ACRS Submission

AUSTRALASIAN COLLEGE OF ROAD SAFETY

About the Australasian College of Road Safety

The Australasian College of Road Safety was established in 1988 and is the region's peak organisation for road safety professionals and members of the public who are focused on saving lives and serious injuries on our roads.

The College Patron is His Excellency General the Honourable David John Hurley AC DSC (Retd), Governor-General of the Commonwealth of Australia.

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Introduction

The Australasian College of Road Safety is the region's peak membership association for road safety with a vision of eliminating death and serious injury on the road. Our members include experts from all areas of road safety including policy makers, health and transport professionals, academics, community organisations, researchers, federal, state and local government agencies, private companies and members of the public. The purpose of the College is to support our members in their efforts to eliminate serious road trauma through knowledge sharing, professional development, networking and advocacy. Our objectives include the promotion of a collegiate climate amongst all those with responsibilities for and working in road safety; the improvement of relative safety outcomes for vulnerable demographic and user groups within the community; the promotion of post-crash policies and practices; the promotion of road safety as a critical organisational objective within government, business and the community; and the promotion and advocacy of policies and practices that support harm elimination.

The ACRS welcomes this inquiry into the ways in which to improve road safety in Tasmania.

1. Context of road safety in Tasmania

The Tasmanian Towards Zero Road Safety Strategy 2017-2026 established a road trauma target of fewer than 200 serious casualties by 2026.(1) The accompanying Action Plan 2020-2024 notes:(2)

- Every year around 300 people are killed or seriously injured on Tasmanian roads
- Young road users and motorcyclists are overrepresented in road trauma
- Over recent years, Tasmania's annual road trauma fatality rate has remained at 6.6 per 100,000 which is significantly higher than the national average of 5 over the same period
- The best performing countries in road safety are achieving rates as low as 2.5
- As many as 175 people will be killed on Tasmanian roads over the life of the Action Plan, at current trauma rates
- Road trauma in Tasmania peaked in the 1970s with almost 1,500 serious casualties

Tasmania's road trauma levels have remained unchanged from the commencement of the Towards Zero Strategy. Progress in road safety was good but has now stalled. Achieving the target of 200 serious injuries by 2026 will be challenging unless progress can be accelerated from now until the end of the current Strategy.

The Action Plan includes 42 actions grouped under six themes: Making our rural roads safer, Improving safety in our towns and cities, Saving young lives, Encouraging safer road use, Making visitors safer, and Improving safety through vehicles and technology.

The Strategy is based on the Safe System approach to road safety. This approach has for some time been regarded as international best practice and provides the basis of road safety strategy at the national level. The underlying principles of Safe System are concisely described in the Action Plan and provided in Appendix A. Safe System is also extensively documented,(3, 4) and it is not intended to detail the origins or provide an expanded description of this accepted system-based approach to road safety in this submission. Crucially, the Strategy looks to progress proven initiatives and under the Action Plan details an implementation approach within available funding.

Underpinning this submission, is the recognition that there is no 'silver bullet' or single measure that can cut through the complexity of our road safety problem. Research and evidence have identified the most effective road safety countermeasures. This information is widely documented. For example, in the Australian context, comprehensive research and practitioner guidance is freely available from Austroads.(5) The full implementation of proven measures would realise future reductions in Tasmania's road trauma.

It is important to note that Tasmania is a small jurisdiction with limited resources. This submission accepts the current Strategy is well founded. In that regard, recommendations reflect a need for Tasmania to fully embed Safe System thinking, pursue innovation as opposed to experimenting with radical change, and accelerate implementation of key initiatives contained in the Strategy.

