
FCAI Submission in response to Joint Select Committee on Road Safety



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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 **Joint Select 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). Such an integrated approach is essential and must not be contradicted by attempts to single out individual factors in isolation and applies to all road users.

FCAI member organisations are at the cutting edge of innovation, according to Boston Consulting Group 2019 Most Innovative Companies Report¹, 6 x 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% and in fact the largest selling vehicle in the Australian market has sales of only 50,000 annually, 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. By harmonising our Australian Design Rules with UN regulations, Australia will be able to benefit from the economic development of technologies 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 automated 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.

¹ <https://www.bcg.com/en-au/publications/2019/most-innovative-companies-innovation.aspx>

- Improved powertrains that reduce or eliminate noxious gas emissions that contribute to air pollution and associated health outcomes (the hidden road toll).

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

- Road development, construction and maintenance;
- General road infrastructure;
- Connected road infrastructure;
- Road rules;
- Governance and regulations surrounding the introduction and use of advanced technologies;
- Provision of advanced powertrain technology refuelling infrastructure (Electric Vehicle Charging and Hydrogen refuelling).

The average age of the Australian vehicle fleet has been increasing and is now estimated at 10.2 years². New vehicle sales at December 2019 have seen 20 consecutive months of decline due to several economic and confidence factors. If new advanced vehicle technologies are to have a more immediate and significant effect on Australia's road toll, governments at all levels will have to consider what policy measures may be required to;

- a) remove barriers to new vehicle purchases and;
- b) encouraging existing owners to choose newer safer vehicles.

At an average age of over 10 years, based on mandatory fitment, new vehicle technology advances will only penetrate the market to approximately 50% after 10 years.

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 – similar to the successes of the 0.05% Blood Alcohol Campaign which has arguably achieved long term societal behaviour change.

Given that there is almost universal agreement that automated vehicles will be significantly safer than non-automated vehicles, there should be no requirement to increase the obligations and liability risks facing manufacturers of automated vehicles.

There is a hidden road toll that results from the negative health effects of air pollution. Globally the motor vehicle industry is rising to this challenge developing advanced Low and Zero Emission Vehicles (LZEV) such as hybrid vehicles, electric vehicles and hydrogen fuel cell vehicles. These vehicles can significantly reduce air pollution particularly in city and urban environments.

² National Road Safety Strategy <https://www.roadsafety.gov.au/performance/measures>

THE EFFECTIVENESS OF EXISTING ROAD SAFETY SUPPORT SERVICES AND PROGRAMS, INCLUDING OPPORTUNITIES TO INTEGRATE SAFE SYSTEM PRINCIPLES INTO HEALTH, EDUCATION AND TRANSPORT POLICY

The effectiveness of road safety support services is best judged by undertaking a gap analysis of current arrangements as well as through benchmarking from countries that have achieved worlds best practice. FCAI recommends that reviews should be undertaken of the following reports which can inform and guide development of Australia's next road safety action plan;

- a) International Transport Forum – Road Safety Annual Report 2019
- b) European Transport Safety Council 5th EU Road Safety Action Plan 2020-2030

In relation to transport policy, FCAI supports the incorporation of Safe System principles being incorporated into all government fleet purchasing policies subject to a fitness for purpose test (fit for purpose which remains a priority for certain fleets).

The stated aim of ANCAP star ratings is to assist consumers purchase safer vehicles. However, the requirements to achieve each star rating has increased substantially over time, with updated (and more stringent) protocols announced every two years. This process means a vehicle that achieved a five-star rating within the last two years could achieve a significantly lower rating if evaluated against current protocols. Consumers must be educated on the relativity between year ratings to enable them to make informed decisions when purchasing older or used vehicles. Many consumers believe that an older five star rated vehicle is just as safe as a recently rated five-star vehicle which is incorrect, leading to poor consumer decisions on safest vehicles.

In respect of the automated vehicle development, the FCAI has provided a submission to the National Transport Commission (NTC) Regulatory Impact Statement (RIS) on in-service safety specifically in relation to automated vehicle control systems refer to:



FINAL FCAI

submission to NTC RI

In summary, FCAI and the international community agree that automated vehicles have the greatest 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. These benefits should be maximized by ensuring that the manufacturers (overseas) of automated vehicles do not face local impediments to entering the Australian market as soon as possible.

