



ANCAP
SAFETY

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Att: Automated Vehicle Team
National Transport Commission
Level 3/600 Bourke Street
Melbourne VIC 3000
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Dear Sir / Madam,

The Australasian New Car Assessment Program (ANCAP) welcomes the opportunity to provide a submission to this National Transport Commission (NTC) discussion paper into the regulatory options to assure automated vehicle safety in Australia.

Please find ANCAP's submission to the discussion paper below.

Kind regards,

Mr James Goodwin
CHIEF EXECUTIVE OFFICER

28 JULY 2017

ANCAP Submission to the National Transport Commission (NTC) Regulatory Options to Assure Automated Vehicle Safety in Australia Discussion Paper

Executive Summary

ANCAP is the leading, independent vehicle safety advocate in Australasia. ANCAP provides consumers with transparent advice and information on the level of occupant and pedestrian protection provided by different vehicle models in the most common types of crashes, as well as their ability – through technology – to avoid a crash.

ANCAP is supported by all Australian and New Zealand motoring clubs, the Australian Government, the New Zealand Government, Australian state and territory governments, the Victorian Transport Accident Commission, NRMA Insurance and the FIA Foundation.

ANCAP has a key role in educating consumers about new vehicle technology, promoting the benefits of new technologies and building community confidence in those technologies. With consumer confidence a key factor in the uptake and penetration of autonomous technologies, ANCAP supports regulatory oversight for highly autonomous vehicles in Australia.

ANCAP considers that the commercially available highly autonomous vehicle will arrive as a result of evolution from increasing maturity of lower levels of automation. Currently, there are autonomous technologies available in new vehicles that form the ‘building blocks’ of the highly autonomous or driverless vehicle. The ability to reliably read the road, navigate through a journey and to detect other vehicles, as well as acceptance from users, is necessary before higher levels of autonomy become realistic.

ANCAP’s role is to build consumer, industry and regulator confidence in these technologies so we have a safer community. ANCAP would urge consumers to demand autonomous technology – manufacturers to offer it – and regulators to support it.

ANCAP supports regulation through its independent assessment of vehicles, validating manufacturer’s safety claims. ANCAP has the benefit of being able to react to new and emerging technology faster than regulation and can influence the design and performance of safety features and technologies well ahead of regulation.

At present, it is difficult defining necessary levels of safety for highly autonomous vehicles due to the unknowns surrounding these future vehicles. It is ANCAP’s view that highly autonomous vehicles should be safer than the alternative. That is, as the level of automation in vehicles increases, the safety standards should be a rolling benchmark considering the latest safety standards offered by vehicles with lower levels of automation.

While several regulatory options are proposed in the discussion paper, ANCAP supports a hybrid of the proposed options, with some form of pre-market regulatory approval. National and international consistency must be a key priority to policy and regulatory decisions.

Question 1 - Should government have a role in assessing the safety of automated vehicles or can industry and the existing regulatory framework manage this? What do you think the role of government should be in the safety assurance of automated vehicles?

Government has a role in ensuring that new vehicles supplied to the market meet minimum standards for design and safety. ANCAP considers that this role extends to assure the community of minimum standards for future autonomous vehicles.

ANCAP has a complementary role in supporting regulation through its independent testing process validating safety claims and has the benefit of being able to react to new and emerging technology faster than regulation. This allows for the promotion and penetration into market of safety technologies well ahead of regulation. ANCAP will continue to support regulation in this way as new tests are introduced to assess the effectiveness of autonomous vehicle technologies.

ANCAP's role is to build consumer, industry and regulator confidence in these technologies so we have a safer community. ANCAP would urge consumers to demand autonomous technology – manufacturers to offer it – and regulators to support its introduction.

Question 2 - Should governments be aiming for a safety outcome that is as safe as, or significantly safer than, conventional vehicles and drivers? If so, what metrics or approach should be used?

One of the key drivers for autonomous technology development is the perceived safety benefits. Therefore, it is ANCAP's view that highly autonomous vehicles should have a safety level over and above that of the alternative vehicles and human drivers.

ANCAP believes that the commercially available highly autonomous vehicle will arrive as a result of evolution from the increasing maturity of lower levels of automation. With this in mind, the safety benchmark for increasing levels of autonomy should be a rolling benchmark considering the latest levels of safety offered by new vehicles.

