16 July 2018

Automated Vehicle team
National Transport Commission
Public Submission – Consultation Regulation Impact Statement
Level 3/600 Bourke St
Melbourne VIC 3000

Submitted via the NTC online submission portal

Dear Automated Vehicle Team,

IAG appreciates the opportunity to provide feedback to the NTC on the – Safety Assurance for automated driving systems consultation regulation impact statement.

IAG strongly believes there is a need for explicit regulation of autonomous vehicles above what currently exists. We believe there are five key principles that should underpin the thinking and approach of any regulatory option

- **People first:** led by the needs of customers and the community
- **Safety:** incident prevention is key, as is the ability to recover from loss and provide community assurance
- **Trust:** an essential component to build, equally important to repair when something goes wrong
- **Continual learning:** experimentation through to improvement, sharing information
- **Collaboration:** partnerships and working together across sectors and industries

We believe these principles should be the first things considered when looking at the costs and benefits of any safety assurance system. While we commend the NTC for seeking to explore the role of the Australian Government in assuring the safety of ADS and what form this regulatory system should take. We caution that by exploring this in the transport portfolio alone, there is a risk of missing the broader social and macroeconomic costs and benefits of this technology which will impact a range of industries.

We appreciate most of feedback received by the NTC supports a self-certification framework. However, we believe proceeding down this path could increase risks to the safety of the community in the initial stages of the technology, and that the flow on costs of an impact to safety have not been adequately considered. Furthermore, we believe the proposed model of self-certification has broad cost impacts to a number of industries and these have not been fully explored by this regulatory impact statement. Before committing to a self-certification framework, we suggest the macroeconomic costs and benefits

are explored by an appropriate body such as the Productivity Commission for government to have a clear picture of the costs and implications of a range of safety assurance systems.

A number of issues and recommendations for the NTC to consider are detailed below:

Scope and resources to explore the broad macroeconomic impacts of autonomous vehicles technology.

IAG believe the Productivity Commission would be best placed to explore all the costs and benefits involved in regulating autonomous vehicles including:

- **Macroeconomic costs and implications** - on financial markets, investments, inflation, unemployment, jobs growth, cost benefit from improved safety of well-deployed, new technology.
- **Impact on health services**- including the range of scenarios (impact on hospitalisations from injury and death) of mixed fleets, partial automation and full automation.
- **Impact on personal injury and disability schemes** - although the NTC have signalled intent to explore the impact on CTP, there also needs to be a consideration of the potential transfer of costs to NDIS, NIIS, disability support pension and how workers compensation would respond.
- **Impact on insurance industry** (we will elaborate on this further in the paper) and prudential regulation i.e. who holds capital to ensure stability of personal injury schemes.
- **What costs could be forced out to other industries**
- **The legal costs and cost of lengthy timeframes to clarify liabilities** – uncertainty in a proposed regulatory framework will have to go through courts for a legal determination. Long timeframes have costs attached to them either to the individual or to the broader community.
- **The risks and benefits associated with AV generated data** - A regulated framework would ensure access, control and use of this data is proper, and limit opportunities for misuse.
- **The social costs** – i.e. mental health, impact on family stability, shift in trust, inequality of wealth, needs of vulnerable road users in understanding of requirements (i.e. elderly, cultural and linguistically diverse populations, indigenous Australians).
- **The infrastructure costs** attached to different modes of safety regulation.
- **Prevention and response costs associated with a mass catastrophic event**, i.e. natural disaster or cyber breach.
- **The cost benefits of improved safety-** If a more rigorous regulatory model was to be chosen what are the cost benefits (i.e. less spent on healthcare, earlier return to employment and family stability following a collision).
- **Impacts on competition** – across the value chain of vehicle manufacture, distribution, repair, maintenance, protection and disposal. and associated services.

- **How the regulatory scheme should be funded**- in the financial industry our regulation is self-funded by the businesses who want a licence to operate. Options for funding required for the regulation of autonomous vehicles could also be explored by the Productivity Commission.
- **Research and explore other industries that have used self-certification-** i.e. building self-certification has resulted in issues with non-conforming building products and flammable cladding. Can similar issues be avoided if we learn from the failings in other industries?

