FCAI Submission to The Office of Road Safety - New National Road Safety Strategy 2021 to 2030.

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EXECUTIVE SUMMARY

The new **National Road Safety Strategy 2021 ~ 2030** (NRSS) is an important initiative which has the full and unreserved support of the Federal Chamber of Automotive Industries (FCAI).

The automotive industry in general, and the FCAI membership specifically has and continues to make significant contributions towards improved vehicle safety in Australia providing advanced technologies and innovations to market in advance of and exceeding minimum regulatory standards or non-regulatory processes. It is most often this industry driven innovation that provides technologies driving regulation rather than vice versa.

FCAI strongly supports a Safe Systems approach for road safety in general and the NRSS specifically. This integrated approach involves all factors including road safety management, road infrastructure, road user behaviour, traffic rules' enforcement, and safer vehicles. Such an approach is essential and must not be contradicted by attempts to single out individual factors in isolation and applies to all road users.

Key areas of contemporary vehicle development that can significantly improve the safety of all road users including vulnerable users and can therefore contribute positively to the NRSS include; advanced driver assistance systems, collision avoidance systems, connected vehicles, automated vehicle control systems, improved occupant protection, improved pedestrian / vulnerable road user protection.

Vehicle manufacturers and global regulators are collaborating to develop and introduce standards and regulations for these vehicle technologies. Harmonising Australian Design Rules (ADRs) with United Nations (UN) vehicle regulations enable Australia to benefit from the development of technologies for international markets and not be prevented from receiving technologies that advance vehicle safety.

To enable these vehicle technologies to operate effectively and efficiently as designed, national consistency across several key areas is essential and these include:

- Road development, construction and maintenance;
- General road infrastructure and connected road infrastructure;
- Road rules;
- Road signs;
- Governance and regulations surrounding the introduction and use of advanced technologies;

The increasing age of the Australian vehicle fleet is a barrier to reduction of road trauma in Australia. The NRSS should consider strategies to remove barriers to new vehicle purchases and encourage existing owners to purchase newer, safer vehicles.

Whilst Australians will derive benefits from advances in vehicle safety, road user education is also an important key factor and should be a priority in the NRSS. All users of the road have a responsibility to consider their role in road safety, not to be distracted and to be attentive to the task at hand.

Automated vehicles will be significantly safer than non-automated vehicles. Barriers to their entry into the Australian market, such as the world's first Executive Officer Liability proposed by the National Transport Commission (NTC), should be minimised.

BACKGROUND

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 **Office of Road Safety** concerning the new **National Road Safety Strategy (NRSS) 2021 to 2030.**

FCAI believe that this strategy should be focussed, data driven and results based taking the learnings from the current NRSS set to finish in 2020 to ensure the greatest possible benefits from the very large investments that will be made by all parties, government, industry and consumers towards the new NRSS implementation.

FCAI strongly supports a Safe Systems 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 compromised 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 Report[1], 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 represented 1.06 million sales out of an estimated global production volume of 92 million vehicles in 2019 equating to around 1% and the largest selling vehicle in the Australian market has sales of only 50,000 annually. Given the size of the Australian market in comparison to other markets, it is vital that we harmonise with overseas regulations. Global regulators and vehicle manufacturers are working to create standards for the development and introduction of vehicle technologies that will significantly improve the safety of all road users including vulnerable users. This harmonisation will allow Australia to benefit from the advances in vehicles, resulting from substantial global research and development into this challenging and most difficult area.

By harmonising our Australian Design Rules with UN ECE vehicle 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.

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

- 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 crash event – minimise injury levels.

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 and connected road infrastructure;
- Road rules;
- Road signage;
- Governance and regulations surrounding the introduction and use of advanced technologies.

The average age of the Australian vehicle fleet has been increasing and is now estimated at 10.2 years[2]. New vehicle sales at June 2020 has seen 27 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) encourage 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. A perverse outcome of recent changes to the Speciality and Enthusiast Vehicle Scheme, which under ministerial discretionary provisions provides the avenue for uncontrolled foreign market imports; is that older generation vehicles will continue to be available after new vehicle importers cease full volume import, via Government concession. Such policy changes contradict the aims of such initiatives as the new National Road Safety Strategy.