One of the potential impediments is implementing a regulatory regime that imposes additional obligations on manufacturers of automated vehicles and exposes them to additional liability. It goes without saying that automated vehicles need to be safe and if there was a need to make significant changes to the current regulatory regime in Australia to ensure this, then that would be completely acceptable. There is however, no such need.

There are two aspects to consider when looking at the safety of automated vehicles. The first, is to ensure that the vehicles, as supplied are safe. The second is to ensure that automated vehicles operate safely - that is, they comply with the Road Rules.

The first is more than adequately covered by the existing Australian Design Rules and the Australian Consumer Law.

The FCAI recognizes that the Road Rules, with their focus on the 'driver', raises issues in the context of automated vehicles and this requires substantially more work internationally and in Australia to find the most appropriate solution.

Given that there is almost universal agreement that automated vehicles will be significantly safer than non-automated vehicles, there should be no requirement to increase the obligations and liability risks facing a manufacturer of automated vehicles.

THE IMPACT OF ROAD TRAUMA ON THE NATION, INCLUDING THE IMPORTANCE OF ACHIEVING ZERO DEATHS AND SERIOUS INJURIES IN REMOTE AND REGIONAL AREAS

The global motor vehicle industry recognises that whilst motor vehicles contribute positively to societies in many ways, road trauma from accidents has an unacceptable human, economic and social cost for our societies. Vehicle manufacturers acknowledge that they cannot readily influence all parameters involved in road safety and that their direct responsibility is with vehicle design and safety performance. FCAI however cautions that focusing only on new vehicles' specifications totally disregards the need to accelerate the renewal of the vehicle fleets, which in Australia is steadily increasing to 10.2³ years and certainly much older than best practice being achieved in some areas of Europe and Asia; it also disregards the sometimes very specific local conditions for road and repair infrastructure, road user behaviour, and traffic composition.

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. This improvement is due to continual advances in research that have led to changes in design from the vehicle structure, enhancing energy absorption capabilities, to specific occupant protection systems such as increasingly sophisticated safety restraint systems and airbags, etc.

Not only do modern vehicles perform much better in case of an accident, they are also much better equipped to avoid the accident altogether. Through advances in crash avoidance technology vehicles are increasingly able to provide driver warnings, maintain control, effectively brake, remain in a lane and provide effective lighting of roadways to help reduce the risk and severity of an accident.

THE POSSIBLE ESTABLISHMENT OF A FUTURE PARLIAMENTARY STANDING COMMITTEE ON ROAD SAFETY AND ITS FUNCTIONS

FCAI welcomes the introduction of a future parliamentary standing committee on road safety where this committee provides an opportunity for organisations to participate in policy making and to have their views placed on the public record and considered as part of the decision-making process.

This committee should have an important role in:

- ensuring that there is National consistency of regulations applying to vehicles, drivers, roads and road infrastructure.
- Effective coordination between all departments, agencies and stakeholders.

³ National Road Safety Strategy <https://www.roadsafety.gov.au/performance/asures>

- gathering the necessary expertise to gain a full understanding of all the roles required for a safe road transport environment.
- Ensuring international harmonisation and consistency with UNECE regulation timetables.

MEASURES TO ENSURE STATE AND TERRITORY AND LOCAL GOVERNMENT ROAD INFRASTRUCTURE INCORPORATES THE SAFE SYSTEM PRINCIPLES

FCAI encourages governments at all levels to ensure that all roads and road infrastructure meets the requirements of Safe System Principles. All roads and road infrastructure need to be assessed to comply with minimum standards required for the future adoption of semi-automated and automated vehicles and a work program be prioritised to develop or upgrade as required. Naturally any Commonwealth funding should specify the obligations ensuring nationally consistent and uniform requirements are met.

