance indicators. As we note in our response the current Safe System focus on the occupants of motor vehicles has resulted in cyclists and other vulnerable road users being largely excluded from the Safe System approach.

Developing technology neutral responses to driver distraction is no different, and we encourage the NTC to consider the issue of driver distraction from the perspective of the most vulnerable road users. In the main, we are referring to cyclists, but this also extends to include pedestrians, motorcyclists, children, older adults and people with physical or intellectual disabilities.

The remainder of this submission addresses the Issues Paper from the perspective of cyclists.

The Problem

1. **Does the proposed definition include all the key functions required to safely perform the driving task?**

   We consider the draft definition lacks specificity in a number of respects:
   - It does not include monitoring of vehicle performance, in particular; tyre, engine or warning indicators
   - It does not reference a convincing model of driver behaviour or explicitly acknowledge which tasks are susceptible to automation (by the driver or the vehicle) and which require actual thinking
   - It does not include mind-set monitoring. A driver needs to mentally address aspects of the driving task - there is no recognition of the need for intermittent regular attention to subsidiary aspects of driving or prioritising other aspects as they occur
   - The phrase 'making other road users aware of the driver's perspective' suggests a transfer of responsibility to other road users to avoid the driver

2. **Does the proposed definition of driver distraction capture all the behaviours that lead to driver distraction and a reduction in driving performance?**

   We consider the classification of distractions included in the Issues Paper as visual, manual, auditory or cognitive is useful. We also appreciate that there is an acknowledgement that there are inevitably secondary activities that are attended to by a driver. The challenge is to determine at what point or threshold these become unacceptable.

   We make the following additional points:

   - The link between age and experience and the vulnerability to distraction on page 16 of the Issues Paper needs further analysis. The hypothesis of attentional capacity is only one, and we consider that this would benefit from exploration in research.

- While we agree that GPS technology could be distracting, we also note that in the past there were correlating distractions such as looking at paper maps, or for street signage and other geographical clues, to the detriment of a focus on other driving tasks. A GPS system could thus reduce cognitive workload related to way-finding and allow safer driving. Again, this would benefit from further research to establish the link between GPS systems and distraction.

- As we have noted, two key examples of distraction referenced in the Issues Paper of eating a sandwich and connecting an in-vehicle entertainment system resulted in killing cyclists. This demonstrates the vulnerability of cyclists and the importance of ensuring that any response to regulating driver distraction is led with the most vulnerable road users in mind, including cyclists.

- Like for in-vehicle information and entertainment systems (p16), the requirement on GPS technology should be to insist that the vehicle be parked when creating the initial connection or inputting the address.

- We note with concern the suggestion relating to commercial drivers of a need to "balance" distraction and job performance (page 18). Trading-off safety and productivity is not something that should be countenanced. The use of any potentially distracting equipment should be counteracted by placing limits on the use of the equipment or requiring the use of other technologies that make up for any distraction, or both. This is the case for both commercial and non-commercial drivers.

3. **How could a distinction between manageable and unmanageable levels of driver distraction be used to inform the way distraction is regulated? What evidence-based distinctions could be considered?**

We consider this to be the crux of the policy dilemma. We also emphasise caution on classifications of manageable and unmanageable distraction, which are highly subjective in nature. What may be 'manageable' for some, may not be for others, and the level of manageability can be dependent on a whole range of other factors including mindset on any particular day or even moment.

We note also that there are many examples of potentially distracting activities that are currently legal, such as smoking, eating, drinking, and interacting with passengers. Not only are these accepted legally, they are not routinely addressed as potential distractors in road safety education or popular mores, despite their known involvement in serious crashes, and despite these being readily avoidable. External distractions, such as electronic billboard advertising, are also widespread, despite being known to be a potential distraction.

In relation to current Australian Road Rule 300 – use of mobile phones- a simple update to this rule could require all phones owned by drivers to have - do not disturb while driving" (DNDWD) enabled to prevent the receipt and sending of text messages except in emergency situations. Alternatively, this option should be implemented as a standard for handset makers/sellers/resellers.