Whilst 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 there is almost universal agreement that automated vehicles will be significantly safer than non-automated vehicles in the future, there should be no requirement to increase the obligations and liability risks facing manufacturers of automated vehicles such as adding Executive Officer Liability (proposed by NTC and agreed by the Transport Infrastructure Council (TIC) at their June 2020 meeting). The NTC has been advised by several automotive CEOs that this measure will restrict and prevent

[2] National Road Safety Strategy https://www.roadsafety.gov.au/performance/measures

automated vehicle technologies being introduced into the Australian market with a consequential impact on road safety.

VISION ZERO AND THE SAFE SYSTEM APPROACH

FCAI strongly supports a holistic vision for road safety and an ambitious goal of zero death and serious injury. FCAI supports the Safe Systems approach for road safety in general and the NRSS in particular. It is essential that all factors, road safety management, road infrastructure, road user behaviour, traffic rules' enforcement and safer vehicles are included. Such an integrated approach must not be compromised by attempts to single out individual factors in isolation and should apply to all road users.

In recognition of this safe systems approach, automotive manufacturers have long worked individually and collaboratively, undertaking substantial research and development to develop vehicle safety systems that improve outcomes for vehicle occupants and vulnerable road users. The improvements in recent times have resulted in substantially positive outcomes through the installation of passive and active safety systems.

Advanced Driver Assistance Systems (ADAS) in particular, increasingly recognise that humans make mistakes and, wherever possible, follow the principles of:

1. Alerting the operator to take evasive or appropriate action
2. Applying systems to avoid impacts or loss of control during evasive manoeuvres.
3. Where an impact is unavoidable, to minimise the severity of the impact.

In addition, modern vehicles are continuously improving crash impact absorption systems as well as passenger restraint and protection systems, ensuring that modern vehicles are very much safer than older vehicles in avoiding accidents as well as protecting road user in the event of an accident.

INFRASTRUCTURE PLANNING AND INVESTMENT

Objective: Focus on planning and design, influence land use and transport planning to ensure investment improves safety outcomes. Address road trauma at intersections through design and operations.

FCAI encourages governments at all levels to ensure that all roads and road infrastructure meet the requirements of Safe System Principles. All roads and road infrastructure need to be assessed to comply with minimum standards required for the adoption and utilisation of Advanced Driver Assistance Systems (ADAS) as well as connected, semi-automated and automated vehicles. It is important to understand that for these technologies to be fully utilised and to be able to realise the full road safety benefits there is a need to ensure that the road infrastructure is upgraded as required. Naturally, any Commonwealth funding should specify obligations ensuring nationally consistency and uniform requirements are met.

Key areas of safer automobile development that will generate 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 the 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 injuries to external vulnerable road users.

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.
- Nationally consistent road rules.
- Nationally consistent road signage.
- Governance and regulations surrounding the introduction and use of advanced technologies in line with international developments.

Whilst Australians will derive great benefits from advances in vehicle safety, it will be vital that the infrastructure planning and investment facilitates the correct operation of these substantial vehicle centric safety technologies.

Connected vehicles utilising C-ITS systems will undoubtedly improve intersection safety. However, for these systems to operate effectively, the road infrastructure is also required to be connected. The development of connected road infrastructure is a long-term project that requires significant planning, execution as well as appropriate level of funding commensurate with the size and complexity of the project. Uniformity across jurisdictions is critical to the success of C-ITS and eventually automated vehicle systems.

REGIONAL AND REMOTE ROAD SAFETY

Objective: Improve the safety outcomes on high speed regional roads by preventing run off road and head on crashes.

Some Advanced Driver Assistance Systems (ADAS) have great potential on suitably marked roads to prevent both head on crashes and vehicle run off road. For example, Lane Keeping Warning (LKW) or Lane Keep Assistance (LKA) systems work most effectively with installed and well-maintained road lane markings on both the left and right sides. These systems are well proven to either warn or warn and provide steering control to correct vehicle runoff road on vehicles fitted with these systems. There are numerous other systems incorporated into modern vehicles that encourage correct operator and passenger behaviour such as:

- Seat belt warning systems, visual and audible – encouraging correct seat belt use.
- Over speed warning systems – encouraging speed limit compliance.
- Vehicle Stability Controls – improves vehicle controllability in adverse conditions.

