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Department of the Senate
PO Box 6100
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Canberra ACT 2600

Joint Select Committee on Road Safety
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Insurance Australia Group (**IAG**) welcomes the opportunity to make a submission to the Joint Select Committee on Road Safety.

IAG is the parent company of a general insurance group with controlled operations in Australia and New Zealand. Our businesses underwrite almost \$12 billion of premium per annum, selling insurance under many leading brands, including: NRMA Insurance, CGU, SGIO, SGIC and WFI (in Australia); and NZI, State, AMI and Lumley Insurance (in New Zealand). With more than 8.5 million customers and information on the majority of domestic residences in our markets, we use our leadership position to understand and provide world-leading customer experiences, making communities safer and more resilient for the future.

Our purpose is to make your world a safer place and we recognise that our role extends beyond transferring risk and paying claims. Our purpose drives our business to work collaboratively with the community to understand, reduce and avoid risk, and to build resilience and preparedness. This results in better outcomes for the community and means fewer claims and lower costs for our business.

We work collaboratively with government, industry bodies and Australian and international organisations on a range of topics and issues that relate to our customers, our people and the community including safety on the road.

Road safety is a whole of society issue, its impacts are far-reaching and the social and economic cost to Australia is estimated at more than \$30 billion dollars per annum¹. Despite almost all road accidents being preventable, we continue to see fatalities, serious injuries and car damage occurring every day on our roads. Over the past decades Australians have seen the reduction in road trauma stall² and a defeated acceptance by society that people die on the roads. It is time

¹ https://www.roadsafety.gov.au/sites/default/files/2019-11/nrss_inquiry_factsheet_september_2018.pdf

² https://www.roadsafety.gov.au/sites/default/files/2019-11/nrss_inquiry_factsheet_september_2018.pdf

now for the government, businesses, researchers and policy makers to pause and examine why this is the case and what policy decisions are needed to move forward and reduce this burden.

IAG and road safety

At IAG we offer people a safety net on the road by offering insurance products that protect people financially should an accident or injury occur. As road safety is a fundamental priority for our business we also offer customers insurance discounts for choosing cars with safer technology.

IAG's operating brands have a long history of motor accident prevention, research and mitigation with a view to assisting the broader Australian community. From NRMA's beginnings as a community motoring organization, the development of our own IAG research centre to improve safety and reduce repair costs, to our current partnerships and programs with academia and industry that help us collectively better understand and plan for the future of mobility

The research centre has led the way on vehicle safety testing and design improvement for more than 20 years. We conduct and share research on a range of vehicles with a focus on safety, security and repair costs. We also review our claims data to inform road safety initiatives. Our Research Centre is proud to be the ANCAP test centre for head restraints, with IAG's head restraint ratings now adopted into ANCAP safety ratings to reduce whiplash injuries.

One key partnership we have is with iMOVE Australia where we hold a Board position and partner to research cooperatively. This Cooperative Research Centre CRC aims to help business and government tackle transport-related challenges by connecting and activating ideas, people and resources. One project we're collaborating on with iMOVE is to explore how we can better understand future risk and safety through retrofitting autonomous features onto a vehicle and understanding perception in autonomous vehicles. We want to see how we can create safety on the road in a more connected world.

We believe in the power of research and knowledge to increase our innovation capabilities, so we are active with three key university research bodies in the transport and new mobility space: USYD's Institute for Transport & Logistics Studies (ITLS) where we are an advisory board member; UNSW's rCITI and Melbourne University's Australian Integrated Multimodal Ecosystem (AIMES) testbed as industry partners. We believe new ways of connecting people in their transport needs through research and innovation will help to create safety, enable more sustainable travel and empower people with choice.

We run a PhD-in-Residence program. Earlier this year we teamed up with the University of Sydney's Australian Centre for Field Robotics to explore perception and safety for autonomous vehicles. We believe that one of the fundamental aspects that will need to be addressed for the safe introduction of autonomous vehicles is the standardisation of safety assurance. Our PhD-in-Residence is embedded in our team at IAG but is expanding to include external thinkers, focused on developing a comprehensive understanding of how to evaluate the safety of autonomous vehicles.

We are also a member and sit on the Board of ITS Australia, which is connecting disruptive and new mobility technology and the various industries and sectors involved in what will be a new world of more connected and data driving mobility. Emerging technology holds the promise of greater safety outcomes on the road.

IAG along with CSIRO's Data 61 and The University of Sydney are also founding partners of the Gradient Institute, an independent not for profit organisation founded to research the ethics of artificial intelligence (AI) and develop ethical AI based systems that will provide better outcomes for individuals and society including in automated vehicles.