Analysis of Issues

4. Should conventional and technology-based causes be treated equally in the Australian Road Rules? Why?

From the perspective of cyclists and other vulnerable road users, the consequences of the distraction can be devastating regardless of the source. The essential feature is the increase in the probability of a crash.

However, we anticipate that there may be a range of countermeasures addressing different types of distraction, including a combination of legislation, regulation, design, technology and education. It is unlikely that there will be a one size fits all solution.

5. Can you provide examples of effective non-regulatory approaches to driver distraction that assist drivers to self-regulate their behaviour in a dynamic driving environment?

Vehicle technology can assist with and/or compensate for driver distraction. This includes features that warn of or respond to impending crash scenarios, such as lane departure, electronic stability control, and emergency brake assist technology, helping to compensate for the potentially distracted driver.

The approach used by the independent vehicle safety testing program – the Australasian New Car Assessment Program (ANCAP), which provides clear guidance to purchasers of the safety features of vehicles, is worth noting. The ANCAP program provides consumer advice based on an extensive suite of tests that now includes testing of features designed to enhance the safety of cyclists and other vulnerable road users.

We note the reference in the Issues Paper to the Safe System approach and shared responsibility. While we agree with the principles of the Safe System, we note that historically, road safety in Australia has focused on our safety when we are inside a motor vehicle. This motor vehicle-centric priority is all pervasive and translates to a lack of priority for cyclist safety road safety strategy and lack of action on improvements required to create a safe cycling environment in Australia.

In particular, the underlying Safe System principle of 'shared responsibility' has not historically been true for cyclists. The responsibility for cyclist safety has been mainly borne by individual cyclists. There is a lack of responsibility and accountability, particularly in relation to road design,

> Safe System – shared responsibility…the 'system managers'—have a primary responsibility to provide a safe operating environment for road users. They include the **government** and industry organisations that **design, build, maintain and regulate roads and vehicles**…that caters for **all groups** on the road.
> (The Safe System approach, National Road Safety Strategy)

that increases cyclists' crash risk (e.g. bike lanes alongside parallel parking bays) and vehicle design, manufacture and registration.

The current Safe System framework is somewhat misleading. While it states that 'Human tolerance to crash impact' is at the centre of the approach, the current Safe System has motor vehicle occupants at the centre. Tolerances to crash impact are calculated for speeds, road design and vehicle safety based primarily on our safety when we are inside a motor vehicle.

Vulnerable road users are largely excluded from the Safe System approach. When vulnerable road users are referred to in terms of safety, the focus is on their behaviour. That is, the individual is responsible for their own safety – not the system.

Our analysis of the application of the Safe System framework to cyclists in Australia is covered in detail in our joint submission to the recent review of the National Road Safety Strategy. We would welcome the opportunity to share this with you, should that be considered valuable.

We also note that for cyclists and other vulnerable road users the potentially negative impact of distraction increases relative to the speed at which a person is driving a vehicle. Impact with a cyclist at higher speeds will result in greater injury and potentially death. The correlation between speed and survivability is irrefutable. Lowering speed limits, especially in residential areas, and around school zones and high pedestrian and cycling areas, would greatly reduce the impact of distractions.

In the context of driver distraction, it is vital that responses are driven with the most vulnerable in mind – such as cyclists. The risk to a cyclist from a distracted driver is considerably more than another vehicle occupant.

6. **Can you provide examples of strategies successfully implemented by other international jurisdictions and industries (for example aviation) that could be applicable to driver distraction?**

The example of the "Dutch Reach" is worth noting. The Dutch Reach is a method taught to Dutch children in school and by their parents to safely open doors, avoiding the potential of 'car dooring'. The Dutch Reach is about drivers and passengers using their far hand to reach over their body, look over their shoulder and do a head check to the front mirror and back to look for any oncoming cyclist or other vehicles, before opening the door slowly. The action of using the far hand results in the body swivelling, facilitating better sight-lines to oncoming traffic.

