Vision Australia Submission to Draft National Road Transport Technology Strategy and Action Plan

Submission to: Department of Infrastructure, Transport, Regional Development, Communications and the Arts

Submitted to: NRTTStrategyandCAVActionPlan@infrastructure.gov.au

Date: 6 December 2023

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

---

Introduction

Vision Australia is providing a submission to the consultation on the Draft National Road Transport Technology Strategy (the Strategy) and the 2024-27 Draft National Connected and Automated Vehicle (CAV) Action Plan (the Action Plan) to express our strong view that both the Strategy and Action Plan fail to give sufficient attention to the impact of road transport technology on people who are blind or have low vision. While both the Strategy and the Action Plan do refer to accessibility and disability, they do so in ways that do not reflect a nuanced understanding of the dangers that new and emerging technologies will create unless they are mitigated in the design phase and introduced in an orderly, regulated way.

In preparing this response 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."

Road transport technology is built into the fabric of contemporary Australia, and as such the sector must play its proactive part in creating a more accessible, equal and inclusive society. It must be seen and see itself as being impelled by a positive duty to remove systemic barriers – a duty that goes well beyond technical compliance with standards and adopting a watching brief on international developments to encompass every aspect of the way the sector operates.

We recognise that the Strategy and Action Plan were developed prior to the release of the Disability Royal Commission's Final Report, but we strongly believe that they should not be finalised without a thorough assessment, in consultation with the disability sector, of how they will implement the Report's vision and reflect its numerous references to the importance of, and the barriers presented by, various modes of transport.

Road Transport Technology and Safety

There are references to safety through the Strategy, almost exclusively in the context of the technologies themselves. While evolving features such as Advanced Driver

Assistance Systems and Automated Driving Systems are to be welcomed and will undoubtedly improve overall road safety, they will not, in and of themselves, make the vehicles safe for pedestrians who are blind or have low vision.

As far back as 2008 there was widespread recognition in the blindness and low vision sector that electric and hybrid vehicles pose a significant and potentially catastrophic safety risk for pedestrians. Because these vehicles are near-silent when idling and travelling at low speeds, they provide no audible cues that a person who is blind or has low vision can use when crossing a road, walking through a carpark, or crossing driveways. An increasing amount of international research and experience demonstrated the reality of the safety risks, and several jurisdictions, including the US and EU, introduced requirements for mandatory Acoustic Vehicle Alerting Systems (AVAS) on electric and hybrid vehicles.

In 2018 Vision Australia commissioned Monash University's Accident Research Centre to conduct research into the impact that electric/hybrid vehicles and bicycles were having on the safety of pedestrians who are blind or have low vision. A key finding from this research was that 35% of people who are blind or have low vision have experienced a collision or near-collision with an electric/hybrid vehicle. Further, 75% indicated that the introduction of these vehicles has reduced their confidence to walk and cross roads, because they no longer feel safe.

We used the evidence from this research to inform our campaign to have mandatory AVAS introduced into Australia, but it was not until 2023 that a Consultation Impact Analysis was undertaken. Research that we conducted earlier this year showed that over 51% of pedestrians who are blind or have low vision have experienced at least one collision or near-collision with an electric vehicle, and over 95% are now less confident to leave their houses to cross roads or walk on footpaths since the introduction of electric/hybrid vehicles.

Australia missed the opportunity when the number of electric vehicles was small to act so as to protect pedestrians who are blind or have low vision. The same lack of action has characterised the introduction of e-scooters and other e-rideables, which were originally introduced without consultation with the disability sector, and without regulation designed to protect the safety of pedestrians who are blind or have low vision. When Vision Australia surveyed the blind and low vision community in 2021, we found that 40% said that they walked less often now, and 90% said that they felt less safe since the proliferation of e-rideables. 62% said that they had been involved in an accident or near-accident with an e-scooter or other e-rideable, and 63% said that they had tripped over an e-rideable carelessly left on the footpath.

During our research we received many comments from participants about the impact of e-rideables on their lives. One comment stands out as a stark example of how the unfettered proliferation of these technologies can affect real people in the real world:

> "It's terrifying, some riders are so fast, they whiz past and I wobble. I have terrible anxiety that I may fall over"

This research participant is not living in a war zone; they are not living in a city wracked by violent assault; they are living in Australia in 2023, and yet they are terrified to go outside and walk on the footpath. It is extraordinarily concerning that the technologies that are hailed as beneficial to the community in general should have been allowed to flourish in ways that create such extreme anxiety for some, and which curtail their freedom and restrict their choices. Personal mobility devices may not be considered road transport technologies per se, but they will inevitably become more closely integrated with CAVs as First and Last Mile Services develop. We therefore think that all those involved in the development of the Strategy should reflect seriously on how it can function to promote an inclusive society in which people are not anxious or terrified to move around in their communities.

Apart from their near-silent operation, the key safety risk for people who are blind or have low vision posed by e-rideables is their speed of travel. It is only fairly recently that regulators have made any attempt to limit the speed at which e-scooters and similar personal mobility devices are allowed to travel on footpaths. Operators of rental/hire services are able to use software to detect the location of an e-scooter and reduce its maximum speed if it is in a pedestrian zone, but there is an increasing number of privately-operated e-rideables that are not subject to this limitation.

The combination of electric vehicles and e-mobility technologies has created unprecedented safety risks for people who are blind or have low vision, and this is having a real and lasting negative impact on mental health and wellbeing. We believe that these outcomes are not consistent with Australia's obligations under the UN Convention on the Rights of Persons with Disabilities and the principles underlying the Australian Disability Strategy, and they are certainly incompatible with the inspiring vision of an equal and inclusive society outlined by the Disability Royal Commission in its Final Report.