IAG is the only insurer to be invited to be a member of ANCAP, and the only Australian insurer to be part of RCAR a global association of insurance research centres dedicated to improving vehicle safety, damageability, reparability and security

We have also recently piloted a service called 'Safer journeys'³. This service enables us to detect and respond to collisions in real time. Participants have a tag device in the vehicle which can sense the change in movement in the car through GPS, motion and force detection. When the tag detects a collision however big or small we call the participant three times and if there is no answer contact emergency services to get support to the scene. The app involved in the service can also capture key information at the scene including other parties' information, photos, location, witness details etc. so this information is already collected in a central location should an insurance claim need to be lodged.

IAG recognises that road safety is a national issue and seeks to work in a coordinated way with government and non-government organisations to reduce deaths and serious injuries on our roads. In 2018, IAG partnered with a consortium of state government organisations and private enterprises to launch the MotoCAP program. This program is the first of its type in the world and addresses one of the critical actions from the National Road Safety Action Plan 2018-2020. The MotoCAP program tests and rates motorcycle protective clothing based on the level of protection and thermal comfort it provides to riders. In 2019 MotoCAP won an international award for road safety from the International Federation of Motorcycling.

In addition to the above partnership, IAG is a long-standing partner of the CRASH (consumer rating and assessment of safety helmets) program. This program tests and rates the safety level and comfort provided by motorcycle helmets. IAG is also an active partner in the Re:act program which challenges university communication design students to raise awareness of road safety issues and change behavior among 18-25-year-old group. This is a group that is often over represented within road traffic accidents.

We believe in the safe systems approach to road safety. That drivers will always make mistakes and to significantly reduce the road toll we must ensure the system in which we are driving is as safe as possible. We strongly support the inquiry into the national road safety strategy 2011-2020 report released in 2018, the report's 12 key recommendations⁴ and the transport and infrastructure councils' support of these recommendations. Building on this work we recommend policy makers should focus on the following key areas to reduce road accidents and road trauma in Australia.

Technology for improving safety

Autonomous vehicles

The generally accepted discourse on automated and connected vehicles is that they will bring greatly improved safety on our roads. 90-94% of accidents are estimated to be caused by human error,⁵ logic follows that removing human error will result in a drastically reduced number of accidents. It is therefore important that this technology be encouraged and embraced by Australia to capitalize on the safety benefits as well as social and economic benefits that can be gained as early adopters of this technology.

However, we caution against relying on technology as an all-encompassing solution. Large scale

³ <https://saferjourneys.com.au/>

⁴ <https://www.roadsafety.gov.au/nrss/inquiry>

⁵ <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812115>

improvements in safety will likely only be realised when the entire fleet of vehicles is fully automated and connected. For a variety of social and economic reasons the switch to automated vehicles won't happen overnight, rather it appears likely there will be a long transition period where a mixed fleet of automated, semi-automated and connected vehicles are all driving together on the roads.

Similarly, we recognise that with new technology comes new unforeseeable problems. It is therefore vital that we continue to test and trial autonomous and connected vehicle technology before it is made available to the market. The information from these trials and tests should be shared and work be done collaboratively across a number of industries to ensure the technology does improve safety and does not add further or different compromises.

For autonomous technology to work in Australia it needs to be tested and trialled here under several conditions to ensure it is safe. We support the work the NTC is doing to ensure end to end regulation and a safe commercial deployment of automated vehicles at all levels in Australia. IAG has provided several submissions to the NTC⁶ on their roadmap to regulation. We strongly believe the regulation around automated vehicles in service needs to be set at a particularly high level to protect people and because public trust in the technology is key to it succeeding. The global community has already seen a number of deaths in countries trialling this technology where safety regulation is not strict (e.g. in the USA). Although small in comparison to the global road toll, we know people hold machines to a higher level of safety.

- 1. IAG recommends the government continue to explore the development of appropriate regulation for safe importation and operation of autonomous vehicles**
- 2. IAG recommends that autonomous vehicle trial information and data be shared and accessed across States to learn about technology and troubleshoot problems as efficiently as possible**

Other vehicle safety technology

Vehicle manufacturers have and continue to make improvements to vehicle safety that don't involve AI and have a significant impact on road safety. Recent examples include; Airbags, ESC braking, AEB braking, speed alerts, lane departure warnings, rollover protection, child restraints etc.⁷ This technology has saved lives and as the general fleet continues to turn over and the saturation of this technology increases the impact will be larger. Combined technologies are predicted to save a further 30% of fatalities by 2033⁸

However, there have been examples where vehicle safety technology has failed or not performed as intended by the manufacture. ANCAP (Australian new car assessment program) established in 1993 has provided essential independent testing of vehicle safety and technology performance of thousands of new vehicle makes, models and variants. ANCAP's published results are used to compare the relative safety between vehicles of similar size and have become a critical factor in vehicle selection for private and fleet buyers.

