



Minister for Transport; Planning

Our ref:72-21275

Ms Gillian Miles
Chief Executive Officer and Commissioner
National Transport Commission
Level 3, 600 Bourke Street
Melbourne VIC 3000

Dear Ms Miles

NATIONAL TRANSPORT COMMISSION'S CONSULTATION REGULATORY IMPACT STATEMENT – IN-SERVICE SAFETY FOR AUTOMATED VEHICLES

Thank you for your correspondence dated 2 July 2019 to Mr Richard Sellers, Director General Transport, inviting a response to the Consultation Regulatory Impact Statement on the In-service Safety for Automated Vehicles. The workshop provided by the National Transport Commission (NTC) was helpful in better informing the State Government, and the Government's position is at Attachment 1.

Thank you for the ongoing work provided by the NTC in advancing the regulatory framework to allow for the safe operation of automated vehicles on Australian roads. Western Australia continues to play an active role in national policy discussions, to achieve our desired outcomes of improved safety, liveability and productivity.

I look forward to continuing to work with the NTC and other jurisdictions to find an agreed position for ratification at the first Transport and Infrastructure Council meeting of 2020.

If you require further information, please contact Ms Alizanne Cheetham, Project Manager Automated Vehicle Reform on (08) 6551 6894 or by email at alizanne.cheetham@transport.wa.gov.au.






















Yours sincerely

**HON RITA SAFFIOTI MLA
MINISTER FOR TRANSPORT**

Att

06 SEP 2019

For on-road vehicles

For on-road vehicles		 Human driver	 Automated system		
		Steering and acceleration/ deceleration	Monitoring of driving environment	Fallback when automation fails	Automated system is In control
Human driver monitors the road	0 NO AUTOMATION				N/A
	1 DRIVER ASSISTANCE				SOME DRIVING MODES
	2 PARTIAL AUTOMATION				SOME DRIVING MODES
Automated driving system monitors the road	3 CONDITIONAL AUTOMATION				SOME DRIVING MODES
	4 HIGH AUTOMATION				SOME DRIVING MODES
	5 FULL AUTOMATION				

2 July 2019

via email: richard.sellers@transport.wa.gov.au

Mr Richard Sellers
Director-General
Department of Transport
GPO Box C102
PERTH WA 6839

Dear Richard,

Call for submission: *In-service safety for automated vehicles: Regulation Impact Statement*

I'm pleased to advise that the NTC released the *In-service safety for automated vehicles: Regulation Impact Statement* for consultation this week.

The purpose of the paper is to:

- consider the safety duties that should apply to different parties involved in the safe operation of automated vehicles on Australian roads ('in-service')
- propose a regulatory framework for the in-service safety of automated vehicles
- seek feedback on the role and regulation these parties and the institutional and regulatory arrangements to support them.

We are now seeking your organisation's feedback on this paper, which is available at www.ntc.gov.au/current-projects/in-service-safety-for-automated-vehicles. Submissions are due by 26 August 2019. However, we are available to meet with you or your staff prior to that date to discuss.

Feedback will inform options for the decision regulation impact statement. We will make recommendations to ministers on how to manage in-service safety for automated vehicles at the first Transport and Infrastructure Council meeting in 2020.

If you or your staff would like more information about this regulation impact statement or the consultation process, please contact Kirsten McKillop, Manager Automated Vehicles on (03) 9236 5050 or by email at kmckillop@ntc.gov.au.

Yours sincerely,



Gillian Miles
Chief Executive Officer and Commissioner

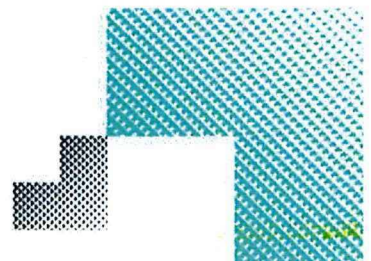
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WESTERN AUSTRALIA'S RESPONSE TO THE NATIONAL TRANSPORT COMMISSION'S CONSULTATION REGULATORY IMPACT STATEMENT ON 'IN-SERVICE SAFETY FOR AUTOMATED VEHICLES'

a) Introduction

Thank you for the opportunity to comment on the Draft In-service Safety Reform Consultation Regulatory Impact Statement (C-RIS). This document presents Western Australia's response to the National Transport Commission's consultation regulatory impact statement on in-service safety for automated vehicles based on data that is currently available and on the assumption that the role of the national regulator will subsequently be tightly defined without compromising existing regulatory functional areas of responsibilities of the State as outlined at Attachment A of this document.

