



18 December 2020

Rahila David
A national in-service safety law for automated vehicles
National Transport Commission

Submitted via email to rdavid@ntc.gov.au

Dear Ms David,

Thank you for the opportunity to provide feedback on the national in-service safety law for automated vehicles discussion paper.

IAG strongly supports a system of regulation for autonomous vehicles (AV) that has safety at its core. For automated vehicles to be a successful part of our transport system people need to be able to trust the technology will operate safely and that protection exists for when things go wrong.

We believe insurance is a key part of the safety continuum. Regulation needs to be in place to ensure products won't fail and those responsible for the technology while it is in operation are held accountable for safety breaches. Insurance complements this regulation by offering products to protect against residual risk including the financial burden of something going wrong, it is also a mechanism for recovery when systems fail. In order for insurers to offer this additional protection there needs to be solid regulation of the risks on the road and a sharing of data and information so insurers can calculate and price products to offer the community.

The regulation around automated vehicles in service needs to be set at a particularly high level for several reasons. We know people hold machines to a higher level of safety than humans¹. Human error is an acceptable risk in many facets of society including driving on the road however, machines and AI are not given that same tolerance. One of the main arguments for adopting automated vehicle technology in Australia is that it would remove human error and so reduce road crashes by up to 90%². We expect machines with this technology to operate flawlessly, especially when the consequences of an error could cause harm or even cause the death of humans. Similarly, public trust is key to AV technology succeeding. One error early in the roll out of this technology could have long term implications for its uptake in our society.

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https://www.aph.gov.au/Parliamentary_Business/Committees/House/Industry_Innovation_Science_and_Resources/Driverless_vehicles/Report/section?id=committees%2Freportrep%2F024056%2F25011_e
²https://www.aph.gov.au/Parliamentary_Business/Committees/House/Industry_Innovation_Science_and_Resources/Driverless_vehicles/Report/section?id=committees%2Freportrep%2F024056%2F24918

As documented in IAG's previous submissions to the NTC found here <https://www.iag.com.au/submission-national-transport-commission-investigation-service-safety-automated-vehicles> we have reservations that the self-certification process chosen for importation/first supply stage of regulation is strict enough, to prevent serious safety breaches occurring. However, we know self-certification has been endorsed by the transport ministers. As such, we recommend that the next level of regulation (in-service regulation) will need to be at the highest safety standard possible. We suggest that the in-service regulator not only monitors the general safety duty imposed on Automated driving system entity's (ADSE) but also regulates the ADSE for ongoing compliance against the self-certification criteria completed at first supply. Including the operational design domain and safety protocols stipulated. This would ensure ADSE operating in Australia continually comply with the conditions of their certification.

We recognise the detailed and well considered work the NTC has done and presented in this discussion paper. Along with the specific questions in this paper we ask the NTC to consider the following key points when creating the national in-service Automated Vehicle Safety Law (AVSL)

Create a framework for storing data and sharing data- Standardised, readable and accessible data is critical for all parties to succeed in the connected and AV network. The type of data produced, the length of time for which it is stored and who can access it and how, should all form parts of a robust data governance framework. This framework, once created, needs to be managed by a neutral, independent entity to ensure privacy and appropriate use of that data. Considering recent international events and travel restrictions we also recommend this data be kept in Australia so access to it will not be compromised.

IAG would welcome the opportunity to provide input into the development of this framework, particularly advising on the needs of insurers.

Contingency planning for natural disasters- Australia is a large country with several natural disaster risks present including floods, storms, bushfires and cyclones. There does not appear to be an express requirement for ADSE's to have a contingency plan for natural disasters in their operation. We suggest this be a requirement of their safety duty. ADSE's should have to explain how their vehicles will respond to an unexpected weather crisis and have a plan to assist any passengers stranded.

Create a quality framework and accreditation of ADSE performance- Part of the in-service regulation should be the creation of a quality framework and a requirement for each ADSE to be assessed on a regular, (say 2-3 yearly) basis against this quality framework, with a proviso that any significant change in programming of the ADSE has to be reviewed prior to roll-out.