ROAD TRAUMA AND INCIDENT COLLECTION AND COORDINATION ACROSS AUSTRALIA

FCAI supports detailed nationally consistent data collection that can be used to target road safety improvement measures. It may be instructive to consider the International Traffic Safety Data and Analysis Group (IRTAD)⁴ recommendations concerning the aggregation of police crash reports with hospital injury records utilising the Maximum Abbreviated Injury Score of 3 or more (MAIS 3+). Following these guidelines, a complete picture of the societal and health impacts from road accidents would emerge allowing a more complete assessment of the impact of road trauma. This data should be made readily accessible to enable stakeholders to analyse, review and identify opportunities for improvement.

RECOMMENDING STRATEGIES, PERFORMANCE MEASURES AND TARGETS FOR THE NEXT NATIONAL ROAD SAFETY STRATEGY

FCAI considers that the Safe Systems approach is still very relevant as it covers all the elements that contribute to National Road Safety outcomes; however, we recommend that a gap analysis be undertaken to identify areas for future improvement through specific targeted policies and actions. The following comments will be confined to the areas that the FCAI considers where vehicle manufacturers can improve road safety outcomes.

Newer vehicles are safer vehicles, the average age of the Australian vehicle fleet has been increasing and is now estimated at 10.2 years. New vehicle sales at December 2019 have seen 20 consecutive months of decline due to several compounding economic and confidence factors. If new advanced vehicle technologies are to have a more immediate and significant effect on Australia's road toll, governments at all levels will have to consider what policy measures may be required to remove barriers to new vehicle purchases, whilst encouraging existing owners to choose newer safer vehicles. At this average age, based on mandated fitment, new vehicle technology advances will only penetrate the market at a rate of 5% per year or reach just under 50% after 10 years and therefore have negligible immediate effect.

⁴ <https://www.itf-oecd.org/road-safety-annual-report-2019>

New technologies when first introduced are generally expensive to design, develop and produce, they are initially made available on vehicles where the price point can accommodate the cost to introduce these advances. As acceptance increases, manufacturers make these advanced safety technologies available on lower specification vehicles as the benefits of mass production economies of scale permit the adoption on these lower priced vehicles.

In the era of rapid technological development, the Federal Luxury Car Tax (LCT) is an anachronistic and unwarranted tax that increasingly limits consumers capability to afford vehicles that have advanced safety and driver assistance systems. The LCT is simply a tax on technologies that ultimately benefit consumers and lead to better safety and environmental outcomes. The Henry Tax Review identified that the Federal LCT fails to meet any of the five underlying taxation principles: equity, efficiency, simplicity, sustainability and policy consistency.

Australia has a 5% import duty which applies to new vehicles that are not imported from countries that Australia has negotiated Free Trade Agreements (FTA's) with. Motor vehicle manufacturing ceased in Australia in October 2017 and with no industry to protect, this duty should be removed.

Approximately one quarter of new vehicle buyers are penalised by 5 per cent import duty, which for most vehicles affected exceeds well over \$1,000 per vehicle. Any vehicles that are built in countries with which Australia does not have a free trade agreement are subject to the duty. There is no logical policy rationale to discriminate one vehicle import source against another and again these types of impost especially on the lower priced vehicles have a direct correlation to the safety specification levels that can be affordably incorporated.

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

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Whilst technology will bring substantial advances to and undoubtedly Australians will 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 – similar to the success of the 0.05% Blood Alcohol Campaign which has arguably achieved long term societal behaviour change.

RECOMMENDATIONS FOR THE ROLE OF THE NEWLY ESTABLISHED OFFICE OF ROAD SAFETY

The Office of Road Safety should provide national leadership in eliminating road trauma in Australia. The Office should operate as the primary policy advisor to the federal ministers for road safety on matters related to delivering safe roads, vehicles, speeds, and people, and should draw together interdisciplinary expertise and experience to learn, share and channel effort towards proven approaches to reducing national road trauma.

It should aim to work collaboratively with counterpart agencies across the states and territories, as well as expert agencies such as NTC and Austroads with a primary aim of ensuring National consistency.

It should also draw on the expertise of Industry who can assist with aspects of relevant road safety.

It should actively seek partnerships to develop and prioritise proposals that achieve these reductions and to work with stakeholders to develop these partnerships.

The Office of Road Safety should ensure that there is effective structure that ensures coordination between all areas involved in improving road safety outcomes.

