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MAV Submission to the Changing driving laws to support automated vehicles Discussion Paper

The Municipal Association of Victoria (MAV) welcomes the opportunity to provide input to the National Transport Commission's (NTC) *Changing driving laws to support automated vehicles discussion paper*. The MAV is the statutory peak body for local government in Victoria.

As road authorities, infrastructure providers, fleet managers and representatives of their local communities, Victorian councils have a strong interest in supporting a smooth transition to automated vehicles (AVs). Victorian councils recognise the need for the Commonwealth Government to develop road rules to accommodate the introduction of AVs of increasing levels of automation onto the road network.

While there are already many cars on the road network able to utilise partial or conditional automation in the current regulatory framework, we recognise that there will be an inevitable and widespread increase in the uptake of automated vehicles, many of which will exceed the level of automation currently available.

Most of the questions posed in the NTC discussion paper are not directly relevant to Victorian councils. The MAV has responded to the only question of direct relevance to local government as well as using this opportunity to present some additional matters of concern to councils.

Response to specific question

1. *Do you agree that reform to existing driving laws is required to:*

(ii) Ensure a legal entity [Automated Driving System Entity (ADSE)] is responsible for the actions of the vehicle when the Automated Driving System (ADS) is engaged?

In the discussion paper, the NTC outlines three potential legislative options for whether the ADS or the human driver is in control of an automated vehicle:

1. The human driver is always in control of a vehicle with all levels of automation even if the ADS is engaged
2. The ADS is in control of a vehicle with high or full automation only; a human driver is in control of a vehicle with conditional automation even if the ADS is engaged
3. The ADS is in control of a vehicle with conditional, high or full automation when it is engaged.

The MAV is inclined towards option three, the preferred approach taken to penalties in the discussion paper. Under this model, the ADSE would be issued with the infringement when

the ADS is engaged, and infringements would be directed to the AV owner when the ADS is not engaged.

The MAV recognises that when referring to penalties, the discussion paper focuses on the relationship between ADSEs and road traffic offences. We understand that road traffic offences are different to parking infringements, however we request that parking infringements be taken into further consideration when proposing reform to the road rules. As the network is capable of higher levels of automation, AVs may have the capacity to park themselves, and the ADSE would be best placed to be responsible for infringements incurred if the ADS were to park in clearways, no parking or no stopping areas. It is noted though that there are concerns as to how council officers would be able to discern between whether the ADS or the human driver is responsible at the time of issuing the infringement. Where metered parking is available, we agree that infringements should be the responsibility of the registered owner of the vehicle.

Additionally, concerns are raised in the paper that if the ADSE is a corporation, a relatively minor infringement notice like a parking infringement may not be an incentive for an ADSE to change the operation of the ADS. Therefore, the MAV requests that this issue be considered when setting infringement levels, so that when the infringement is issued against the ADSE it is significant enough to effect behavioral change.

Furthermore, considering that responsibility would shift between the ADSE and the human driver in the preferred option put forward by the NTC, the MAV requests that the NTC consider human factors that could influence driving behavior while the driver is in control of the vehicle. For example, assigning accountability to the ADSE while the ADS is engaged may lead to a decreased sense of responsibility when the human driver is in control of the vehicle.

Key issues for local government

The MAV notes the assertion in the NTC discussion paper that AVs have the potential to fundamentally change transport and society by improving road safety, mobility and freight productivity and by potentially reducing road congestion.

Many current discussions on how AVs will impact transport and society are based on the capacity for the technology to deliver these improvements, with less focus on what might eventuate based on human factors. A range of issues may increase congestion and create other unintended outcomes, including a dramatic increase in who can use an AV if there are no licensing requirements, and whether Australians are willing to relinquish individual car ownership. These potential unknowns need to be given consideration when measuring benefits in a local context.

In order to assist with a smooth and efficient transition to AVs it is important that the Commonwealth, state, and local governments work together to ensure a coordinated approach and that consistent laws are in place across jurisdictions.

Local government works closely with the Victorian State Government on road safety initiatives, and we recognise the potential for a dramatic decrease in road accident deaths and injuries as a result of improvements in vehicle automation and other associated improvements in car technology.

While we recognise that large-scale adoption of AVs may deliver a number of benefits, we remain of the view that a mass mode shift from private road transport to public transport and, where possible, to cycling and walking, is essential. A truly integrated transport network that

does not rely on individuals' privately owned road vehicles should be a national objective. The most recent motor vehicle census data indicates that the number of registered vehicles in Victoria increased by 2.5 per cent to close to 4.8 million vehicles between 2016 and 2017.

With the increase in AVs on the road network, infrastructure needs of the community will also change. For example, many different types of automated vehicles currently require clear lane markings in order to navigate road networks and stay within the confines of a single lane. These markings are not present on the majority of the local government road network.

Under the current funding arrangements for local government, councils would not have the capacity to upgrade infrastructure to the requirements of AVs within the foreseeable future. We request that the Commonwealth Government starts considering how this will be achieved or the road network may never get to full automation, and human error will always be a factor on the road network.

Regulations regarding the operational design domain, which the paper defines as the specific conditions under which an automated driving system is designed to function (for example, geographic, roadway, environmental, traffic, speed, or temporal limitations), including, but not limited to, driving modes (for example, on fully access-controlled freeways) will require local government input. We understand that AV testing is currently only taking place on State Government roads in Victoria, which is a small part of the state's road environment.

We foresee much of the transition down to lower levels of automation taking place as AVs enter the local government road network, due to the lack of lane markings and other infrastructure required by AVs with higher levels of automation. A package of treatments will have to be considered in conjunction with driving law changes to manage these transitional issues. This could include speed limit reductions, substantial infrastructure gateway treatments and potentially enforcement to manage transition issues as AVs move from State to municipal roads.

In addition to this, MAV members have raised the following issues:

- additional demands for road space and drop off points/unloading zones, and impact on "No Standing" and "No Parking" areas
- the need for regulation to consider multiple occupants in addition to sole occupant scenarios
- use of mobile phones while in charge of AVs
- the safety of pedestrians and cyclists when using infrastructure shared with AVs
- telecommunication black spots in Victoria, and how these will impact the range of AVs which rely on this infrastructure.

We appreciate the opportunity the register the MAV and Victorian councils' interest in the NTC's changing driving laws to support automated vehicles discussion paper.

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