Vision Australia Submission: Automated Vehicle Safety Reforms Public Consultation

Submission to: National Transport Commission

Submitted via: automatedvehicles@ntc.gov.au

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Submission approved by: Chris Edwards, Director Government Relations and Advocacy, NDIS and Aged Care, Vision Australia

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Introduction

Vision Australia is providing this submission as a response to the Public Consultation on Automated Vehicle Safety Reforms being undertaken by The National Transport Commission (NTC) and the Department of Infrastructure, Transport, Regional Development, Communications and the Arts (DITRDCA) so that we can highlight the potential benefits of automated vehicles to the blind and low vision community, but also to warn of the potential risks if the developing regulatory framework fails to take the needs of our community into account. We have provided general comments rather than responding to the specific consultation questions, partly because our comments do not align neatly with the questions, and also because they relate to multiple components of the regulatory framework. We believe that those involved in the development of the regulatory framework, including the Automated Vehicle Safety Law (AVSL) are best placed to assess the relevance of the issues we raise for the framework as whole and also for its various components.

In preparing this submission we are mindful of the relevance of the Final Report of the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability. The report articulates an inspiring vision of an Australia that is truly inclusive of people with disability:

> "a future where people with disability live free from violence, abuse, neglect and exploitation; human rights are protected; and individuals live with dignity, equality and respect, can take risks, and develop and fulfil their potential."

Fundamental to the realisation of this vision is the incorporation into all areas of society of a positive duty to eliminate discrimination. The Commission explains:

> "Achieving substantive equality requires more than making adjustments for one person. Positive action is required to remove systemic barriers. It means shifting the focus from a reactive model to one of preventing and eliminating systemic barriers for people with disability more broadly."

While the Commission does not specifically discuss public transport in general or automated vehicles in particular, there can be no question that accessible transport is integral to the operation of a society such as Australia that values inclusion of people with a disability in all aspects of life. As such, governments and transport regulators must play their part in creating a more accessible, equal and inclusive society. They must be seen, and see themselves, as being impelled by a positive duty to remove existing systemic barriers and prevent new barriers from arising – a duty that must encompass every aspect of the way our transport regulation operates.

Regulators of emerging transport technologies such as automated vehicles are not exempt from the obligation to foster full inclusion, and they therefore have a responsibility to engage meaningfully with the disability sector as part of the development of the

regulatory framework for automated vehicles. Unfortunately, we are not aware of any specific consultations with the disability sector that have taken place previously.

Apart from the imperatives established by the Disability Royal Commission, Australia has obligations as a signatory to the UN Convention on the Rights of Persons with Disabilities to ensure that legislation and regulation do not violate the rights of people with disability and in fact promote those rights. The Convention asserts, among others, the right to independent mobility and access to technologies.

Potential Benefits of Automated Vehicles

People who are blind or have low vision obviously cannot drive conventional vehicles. However, using public transport and point-to-point transport services rarely provides the same degree of amenity and convenience that drivers experience when using private vehicles. Automated vehicles operating at SAE Levels 4 and (especially) 5 have future potential to be usable independently by at least some people who are blind or have low vision when these vehicles become available in Australia. It is important that the regulatory framework that is currently being developed gives consideration to such a scenario, and that it does not inadvertently create barriers that may limit the usefulness of automated vehicles to people with a disability.

If people who are blind or have low vision are able to independently operate SAE Levels 4 and (especially) 5 vehicles in the future, the operational interfaces will need to be accessible by complying with recognised standards for the accessibility of software and hardware devices. The current standard that is used in Australia, and which has been adopted by the Commonwealth and some State/Territory governments, is Australian Standard AS/EN301 549, which deals with the public procurement of accessible ICT. This and similar standards have been widely adopted globally, including in the EU, US and Canada.

Even before SAE Levels 4 and 5 vehicles become available, it will be important that ADS interfaces are accessible to people who are blind or have low vision. It is easy to envisage a scenario where a blind or vision-impaired passenger in a Level 3 vehicle may need to seek remote assistance for operating the ADS if the driver becomes incapacitated or otherwise unable to interact with the ADS. There must therefore be a requirement for a simple, consistent and non-visual method of seeking, activating and responding to remote operation of any vehicle equipped with an ADS, irrespective of which SAE level it is operating at.

Lack of accessibility requirements for the human-machine interface in an ADS-equipped vehicle could also limit the ability of a passenger who is blind or have low vision to engage in secondary activities involving the use of the interface.

We strongly recommend that automated vehicles be required to have interfaces that are accessible, for example, by complying with AS/EN301 549, so that they can be used

independently by people with a disability, including people who are blind or have low vision.

Potential Risks

We anticipate that the introduction of automated vehicles will, over time, improve road safety for pedestrians, including pedestrians who are blind or have low vision. It will be essential however, and especially when these vehicles first become widely available, that the algorithms on which the ADS is founded are optimised for ensuring the safety of pedestrians with a disability who may not always behave in a typically predictable way. ADSE's must be required to demonstrate that the ADS for which they have responsibility is optimised in this way, and there must be clear regulatory oversight in this area.

