Dr Gillian Miles
Chief Executive Officer
National Transport Commission

National Transport Commission
Level 3/600 Bourke Street
Melbourne VIC 3000

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Regulatory Impacts Statement Consultation on In-Service Safety for Automated Vehicles

– ITS Australia Submission

To Dr Miles

ITS Australia sincerely appreciates the opportunity the National Transport Commission has provided to make a submission on this important topic. Following the NTC 2018 consultation on safety assurance for automated vehicles we value the continuation of this necessary work to determine best approaches to ensuring in-service safety for automated vehicles in Australia.

With more than 1,200 people dying and over 30,000 people being seriously injured each year on Australia's roads, the only long-term goal we can have is for zero fatal and serious injuries. To that end, we believe C-ITS and automated vehicle technology is one of the key safety initiatives to achieving that ambitious goal.

ITS Australia was supportive of the recent regulatory impact statement on safety assurance for automated driving systems. A system based on mandatory self-certification was a significant step in preparing Australia for the commercial deployment of automated vehicles. This offers the Australian public and manufacturers clarity, certainty and consistency, and ensures Australia is able to align with developments in the international regulatory landscape.

While the entry of automated vehicles into Australia is a crucial point at which to test and determine their suitability and safety for our roads, the safety assurances of their operation for the life-cycle of the vehicles is also of key importance.

We note that following the Safety Assurances RIS, a determination was made that the Department of Infrastructure, Transport, Cities and Regional Development will make the approval decisions to certify automated vehicles at first supply.

Currently the states and territories are in-service regulators for conventional light vehicles and while recognising that there are jurisdictional differences across Australia, particularly with regards to those states and territories with large remote rural regions, a comprehensive national approach that covers both the point of entry and in service regulation of automated vehicles is needed.

There are likely to be important aspects of point of entry regulation that are related to the in-service regulation and vice versa, requiring an overhaul of the current dual federally managed and state managed regime. We understand that the two-stage approach being progressed is to ensure expediency in establishing a regime. Given the likely timeframes before level 3 and 4 vehicles will be commercially available in the Australian market we would encourage continued consideration and reflection on how a truly national approach can evolve.

ITS Australia is concerned that the absence of a coordinated, national approach, would mean the in-service safety regulation of automated vehicles would progress in an inconsistent manner across the States. Inconsistent regulation could undermine public confidence in the deployment of automated vehicle technology in Australia, and adversely affect the potential safety benefits promised by these vehicles. The example outlined, with Audi citing inconsistent state regulations in the US for deciding not to introduce its automated 'Level 3 Traffic Jam Pilot' in its A8 vehicle, demonstrates the negative consequences of not adopting a national approach.

In reviewing the potential approaches to enable a harmonised national approach to regulating the deployment of automated vehicles, we commend the State and Federal Ministers for agreeing to a mandatory self-certification approach to safety. Key to this agreement, to provide assurance to the community and government, is a clear demonstration that in developing automated driving technologies, companies are managing safety risks appropriately.

It is critical that Governments establish very clear regulations which are performance based, to ensure that the deployment of CAV's is guided to improve the safety and quality of life of the community. Governments also need to provide regulatory oversight to give the public confidence in testing and deployment as well as support collaboration across industry and the community.

For your consideration we have also attached the ITS Australia Statement on Connected and Automated Vehicles. As a peak body that represents national and international organisations, we strongly support an approach that works towards harmonisation and cross-jurisdictional considerations and we are keen to be involved in these ongoing discussions.

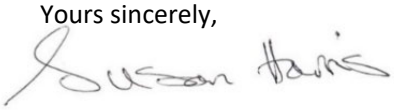
Conclusion

ITS Australia commends the National Transport Commission in continuing the important work of better understanding the regulatory impact of these technologies and we appreciate the consultation programs being undertaken. The safety of our citizens is paramount and driver assistance technologies are clearly saving lives on our roads now. Emerging and future technologies will in our view provide enhanced in-vehicle safety, however the deployment of these technologies needs government consideration and oversight. Industry is keen to work with government to best deliver these life-saving technologies, and ITS Australia is well placed to facilitate these discussions.

This work is crucial in planning for the future of transport and producing the policy and regulatory frameworks in which they operate. Importantly, this needs to be carried out in consultation with the industry and the community to build understanding and consensus on these exciting opportunities.

As a peak body that represents national and international ITS organisations, we strongly support an approach that works towards harmonisation and cross-jurisdictional considerations.

Yours sincerely,



Susan Harris
Chief Executive Officer

ITS Australia Background

ITS Australia is the peak group representing over 120 public and private organisations delivering on transport solutions and technology improving Australia's road and transport networks and promotes the development and deployment of advanced technologies to deliver safer, more efficient and sustainable transport across all public and private modes – air, sea, road and rail.