It would be particularly helpful to understand the cost benefit implications of the governance structures and legislative mechanisms, the scenarios under which the regulation would apply, and a detailed scope of the functions and roles that would be regulated by states and national regulator respectively

The State's position may change when the options are fleshed out in more detail. It is noted that there is still more work to be done in this area and that the State's final position with regard to the regulation of in-service safety for automated vehicles is likely to be subject to Cabinet approval.

Currently there is no regulatory structure to allow for the safe use of automated vehicles (AVs) on our roads; moreover, effective regulation and management of the roll out of automated vehicles will support the desired outcomes of liveable places, improved safety and greater productivity and prosperity for WA. Western Australia supports the development of a regulatory framework to address gaps in existing legislative frameworks and allow for the economic and social benefits this technology can bring, even though all the risks are not known at this time¹.

Western Australia supports a management structure most like Option Three proposed in the C-RIS. This could include the following elements:

- An overarching general safety duty on the Automated Driving System Entity (ADSE), with prescriptive regulation where required.
- The establishment of a minimal, streamlined, scalable national regulator through Commonwealth law, with clearly defined scope and functions. The use of Commonwealth law reduces the dependency on the Transport Ministers approval cycles to reach agreement on new laws.
- The regulators should form part of an existing, independent national regulatory body in the short to medium term.
- Accountability and governance frameworks for the regulator should be clearly defined.
- The management of safety at first supply should be transferred to the national regulatory body, although the regulation can remain as part of the *Roads Vehicles Standards Act 2018*.
- Roles and responsibility between states and the regulator should be clearly defined. Wherever possible existing regulatory frameworks should apply.

¹ NTC. July 2019. In-service safety for automated vehicles: Consultation regulation impact statement. P26

- The national regulator should focus on the regulation of the ADSE, while all local management of roads, vehicles and road users should continue at a state level.
- Automated driving systems (ADS) will be required to drive according to the road rules in the jurisdiction in which they are operating.
- Broader strategic, policy questions pertaining to regulation of AVs could continue to be developed and led by a national policy body such as the NTC or Austroads, particularly where specialist skills or national consistency were considered essential.

Attachment A provides a proposed model for the appropriate governance of in-service safety for AVs.

b) WA approach

In signing the 2017 COAG agreement to enable commercial deployment of automated vehicles on Australian Roads by 2020, Western Australia recognised the importance of preparing for this technology. The Western Australian strategy is to reduce regulatory barriers and address market failures by using policy levers to achieve the desired outcomes of improved road safety, community health and mobility benefits and improved productivity.

To achieve the beneficial outcomes that could result from the effective regulation and optimal use of AVs, Western Australia has established the Connected and Automated Vehicles Advisory Committee (CAVAC), with representation from the ten government agencies likely to be most affected by AV technology. CAVAC will continue to drive and coordinate reform to achieve the benefits of AV technology. We have defined the whole of government strategic outcomes for the introduction of AV technology and granted exemptions where required for three trials of autonomous shuttles in our state to date. We are also working to plan for, and advance, operational reform in WA.

c) Points of agreement

By way of context the following have already been agreed to by Transport Ministers in the Transport and Infrastructure Council (TIC):

- A new, purpose-built national law will be developed to regulate the on-road operation of automated vehicles;
- An entity bringing the automated driving system (ADS) to market will be called the Automated Driving System Entity (ADSE) and must self-certify against safety criteria;
- The Commonwealth will regulate 'first supply' of the vehicles, regulating the safety criteria and assessing the self-certification;
- Regulatory structures will be in place to allow for commercial deployment of these vehicles on Australian roads by 2020; and
- The National Transport Commission (NTC) should propose an appropriate regulatory structure for the in-service safety of AVs.