- Develop & recommend national standards for accident reporting;
- Develop & recommend national standards for serious injury reporting;
- Promote UNECE guideline harmonisation, developing initiative introduction local timetables considering UNECE introduction timelines;
- Collect and analyse accident and exposure data and publish;
- Promote actions to encourage developments in road safety that encompasses all actors involved (e.g. Software for nomadic devices used in vehicles, regulations to govern use of personal mobility devices);
- Encourage best practice across all States and Territories;
- Nationally consistent road laws;
- Label unsafe roads, road equipment and vehicles;
- Identify unsafe behaviours across all road users;
- Develop a Long Term (LT) road safety strategy action plan with Short Term (ST) focus areas;
- Monitor the plan, evaluate, review and publish routinely (at least quarterly)
- Work with Stakeholders to identify and fund prioritised road safety research projects in conjunction with international efforts;
- Work with States and Territories to provide increasingly complex operational domains to support the testing and validation of automated vehicles with appropriate liability shields to facilitate Australian specific validation;
- Share the results of our findings internationally.

OTHER MEASURES TO SUPPORT THE AUSTRALIAN PARLIAMENT'S ONGOING RESOLVE TO REDUCE INCIDENTS ON OUR ROADS, WITH A FOCUS ON THE RECOMMENDATIONS FROM THE INQUIRY INTO THE EFFECTIVENESS OF THE ROAD SAFETY STRATEGY 2011-2020

Create strong national leadership by appointing a cabinet minister with specific multi-agency responsibility to address the hidden epidemic of road trauma including its impact on the health system.

FCAI agrees with a national approach that creates a consistent uniform direction that is agreed and implemented by the States; vehicle manufacturers design and manufacture vehicles based on national rules and regulations, any individual state variations are likely to restrict vehicles or the technologies made available to Australians with a consequent negative impact on safety technologies made available.

The roles and responsibilities of various road safety related organisations must be clearly delineated to avoid duplication or overlap and most importantly gaps in responsibilities; Department of Transport, Office of Road Safety, NTC, TIC etc.

Establish a national road safety entity reporting to the cabinet minister with responsibility for road safety.

FCAI understands this has been implemented with The Office for Road Safety.

Commit to a minimum \$3 billion a year road safety fund

FCAI considers that investment in road safety is vitally important if Australia is to meet challenging targets in reducing Trauma on Australian roads.

Automotive manufacturers are investing substantially in technologies targeted at safer vehicles. Connected and automated vehicles have the potential to reduce or avoid accidents by minimising the potential for human error and in the event of an unavoidable accident these modern vehicles far better protect the occupants.

Connected and automated vehicles require considerable testing and validation to assess operation and align safety systems with Australian unique operating conditions – these programs involve coordination between manufacturers, transport agencies, governments and researchers. Funding for these projects to develop systems that are compatible with the Australian environment will be essential.

Set a vision zero target for 2050 with an interim target of vision zero for all major capital city CBD areas, and high-volume highways by 2030.

Visionary targets are essential to align all stakeholders to the tasks at hand; however, Australia needs to reference global automotive development timetables and consider local introduction timetables appropriate for the Australian market given that Australia is now an automotive technology taker.

Adopting a vision zero for CBD target needs to ensure that there is a broad agenda covering all road users and certainly improved measures to prevent especially vulnerable road user groups such as cyclists, personal mobility device users and pedestrians to be aware of their

responsibilities in using the roadway. Whilst distracted driving is certainly an issue, so too is distracted use of the road by vulnerable road users especially through technology.

It may be necessary to consider whether portable entertainment devices are encouraged or regulated to incorporate technological solutions that make the user aware of for example; pedestrian road crossings.

Particularly in CBD and high traffic suburban areas the question of how to regulate and enforce Personal Mobility Devices (PMD) nationally needs to be considered. These devices have significant potential to minimise congestion and provide potentially carbon neutral transport being an opportunity that requires appropriate measures introduced to ensure the safe operation and integration with other mobility solutions.

In conjunction with the rapid development of connected vehicles, it will be necessary for governments and responsible authorities to invest and introduce the public infrastructure required to facilitate operation of these vehicles and realise positive road safety outcomes.

