



**SAFETY ASSURANCE FOR AUTOMATED DRIVING SYSTEMS
CONSULTATION REGULATORY IMPACT STATEMENT
AUSTRALIAN TRUCKING ASSOCIATION SUBMISSION
12 JULY 2018**

1. About the Australian Trucking Association

The Australian Trucking Association (ATA) is the peak body representing trucking operators. Its members include state and sector associations, some of Australia's major logistics companies and businesses with leading expertise in truck technology. Through its members, the ATA represents many thousands of trucking businesses, ranging from owner drivers to large fleets.

2. Summary of ATA recommendations

1. Governments should adopt RIS option 4 because the inclusion of a primary safety duty on ADSEs will reduce risk and increase safety.
2. The safety assurance system should include Australian Transport Safety Bureau (ATSB) investigations of road crashes involving automated vehicles.
3. The proposed safety criteria for statements of compliance (section 4) should be expanded to include a requirement that ADSEs must demonstrate how they will ensure the facilitation of access to accurate information and real-time data for the purposes of ATSB safety investigations.

3. Introduction

The ultimate outcome of the introduction of automated vehicles should be a safer road system. Therefore, governments should aim for a safety outcome that is significantly safer than is achievable with conventional vehicles and drivers.

If automated vehicles are to increase the safety of the road network, a highly automated system must prove to be safer than any human vehicle drivers.

Automated vehicle safety legislation should work to build public confidence in automated vehicle technologies and the safety opportunities they present. It is essential that this legislation include independent, comprehensive, and transparent crash investigations to accurately determine probable causes and make ongoing recommendations as technologies continue to be developed, refined and become more prevalent on our roads.

Transparent and effective safety investigations will work to build public acceptance and ensure that lessons learned will result in prevention of repeated incidences.

The ATA advocates that automated vehicle legislation must also promote continued innovation in high productivity heavy vehicle combinations and recognise that the heavy vehicle space in Australia poses unique regulatory opportunities and challenges.

4. About the RIS

The consultation RIS assesses four options to support the uptake and safe operation of automated vehicles on Australian roads:

Option 1: Current approach – This is the baseline option, using existing legislation and regulatory instruments, with no explicit regulation of ADSs.

Option 2: Administrative safety assurance system – A safety assurance system based on mandatory self-certification that relies on existing legislation and regulatory instruments. The safety assurance system will be implemented through administrative means.

Option 3: Legislative safety assurance system – A safety assurance system based on mandatory self-certification. This would include new or amended legislation to allow for the inclusion of specific offences and compliance and enforcement options, and a regulatory agency with responsibility for administering automated vehicle safety.

Option 4: Legislative safety assurance system + primary safety duty – A safety assurance system that includes all the elements of option 3, plus a primary safety duty on ADSEs (NTC, 2018, p. 24).

Safety assessment criteria:

Options 2, 3 and 4 require companies to self-certify their ADSs. The NTC proposes 11 safety criteria that the applicant must self-certify against, to demonstrate its processes for managing safety risks:

1. Safe system design and validation processes
2. Operational Design Domain
3. Human Machine Interface
4. Compliance with relevant road traffic laws
5. Interaction with enforcement and other emergency services
6. Minimal risk condition
7. On-road behavioural competency
8. Installation of system upgrades
9. Testing for the Australian road environment
10. Cybersecurity
11. Education and training (NTC, 2018, p. 34)

The NTC proposes three other obligations on ADSEs to manage liability for events such as road traffic law breaches and crashes:

1. Data recording and sharing
2. Corporate presence in Australia
3. Minimum financial requirements (NTC, 2018, p. 37)

Assessment of the reform options

Due to the degree of uncertainty and lack of relevant information the NTC did not undertake a full quantitative cost-benefit analysis (NTC, 2018, p. 38).

The NTC based its assessment on qualitative information around key impact categories and assessment criteria. The five key impact categories are:

- Road safety
- Uptake of automated vehicles
- Regulatory costs to industry
- Cost to governments
- Flexibility and responsiveness (NTC, 2018, p. 38)

NTC's preferred option

The NTC has identified Option 4 as the preferred option with the following rationale:

- Option 4 exhibits the most positive impacts, with large improvements to road safety and flexibility and responsiveness impacts, and moderate improvements to uptake of automated vehicles.
- Option 3 presents similar results but somewhat lesser improvements to road safety and flexibility and responsiveness impacts compared with option 4. Option 3 does, however, present somewhat greater certainty around regulatory costs than option 4.
- Option 2 exhibits similar impacts to option 3 but to an equal or lesser extent in all impact categories.
- Options 2, 3 and 4 all result in an overall benefit relative to option 1 (NTC, 2018, p. 46)

5. The ATA's preferred option

The ATA agrees that option 4 is the best option to progress.