The ADSE's ability to operate in Australia should be linked to passing this accreditation and accreditation scores should be made public for consumers to make informed choice about which ADSE they wish to use.

We understand the NTC's preference to enforce a general safety duty rather create than a prescriptive assessment, however, we believe that a quality framework can still be principle based around key themes rather than prescriptive. A process requiring regular checks that ADSE's are complying with the conditions they outlined in their initial self-certification is what is important. As part of the monitoring and compliance system we also suggest random audits and spot checks should also be carried out to ensure these standards are always met.

IAG would welcome the opportunity to provide input into the development of this framework, particularly advising on the needs of insurers.

Allow for Independent testing and regular testing of technology to ensure safety- In our experience repairing vehicles and insuring both vehicles and their occupants, we have seen and continue to see gaps in the regulation of vehicles which can have serious cost and safety consequences. We have outlined these in detail in our previous submission (see previous submission attached), including examples where manufacturers have left out safety features to reduce cost pressures, breached self-certification criteria requiring recalls and have technology designed overseas not perform as promised in Australia.

We believe a new independent mechanism will be needed to test the functionality of automated technology and driving systems and report findings (similar to ANCAP and the work the IAG Research Centre does today). In addition to how this operates today, future technology may require re-testing or regularly testing to ensure the technology continues to function as promised throughout the lifecycle of the vehicle and especially after repair and recalibration.

Align with international standards- We agree with the NTC that it is important Australia aligns its regulations with international regulatory approaches, so we are consistent with international regulations and international manufactures who want to sell their products in the Australian market. We would also like to see the development of international standards for the independent body assessing vehicle safety (as discussed above) as this would allow vehicle manufactures to faster incept their products into markets and be covered by insurance.

Require technical information sharing of Automated Driving Systems (ADS)- For the insurance industry to continue to offer products, insurers need to understand and assess the risks. Motor insurance currently is based on the technical assessment of the vehicle and forecast of the persons driving behaviour based on history and statistics. As the 'driver' becomes software or algorithms, the industry will need access to data and technical information on how this performs, to adequately price risk. To do this, ideally a standardised interface would be created that all manufacturers would use; the manufacturers would then need to share a copy of their proprietary information in this format so insurers can compare ADSs and be able to assess the risk of each manufacturer's ADS. We understand there would likely be hesitancy from manufacturers to readily share this information, however, we believe it could be done as long as we work collaboratively across industries and the regulator has put in place appropriate information security standards and procedures.

In response to the specific questions for comment:

Q1: What prescriptive duties under the general safety duty should be included in the AVSL to manage in-service safety risks?

All the duties listed on page 29-30 of the discussion paper should be included. We also suggest that these potential prescriptive duties outlined could be used as a basis for a quality framework that ADSE's can be regularly assessed on.

We do have concerns with the use of "reasonably practicable" as believe there should be no reason as to why safety duty is not upheld. We believe the threshold of reasonably practicable is too low when it relates to a fleet of machines. Instead of one human worker at an ADSE causing one accident, one error could lead to a fault in 100 or 1000 vehicles or a fleet of large trucks. The consequences of error here are too high.

Question 2: What matters relating to compliance with a general safety duty are better suited to guidance than being prescribed in the AVSL? Should this guidance have legislative force?

Yes, guidance should have legislative force as this will bind participants to these duties under the law. Matters for regulations should be ones that don't have certainty at this point in time but can be added in later as required. It may be enough to create a provision in the legislation that the regulator can create regulations that are binding on participants, but with a specific pathway set

out i.e. with consultation, opportunity for public submissions etc.

Question 3: Are existing and proposed regulatory frameworks (state and territory laws, first-supply requirements and general safety duty obligations) sufficient to address third-party interference with an ADS? If not, should interference with the safe operation of an ADS be a specific offence, and how should this offence be enforced?

It should be a specific offence as interference could have very large-scale effects. Third party interference should be monitored and enforced through a national regulator if there is an ADSE/company breach or through the states if it is an individual vehicle breach.

Question 5: Please provide your views on the transfer of responsibilities for an in-service ADS from an ADSE to a new entity.