Education and enforcement of all road users – Drivers / Pedestrians / Cyclists / PMD Operators will be necessary to improve all road user's behaviour and therefore drive safety initiatives and outcomes.

Establish and commit to key performance indicators in time for the next strategy that measure and report how harm can be eliminated in the system, and that are published annually.

FCAI agrees that all stakeholders should convene to develop the next set of KPI indicators to drive improvement. Granularity of these KPIs is necessary to enable them to be used to drive forward improvement activities.

FCAI suggests that reviewing performance indicators reported more regularly than annually would be far more advantageous for all stakeholders both from an improvement perspective as well as an overall communication aspect.

Undertake a National Road Safety Governance Review by March 2019.

FCAI understands that that this has already been conducted.

Implement rapid deployment and accelerated uptake of proven vehicle safety technologies and innovation.

Australia represents 1.1 million sales out of an estimated global production volume of 95 million vehicles in 2018 or around 1% and in fact the largest selling vehicle in the Australian market has sales of only 50,000 annually, 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. By harmonising our Australian Design Rules with UN regulations, Australia will not be isolated from receiving these latest advances in vehicle technology 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.

The first initiative that governments need to undertake is to review of the broad suite of policy measures that are contributing to Australia's growing average vehicle age which is now well over 10 years of age.

At a Federal level removing the anachronistic Luxury Car Tax (LCT) should be an absolute priority. The LCT effectively taxes safety features on even modestly priced vehicles such as the Toyota Landcruiser. With the Australian dollar purchasing power diminishing against the Yen / Euro / USD / Won – our principal automotive trading partners, combined with a declining automotive market has meant that some emerging safety technologies can only be specified in higher specification vehicles and even those owners are paying dearly for the privilege.

Approximately one quarter of new vehicle buyers are penalised by 5 per cent import duty, which for most vehicles affected exceeds well over \$1,000 per vehicle. Any vehicles that are built in countries with which Australia does not have a free trade agreement are subject to the tariff. There is no logical policy rationale to discriminate one vehicle import source against another and again these types of impost especially on the lower priced vehicles have a direct correlation to the safety specification levels that can be incorporated.

A number of Australian States have commenced levying higher duties on vehicles over certain threshold values and in all cases, these are applied not just to the base price of the vehicle but to the base vehicle price plus the GST plus the LCT and any dealer fitted accessories – tax on a tax, again this is in direct contradiction to encouraging Australians to drive the safest vehicle possible.

Governments also need to consider a range of policies that can encourage private owners to adopt more modern vehicles. Older vehicles do not perform as well as newer vehicles in occupant protection increasing the risk of serious injury, disablement and death. Older vehicles are typically not fitted with Advanced Driver Assistance Systems that can firstly avoid accidents occurring or minimise the impact severity of accidents. Governments could also consider whether vulnerable road users should be encouraged through policies to drive safer vehicles as the research shows that they are the group that have the poorest road safety outcomes.

Governments should consider a range of policies that encourage businesses to ensure that their employees are driving the safest possible fit for purpose vehicles. Enhancing all businesses understanding of employer occupational health and safety obligations as well as general business incentives to encourage vehicle changeover to fit for purpose safer more modern vehicles would be advantageous in accelerating the adoption of safer vehicle technologies. Encouraging business and government fleets to regularly update also means that more modern vehicles enter the used vehicle market at pricing levels that some used vehicle consumers may be able to afford – accelerating a reduction in the average vehicle age.

FCAI recommends that governments need to consider developing a set of industry standards for portable and nomadic devices to prevent inappropriate use by a driver whilst in the automotive environment. Inappropriate use has been shown to result in drivers becoming distracted and inattentive to the needs at hand increasing the likelihood of an accident. Consideration should be made for ensuring that aftermarket hardware and software providers

for in vehicle entertainment systems comply with a set of standards that is consistent with what vehicle manufacturers do.

The FCAI has been a party to the development and supports the introduction of the *Road Vehicle Standards Act (RVSA)* as contemporary legislation which facilitates the importation, certification and provision to market of new motor vehicles replacing the *Motor Vehicle Standards Act* that has been operational basically unchanged since 1989.

