

**Submission
No 15**

REDUCING TRAUMA ON LOCAL ROADS IN NSW

Organisation: Federal Chamber of Automotive Industries

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FCAI Submission in response to NSW Parliament Joint Standing Committee on Road Safety



Federal Chamber of Automotive Industries
Level 1, 59 Wentworth Avenue
KINGSTON ACT 2604
Phone: +61 2 6229 8217
Facsimile: +61 2 6248 7673

Contacts:

Mr. Rob Langridge, Director – Emerging Technologies

Mr. Tony Weber, Chief Executive

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EXECUTIVE SUMMARY

The Federal Chamber of Automotive Industries (FCAI) is the peak industry organisation representing the importers of passenger vehicles, light commercial vehicles and motorcycles in Australia. The FCAI welcomes the opportunity to make this submission to the **NSW Parliament Joint Standing Committee on Road Safety**.

FCAI strongly supports an integrated approach for road safety, involving all factors (road safety management, road infrastructure, road user behaviour, traffic rules' enforcement, and safer vehicles).

FCAI member organisations are at the cutting edge of innovation, according to Boston Consulting Group 2019 "Most Innovative Companies Report", 6 x automotive vehicle manufacturers are in the Top 50 most innovative companies. Vehicle manufacturers are expending extraordinary amounts of money on research and development to commercialise and introduce the latest technologies with advances that will bring quantum changes to the way in which Australians access and operate motor vehicles from both propulsion and safety aspects.

Australia represents 1.1 million sales out of an estimated global production volume of 95 million vehicles in 2018 or around 1%, it is therefore vital that we harmonise with overseas regulations. Global regulators and vehicle manufacturers are working to create standards and importantly timeframes for development and introduction of vehicle technologies that can significantly improve the safety of all road users including vulnerable users. This harmonisation will allow Australia to benefit from the advances occurring as a result of substantial global research and development into this challenging and most difficult area. This harmonisation will allow Australia to benefit from the economics of technological developments for world markets and not be isolated from receiving these latest advances that continue to advance safety. Additionally, Australian drivers will continue to enjoy the benefits of considerable competition that occurs through having one of the most open automotive markets in the world. In line with global regulators there are specific timelines for the introduction of these technologies and Australia should align where possible or appropriate.

Key areas of safer automobile development that will generate this quantum change are as follows;

- Introduction of advanced driver assistance systems – Reduce collision potential.
- Introduction of collision avoidance systems – Avoid collisions.
- Introduction of connected vehicles – Manage vehicles and traffic network to avoid issues.
- Introduction of autonomous vehicle control systems – remove human error potential.
- Improved occupant protection in the event of a crash – minimise injury levels.
- Improved pedestrian / vulnerable road user protection in the event of a crash – minimise injury levels.

To enable these technologies to operate correctly as designed there are requirements to ensure national consistency or standardisation in many areas including;

- Road construction and development.
- General road infrastructure – location, positioning, ISO std etc.
- Connected road infrastructure.

- Communications systems – systems, coverage, latency etc.
- Road rules.
- Governance and regulations surrounding the introduction and use of advanced technologies.

In the context of this inquiry it is vital that all roads including local roads are developed, upgraded and maintained effectively to ensure that vehicles with advanced control and driver assistance systems can operate effectively and thereby contribute substantially to road safety outcomes.

Whilst technology will bring substantial advances to and Australians will undoubtedly derive great benefits from advances in vehicle safety it is important that governments at all levels focus on road user education as a key priority. All users of the road (Drivers, Cyclists, Pedestrians, Personal Mobility Device operators) have a responsibility to consider their role in road safety, not be distracted and to be attentive to the task at hand.

FCAI advocates that education campaigns are an essential tool to change behaviours and that they should be targeting all demographics who either are or will be road users, with the aim of creating long term behavioural change and societal norms.

THE ROLE OF LOCAL ROADS IN ROAD SAFETY AND TRAUMA

FCAI generally recommends that investment into roads and infrastructure should be cognisant of and in line with the value that can be derived from this investment. FCAI recognises that local roads are not the priority for automated vehicles, however the opportunity to upgrade roads and road infrastructure should not be missed at the design, development or redevelopment stage should it be opportune.

With the development and introduction of connected and varying levels of automated vehicles FCAI recommends that governments at all levels commit to an assessment of roads and road infrastructure and develop a long-term prioritised improvement plan to support the introduction of these advanced technologies, naturally the prioritisation should consider traffic volumes, accident history, potential for accidents to occur amongst other factors.

It must be recognized that provision of the necessary public infrastructure will require significant financial investment over a long period of time and will need to be rolled out in conjunction with the introduction of highly and fully automated vehicles as they become developed and available.

FCAI encourages governments at all levels to design, develop and maintain local roads and road infrastructure in line with the objectives of Safe System Principles. Additionally, all roads and road infrastructure need to be assessed to comply with minimum standards required for the future adoption of automated vehicles and a work program be developed and prioritised to;

- Review all local roads to understand which roads meet the minimum requirements to support automated vehicle driving systems.
- Review all local road infrastructure for compliance with the minimum standards required for automated vehicles.
- Develop a prioritised list of roads and road infrastructure that do not currently meet the minimum requirements.