Options 1 and 2 are not sufficiently comprehensive and will not offer adequate safety outcomes.

Option 4 is preferred over option 3 as it includes a primary safety duty, which the ATA supports.

The ATA first recommended that the NTC consider a primary safety duty in our 2017 submission regarding changing driving laws to support automated vehicles (Australian Trucking Association, 2017a).

The ATA's position remains that any new laws made to specifically address the liability of an ADSE must be consistent with the existing WHS laws. A primary duty, with harmonised penalties and due diligence obligations on officers could be included in the forthcoming Road Vehicle Standards Act. This duty and associated provisions, and the necessary matching state legislation would extend the existing WHS regime to cover not only vehicles that are 'plant' but also the private use of automated vehicles.

Recommendation 1

Governments should adopt RIS option 4 because the inclusion of a primary safety duty on ADSEs will reduce risk and increase safety.

6. Response to consultation questions

Chapter 6 Assessment of the options

Q15. Does our analysis accurately assess the costs to government for each reform option? Please provide any further information or data that may help to clearly describe or quantify the costs to government.

Recommendation 2

The safety assurance system should include Australian Transport Safety Bureau (ATSB) investigations of road crashes involving automated vehicles.

The assessment of option 4 does not include the costs associated with independent investigation of automated vehicle crashes by the ATSB.

The RIS raises the issue of uncertainty around potentially significant government costs such as monitoring, investigating and enforcing in-service incidents (NTC, 2018, p. 55).

The ATA has previously argued and continues to maintain that these investigations should be carried out by the ATSB.

The cost of safety investigations must be quantified in the RIS. In 2016-17, the ATSB conducted 39 complex and 108 short aviation investigations, 16 rail and five marine safety investigations (Australian Transport Safety Bureau, 2017).

The cost of investigations is not itemised in the ATSB resource statement. However, expenses for ATSB *Outcome 1* shows total annual expenditure of \$52 million (Australian Transport Safety Bureau, 2017).

These figures suggest that an estimate of \$5 million-\$10 million would be appropriate for costing purposes.

The NTC should work with the ATSB to determine the cost of an automated vehicle safety investigation along with a projected number of investigations per annum. This regulatory cost should be quantified in the RIS.

Additionally, *Appendix C Proposed safety criteria for the Statement of Compliance, C.5 Provisions that could be captured in legislation*, puts forward provisions requiring ADSEs to report safety critical events to the agency responsible for the safety assurance system.

ADSEs should also be obligated to report safety critical events to the ATSB (Australian Trucking Association, 2017b, p. 7). Without independent safety investigations for learning lessons and making recommendations to improve safety such as those conducted by the US National Transportation Safety Board (NTSB), we simply will not understand and cannot ensure the correction of the root causes of safety incidents and crashes.

It is notable that the consultation RIS itself draws on the NTSB investigation into the Florida Tesla Model S crash to support its findings.

Chapter 4, Other obligations on ADSEs: requirements for the Statement of Compliance (4.1)

Q7. Are there any additional criteria or other obligations that should be included?

Recommendation 3

The proposed safety criteria for statements of compliance (section 4) should be expanded to include a requirement that ADSEs must demonstrate how they will ensure the facilitation of access to accurate information and real-time data for the purposes of ATSB safety investigations.

Currently section 4.4.1 includes as relevant parties police, enforcement, individuals and road agencies regarding access to recorded and real-time data (NTC, 2018, p. 37).

The ATSB must be specified as a relevant agency in the statement of compliance for provision of compliance data. This data will provide crash and near-miss evidence that will be essential to ATSB safety investigations.

References

Australian Transport Safety Bureau. (2017). [Annual report 2016-17](#).

Australian Trucking Association. (2017a). [Changing driving laws to support automated vehicles](#).

Australian Trucking Association. (2017b). [Regulatory options to assure automated vehicle safety in Australia](#).

NTC. (2018). [Safety assurance for automated driving systems consultation regulation impact statement](#).