

QUEENSLAND DEPARTMENT OF TRANSPORT AND MAIN ROADS

SUBMISSION FOR CONSIDERATION TO THE: NATIONAL TRANSPORT COMMISSION'S DISCUSSION PAPER REGULATORY OPTIONS TO ASSURE AUTOMATED VEHICLE SAFETY IN AUSTRALIA (JUNE 2017)

In response to the National Transport Commission's (NTC) discussion paper, *Regulatory options to assure automated vehicle safety in Australia* the Queensland Department of Transport and Main Roads (TMR) offers the following submission.

TMR acknowledges government has an important role in setting safety standards for Automated Vehicles (AVs) in Australia. It is also imperative to ensure that these safety standards are uniform across all jurisdictions in the country to not create unnecessary barriers for trials and full deployment of AVs.

In relation to *consultation question 3*, what testing methodology should be adopted to assess and validate automated vehicle safety TMR suggests in the interim period the onus could be placed on the automated driving system entity to demonstrate the methods they have adopted to identify and manage safety risks (option 3). Accordingly, it may be best to defer establishing a testing process until international processes and standards are developed (option 2).

To ensure a safe national approach, TMR suggests that government should adopt a hybrid option that incorporates elements of both self-certification (option 2) and pre-market approval (option 3) in a safety assurance system (SAS) (*consultation questions 5-9*). Under this approach, industry self-certifies that the automated driving system (ADS) is safe, but the lodgement of a Statement of Compliance would be mandatory. Government would have to approve the ADS prior to operation, or before any significant changes to the Operational Design Domain once the vehicle is in service.

TMR considers that a hybrid option is the best regulatory approach as it ensures red-tape does not inhibit innovation and AV deployment, while achieving the timely implementation of sufficient safety controls. It also recognises the difficulty in establishing an AV testing process in the immediate future, until international processes and standards are developed. TMR also notes that the hybrid option supports a transitional approach to a SAS (*consultation question 5*), in that it will facilitate responsiveness to emerging technologies and be an evolving evidence-based approach to vehicle safety.

TMR also considers that the SAS for AVs should establish a safety standard consistent with conventional vehicles (*consultation question 2*). This can be achieved through a Primary Safety Duty to ensure parties are providing safe vehicles. Such a Duty would also underpin the proposed hybrid option. A Primary Safety Duty will also support compliance (*consultation question 12*), requiring vehicle manufacturers to provide safe autonomous vehicles with associated penalties and/or specific sanctions for the automated driving system entity. It is noted however that the compliance framework for AVs needs further consideration.

TMR considers that the SAS hybrid model should apply in addition to the existing vehicle standards system, thus building on existing vehicle safety systems. It is noted that the Australian Design Rules (ADRs) are prescriptive and relate to specific vehicle components. It is assumed, due to the evolutionary nature of AV technology that this prescriptive approach cannot apply to the AV SAS, at least in the short-term. However, alignment of the SAS with the national vehicle standards system will serve to reduce burden on industry, meet the Australian Government's harmonisation policy, and help to ensure that the SAS for AVs is responsive to international regulations and standards. TMR supports the view of the NTC (*consultation question 10*) that specific institutional models be further developed after a regulatory option has been agreed. TMR suggests performance based assessment of AVs through ANCAP/EuroNCAP as a more sustainable way of assessing vehicle imports (this would be in addition to current ADRs). TMR's preferred options are option 1 (the Commonwealth manages automated vehicle safety assurance), option 2 (a national entity (for example, ANCAP) manages automated vehicle safety assurance) or option 5 (a fully commercial, quasi-governmental entity manages automated vehicle safety assurance). These options are preferred on the basis that having one agency responsible for the safety assurance system will facilitate regulatory efficiencies and make it easier for overseas companies to do business in Australia. This will also support one point of truth when it comes to approving road access (*consultation question 11*). An efficient and responsive regulatory framework should not rely on state and territory road managers to approve road network access for AVs. Compliance with the SAS, with associated government approvals, should be sufficient.

A single agency approach will also support alignment with the national current vehicle standards system, and ensure that a national capability is established in assessing the safety of automated vehicles. In turn, this supports a long-term vision that could potentially see the ADRs being amended to include specific automated vehicle requirements, once the technology has stabilised. It is imperative that vehicle manufacturers see Australia as a single market for automated vehicles. The other two options will not achieve a fair, consistent and efficient national approach.

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