- Local councils need to consider long term budgetary requirements required to upgrade local roads and local road infrastructure based on the assessed level of non-compliance.

FCAI and the international community agree that automated vehicles have great potential to provide a range of significant safety benefits to the Australian community by reducing and removing human error from the driving task. It is estimated that somewhere between 70 – 80% of accidents can be attributed to human error. Reducing human error associated with accidents can only be fully realised if the road and road infrastructure supports the operation of these advanced vehicles. Where the road environment operational domain is insufficient to support this advanced vehicle operation road safety gains will be less than ideal.

THE EFFECTIVENESS OF EXISTING ROAD SAFETY PLANNING REQUIREMENTS, INCLUDING IN OTHER JURISDICTIONS

FCAI encourages local governments to ensure that all roads and road infrastructure meets the requirements of Safe System Principles and is developed and maintained in line with nationally defined standards. It is important from an advanced vehicle perspective that road construction, marking and road infrastructure is nationally consistent to support future automated vehicle systems. FCAI recommends that NSW government refers to the following Austroads publications;

- Harmonisation of Pavement Markings and National Pavement Specification¹
- Implications of Traffic Sign Recognition (TSR) Systems for Road Operators²

OPPORTUNITIES FOR IMPROVING ROAD SAFETY PLANNING AND MANAGEMENT ON LOCAL ROADS, INCLUDING THROUGH LOCAL GOVERNMENT ROAD SAFETY PROGRAM AND COMMUNITY STRATEGIC PLANNING

FCAI encourages NSW government to expand the criteria for road safety project funding to clearly identify the need to ensure that any roads currently being developed or redeveloped comply with national guidelines for automated vehicle operations whilst ensuring safe system principles are followed. Taking this action at a development stage will future proof roads so that the undoubted advantages of these safer vehicles can be realised. FCAI is of the view that the nationally harmonised guidelines developed and issued through Austroads should be adopted in all jurisdictions.

¹ <https://austroads.com.au/publications/asset-management/ap-r578-18>

² <https://austroads.com.au/publications/connected-and-automated-vehicles/web-r580-18>

THE ROLE OF LOCAL COMMUNITIES AND THEIR REPRESENTATIVES IN IDENTIFYING AND DELIVERING ROAD SAFETY INITIATIVES TO REDUCE ROAD TRAUMA ON LOCAL ROADS

FCAI supports local communities who generally have strong local knowledge in assisting authorities in general with road safety initiatives.

OTHER RELEVANT MATTERS

Whilst technology will bring substantial advances to, and Australians will undoubtedly derive great benefits from advances in vehicle safety, it is important that governments at all levels focus on road user education as a key priority. All users of the road have a responsibility to consider their role in road safety, not be distracted and to be attentive to the task at hand.

FCAI advocates that education campaigns are an essential tool to change behaviours and that they should be targeting all demographics who either are or will be road users, with the aim of changing societal norms.

Local governments role is important at a grass roots level in assisting to educate local communities to their role in road safety regardless of their participation. This applies to all road users; Drivers, Cyclists, Pedestrians and Personal Mobility Device operators. Each user of the road surface has a responsibility to be attentive to the needs at hand, not being distracted by technology or other means.

Areas of interaction between various road user types raise inherent safety issues requiring a safe systems approach as well as using education as a vital component of improving overall road safety.

CONCLUSION

The design of vehicles on the road is one of the important factors in road safety. Modern vehicles are much safer than the ones they have replaced over time. Under similar accident conditions, occupants or other road users are much more effectively protected with modern vehicles compared to older models.

Vehicle Manufacturers are fitting an increasing array of Advanced Driver Assistance Systems that enables vehicles to avoid the accident or at least minimise the impact forces, such as autonomous emergency braking (AEB), Lane Departure Warning (LDW) Lane Keep Assist (LKA) and Speed Assistance Systems (SAS). Many of these systems rely on nationally uniform road markings and consistent road infrastructure that is maintained correctly to allow vehicle imaging and detection systems to have a clear uninterrupted view. Local council have a large role to play in ensuring local roads & infrastructure being designed, developed and maintained meet nationally agreed standards as defined by Austroads.

There is continuing research by vehicle manufacturers to develop automated vehicle control systems designed to reduce or eliminate human error as a factor in road accidents. Where the accident cannot be avoided, new vehicles can mitigate the impact speeds whilst providing ever increasing levels of protection for the occupants. These advances will progressively be incorporated into vehicles substantially improving road safety outcomes over time where the necessary road and infrastructure supports.

FCAI recommends an integrated approach for road safety, involving all factors (road safety management, road infrastructure, road user behaviour, traffic rules' enforcement, and safer vehicles).

Road safety is a complex phenomenon, depending on lots of different factors and interactions. Vehicle technology is one piece of the puzzle, equally important factors are the behaviour of drivers and other road users, the maintenance and design of road infrastructure, traffic rules and their enforcement, as well as vehicle fleet age and composition, to name a few.

Road safety requires an integrated safe system strategy that focuses on three pillars – safe vehicles driven by safe drivers on safe roads.

Best regards

Rob Langridge

Director – Emerging Technologies