However, FCAI is concerned that the proposed arrangements disproportionately favour the concessional, low volume vehicle importation schemes and provide the potential for large scale, parallel importation of new and used vehicles designed for other markets outside official brand channels. Compliance with the Australian Consumer Law. As recently identified in light of the recent Takata airbag recall, there is evidence in the Australian market that owners of these vehicles struggle to get the importers to meet their recall obligations. In many cases the importers no longer exist and even when they do their capacity to obtain recall parts outside of established parts replacement channels is limited. This of course results in substantial safety implications for these owners.

Accelerate the adoption of speed management initiatives that support harm elimination.

From purely an in-vehicle technology perspective, vehicle systems are increasingly capable of informing drivers of speed restriction compliance through road sign recognition capabilities. This technology requires road infrastructure to be installed in line with national guidelines, be maintained to ensure that vehicle sensors and cameras have a clear uninterrupted view of the speed signs to enable consistent operation. In general, FCAI recommends that where regulations are required for technology enhancements these need to be considered according the timetables agreed between the manufacturers and the UNECE, and then determine a local introduction timetable that vehicle manufacturers can plan for in a nationally consistent manner.

Invest in road safety focused infrastructure, safe system and mobility partnerships with state, territory and local governments that accelerate the elimination of high-risk roads.

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.

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 develops a long-term prioritised improvement plan to support the introduction of these advanced technologies.

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 increasingly automated vehicles as they become developed and available.

Make road safety a genuine part of business as usual within Commonwealth, State, Territory and Local governments.

All levels of government should have fleet purchasing policies that should reflect most recent safer vehicles that are fit for purpose.

All road and road infrastructure projects should consider road safety principles in the prioritisation, design and construction.

NOMADIC DEVICE AND SOFTWARE TECHNOLOGY

It is vital that all mobile and wearable devices as well as software designed to operate in automotive environments e.g. Apple Car Play™ / Android Auto™ etc. are developed embodying the same principles that are applied and used in developing vehicle designs to eliminate or minimise the potential for driver distraction when used in a vehicle application.

FCAI supports any activities that improves mobile, wearable devices and software designed to operate in automotive applications and facilitates safer interactions through standards development processes. Currently these devices and software solutions are largely unregulated from an automotive perspective.

There are no industry or government guidelines currently in effect. However, FCAI understands that the National Highway Transportation Safety Authority (NHTSA) in the United States is attempting to develop such guidelines which may provide some guidance.

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 automated emergency braking (AEB), Lane Departure Warning (LDW) Lane Keep Assist (LKA) and Speed Assistance Systems (SAS). In addition, vehicle manufacturers are developing and deploying other driver assistance and warning systems (e.g. adaptive cruise control, following distance warning, blind spot monitoring) that are intended to operate in the background as well as to attract the attention of the driver.

In addition, vehicle manufacturers are continuing to research and develop both connected and automated vehicle control systems designed to reduce or eliminate human error as a factor in road accidents.

These advances will progressively be incorporated into vehicles substantially improving road safety outcomes if appropriate policies and regulations are developed in support.

Advanced powertrains have the potential to significantly reduce vehicle emissions, contributing to a cleaner climate along with associated improved health outcomes should the right range of policy measures be implemented to facilitate consumer adoption.

Of course, the changeover over the vehicle fleet is a slow process and to realise the undoubted benefits will require policy settings that encourage the removal of barriers that currently exist in the Australian market.

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). Such an integrated approach is essential and must not be contradicted by attempts to single out individual factors in isolation and applies to all road users.

FCAI strongly supports governments working in conjunction with the UNECE World Forum for Harmonisation of Vehicle Regulations to ensure international regulation development can be incorporated into Australian Design Rules (ADR). This harmonisation allows Australians to benefit from multi-jurisdictional global safety technology that has been developed for the global community.

Road safety is a complex phenomenon, depending on lots of different factors and interactions. Vehicle technology is just 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.

Focusing on one of these factors in isolation while neglecting others, will not yield the greatest benefits to society. Road safety requires an integrated safe system strategy that focuses on three pillars – safe vehicles driven by safe drivers on safe roads.

Kind regards

Rob Langridge

Director – Emerging Technologies