- Automated Emergency Braking Systems – supports controlled emergency braking.
- Advanced passenger safety systems that operate in accident conditions:
    - Accident pre-crash systems
    - Seat belt pre-tensioners
    - Multiple supplementary restraint systems (airbags)
    - Advanced passenger cell protection

All of these systems can operate in regional or remote areas to reduce the incidence of an accident in the first instance as well as to reduce the severity of accidents, reducing the number of deaths and severity of the injuries in the event of an accident.

VULNERABLE ROAD USERS

Objective: Support for vulnerable road users in areas with high levels of pedestrian and cycling activity.

FCAI would advocate using safe system principles and promote the separation of vulnerable road users and vehicles of all types, wherever possible as a key priority in the NRSS.

In addition, education is an essential component for all road users to understand their responsibilities as well as developing an environment of cooperation and consideration.

In relation to vehicle technologies specifically, many newer vehicles are fitted with advanced systems that can increasingly detect and protect vulnerable road users in the event of an incident.

MOTORCYCLISTS

Objective: **Address risks specific to motorcyclists.**

FCAI would like to respond to each of the specific risks to motorcyclists that are mentioned in the Commonwealth's paper before expanding into areas which are not covered. FCAI would like to point out that in considering motorcycles in accident situations, there are a wide and diverse range of motorcycles and motorcycling activities and situations including on road, off road, recreational and non-recreational which all have their unique and specific aspects that need to be considered.

Appropriate protective clothing:
Given the diversity of climatic and geographic conditions under which motorcycling is undertaken in Australia and the range of ages, types of motorcycles and specific riding purposes, FCAI believes it would be difficult to mandate specific PPE beyond the already mandatory helmet wearing.

FCAI agrees that a strategy of providing consumers with objective independent information on the injury protection and thermal management of motorcycle protective jackets, pants and gloves should be included in the NRSS. Furthermore, FCAI believes that NRSS outcomes could be improved with an expansion of this information to include other forms of PPE used by motorcyclists including but not limited to full leathers, boots, back protectors, chest protectors, where appropriate.

Consideration of motorcycles in infrastructure design and maintenance.
FCAI agrees that it vitally important for motorcycles and motorcyclists to be considered in infrastructure design and maintenance. There has already been some important research work done in this area and the FCAI suggests the Department look to some of this relevant work in support of the NRSS including:

- VicRoads publication: Making Roads motorcycle friendly
- Austroads publication: Guide to Road Design

There are specific items of infrastructure design that have been shown to be specifically relevant to motorcyclists and motorcycle operation. Examples of this includes:

- use of steel plates in road works.
- proximity of roadside furniture.
- use of abrasive paints in road markings.

Targeted safety campaigns
FCAI supports the NRSS initiative of increased safety campaigns and improved information sharing to educate all road users to the vulnerability of motorcycle riders. FCAI considers that safety campaigns are an effective method of providing information to motorcyclists and drivers about the safety issues of most relevance to motorcycles and that well-designed long-term education campaigns are usually effective in engineering longer term change that becomes normalised.

In support of the information provided to the general and motorcycling public through any such safety campaign, any data collected from motorcycle accidents needs to be accurate and context based to be useful to future NRSS strategies.

FCAI is not aware of empirical evidence which demonstrates the effectiveness of motorcycle specific road safety campaigns. Campaigns that have been produced with significant inputs from motorcyclists, and those that have been delivered by or endorsed by high profile motorcyclists have anecdotally appeared to resonate with motorcycling groups.