Although IAG commends the work NTC has done to explore the costs and benefits of safety assurance for automated driving systems, we feel they do not have the scope or funding to explore the full costs and benefits applicable to the safe introduction of this technology. The proposed self-certification model raises a number of safety concerns as well as questions relating to the roles and responsibilities of a number or existing agencies and industries. The light touch regulation proposed may be cost effective now, but these costs may be passed to other industries and the uncertainty could create a far more significant costs impact.

Safety concerns with self-certification

Autonomous vehicles and technology are novel and although they are expected to have a long-term safety benefit, the technology is still in a testing phase where all the safety issues have not been discovered and incidents continue to occur. We have seen already the unfortunate consequences of these errors in overseas jurisdictions, including deaths. At this stage of development, we must carefully monitor how these vehicles and this technology operate in Australia in order to ensure community safety isn't compromised.

This is particularly important for autonomous vehicles as we know that public trust is key to AV technology succeeding. The global community has already seen a number of deaths in countries trialling this technology where safety regulation is not strict (i.e. in the USA). Although small in comparison to the global road toll, we know people hold machines to a higher level of safety. These incidents in the early phase of this technology could cause a backlash against its use, resulting in Australia not embracing and capitalising on the benefits of this technology.

A safety assurance framework should be set up to protect the community against risk and ensure regulated parties are held to account for any market or safety failures that could impact the community. This of course must be balanced by the public cost for regulating such risks as over-regulation also has consequences to the productivity and economic performance of our nation.

In our experience repairing and insuring 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. What is concerning is that the proposed self certification framework for autonomous vehicle is less rigorous

than current regulation for vehicles, yet we are dealing with more complex technology with potentially unknown and unforeseeable risks.

Examples of current gaps are as follows:

Omitting safety parts in Australia to relieve cost pressures- One standout example of this is a small car manufacturer who omitted a bumper bar component when importing the vehicle to Australia. The omission provided a small cost saving to the OEM, but had large impacts to repair costs and community safety.

Prior breaches with self-certification - The community has also witnessed several well-known 'scandals' in the past few years where some manufacturers have demonstrated a questionable trust record including the 'diesel gate' emissions scandal, where the CEO is facing criminal charges and similarly the Takata airbags recall which continues to leave a number of the population at risk of harm.

Technology designed and tested in overseas may not work in Australia – An example uncovered during IAG Research Centre testing is that some AEB technology in earlier years did not correctly identify an Australian designed target as a potential collision risk although it had worked in other jurisdictions and testing. This vehicle now fully passes the test in Australia however is an example of the unique local conditions.

These three examples highlight the weaknesses in vehicle safety regulation and how they can be exploited or accidentally compromise safety on our roads. The need for adequate safety regulation will only increase with autonomous vehicle technology as vehicle control and decision making becomes increasingly taken away from the individual and put into the hands of manufacturers. A strong third party legal framework will force developers and manufacturers to be more rigorous in the design and operational domain rather than take a test and see approach - particularly in the uncertain period of transition to a fleet of mixed human and machine interactions on the road.

In our experience, stricter safety regulation could assist OEM's or ADSE's to bring this technology to Australia. It would provide them with certainty over what is expected/required that is lacking today, as well as help them plan for what liabilities may fall their way. More regulation allows the OEM or ADSE to balance safety with cost pressures internally and increases their confidence to enter the market. We don't want Australia to be offered less safe cars as there is less regulation. This will be exacerbated if Europe has more regulation and Australia does not.

International OEM's will also be looking to our safety regulations for guidance on vehicle safety in the Australian context. Although the self-certification criteria identified by NTC includes a requirement to test their technology for the 'Australian road environment', the benchmark of what is considered safe

and how it is enforced must apply across all vehicles and not be dependent on different approaches taken by manufacturers. A better way of ensuring consistency and certainty for OEM's/ADSE's is for the government to specify minimum standards or requirements that OEM's/ADSE's are required to consider. We will expand on this further below.

In our previous submission on the regulatory options to assure automated vehicle safety in Australia, IAG did not support a self-certification model. Instead we suggested pre-market approval would be the best compromise between safety and costs associated with regulation. Our main reasons for supporting this type of regulation was the necessity of a government regulator creating some sort of safety standard or minimum safety benchmark, rather than this being haphazard and allowing different approach from each OEM/ADSE.

We acknowledge a similar self-certification approach works well for equipment in some industries (i.e. the Defence Force). However, it should be noted that defence technology manufacturing is a small niche industry with small number of purchases with known manufacturers and a reduced chance of 'information asymmetry' between seller and buyer. With vehicles in the consumer market, there is already confusion about what various features mean as there is no standard approach to the naming of systems with increasing levels driver assistance systems (eg 'autopilot' does not mean you can or should take your hands off the wheel, but consumers may infer that you could).