Please see below the response to the questions posed in the RIS, on behalf of the Western Australian Government. Please note that our responses are in addition to written and verbal comments previously provided on draft chapters through the National Transport Commission's Legislation and Policy Working Group.

1. *To what extent has the consultation RIS fully and accurately described the problem to be addressed, including the in-service safety risks? Please provide detailed reasoning for your answer.*

The problem is that the current regulatory framework does not allow for the safe use of automated vehicles on Australian roads.

Trials in Western Australia have identified two additional risks, beyond those described in the C-RIS:

- physical interference with the AV's (by means of intentional efforts to damage the vehicles technology or to 'distract' the ADS) and
- environmental conditions that may affect the ADS' ability to function as expected (extreme weather such as cyclones, hail, fog, heatwaves).

There is much focus placed on the risk that an inconsistent national approach could be a barrier to market entry. This should be counter balanced by the very real safety risk that will result from inconsistency in a local context (that is, automated vehicles driving according to road rules that are materially different to the rules followed by human drivers). An important principle, consistency must be considered at the interface with the ADSE, but also in a local context, and a balance must be achieved between these competing objectives.

2. *Have we correctly identified the parties with an influence on the in-service safety of automated vehicles and accurately described their role? If you identify additional parties, please explain what their role is.*

Western Australia supports a general safety duty, with clear definitions to whom it applies ie. the ADSE. For example, the ADSE, rather than the owner or operator, should determine whether external apps can be safely installed. Similarly, the ADSE, rather than a repairer, would need to provide a diagnostic or certification to ensure a vehicle is safe after a repair and/or service. As regulators, we could decide that dealers and repairers could play an in-service diagnostic role, like that of a vehicle inspector, if this is demonstrated to be a cost-effective way to improve safety outcomes. The general safety duty on the ADSE would not exempt another party from liability if their behaviour was relevantly causal.

Once the scope of responsibility of the ADSE is clearly defined, other parties that may impact the safety of other road users such as the human driver, fall back ready user, dealers, repairers etc. would be more efficiently and consistently regulated in existing regulatory frameworks at the jurisdictional level where they are currently located. For example, States could determine the allocation of responsibility of non-driving tasks, such as securing a load or fastening seatbelts for underage passengers, as these pertain to local users, rather than the ADSE. In some cases, regulation of the ADSE might be adequately covered by existing legal frameworks, such as Work Health and Safety or Corporations law. Repairers and owners would continue to be subject to their existing obligations under current legal frameworks. In this case, the regulation should not be duplicated by a 'national regulator'.

Our understanding is that the 'human driver' is a driver of another vehicle on the road rather than a fall back ready user or remote driver? This is not entirely clear in the current wording. Further thought should be given to where liability lies in the case of a remote driver performing the fall back ready user task in a level 3 automated vehicle on behalf of an ADSE.

Western Australia notes that degree of influence of safety outcomes between the parties is likely to be fluid and change as technology evolves, and new parties may become apparent. As such, definitive allocations of degrees of influence may be counterproductive at this stage.

3. *Have we accurately assessed each party's influence on the in-service safety of automated vehicles? If not, please provide details.*

This is addressed in the question above.

4. *Have we accurately broadly described the regulation that already applies to relevant parties that would help ensure the in-service safety of automated vehicles?*

The threshold for consumer goods under Australian Consumer Law (ACL) is expected to increase to \$100,000 in coming years.

ACL would apply if a defect or failure is not noticeably present at the time of sale and only emerged after some distance was travelled. Similarly, if defects manifest after an ADS has been used for an extended period, or after a software upgrade, they would still be covered by consumer guarantees. A general safety provision is currently under discussion.

5. *Do you think there are any new risks posed by second-hand ADS components, after-market modifications or the transfer of ownership of automated vehicles, which may not be adequately addressed by existing regulation designed for conventional vehicles?*

There are new risks if owners or operators modify/amend/repair an ADS in such a way that affects the safe operation of the vehicle. Responsibility and requirements to ensure aftermarket occurrences do not compromise the safety of the systems should fall to the ADSE. The ADSE could manage these by requiring calibration of sensors after a repair, for example, a self-diagnostic function that will prevent the use of the vehicle if it is not safe to do so. (Refer to question 2).