Established in 1992, ITS Australia is an independent not-for-profit incorporated membership organisation representing ITS suppliers, government authorities, academia and transport businesses and users. Affiliated with peak ITS organisations around the world, ITS Australia is a major contributor to the development of the industry.

As set out in the Strategic Plan 2018-2021 our vision is to shape future transport to be safe, efficient and environmentally sustainable through the implementation of Intelligent Transport Systems. Our mission is to:

- Advocate for, and inform discussion about, ITS;
- Facilitate collaboration and partnering amongst industry, government and researchers;
- Support research, development and the deployment of ITS technologies;
- Influence and guide the successful development of the ITS industry.

ITS Australia Statement on Connected and Automated Vehicles

ITS Australia supports the advancement of connected and automated vehicle technology and see the appropriate deployment of the technology as a pathway to provide safer, more efficient and more sustainable transport.

Safety needs to be the foundation on which any development of Connected and Automated Vehicles (CAV) rests. We are optimistic about the innovation and expertise in our industry and the functionality that will be available to the wider community.

These technologies have the potential to revolutionise transport in a way not seen since the mass-production of the private vehicle more than 100 years ago and to save thousands of lives.

It is critical that Governments establish very clear regulations which are performance based, to ensure that the deployment of CAV's is guided to improve the safety and quality of life of the community. Governments need to provide regulatory oversight to give the public confidence in CAV testing and deployment, as well as data sharing.

To that end we are strongly supportive of existing and emerging pilots and trials underway and proposed around the country, building a collaborative and transparent understanding of the challenges and opportunities these technologies offer, and ensuring that public safety is always the key consideration.

It is vital that these controlled pilots are proven before large scaled deployment occurs. Government should also play a key role in working with the private sector to facilitate deployment and remove unnecessary regulatory barriers to enhance the widespread deployment of proven technologies.

While ensuring all elements are safely assessed and fully tested in controlled pilots and trials before publicly deployed.

There is currently large investment in the development and delivery of major transport infrastructure across Australia which ITS Australia strongly supports. We also agree there is an imperative to ensure both the design and construction of these major roads, rail networks, and light rail systems, and other transport developments be built for the future.

This integrated development of digital engineering is necessary from the early planning and design stages through to construction and implementation of effective asset management systems. Intelligent Transport Systems need to be built into all stages of transport infrastructure delivery to ensure we build for the networks of tomorrow. This includes the physical and digital infrastructure, to enable emerging and future technologies for safety, security, connectivity and multi-modality.

Whilst some of the specific technology choices are as yet undetermined there are important elements that require national architecture and development to enable “no regrets” investment as part of the current physical infrastructure projects and building some of the “digital components” that are platform agnostic. These include, but are not limited to:

- Suitable communications
- Highly accurate mapping
- Highly accurate positioning capability
- Security by design
- Capability for handling large volumes of data with capacity to share in real time
- Digital twin for virtual asset management
- Edge devices

ITS Australia is a membership based peak body representing Australian industry, government and research organisations in promoting Intelligent Transport Systems initiatives. We are a Not for Profit association and serve the interests of our members in Australia and globally. We represent the Australian ITS sector within Australia and Australian ITS interests internationally.

As such we recognise the importance of these technologies and work with our members and the wider community to ensure safe and responsible development and deployment of these potentially life-changing transport innovations.

To build understanding, and collaborative approaches, and work towards broad community consensus we support the following key messages, while appreciating that our position will evolve as these technologies and the market mature.

Key messages:

1. **More than 1,200 people die and over 30,000 people are seriously injured each year on Australia's roads. The only long-term goal we can have is for zero fatal and serious injuries.**
    - We believe we will only get to zero fatalities and serious injuries through CAV technology.
2. Technology can save lives today.
    - We support the early adoption of advance driver assistance technologies— lane keeping, blind spot warning, adaptive cruise control, automatic braking
      — should be on all new vehicles.
3. Performance based regulation with safety systems validated by manufacturers is essential.
    - New technologies must be evaluated in real-world conditions, but only after they have been fully tested in off-the-road environments. We support controlled and transparent pilots and trials, with government oversight, of tried technologies.
4. Cooperative systems achieved through communication between vehicles, infrastructure, and other users will provide an enhanced layer of safety and must be pursued.
    - This ability to communicate will be essential for extending the range of vehicle-based sensing and delivering maximum safety benefits with high levels of automation.
    - Initially additional research and testing is needed concerning the driver's ability to remain vigilant and take over the driving task when required with the current levels of new technologies which have low levels of automation.
    - As increasing levels of automation are achieved these systems will fully automate the driving task under most conditions, but do not preclude the vehicle being operated by a human driver in unusual or emergency situations.

Acknowledgement

ITS Australia would like to acknowledge that this statement builds on the work of the Institute of Transportation Engineers, adopted for the Australian context.

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