The most serious safety concern ANCAP holds with regards to future highly autonomous vehicles is the mixed fleet, or transition, where for many years there will be vehicles of varying levels of automation interacting on our roads. This is a complex scenario, and coupled with the uncertainty surrounding the future autonomous vehicles, it is currently difficult to define the necessary level of safety.

Where any additional regulatory oversight is introduced to highly autonomous vehicles, the ADRs applicable to that vehicle type must continue to apply. That is, vehicle design and safety standards, such as occupant protection, must continue to apply to highly autonomous vehicles.

Question 3 - Should the onus be placed on the automated driving system entity to demonstrate the methods they have adopted to identify and mitigate safety risks?

ANCAP considers consumer confidence a key element in the acceptance of autonomous technologies. If the onus were placed on manufacturers to demonstrate safety measures, ANCAP considers that a level of independent assessment is required to validate manufacturer/supplier claims in the Australian environment and build consumer confidence.

Question 4 - Are the proposed assessment criteria sufficient to decide on the best safety assurance option? If not, what other assessment criteria should be used for the design of the safety assurance system?

ANCAP considers the proposed criteria sufficient and has no further suggestions.

Question 5 - Should governments adopt a transitional approach to the development of a safety assurance system? If so, how would this work?

ANCAP has no additional feedback.

Questions 6-9 – Combined response.

Question 6 - Is continuing the current approach to regulating vehicle safety the best option for the safety assurance of automated vehicle functions? If so, why?

Question 7 - Is self-certification the best approach to regulating automated vehicle safety? If so, should this approach be voluntary or mandatory? Should self-certification be supported by a primary safety duty to ensure automated vehicle safety?

Question 8 - Is pre-market approval the best approach to regulating automated vehicle safety? If so, what regulatory option would be the most effective to support pre-market approval?

Question 9 - Is accreditation the best approach to regulating automated vehicle safety? If so, why?

ANCAP considers that the most appropriate approach to regulatory oversight for highly autonomous vehicles is likely to be a hybrid of the outlined regulatory options, with some form of pre-market approval.

ANCAP considers consumer confidence a key element in the acceptance of autonomous vehicle technologies. To build consumer confidence, a level of independent assessment is required to validate manufacturer/supplier claims. In a self-certification situation, market surveillance or compliance audit programs may be necessary activities. The cost associated with such activities should be factored into discussions.

Regardless of the chosen regulatory approach, ANCAP will play a role supporting regulation through its independent assessment of vehicles, validating manufacturer's safety claims. ANCAP has the benefit of being able to react to new and emerging technology much faster than many forms of regulation, however ANCAP's coverage of autonomous technologies in the shorter term will be focussed on technologies considered level 1 or 2 more widely available on new light vehicles. It is ANCAP's view that confidence and maturity in these technologies should be built in Australia. Assessments of higher levels of automation will follow in future years, however generally technologies are introduced to the market before ANCAP can make assessments.

In any situation, ANCAP considers national and international consistency a key priority for the regulation of highly autonomous vehicles.

The ANCAP program is used in the Discussion Paper as an example of non-regulatory and market monitoring activities with its independent testing and assessment of vehicle safety. ANCAP acknowledges the recognition of non-regulatory initiatives to achieve positive safety outcomes.

Question 10 - Based on the option for safety assurance of automated vehicle functions, what institutional arrangements should support this option? Why?

ANCAP notes the Discussion Paper acknowledges that the ANCAP model for testing and assessing safety features is considered an example of Option 5. ANCAP supports the concept that institutional models should be further explored once a regulatory approach has been determined.

The Australian Government is well engaged in the international vehicle regulation space and ANCAP considers that national and international consistency should be a priority.

Question 11 - How should governments manage access to the road network by automated vehicles? Do you agree with a national approach that does not require additional approval by a registration authority or road manager?

ANCAP has no advice relating to road access.

Question 12 - How should governments ensure compliance with the safety assurance system?

The ANCAP program is an example of market monitoring activities with its independent testing and assessment of vehicle safety. ANCAP has a process in place for reporting to the Department of Infrastructure and Regional Development any irregularities observed in ANCAP tests that may affect regulatory compliance.