The significant negative impact of these road transport technologies on people who are blind or have low vision was entirely foreseeable, and entirely preventable. There is clearly a need for the Strategy to include remedial actions that will mitigate the risks created by existing road transport technologies, but there is also an obligation for it to ensure that future technological innovations benefit all sections of the community and do not perpetuate the mistakes of the past. The Strategy refers to the roles of government as including policy leadership and regulatory stewardship, and we believe strongly that these roles come with both the responsibility and the opportunity to be proactive and decisive in shaping a more inclusive future for people with a disability.

Co-Development and Co-Design

We are encouraged that the Strategy recognises the importance of co-development, trials and co-investment as proven approaches to building capacity of government and industry. The concepts of co-development and trials are consistent with the principles of

co-design that are becoming fundamental to the development of disability policy, the implementation of the Australian Disability Strategy, and the framework for inclusion presented by the Disability Royal Commission. We strongly recommend that the Strategy be updated to recognise the importance of co-development and co-design through consultation with the disability sector, and that the Action Plan be updated to include specific mechanisms for ensuring that this consultation is meaningful, thorough and ongoing. If effective consultation mechanisms had been in place a decade ago, it is very likely that the dangers posed to people who are blind or have low vision by electric vehicles and e-rideable technologies could have been mitigated while numbers were small and risks were still emerging.

New Technologies and User-centric Implementation

From our perspective, of the nine Policy Principles outlined in the Strategy, the one that is most essential for the delivery of positive outcomes for people who are blind or have low vision is Principle #8: User-centric Implementation. Its opening sentence implicitly summarises the importance of co-design through meaningful consultation:

> "New technologies should be designed, implemented and delivered in a way that meets the diverse needs of those using them (e.g., travellers with disability, older and younger travellers, those on low incomes, First Nations Australians, culturally and linguistically diverse people, those in regional and remote areas, pedestrians, cyclists and users of multiple transport modes."

Echoing a comment we made previously, if this principle had been rigorously applied across the transport sector a decade ago, we would most likely not find today that people are terrified to walk on pedestrian footpaths because of the way technologies associated with personal mobility devices have been delivered and deployed. The challenge, then, is to ensure that this principle is not merely aspirational, but applied in practice without compromise.

Another example of this principle's absence can be seen in the way touchscreen interfaces have been allowed to become ubiquitous without regard for their negative impact on people who are blind or have low vision. While companies including Apple and Google have demonstrated convincingly from 2009 onwards that touchscreens can be made accessible on smartphones, most touchscreen interfaces have not been designed to be accessible, and regulators have not required them to be, and have not provided any incentives for manufacturers to make their products accessible to people who are blind or have low vision. Touchscreen interfaces are now almost universal on everything from domestic appliances, information kiosks, lift destination control systems in new buildings, and ticket vending machines in cinemas. If they are not already in road transport vehicles that will be used by consumers, such as vehicles used for Mobility as a Service, then they soon will be, and unless action is taken to ensure their accessibility before they are manufactured and deployed, we have little confidence that they will be accessible to people who are blind or have low vision.

There are other ways in which road transport technologies can be inaccessible to and therefore unusable by people who are blind or have low vision. We are aware of some CAVs used in trials of consumer services that have had touch controls that are so sensitive that they cannot be touched without activating them. For example, a person who is blind can inadvertently open or close the vehicle door while trying to locate the control that performs this function.

There are numerous and recent examples of where public-facing technologies have been deployed without regard to their accessibility. Such technologies can be difficult or impossible to retrofit after deployment, and thus can remain inaccessible throughout their life cycle, whereas it is much easier to include accessibility during the design phase. This is often expressed by saying that accessibility must be built in, rather than bolted on, and it important that the Strategy and Action Plan include sufficient guidance to ensure that this happens in the context of road transport technologies.

Such accessibility barriers are foreseeable and preventable if there is sufficient consultation and co-design, and if governments and public transport providers require that all technologies they procure comply with the Australian Standard EN301:549 - Accessibility requirements suitable for public procurement of ICT products and services. This is such an important mechanism for ensuring accessibility that we believe that the Strategy and Action Plan should include specific references to it and specify how it will be implemented and enforced for road transport technologies.

Conclusion

The most reliable estimate is that there are approximately 453,000 people in Australia today who are blind or have low vision. This figure is predicted to increase to 564,000 by 2030. The main reason for the increase is that blindness and low vision are primarily related to aging, and Australia's population is aging. While medical advances offer more treatment options now for conditions such as age-related macular disease, they are insufficient to substantially offset the effects of an aging population, and the increase in conditions such as diabetic retinopathy that can cause blindness or low vision.

If issues such as safety risks and the inaccessibility of technologies remain unaddressed, their negative impacts will be experienced by an increasing number of people in the coming years. Conversely, if decisive measures are implemented to create the inclusive society envisioned by the Disability Royal Commission, then the positive benefits will be experienced by an increasing number of people. People who are benefiting from road transport technologies now will continue to benefit from them if they develop a vision impairment as they become older.

The Strategy and the CAV Action Plan will inevitably play a vital role in shaping the future relationship between road transport technologies and people with a disability, including people who are blind or have low vision. if there are no incorporated learnings from past shortcomings and oversights, if consultation and co-design remain peripheral rather than at the core of development, and if technology manufacturers face no pressure to make

their technologies accessible to all, then we fear that road transport technologies will contribute to further disadvantage, inequality and exclusion of people who are blind or have low vision. But If there is a greater focus on accessibility, inclusion, co-design and consultation, and if accessible procurement is made mandatory across all technologies, as we have recommended throughout this submission, then that role will be overwhelmingly positive, and we can look forward to a future where road transport technologies are a foundation of inclusion and empowerment.

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.