



Australian Government

Department of Infrastructure, Regional Development and Cities

Attn: Automated Vehicle Team
National Transport Commission
Level 3/600 Bourke Street
MELBOURNE VIC 3000

Dear Automated Vehicle Team,

The Australian Government Department of Infrastructure, Regional Development and Cities (the Department) welcomes the opportunity to comment on the Safety Assurance for Automated Driving Systems Consultation Regulation Impact Statement (RIS). The Department thanks the NTC for developing the RIS and for its work on this important project. The RIS is a useful input for all governments in developing the future regulatory system for automated driving systems (ADSs).

The Department recognises that the RIS provides four options for consideration. While useful from an initial comparison perspective, the RIS tends to lead to an “either or” approach at what is a comparatively early stage of consideration. That is, the RIS invites decision-makers to make a choice between either utilising existing regulatory frameworks (akin to an option 2 approach) or moving now to a new regulatory framework, with significant institutional changes, to address the safety risks posed by ADSs (akin to an option 3/4 approach).

Instead, the Department considers that the approach to regulating ADSs should be cognisant of a range of factors likely to drive the need for a regulatory response. These factors include:

- a) the likely rate of adoption of commercially available ADSs;
- b) implementation challenges associated with a new framework;
- c) society’s, industry’s and other stakeholders’ awareness and acceptance of any new regulatory framework; and
- d) any international examples of similar frameworks.

In the Department’s view, this leads to the need to consider a more staged approach to changing regulatory frameworks. In the early stages, this would include adapting existing frameworks where necessary to ensure they are “fit-for-purpose” to support the early adoption of commercially available ADSs. This submission expands on what some of those adaptations could be.

During this period, work should also progress on developing a new legislative framework that might apply once sufficiently developed and once the adoption of commercially available ADSs justified it.

The Department considers that this would provide a more “risk-managed” and appropriately staged approach to implementing regulatory frameworks for the commercial deployment of ADSs. We are keen to work with the NTC and state and territory jurisdictions on this approach, which we consider allows a fuller development of adaptations to existing frameworks and development of a new framework to be put to Ministers.

The Department's submission to the RIS contains the following sections:

1. a high-level summary of our position;
2. issues in the RIS that require further clarification;
3. a staged response to the safety risks of ADSs:
 - 3.1 adapting existing frameworks in the short-term – exploring implementation of ADR 90;
 - 3.2 other issues to address in the short-term;
4. key considerations in designing a longer-term legislative framework;
5. conclusion.

1. Our position

In the Department's view, the RIS does not include sufficient detail on how all of the options would operate for Ministers and other key stakeholders, such as industry, to identify a preferred single end-state RIS option at this time.

Instead, a staged approach to the safety risks posed by ADSs is needed, rather than an immediate shift to a national legislative safety assurance system. A staged approach involves utilising and adapting existing regulatory frameworks to deal with early adopters of ADS technology (akin to option 2). In parallel, a new regulatory framework to support the commercial deployment of ADSs (consistent with the approach outlined in options 3/4) should be developed and deployed by governments when the uptake of ADSs reaches a sufficient level. Further detailed consideration should be given to whether a new regulator is required.

A staged regulatory response by governments needs to be attuned to the likely penetration of commercially available ADSs, the stage of readiness of any new regulatory framework, awareness and acceptance of any new regulatory framework and international developments.

This staged approach will allow the Transport and Infrastructure Council to consider implementation advice at appropriate "check-points" (in the context of technological progress and international approaches) and make a series of decisions on next steps as more analysis and implementation advice becomes available. This approach will enable governments to control and modify the trajectory of this reform.

2. Issues in the RIS that require further clarification

The RIS recommends departures from the existing regulatory framework and the creation of new frameworks to deal with the deployment of ADSs; such changes could have long-term impacts on Australia's vehicle safety standards framework. In the Department's view, a number of issues raised in the RIS need to be addressed, in particular:

- a) the RIS assumes that the Commonwealth does not have adequate enforcement and compliance mechanisms to deal with Automated Driving System Entity (ADSE) conduct. The Department notes that a range of graduated enforcement measures will become available to the Commonwealth once a future Road Vehicle Standards Act (RVSA) enters into force. Part 4 of the Road Vehicle Standards Bill calls up provisions of the Regulatory Powers (Standard Provisions) Act and provides the Commonwealth with measures ranging from issuing infringement notices and varying or suspending an approval to entering into enforceable undertakings with regulated

entities, seeking injunctions, obtaining civil penalty orders, revoking approvals, and commencing criminal prosecutions. Whilst the Department recognises additional compliance and enforcement measures may be needed to regulate specific ADSE conduct, the provisions that would be in a future RVSA provide a strong foundation. The need for new, tailored measures to deal with ADSE conduct needs to be assessed against those measures contained in a future RVSA;