Some of the more memorable schemes can be viewed at the following URLs:
Vic **https://www.tac.vic.gov.au/road-safety/tac-campaigns/motorcycle-safety**
NSW **https://www.youtube.com/watch?time_continue=2&v=DZpUPqWIQTQ&feature=emb_logo**
SA **https://www.youtube.com/watch?v=Wnx20F51S_E**
MAC **https://www.youtube.com/watch?v=xNZjpejlcXk**
WA **https://www.youtube.com/watch?v=BQI71Rpvp6U**

FCAI would support the continued use of significant, comprehensive input from motorcyclists in the formulation of the NRSS moving forward. Campaigns should focus not simply on the motorcyclist, but on the vehicle user population in general because all road users have a role to play in improving motorcyclist's road safety outcomes.

Whilst the FCAI represents the major importers and distributors of motorcycles for the Australian market, FCAI recognises the Australian Motorcycle Council as a key expert advocate for motorcycle users.

Improved Vehicle Safety

FCAI agrees that vehicle technology specific to motorcycles has the potential to improve road safety outcomes and these should be considered for inclusion in the NRSS. However, the level of automation which is possible and is currently being considered for motor vehicles is unlikely to be able to be implemented on motorcycles. As a single-track vehicle, a motorcycles stability is inherently and directly related to rider input and road conditions, these design characteristics increase the complexity and feasibility of providing vehicle-based interventions for motorcycles.

That said, several advanced safety technologies are already available for motorcycles including anti-lock brakes, traction control and lean-angle sensors, these can assist the rider in terms of stability and under evasive manoeuvres. As previously mentioned in this submission, there are a wide and diverse range of motorcycles and motorcycling activities and situations including on road, off road, recreational and non-recreational. Not all advanced safety technologies are necessarily relevant and appropriate to each. It is important that the NRSS recognises this and encourages appropriate adoption of technology to the applicable category of two wheeled vehicle and that any technology mandated is justified by the normal regulatory process.

FCAI would encourage enhanced information for and education of users to the potential advantages of technologies for two wheeled vehicles be included in the NRSS

Training and education including specific hazard perception training.

FCAI supports inclusion of training and education including specific hazard perception training in the NRSS. FCAI believes that there would be benefits derived from applying this type of training and education programs across the broad range of drivers and riders entering the licencing regime, not limited to motorcyclists only. The ability of a car driver to be aware of, and limit the hazard that their vehicle exposes a motorcyclist to is a key criterion which should not be under-estimated.

FCAI believes that training and education programs should be provided on a cost-effective basis with those new drivers/riders often least able to afford them. In addition, the end-user- cost of such training should be applied consistently across all categories of learner driver/rider regardless of the class of vehicle for which they are training to become licenced and competent.

VEHICLE SAFETY

Objective: Enhance the safety standards of new vehicles and increase awareness of the safety of the existing fleet.

Australia represented 1.06 million sales out of an estimated global production volume of 92 million vehicles in 2019 equating to around 1% of global sales, with the largest selling vehicle in the Australian market selling only 50,000 annually. Given the size of the Australian market in comparison to other markets, it is vital that we harmonise with overseas regulations. Global regulators and vehicle

manufacturers are working to create standards for the 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, resulting from substantial global research and development into this challenging and most difficult area.
FCAI advocates continued harmonisation with international vehicle regulatory standards through the United Nations Working Party 29. This will ensure that advanced vehicle technologies are made available to the Australian market as soon as practicably possible. Naturally, we need to evaluate the applicability, suitability, and appropriate introduction schedules for these regulations to consider the unique aspects of the Australian market. As an example, only vehicles suitable for use in Australian conditions, that comply with ADR testing should be able to be introduced to the market. Additionally, consideration of the unique requirements associated with C-ITS enabled vehicles such as ensuring that these connected vehicles operate on the correct communication spectrum to correctly interact with other connected vehicles and infrastructure. Vehicles built for use in other markets may not be utilising the same radio spectrum as vehicles designed for and delivered in the Australian market.

WP.29 has recently considered or is currently considering regulations for:

- Advanced emergency braking
- Alcohol interlock installation facilitation
- Drowsiness and attention detection
- Distraction recognition / prevention
- Event (accident) data recorder
- Emergency stop signal
- Enhanced Full-width frontal occupant protection crash test and improved seatbelts
- Head impact zone enlargement for pedestrians and cyclists -safety glass in case of crash
- Intelligent speed assistance
- Lane keeping assist
- Reversing camera or detection system
- Tyre pressure monitoring system

If justified for the Australian context through the Commonwealth's regulatory process, the NRSS should consider adoption of those regulations into the ADRs with appropriate lead times for introduction.