We also anticipate that operators of point-to-point transport services will introduce automated vehicles into their fleets. If there is a requirement for automated vehicles to have a fallback-ready user at all times, then this will mean that people who are blind or have low vision will be unable to use these robotaxis. Of course, we are not suggesting that such a requirement will not be necessary in the interests of safety, but it is essential that services such as automated taxis are not introduced in ways that discriminate against segments of the population who currently rely heavily on these services but who would be unable to act as a fallback-ready user. If service operators are permitted to introduce automated vehicles on a limited basis, then there must be clear obligations for these vehicles to be operated as additions to, and not replacements for, their existing taxi and other services.

Operators of taxis and other point-to-point transport services must also be prohibited from introducing automated vehicles operating at higher levels of automation if there could be situations where a passenger may be required to assume driver-related functions, such as if the ADS reaches the limits of its operational design domain or puts the vehicle into a minimal risk condition prior to the completion of the trip.

As a result of the extensive advocacy that Vision Australia undertook since 2018, all electric vehicles imported into Australia from November 2025 will be required to include an Acoustic Vehicle Alerting System (AVAS). We assume that this requirement will also apply to automated vehicles, since they will be electric. It will be important that repairers and maintainers of automated vehicles be required to keep the AVAS enabled and operating at the mandated volume level at all times, so as to allow people who are blind or have low vision to hear them when they are travelling at low speed. This will be necessary even if there is confidence that the ADS can reliably and safely detect the proximity of pedestrians.

Nondriving Obligations and Accessibility

It is important that consideration be given during the development of nondriving obligations for users of automated vehicles to how those obligations can be met by people

with disability, including people who are blind or have low vision. It would be a perverse outcome if a person who is blind or has low vision were able to be the sole occupant of a Level 4 or 5 vehicle but could not meet the further nondriving obligations stipulated for automated vehicle passengers due to regulatory failure to take accessibility into account, rather than due to an inherent limitation.

Need for Accessible Consumer Information

The introduction of automated vehicles, and their gradual replacement of conventional vehicles, represents a paradigm shift in transport and road usage for all sections of the community. The Consultation paper notes the need for extensive consumer information provided by government, regulators and industry (including ADSE's) covering various aspects of AV usage at various levels of technical detail and aimed at various audiences. We add that it will be essential that all consumer information is provided in ways that are accessible to the entire community, including people who are blind or have low vision. While Australian governments and regulators will be aware of their responsibilities under the Disability Discrimination Act 1992 to ensure that their information is accessible, ADSE's are likely to be less familiar with the legislative context and community expectations.

We therefore strongly recommend that ADSE's be required to provide their public-facing content in compliance with the then-current version of the Web Content Accessibility Guidelines (WCAG) to ensure that information related to automated vehicles is universally accessible.

It will also be important to provide information that is focussed on the needs and interests of particular groups, and we therefore encourage regulators and policy developers to work with organisations in the disability sector such as Vision Australia to co-design and produce resources that may include public information webinars, accessible videos and written content.

Relevance of Disability Standards for Accessible Public Transport (DSAPT)

It is inevitable that automated vehicles will, in time, become incorporated into public transport services. They will then come within the scope of the DSAPT. We are not aware of any discussions about how automated vehicles (and the ADSE's responsible for their operation) will meet their obligations under these Standards, but we believe it is appropriate for work to be done now so that there is not a compliance vacuum later. We draw attention to the confusion and inconvenience that has arisen for people with disability because rideshare services were introduced without any consideration of how, or indeed whether, the DSAPT should apply to them, and 10 years after rideshare services were introduced those issues have still not been addressed. We have an opportunity to prevent a similar situation from arising when automated vehicles become available.

About Vision Australia

Vision Australia is the largest national provider of services to people who are blind, deafblind, or have low vision in Australia. We are formed through the merger of several of Australia's most respected and experienced blindness and low vision agencies, celebrating our 150th year of operation in 2017.

Our vision is that people who are blind, deafblind, or have low vision will increasingly be able to choose to participate fully in every facet of community life. To help realise this goal, we provide high-quality services to the community of people who are blind, have low vision, are deafblind or have a print disability, and their families.

Vision Australia service delivery areas include: registered provider of specialist supports for the NDIS and My Aged Care Aids and Equipment, Assistive/Adaptive Technology training and support, Seeing Eye Dogs, National Library Services, Early childhood and education services, and Feelix Library for 0-7 year olds, employment services, production of alternate formats, Vision Australia Radio network, and national partnership with Radio for the Print Handicapped, Spectacles Program for the NSW Government, Advocacy and Engagement. We also work collaboratively with Government, businesses and the community to eliminate the barriers our clients face in making life choices and fully exercising rights as Australian citizens.

Vision Australia has unrivalled knowledge and experience through constant interaction with clients and their families, of whom we provide services to more than 30,000 people each year, and also through the direct involvement of people who are blind or have low vision at all levels of our organisation. Vision Australia is well placed to advise governments, business and the community on challenges faced by people who are blind or have low vision fully participating in community life.

We have a vibrant Client Reference Group, with people who are blind or have low vision representing the voice and needs of clients of our organisation to the board and management.

Vision Australia is also a significant employer of people who are blind or have low vision, with 15% of total staff having vision impairment.