- 3. IAG recommends the government promote and incentivise innovation in vehicle safety.**
- 4. IAG recommends the government continue to support and prioritise funding to ANCAP as an independent body testing car safety.**

⁶ <https://www.iag.com.au/submission-national-transport-commission-investigation-service-safety-automated-vehicles>

⁷ <https://www.ancap.com.au/understanding-safety-features>

⁸ <https://acrs.org.au/files/papers/arsc/2015/McAuley,J%20031%20The%20impact%20of%20airbags%20ESC%20and%20AEB.pdf>

Connected vehicles

Connected vehicles are often grouped with autonomous vehicles in discussions around future vehicle technology. However, we believe investment in connecting vehicles to each other and to transport infrastructure regardless of whether the car can drive itself could be a quicker and more effective investment in improved road safety.

Connecting vehicles allows them to 'talk' and alert each other, other road users and connected roadside infrastructure to unexpected road conditions, what is coming further up the road or around a blind corner. Cooperative Intelligent Transport Systems (C-ITS) and/or Dedicated Short Range Communication (DSRC) technologies are available to service this need today, and unlike popular perception, most of the services are not dependent upon a carrier network, thus they are able to work today, and without need for additional cellular network services being deployed. The ability for roadside infrastructure, another vehicle or a pedestrian to communicate an intent to those around them, even before the recipients can hear or see the source of the transmission provides an additional sense beyond what humans are naturally equipped with. For example: In a connected network, if a truck has lost its brakes, and is about to run through a red light at a cross-road, a sensor at the lights could communicate this to surrounding vehicles (in a defined radius) with enough time for the vehicle (self-driven or autonomous) to proactively brake and let the truck through.

Similarly, vehicles talking to each other and the roadside infrastructure can provide operational efficiencies that saves time and fuel, buy better sequencing the lights for the actual oncoming traffic, and not cause unnecessary stop-start actions, which causes most of the wear and tear on most vehicles, as well as something akin to 85% of the airborne pollution associated with Internal Combustion engines.

Several reports⁹ have been published indicating that a well-executed connected strategy could avoid or help mitigate between 60 to 80% of the existing road incidents, and up to 30% of all existing road incidents without being reliant upon any forms of advanced autonomous driving technology to mature. IAG are therefore very interested working collaboratively with the government and other industry players to introduce this technology into the Australian transport network as quickly and efficiently as possible.

IAG has participated in a few live trials in the AIMEs test-bed in Melbourne, in partnership with VicRoads, Melbourne University, CISCO and Cohda Wireless. We have also been working with other state-based road authorities and related organisations looking at how we could extend upon the initial localised C-ITS/V2X connectivity trials through to a broader national co-operative public trial encompassing some of Australia's major roadways.

- 5. IAG recommends the government prioritise and resource trials of technology for connected roads and infrastructure.**
- 6. IAG would welcome the opportunity to work further with governments to support trials, deployment and strategies for retrofitting of these technical capabilities to the existing fleet of vehicles across Australia.**

⁹ <https://www.its.dot.gov/factsheets/pdf/ConnectedVehicleBenefits.pdf>
<https://deepblue.lib.umich.edu/bitstream/handle/2027.42/147434/The%20Cost%20Associated%20with%20Waiting%20to%20Deploy%20DSRC%20032018.pdf%3Fsequence=1&isAllowed=y>

Vulnerable road users

“In major cities in Australia half (48%) of all deaths are vulnerable road users. Vulnerable road user deaths as a proportion of all road deaths has increased in major cities, regional and remote areas”¹⁰

This statement like many of our road statistics in Australia is shocking. The number of vulnerable user deaths is too high. Especially when cities around the world such as Oslo have shown it is possible to have a city where no pedestrians, children or cyclists at all are killed on the roads. The success of the city has been attributed to a vision zero strategy backed up by large investments in public transport, bicycle lanes and facilities for pedestrians. It had also reduced the speed limit for cars, removed 1000 parking spots, installed more speed bumps and created car-free zones, including "heart zones" where children play.