6. *Do you think the parties with an influence on in-service safety are sufficiently covered by Australia's current legal frameworks?*

No, the existing legal frameworks are not adequate. Reforms and a new legislative framework are required, most significantly requiring a general safety duty of ADSEs.

In terms of reducing barriers to market entry, the most critical information for the market is clarity on the national standards and level of detail required for both safety at first supply and in-service safety, and the circumstances and timeframes under which these apply.

7. *Do you think that a general safety duty to ensure the safe operation of the ADS 'so far as reasonably practicable' is appropriate to address the safety risks?*

A clearly defined general safety duty should be the overarching legal obligation on the ADSE. However, it should be used in conjunction with the prescriptive rules or performance based regulation options where they would be more appropriately applied. We should consider whether a primary safety duty is more useful, or whether legal requirements such as an upfront strict liability clause would support appropriate in-service safety; and how this would interface with first supply requirements. We could also consider whether a strict liability could apply to minor infringements with a number of breaches triggering the general safety duty (similar to the Singaporean approach²

Industry has highlighted the importance of the demonstration of both safety and security to ensure the safe use of the vehicle. Safety is the 'proper functioning of a system'³ while security is the 'system's ability to resist some form of intentionally malicious action'. Government has a role to require the ADSE to produce a safe system, but we also have a supportive role on security.

² Singapore Standards Council. 2019. Technical Reference 68: Part 1: 2019: Autonomous Vehicles: basic Behaviours, p16.

³ Aptiv Services US, LLC. 2019. *White paper: Safety First for Automated Driving*. Available at <https://www.aptiv.com/docs/default-source/white-papers/safety-first-for-automated-driving-aptiv-white-paper.pdf> p22

While we will require the ADSE to demonstrate best standards for protection, we could also penalise malicious interference – most critically severe penalties for interference with multiple vehicles simultaneously.

8. If a general safety duty were introduced, which parties should it apply to?

The general safety duty should apply to the ADSE, although other parties (such as executive officers) should be liable in accordance with industry norms already covered in other regulatory frameworks.

9. If a general safety duty were introduced, should it apply on public and private land (such as residential driveways)?

A general safety duty should apply any time the ADS is engaged regardless of the location of the vehicle. From a social welfare perspective, the government would expect that the ADS can be operated safely regardless of land ownership status.

10. Should people injured by breaches of the general safety duty have a cause of action, or should the ability to enforce a general safety duty be limited to the regulator?

People should retain their common law rights. A person injured in a motor vehicle accident involving an automated vehicle, and establishes that another party breached the general safety duty (which we note is analogous to duty of care that exists already at common law), should have the right to commence action against the at-fault party.

11. Do you think there should be driving rules for ADSs like the Australian Road Rules, or would it be sufficient to simply require them to 'drive safely'?

Refer to question below on the most appropriate regulation of the driving task.

12. What approach to regulating the dynamic driving task for ADSs most efficiently achieves safe outcomes? Please provide reasons.

Ultimately, regulation that requires the discovery of non-compliance and then enforcement is relatively inefficient, regardless of the bureaucratic model put in place to administer those arrangements. Particularly where those issues involve considerable complexity.

The most efficient means to achieve safe outcomes is to require ADSEs to carry suitable insurance and then utilise the private insurance market to assess and price risk, in a manner that ensures injured parties have compensation equivalent to that provided to parties injured by a human driver.

13. Have we adequately captured and described the feasible approaches for regulating the dynamic driving task for ADSs? Do you consider that one approach is preferable? Please provide reasons.

While the ideal model for an ADSE would be a single driving code for Australia, this is not feasible. It would be too dangerous to have ADSE's driving against a different set of road rules to the local human drivers in any jurisdiction. As such, initially it will be necessary to expect the ADS to conform to the road rules where it is operating. Western Australia would not favour the introduction of any significant new driving code.

14. *What functions and powers does the regulator need to effectively manage in-service safety? Would these differ depending on whether the regulator is enforcing a general safety duty, or only prescriptive duties?*

In the short to medium terms the 'national regulator' should have a streamlined task to function as an interface between the ADSE and state and territory regulators. Duties should include:

- monitoring,
- data collection and sharing,
- conducting and defending proceedings (possibly including recovery from insurance claims if required),
- creation of standards for safety and security, and
- operational policy.