- b) More information on the costs, impacts and implementation challenges of the model proposed in options 3 and 4 will need to be developed in order for Ministers to make an informed decision. As such a model could lead to substantial costs for government, and could increase the regulatory burden on industry, a strong and clear justification should be provided. Whilst the Department acknowledges that quantifying costs associated with ADSs is inherently difficult, governments need more information about the indicative costs and benefits of reform options, as well as how regulatory responses could affect penetration and uptake of ADSs. There are recent examples of establishing new frameworks which would provide a frame of reference in relation to costs, such as the National Heavy Vehicle Regulator. The Department has also provided the NTC with estimated costs of running a regulator based on its own activities in approving the safety aspects of vehicles through the Motor Vehicle Standards Act (MVSA) and the Australian Design Rules (ADRs);
- c) Further information on the nature and scope of the proposed primary safety duty would also be beneficial. This information could include details of what would trigger the duty, why duties such as those in the workplace health and safety context are a good fit for regulating ADSs, and how the imposition of the duty would lead to better outcomes than existing product safety frameworks (such as the Australian Consumer Law or tort law).

3. A staged response to the safety risks of ADSs

The regulatory response by government to the risks posed by ADSs needs to be proportional to the risks being regulated and appropriately staged to the actual penetration of automated vehicles (adoption is at this stage uncertain, in terms of timing, the level of automation and volume of vehicles). In this context, the Department does not consider an “either or” approach is sufficient.

The Department considers that a proportional regulatory response means ensuring that processes under existing legislative frameworks¹ are fit-for-purpose to support early adopters of ADSs (an approach akin to option 2). In parallel, further work on developing longer-term regulatory approaches to prepare for the larger scale commercial deployment of automated vehicles (an approach akin to options 3/4) needs to occur.

In advance of large numbers of ADSs being deployed commercially, the Department considers that existing arrangements at the Commonwealth level can provide sufficient levels of assurance at the premarket stage and potentially for some in-service arrangements.

Once work on new regulatory options was sufficiently advanced, and the penetration of automated vehicles was at a sufficient level, decision-makers would have the opportunity to decide the timing of a switch to a new regulatory framework.

¹ Including the proposed RVSA, which is currently before the Commonwealth Parliament.

Because Australia only represents a small portion of the global vehicle market, it is important that Governments do not get too far ahead of international developments when responding to the risks posed by ADSs. As part of the process of designing a fit-for-purpose regulatory framework, implementation issues need to be considered and tested, so that industry and the broader community are brought along with proposed regulatory changes. This will also ensure that proposed changes efficiently and effectively manage ADS safety, whilst staying compatible with approaches in other countries.

3.1. Adapting existing frameworks in the short-term – exploring implementation of ADR 90

An important next step in relation to ADSs involves considering the introduction of ADR 90. The RIS includes information on a proposal, subject to the normal consultation arrangements for new vehicle standards and ministerial approval, to introduce a new standard ADR 90 (ADRs 90/00, followed by 90/01)² which relates to the future first supply of automated vehicles to the Australian market (making use of the existing regulation of a vehicle's steering system through the ADRs).

ADR 90 would have an important role to play in the short-term and in the longer-term also. This is because it could set all of the premarket vehicle requirements for ADSs in Australia for the initial deployment of automated vehicles. ADR 90 could cover all vehicle related premarket and also some in-service requirements for an ADSE and ADS use.

ADR 90 could be used to ensure the ongoing alignment of the ADRs with international standards as they become available. ADR 90 could also support the implementation of a Safety Assurance System (SAS) because it could be used to require ADSEs to certify against SAS criteria.

The RIS discusses ADR 90 and considers that it will:

- a) initially use a non-standard approval pathway;
- b) during the initial use of a non-standard approval pathway, not provide clarity about how ADSEs could obtain a non-standard approval;
- c) lead to individual assessment and conditional registration of vehicles fitted with an ADS by state and territory road agencies.

Since work first began on the RIS, the Department has consulted with stakeholders (including industry and the NTC) and has closely monitored the development of international vehicle standards for ADSs. Based on this, the Department has further developed a possible model for the initial introduction of ADR 90. A number of the concerns raised about ADR 90 in the RIS have largely been negated.

The Department is exploring how ADR 90 could use a model that would see vehicles fitted with an ADS entering through a standard rather than a nonstandard certification pathway. Under the proposed model, vehicles that complied with future ADR 90 would generally be eligible for type approval and could be registered through standard pathways at a state and territory level – negating any scalability issues associated with conditional registration and nonstandard approvals for ADSs.

² ADR 90/00 is a simple restructure of relevant ADRs to better mirror international vehicle standards as they currently exist. It does not in itself set any requirements for vehicles fitted with an ADS. ADR 90/01 would subsequently contain ADS requirements.

This would result in vehicles fitted with an ADS being standard vehicles, provided that the ADS complies with particular requirements (such as complying with the 11 SAS criteria mentioned in the RIS that make up the Statement of Compliance and/or complying with international rules or standards as they are developed). That is, ADR 90 would provide clarity to ADSEs by setting out the requirements that must be met in order to obtain a type approval.