Impact of self-certification as proposed on the insurance industry

The insurance industry monitors and assesses risk on the road in order to offer products that provide protection against that risk to the community. Where there is uncertainty around a risk we need to ensure we have the capital required to meet the costs of potential claims, often long into the future when it comes to bodily injury.

The proposed self-certification regulation creates more uncertainly, there is no minimum standard that would need to be adhered to and based on current information no clearly outlined process for monitoring compliance of ADSE's to their certification requirements.

Although self-certification may appear to meet the cost versus benefit equation, we believe this may have excluded the costs of failure or breach. In addition, the proposed safety assurance regulation impact statement offers no analysis of impact on the personal injury schemes in Australia. Although we acknowledge the NTC plans to explore this further in the next discussion paper pertaining to CTP. Uncertainty around liability and regulation around access to data (which is vital for us to determine liability) will add to our costs per claim, including legal costs to clarify the liability of all parties. There are also flow on effects of our costs and decisions around claims to the broader society including the

NDIS or disability support pension. These costs need to be understood fully in order to make a decision on safety regulation.

Specific comments on proposed self-certification criteria:

As we have stated throughout, we believe self-certification is not a strong enough regulatory approach. However, if this continues to be the path chosen by government we have some additional thoughts on how the proposed safety criteria could be strengthened.

1. Criteria must include how OEM/ADSE will ensure they meet state based road rules and local council bi-rules and how they will make changes as these rules change.

2. A supporting process must be created to independently test the safety of the proposed autonomous technology. As with the above example about AEB and utility vehicles, there may be numerous examples where the AV technology is tested as safe in Europe or USA but in practice is not safe in Australia. In order to ensure safety there needs to be a requirement for these to be independently tested.

3. A system and accompanying legal powers for auditing and monitoring compliance of self-certification. The NTC or other specified regulatory body need to provide detail on how OEM's or ADSE's will be audited and monitored for compliance with their self-certification application. There needs to be more rigorous control here including independent spot checks and audits to ensure compliance.

4. Development of minimum standards to guide the OEM/ADSE's in submitting their documents for self-certification. These standards would also need to be made public so the community (and insurers) have knowledge of minimum safety requirements and can view results of different vehicles/technologies to make informed decisions around safety.

Recommendations

IAG believes the proposed self-certification approach to regulation as proposed could have consequences to safety and community trust, as well as cost impacts that have not been considered by this regulatory impact statement. As such we make the following recommendations for consideration by the NTC:

Recommendation 1: This matter be referred to the Productivity Commission to explore all costs and benefits of a variety of safety assurance systems.

Recommendation 2: NTC explore international approaches more comprehensively. Although mention is made of USA, Europe and UK approaches to safety assurance, a detailed analysis of these options and the publication of this analysis would be useful for the Productivity Commission and for many industries in Australia to understand where Australia should pitch its safety assurance system.

Recommendation 3: Costs and benefits of stricter regulation explored more broadly. Ideally by Productivity Commission, as there are options for this funding outside of government that could meet safety standards and not increase costs for the government. Many regulatory schemes in Australia require co-contribution for regulation (i.e. ASIC's regulation of the financial sector). Funding could come from a number of industries that would be part of the autonomous vehicles network.

Recommendation 4: Should this self-certification model proceed, then minimum safety standards, processes and regulatory instruments for monitoring and auditing compliance must be created. This is necessary for both the manufacture and repair/maintenance of AV's. The level of detail must be public in order to consider true costs vs benefits of regulatory approach.

IAG is very supportive of the NTC's roadmap for reform and agenda to develop an end-to end regulatory system for the safe commercial deployment of automated vehicles in Australia by 2020. However, at this stage we caution that there are risks of exploring this regulation only within transport and believe it is vital to the success of AV technology that this is referred to the Productivity Commission for a wider exploration of the costs, benefits and types of regulation and the range of related industries, including financial services, that will enable AV technology to succeed in Australia.

IAG is available to discuss the above recommendations or answer any further questions in more detail. Please contact Naomi Graham or Louise Kerkham, Manager Public Policy & Industry Affairs on (02) 9292 1206.

Yours sincerely

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