Broader policy questions, such as which areas requiring agreed national consistency could continue to be discussed in existing arrangements such as the National Transport Commission and Austroads.

15. *Have we accurately described the scope of the regulatory task? Please provide data and evidence where possible to support your answer.*

As the speed and scale of AV deployment is unclear at this stage, it is most important that the regulatory task is scalable but ensures that those responsible for the safety of products retain those liabilities and the cost of remediation when products fail and cause injury and death to others. It seems likely that at the onset there will be a small number of AVs in the fleet and this will grow in time – this will also be the case of the regulatory task and flexibility and scalability is therefore important.

It is also important that the regulator interface with state level regulators, compliance and enforcers to manage the entirety of Australia's fleet and roads effectively and to meet desired outcomes.

16. *Have we accurately captured the benefits of the regulator:*

- a. *being a government body or an independent body?*
- b. *being a national body or state and territory-level bodies?*
- c. *being an existing body or a new body?*

The problem with automated vehicles is that they are highly technical and currently government has limited technical expertise in this area. As such, it would make sense to concentrate the expertise for safety assessment at first supply and in-service safety in one business area, creating capable AV experts.

The anticipated nature of the roll-out of the market for AVs is that we expect a few ADSE's with potentially many consumers or operators. The ADSE's are likely to be large, multinational firms, while the consumers are potentially citizens, operating in States. For issues that fall under the general safety duty of the ADSE, it would be costly and prohibitive for states and citizens to deal with ADSE's directly. This could more efficiently be done in an aggregated way through a national regulator.

Our preference would be that the national regulator should be established through Commonwealth law, but sit outside of government structures, with appropriate governance and performance requirements. This would offer greater agility and independence vis a vis large manufacturers and political agendas, while still meeting desired governance outcomes.

However, the benefit of establishing a new regulatory function will only be forthcoming if that function is not duplicated in existing regulatory frameworks. State and Territories should continue their current functions as described in Appendix A.

17. What are your initial views on how the regulator should be funded?

The regulator should start very small, preferably as a small team in an existing regulatory body. Associated costs should be fully recovered on a proportional basis from market participants. In the longer term, the costs should be proportionally shared among regulated parties, primarily ADSEs. The costs should not be primarily borne by governments or consumers.

18. Have we adequately and accurately captured the key legislative implementation models for in-service safety of automated vehicles?

Specifically, on P.114 "A model law approach would require separate regulators based in each state and territory to administer in-service safety regulations; it precludes a national level regulator." This is incorrect, consider, for example, the Rail Safety National Law. The model there is the law in South Australia and the national regulator is also located in South Australia.

20. Which option most effectively addresses the problem statement?

Western Australia's preference is for Option 3, or similar, described below. It is our preference that the related laws for the national regulatory body (or business unit), its functions and the laws governing ADSE's are passed through Commonwealth law, rather than through State law, which would be less agile in the rapidly changing area, given the requirement to reach agreement at every step through the TIC process.

d) Summary of preferred option for Western Australia

Western Australia supports a management structure most like Option 3. This could include the following elements:

- An overarching general safety duty on the ADSE, with prescriptive regulation where required.
- Establish a streamlined, scalable national regulatory entity through Commonwealth law. The use of Commonwealth law reduces the dependency on the Transport Ministers approval cycles to reach agreement on new laws.
- Accountability and governance frameworks for the regulator should be clearly defined.
- Roles and responsibility between states and the regulatory should be clearly defined. Wherever possible existing regulatory frameworks should apply.
- The management of safety at first supply should be transferred to the national regulator, although the regulation can remain as part of the *Roads Vehicles Standards Act 2018*.
- The national regulator should focus on the regulation of the ADSE, while all local management of roads, vehicles and road users should continue at a state level.
- ADSE's will be required to drive according to the road rule where they are operating. Broader strategic, policy questions pertaining to regulation of AVs could continue to be developed and led by the NTC or Austroads, particularly where specialist skills or national consistency were considered essential.

Governance model for in-service safety of automated vehicles