3.2. Other issues to address in the short-term

Some of the issues that could be considered and addressed under existing legislative frameworks are discussed below.

Premarket certification of ADSs at the Commonwealth level and a single national regulator of ADSs entering or being built in Australia.

Premarket approval of ADSs could be undertaken at the Commonwealth level by the Department, in line with the current arrangements for other vehicle safety systems. This would ensure that all safety related standards are applied to all vehicles in a consistent manner. This would not require any new legislation (other than determining new ADRs) and would ensure that vehicle standards in Australia could remain harmonised with emerging international rules. This would allow the Commonwealth to leverage its existing expertise in regulating premarket vehicle safety and maximise national consistency.

Premarket certification could potentially commence under the MVSA (for example, by creating a new ADR to deal with ADSs; the Department's position on proposed ADR 90 is discussed in subsection 3.1 of this submission). Premarket certification measures could also be further developed under the proposed RVSA, once that Act is passed by Parliament (for example, by creating new ADS-specific rules).

The Commonwealth could regulate certain aspects of in-service safety within the scope of existing Commonwealth legislative powers

The Commonwealth could use its legislative powers to regulate ADSEs who are constitutional corporations in a nationally consistent manner; this could achieve a reasonably broad degree of regulatory coverage (as it is likely that most ADSEs will be constitutional corporations). Whilst implementation work progresses, consideration could be given to how the Commonwealth's powers could begin to be operationalised, for example, whether type approval conditions could require constitutional corporations to take certain steps to ensure that an ADS remain safe whilst in service, such as complying with SAS requirements.

Consideration needs to be given to how some remaining in-service safety risks could be managed.

Consideration could be given to whether certain in-service issues can and need to be regulated under established legislative frameworks over the short term. Whilst the Department notes that work is already being progressed on some of these issues, consideration could be given to whether some of the following could be addressed:

- a) licensing, registration, and managing regulatory arrangements for determining whether vehicles fitted with an ADS are permitted to operate on any or all of the road network;

- b) enforcement, liability insurance and data regarding vehicle operation (and including ADSEs obligations in this respect);
- c) imposing certain requirements on vehicle owners and registered operators, for example:
 - i. driver training requirements;
 - ii. prohibiting installation or modification of an ADS;
 - iii. implementing ADS updates authorised by an ADSE;
 - iv. prohibiting use of an ADS outside of a defined operational design domain;
 - v. requiring a human operator to provide vehicle data to law enforcement agencies to determine whether an ADS was controlling a vehicle in the event of a crash.

4. Key considerations in designing a longer-term legislative framework

In the Department's view, work on developing a new legislative framework needs to occur whilst work on next steps under existing legislative frameworks is progressing. As discussed in section 2, a number of important implementation questions need to be further addressed.

In relation to options 3 and 4, the proposed national regulator would, based on the Department's understanding of the RIS, deal with all aspects of premarket and in-service ADS safety (unlike the current arrangements, where responsibilities are split between Commonwealth, state and territory agencies). Greater clarity on the benefit of departing from established arrangements for vehicle safety regulation would assist in decision-making. To support this, a clear articulation of the current and proposed roles of Commonwealth, state and territory authorities (particularly, road managers and vehicle standards bodies) in regulating ADS safety would be beneficial.

In the Department's view, the following considerations are also relevant to designing longer term regulatory approaches:

- a) reasonable estimates of costs and burdens should be used to justify regulatory responses. Such costs and burdens should not unduly disincentivise adoption of new ADSs by industry or the community;
- b) getting too far ahead of international developments, or imposing unique and uncertain regulatory requirements in Australia will affect adoption of ADSs;
- c) regulatory responsibilities imposed on industry should be reasonable and defined. That is, the need for some elements, such as the primary safety duty, must be more clearly demonstrated and defined;
- d) the interaction between existing regulatory frameworks and regulators and proposed regulatory frameworks needs to be clearly defined;
- e) consultation and engagement with the community and affected stakeholders needs to occur as part of the process of developing new regulatory approaches.

5. Conclusion

The emergence of ADSs in Australia and the manner in which governments regulate them will have profound implications for Australia's transport sector. As Ministers come to make a decision on next steps for regulatory reform it is important that all jurisdictions and the NTC continue to work together to make recommendations to Ministers about options for reform.

Such recommendations need to be supported by a detailed analysis of options, including the implementation issues that relate to these options.

The Department considers that the issues raised in this submission will need to be addressed. In particular, rather than the RIS's current focus on only implementing option 4, governments should also concentrate on adapting Australia's existing frameworks, as they work towards a new system in the future. This parallel approach will allow the Transport and Infrastructure Council to stage decision-making to suit the expected trajectory of this reform beginning from when ADS numbers are low up to full deployment.

The Department thanks the NTC for its work on the RIS and for facilitating a robust discussion between government, industry and the community. The Department looks forward to working with the NTC and all jurisdictions on developing a nationally consistent approach that will support the safe adoption and use of ADSs on Australian roads.