For these systems to operate effectively in the Australian environment there would need to be a high level of coordinated road infrastructure development, enabling the realisation of road safety benefit outcomes. It is important that Australia considers these regulations for appropriateness using data and evidence-based evaluations and then work to appropriate timeframes for introduction.

Additionally, it is vital that Australia creates a supportive legal framework for the implementation of these advanced technologies that is philosophically consistent with the legal framework in international markets. Australia needs to avoid unique domestic criteria (such as that proposed by NTC and approved by the Transport Infrastructure Council to introduce Executive Officer Liability) in addition to overall corporate obligations encompassing product liability laws and consumer protections through the Australian Consumer Law. NTC have been informed by several major vehicle manufacturers that

adopting a “world’s first” Executive Officer liability legal requirement would be regulatory overreach and would curtail if not inhibit the introduction of these otherwise lifesaving technologies.

Very high achievement rates have been achieved in voluntary and mandatory safety recalls including the Takata Airbag Inflator recall initiated by the Government. These already high rates may be improved even further through greater cooperation and coordination between the Commonwealth, who will be responsible for recalls under the Road Vehicle Standards Act, and State and Territory registration authorities. FCAI supports including this as an initiative in the NRSS, ensuring that potentially unsafe vehicles do not continue to operate on Australian roads.
The NRSS should also oppose the importation of (new or) second hand of motor vehicles which do not meet the stringent requirements imposed on full volume suppliers as this effectively increases the age of the vehicle fleet and also highlights the need for enhanced recall management especially where these importers are no longer operating as business entities.

How do we capture and reflect emerging vehicle technologies over the life of the new Strategy?
FCAI believes that involvement by the Government through the UN-ECE process especially through Working Party 29 is integral along with routine reviews through the NRSS period will more than adequately deal with technological change.

HEAVY VEHICLE SAFETY

FCAI does not represent the Heavy Vehicle Industry and will leave comment on this to those stakeholders who have experience in this area.

HIGH RISK BEHAVIOUR

Objective: Address high-risk behaviour.

New vehicles are being fitted with advanced systems that increasingly warn / escalate and advise the driver of many high-risk behaviours including seat belt non-use, overspeed warnings and lane divergence. More advanced systems such as Automatic Emergency Braking, Vehicle Stability Control, Active Cruise Control Systems and Forward Collision Mitigation apply controls to prevent loss of control and either avoid potential impact situations or minimise their effect.

New vehicle technology however is only part of the solution. Broad-based long-term attitudinal change is required that encompasses a broad spectrum of society including those in the formative age groups. No doubt the social model suggested for the NRSS will go some way to address this however, the aim must be for all road users to adopt a considerate and tolerant approach.

BETTER POST CRASH CARE

Objective: Focus on improvements outside major cities

FCAI members have for some considerable time provided emergency responders with the necessary vehicle information to enable the rescue of occupants through understanding the vehicle structural requirements allowing emergency responders to quickly undertake their role in the safest (from a vehicle perspective) manner. This information has been provided in several ways, primarily distributed through the Australasian Road Rescue Organisation (ARRO) as well as by individual brands through their websites and various publications. FCAI welcomes the initiative to introduce the Rescue application as another method to provide information to emergency responders expediently.

We note the reference to in-vehicle eCall systems that can alert emergency service to serious road crashes under the heading of "What is working".
However, we would like to point out that eCall is not operating in Australia presently and there are several issues to consider in respect of this technology as follows:

1. The current 000 system does not have the capability of handling the automated messaging systems and would need to be upgraded to enable the eCall system to operate.
2. The level of mobile coverage in Australia, particularly in regional and remote areas (where the system is likely to be most advantageous) has serious limitations.

Therefore 000 system capabilities as well as extent of mobile network coverage needs to be fully assessed through a regulatory impact statement and associated cost benefit analysis.

FCAI looks forward to discussing any aspect of this submission with the Office of Road Safety should further information or clarification be desired.