Similarly, the way people move around our cities and towns is changing. In the last few years we have seen advances in technology not only providing opportunities to explore autonomous vehicle transport, but also leading to the development of a range of motorised personal mobility devices. These devices include e bikes, e scooters, motorised skateboards etc. The National Transport Commission has acknowledged that there is a need to ensure that a national approach to the use and safety of these devices is developed.

Riders of motorised personal mobility devices are vulnerable road users, just like pedestrians, cyclists and motorcyclists, because they have a high risk of being severely injured in a crash with a motor vehicle. It is important riders of these devices be carefully considered in any road safety conversation and planning. It is also imperative that safety data on these new devices is captured so that safety incidents can be monitored, and timely mitigation responses can be implemented if safety issues arise.

- 7. IAG recommends the government examine the success of Oslo and other cities around the world with successful reductions in vulnerable user groups, learn from this success and act to enable similar success in our cities.**
- 8. IAG recommends all levels of government embed road safety into town planning to ensure future towns and cities will include safe access for pedestrians, cyclists and other vulnerable users.**

Improved Data collection

IAG believes that the Office for Road Safety has an important role to play in proactively identifying and addressing emerging road safety issues. To achieve this objective the Office needs to prioritise the development and deployment of nationally consistent data sets to be collected for all road traffic accidents. These data sets will need to include injury data captured at hospitals as well as crash characteristic data captured by police. The data sets should also be made publicly available for research purposes.

This type of national data would provide the Office for Road Safety with a reliable and nationally consistent source of crash data allowing for the creation of a national evidence-based road safety strategy, public policies and a number of research projects to inform further policy. The Victorian RCIS system is an online database providing crash data from Victoria's roads back to 1987. It is searchable and publicly available and would be an excellent model to be scaled up nationally by the office for road safety.

- 9. IAG recommends the office for road safety seek to create a national crash data database that is publicly available.**

¹⁰ https://www.roadsafety.gov.au/sites/default/files/2019-11/national_road_safety_action_plan_2018_2020.pdf

Sustained public education campaigns

In Australia we have had successful public health campaigns such as reduction in smoking, response to HIV, immunisation and reducing rates of skin cancer. These success stories do not happen over night and are a result of large groups of people doing sustained work over a number of years i.e. advocates, public servants, policy makers, researchers and politicians working for decades across a number of fields.¹¹ The road toll reduction to date is a great example of this. The success in long term health or safety campaigns often comes generationally. For example: drink driving was more socially acceptable in the 1980's and although it remains a problem today there has been a significant downward trend of alcohol involvement in fatal crashes¹²

In order to achieve success in changing driver behaviour there needs to be a sustained commitment to funding education, awareness campaigns, laws and resources to enforce these laws.

- 10. IAG recommends the government commit to sustained public health campaigns on key behavioural issues influencing driver behaviour including distracted driving, alcohol and drug driving and speeding to ensure future generations shift this behaviour.**
- 11. IAG recommends states work together to share education and road safety campaign information to align messaging and use resources efficiently to tackle the most urgent aspects of safety on the road.**

Additional comments

Creation of a Standing Committee –We do believe a Standing Committee on road safety should be established as road safety is a national priority. We suggest this Committee conduct deep dives into priority areas for road safety policy including but not limited to connected vehicles, vulnerable road users, indigenous road users and urban planning. A Standing Committee allows all stakeholders to have a say in road safety policy making and allows our elected officials to hear from experts and constituents on how that policy can be best constructed.

Harmonising motor accident insurance schemes and road rules – IAG has over many years consistently identified the need for national principle-based approach to motor accident insurance schemes (MAIS) to ensure anyone injured in a motor vehicle accident in Australia has simple, easy access and equitable levels of support whether they were injured by a vehicle controlled by a human driver or by an autonomous vehicle with its ADS engaged. Similarly, unified road rules would allow automated vehicles to cross jurisdictional boundaries with ease and any changes to road rules to be implemented uniformly. A national harmonised approach to both MAIS and road rules would also allow the regulator to monitor any emerging safety risks or trends, issue recalls and monitor compliance in a more coordinated manner. National rules and standards also make it easier for companies wanting to enter the market in Australia to program the ADS systems and comply with the laws.

¹¹ <https://www.phaa.net.au/documents/item/3241>

¹² https://www.roadsafety.gov.au/sites/default/files/2019-11/national_road_safety_action_plan_2018_2020.pdf

IAG welcomes the opportunity to discuss the issues raised in this submission in more detail.

Sincerely,

Jane Anderson
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Corporate Affairs