25 June 2024

FORD AUSTRALIA COMMENTS ON THE NATIONAL TRANSPORT COMMISSION'S CONSULTATION ON AUTOMATED VEHICLE SAFETY REFORMS

Ford Motor Company of Australia Pty. Limited (Ford Australia) makes the following comments in response to an invitation from the Department of Infrastructure, Transport, Regional Development, Communications, and the Arts (DITRDCA) and the National Transport Commission (NTC) in relation to its consultation paper on Automated Vehicle (AV) Safety Reforms dated April 2024. We have also provided our input to the Federal Chamber of Automotive Industries (FCAI) in the development of a submission to this consultation on behalf of its members.

Ford Australia is one of Australia's largest direct automotive employers, with a team of engineers, designers, technical and other automotive specialists working at five locations across Victoria. Australian-based engineers and designers lead the development of the Ford Ranger pickup truck, sold in around 180 markets globally, and Ford Everest Sports Utility Vehicle (SUV). This work includes the testing and validation of Automated Driving Systems (ADS) specified for these vehicles. As such, Ford Australia has a particular perspective from which to comment on aspects of the NTC's consultation paper.

General comments on the proposed Regulatory Framework

Ford Australia, with support from globally based colleagues, continues to monitor international forums and developments in the areas of emerging vehicle technology, including Level 3 and higher automated driving technologies. Ford Australia and its parent, the Ford Motor Company, place the user value as the central focus for effective introduction and adoption of these technologies.

Ford Australia notes and echoes the FCAI's response to *Consultation Question 17* in its submission, which addresses potential barriers to the introduction and broadscale commercial deployment of Level 3 and higher AV technologies to the Australian market. As a relatively small automotive market by global standards, it is important that international alignment of the proposed Australian regulatory framework is achieved and subsequently maintained. This includes the technical as well as the broader regulatory settings to ensure they match other global markets into which these higher-level technologies will be first deployed. Domestic market regulation which imposes greater or bespoke obligations than these leading markets may put at risk timely deployment to Australian consumers of increasingly advanced vehicle technologies.

Ford Australia's position on alignment to Global Actions

The Working Party on Automated/Autonomous and Connected Vehicles has developed guidelines to shape future technology-neutral and evidence-based requirements. This includes provision for assessment methods that are objective, repeatable, and reproducible and can adapt as the technology progresses.

It is anticipated that a Global Technical Regulation (GTR) will emerge from of this Working Party's activities, and the NTC and DITRDCA are strongly urged to ensure that any future vehicle, ADS or ADSE regulatory activity includes flexibility for any systems supplied into the local market to comply with these requirements via the expected GTRs. Further, local regulatory activity should not contradict or conflict with these emerging GTRs to ensure that the best globally harmonized automated systems can be deployed rapidly and economically into the Australian market. This will create the most productive outcome possible as this new technology becomes available. Failure to do this may result in Australia, with its relatively small population and extensive road network, being placed at the end of the queue for technology development and deployment, should unique local requirements be implemented. The Working Party has issued guidelines under Informal document GRVA-18-50 at the 18th GRVA in January 2024, and we urge the NTC to draft any future ADS and ADSE regulations with provision for alignment to this and future guidelines from the Working Party as a core principle.

Imperative for Federal-State alignment on road rules

Assisted by the NTC, Australia has an environment where state and territory road agencies can plan and discuss issues related to the harmonization and alignment of local road rules. This principle of alignment must evolve to full consistency and interoperability to enable a future state where Automated Driving Systems work under nationally uniform road rules. This will ensure that that all ADS, regardless of their origin, have an identical set of laws with which to comply, resulting in a significantly better experience for consumers and other road users.

A standardized set of rules, and communication of these to ADS via consistent signage, makes training and education of ADS technologies more straightforward as only one set of rules that apply everywhere need be considered, making the machine learning and adaptation process easier and more effective.

A nationally consistent approach will improve the opportunity for return on the ADSE's investment in developing and training an ADS for a relatively small right-hand drive market like Australia. Consistent road rules across the country will encourage innovation and rapid deployment of the latest technology, allowing introduction of available ADS into a regulatory landscape that is both stable, understood and uniform.

Ford's perspective on Infrastructure Challenges

Australia has unique challenges compared to most countries when it comes to the road system and population concentrations. While heavily urbanized, Australia has an extensive road network covering the vast distances between major cities. This also produces unique opportunities for Australia to benefit from both Automated and Advanced Driver Assistance Systems (ADAS) vehicle technologies. One of the greatest barriers to being able to fully leverage these advantages, however, is the inconsistent and poorly maintained road infrastructure across the country.

With local engineering and design teams, Ford Australia observes these issues first-hand during testing and development of current ADAS technologies. Steering, braking, and speed maintenance assistance features struggle to operate consistently in the current Australian road environment due to variable road design and

implementation, demonstrating that much of Australia's present road network is not ready for higher levels of automation.

Issues such as those outlined below result in vehicles being unable to consistently perform lane keeping and centering functions, which are basic functions that driver-supervised, and unsupervised automated driving systems require.

- Non-standard lane widths
- Inconsistent and unclear lane markings (colors of markings and lines, maintenance of these)
- Road edge Demarcation (inconsistent use of kerbs, lines, and other soft & hard edges)

Of particular concern is lack of adequate road maintenance, meaning that reliability of the infrastructure to support higher levels of automation deteriorates over time.

Current inconsistencies in signage means communicating key information to drivers is also of concern for future automated systems, as it is for the ADAS features operating today. For example, time and location specific speed limits, and the unique and varied manner by which displaying these limits evolve and change, make determination of the local speed limit very challenging. Further, speed limit and other key information is often communicated by ageing or obscured signs which means that key information can be missed and not captured by current systems, pointing to a lack of readiness for more advanced automated technologies. Other unique conditions encountered in Australia such as the use of closely spaced roadside reflectors to demark roadsides can confuse systems designed to detect other vehicles and road users.

This issue will be magnified as automated technologies become available and can impede the adoption of these features that will be increasingly deployed in many developed countries. Addressing this is an essential precursor to ensuring ongoing consumer acceptance and adoption of the current technology, and ultimately higher levels of automation in the future. Unless addressed proactively and in a coordinated way by Australian governments, the future deployment of more advanced technologies will be severely limited.

In addition to these challenges, new and emerging transportation technologies require ongoing spectrum availability in the 5.9 GHz C-ITS band. Securing a 70 MHz bandwidth with sufficient guard bands will be a key enabler for ensuring technologies used overseas can be deployed in Australia.

Ford Australia's view on Early Deployment/Testing of Level 3+ Avs

We recommend that any interim federal measures which may be contemplated in relation to the testing and early deployment of advanced ADS ahead of the Automated Vehicle Safety law (AVSL) taking effect should not impinge on existing state mechanisms for testing and evaluating supervised ADS on local roads. Road authorities can also look to practices and experiences in other jurisdictions, for example, Europe, to assist with their planning for these types of events should they occur prior to the AVSL regulatory framework being enacted.

Closing remarks

Ford Australia urges the NTC and the Department to establish a regulatory framework for ADS that is consistent with international frameworks both in terms of the technical requirements for the systems and the liability framework established. Ford Australia submits that if there are unique requirements for Australia or a more onerous liability framework this will be a disincentive to the introduction of the technology in Australia.