- **Should an ADSE be able to transfer responsibility for an in-service ADS to a new entity?**
- **If so, what powers should the in-service safety regulator have for approving the transfer?**

Transfer should be possible and desirable to ensure continuity to consumers. The regulator should impose the certification criteria on the new entities in order for a transfer to be approved to protect and maintain a level of safety.

Question 6: If there is no new entity to take responsibility for an ADS when an ADSE exits the market, are recall (including disengagement) under the RVSA and recourse under the Australian Consumer Law appropriate measures? Is there any role for the in-service regulator?

Yes, it's the best we have at this time. As the system evolves, there may be a need for a different approach or some sort of compensation body. Private markets may also come up with a solution to reduce risk in this area.

Question 7: What should the role of the in-service regulator be for modifications made by an ADSE to an in-service ADS that changes its ODD or the level of automation

Option 1- The in-service regulator has a regulatory approval function for in-service modifications. This allows for approvals of small changes such as modifications to ODD. For any substantial modification ADSE's should seek another certification to continue to operate, meet the same 11 criteria as they had to at import/first supply. This could be done by the in-service regulator.

Question 8: How should in-service modifications made by parties other than an ADSE to vehicles to make them automated vehicles be managed? Consider: - vehicle manufacturers modifying vehicles to become automated vehicles while in service - businesses that supply and install aftermarket ADSs - individuals installing aftermarket ADS kits.

Question 9: Are there any gaps in the regulation and proposed regulation of in-service modifications that the NTC has not identified? Are there other options that should be considered?

Companies/individuals that want to start a business modifying vehicles to install aftermarket ADS's should have to apply to the in-service regulator for some type of licence. These businesses would essentially become an ADSE for aftermarket parts and need to meet the same 11 certification criteria other ADSE's need to meet at first supply. Individuals should only be able to install aftermarket kits through a licenced supplier. It should be an offence to make these modifications outside of a licenced modification ADSE.

Question 10: Do you agree that the additional functions the NTC has identified may need to be undertaken by the regulator to ensure in-service safety? - Reporting - Crash

investigations (for enforcement, with a specialist agency like the ATSB to undertake no-blame investigations) - Accreditation - Regulatory approvals

Yes, and as above we believe a quality framework and accreditation system should be created. This would also need to include how a modification service could be accredited and become an ADSE. The in-service regulator should also ensure compliance with random audits and spot checks as part of its monitoring and enforcement duties.

Question 11: Accreditation provides an alternate pathway for an entity to enter the market. Are there other purposes for which accreditation should be used in the in-service framework?

As above, accreditation should be done on a regular basis for ADSE's and for modification businesses. Any ADSE that seeks accreditation should have to meet the requirements of the self-certification at import/first supply to ensure all ADSEs consider the same strict safety criteria.

Question 12 – 14

Yes, no additional comments

Questions 15-22

Yes, an AV breaking a road rule should be seen as a malfunction or a lack of compliance with the general safety duty and companies should be fined. Serious breaches would require fleets to be stood down as it could be a programming error affecting the whole fleet. One car making a mistake could turn into thousands of cars making that mistake if their programming has a malfunctioned.

Another option for managing these breaches could be to set up a phonenumber/website where people, insurers or police could log any safety breaches they identify or witness. This information should be feedback to ADSE's to ensure they are not breaching their safety requirements.

Question 23: Are the interactions between the in-service regulator and other regulators and agencies accurately described?

Question 24: Are there other agencies that the in-service regulator will need to interact with?

The in-service regulator would likely have to interact with insurers where an accident causes damage and CTP regulators/insurers if an accident causes personal injury. Insurers would need information or confirmation from the in-service regulator that an ADSE was licensed and had been accredited or reviewed as compliant with the general safety duty.

Insurers would also need data collected on the circumstances of the accident, as outlined above we suggest that a framework for storing data and sharing data is created to allow an efficient transfer of this information.

Questions 25-30

No specific comment

IAG is available to discuss the above recommendations or answer any further questions in more detail. Please contact Naomi Graham Principal Public Policy & Industry Affairs on 0411 238 602

Sincerely,



Jane Anderson
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IAG