The Dutch Reach is a great example of training a behaviour that then requires a mental focus on something that may be a safety risk. Other examples are on-road chevrons or counting to maintain adequate vehicle separation.

7. **Are there other parties besides the vehicle driver who can influence the risk of driver distraction? If so, are there mechanisms to ensure those parties are doing all that is reasonably practicable to ensure safety?**

Yes, there are many other parties who can influence (positively and negatively) the risk of driver distraction, from employers, road designers and vehicle manufacturers, to telecommunications

companies, advertisers and other vehicle occupants. Mechanisms to address these inputs include chain of responsibility laws, awareness and education programs to influence behaviour, making key safety features standard on all vehicles, and working with telecommunications companies to ensure the potential for distraction from mobile phones and other smart devices is reduced or eliminated altogether while driving. This includes automatic enabling of safety features such as 'Do not disturb while driving'.

Engagement with technology providers and original equipment manufacturers in also critical. One example is the technology produced by Seeing Machines which helps to detect and monitor fatigue, distraction and microsleep events. Seeing Machines specialises in computer vision algorithms that track eye gaze, head position and pupil size, to detect the occurrences of these key safety issues, and provide critical advice to vehicle and technology manufacturers, as well as employers, to help optimise safety.

8. **Can you provide examples of effective strategies for ensuring that new in-vehicle technology and mobile apps minimise driver distraction?**

We refer to our comments on 'do not disturb while driving' technology under question 3 above and our responses to questions 5 & 7.

We also note the importance of effective responses to the use by the Taxi and rideshare industry of technology to manage bookings and navigation. As noted in our response to Question 3, the use of these devices needs to be restricted to when a vehicle is parked for booking and navigation purposes.

9. **Can you provide examples of strategies to ensure that users of partially automated vehicles are fully informed about their responsibilities, and the limitations of their vehicle's technology**

For the reasons outlined in the Issues Paper, there is increased potential for distraction and boredom to occur when a vehicle is in automatic driving mode. The key is to make sure drivers remain actively involved in the driving task and able to respond to situations that the vehicle is not able to cope with independently.

10. **What evidence is available in support of a performance-based approach or a prescriptive approach for managing the risks of driver distraction?**

We are not aware of any clear evidence on this question specifically but consider there to be a role for both. A driver needs to be aware of their overall responsibility as well as responsibility for specific actions. A key example relates to minimum passing distance laws (a metre matters laws). Drivers need to be generally aware of the vulnerability of other road users such as cyclists (through a performance-based dangerous driving or control of vehicle rule) and, specifically need to pass them leaving a safe distance of at least a metre (under a prescriptive minimum passing distance law).

Concluding remarks

Road safety is a shared responsibility and efforts to improve the safety of Australia roads should focus on all road users. To date, the focus has largely been on the occupants of vehicles, with little attention to vulnerable road users external to vehicles. We need to recalibrate that focus and provide a critical path to achieving a shared goal of safer roads for all road users, through regulation, infrastructure, education and awareness. This is no different when addressing the road safety issue of driver distraction.

We emphasise both the importance of targeted education and awareness campaigns to address the broad variety of issues, as well as enforceable rules with appropriate penalties. As we have repeatedly stated in the context of minimum passing distance laws and have seen in the history of road safety laws such as seat belt laws and drink and drug-affected driving laws, education alone is not enough; legislation and enforcement are required for behaviour change.

We also emphasise the importance of ensuring that drivers are given the skills they need to avoid distraction and safely share the road with all road users, including cyclists. We need to ensure that the training and testing programs for novice drivers include compulsory content that addresses the issues of distraction and teaches drivers how to safely share the road. This learning should be incorporated into road safety education in schools and continue throughout the life of the driver, including in the form of testing and training in the L2P phase, as well as into future years, with particular types of drivers, such as heavy vehicle drivers having additional requirements. With the increasing focus from Australian governments on getting more people to participate in physical activity and active transport, including encouraging children to cycle and walk to school, these skills will be vital.

We would welcome the opportunity to engage in this issue further to discuss the perspective of cyclists and cycling safety.

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