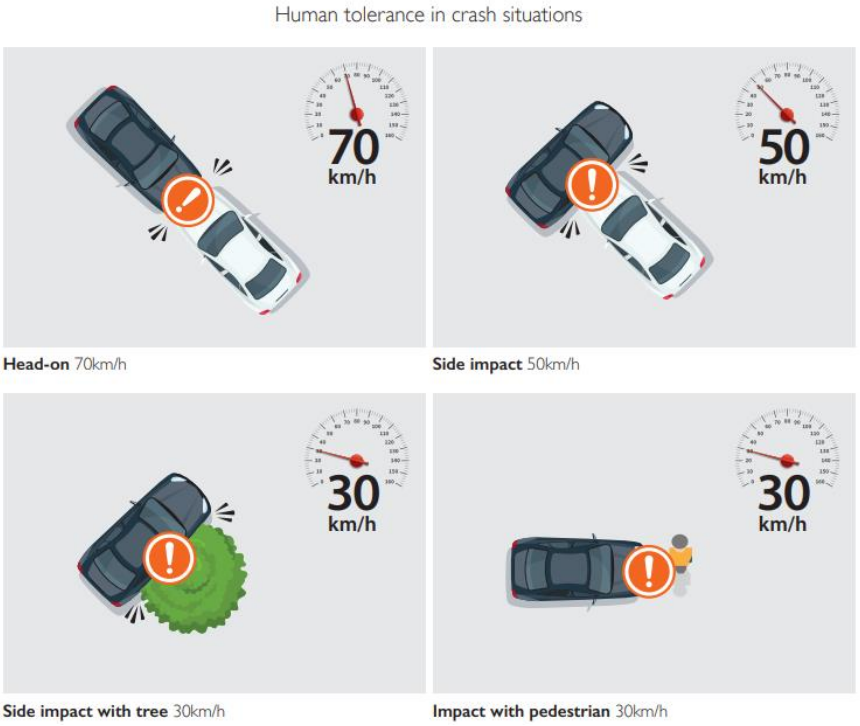
Given the Inquiry's broad Terms of Reference, the focus of this submission is a review of the Tasmanian Strategy within the Safe System framework, implementation, governance and knowledge transfer.

2. Safe System framework

2.1 Safe speeds

The management of vehicle speed is a crucial element of the Safe System. Travel speed leading up to a potential crash directly impacts upon both the likelihood and severity of a crash. The importance of speed management, particularly aligning speed limits with the inbuilt safety of the road infrastructure, is well accepted.(6)

The chance of surviving a crash decreases markedly above certain speeds, depending on the crash type. The Action Plan documents the critical crash speeds for various crash types:



Source: Tasmanian Towards Zero Action Plan 2020-2024, page 9, (1)

It is recognised that making progress in the area of speed management, particularly 'area-wide' of default speed limits, is difficult and has been enormously challenging for all Australian jurisdictions. Nevertheless, the road safety benefits of speed limits that reflect human tolerance are significant, and efforts need to be renewed. Importantly, the Action Plan commits to a speed moderation strategy under the infrastructure theme of Making our rural roads safer.

It is noted that, while patchy, progress has been made in establishing safe speed limits in many parts of Australia and New Zealand. A number of Australian and New Zealand central business district areas now have an area-wide maximum speed limit of 40 km/hr, and selected areas now have a speed limit of 30 km/hr.

It is also recognised that there are many examples of safer speed limit changes initiated in Tasmania in response to crash history and engineering assessment. Often these attract considerable negative public attention such as recent speed limit changes on sections of the Huon Highway (south of Hobart) where the speed limit was reduced from 100 km/hr to 80km/hr, and the Southern Outlet (approach to Launceston) where the speed limit was changed from 110 km/hr to 90 km/hr.(7) These examples demonstrate that gains in speed management are hard fought despite a sound evidence base, and ACRS commends the Tasmanian Government on making these changes to improve safety.

Tasmania has also achieved success with area wide speed limit trials and changes:

- In 2011, two Councils trialled a 90 km/hr default speed limit on rural roads within their municipal boundaries. The trial did not lead to a broad application across Tasmania,(8) however, one municipality, Kingborough, has retained a 90 km/hr area wide rural road speed limit.
- The default speed limit on unsealed roads is 80 km/hr, which is unique in Australia. On mainland Australia, the default speed limit on unsealed roads is 100 km/hr.
- In 2021, the Hobart City Council adopted a 40 km/hr speed limit in the central business district. This is a first for Tasmania.

Recommendation: A *speed management and community engagement strategy*, an identified action under the Action Plan 2020-2024, should be progressed as a matter of urgency. Support should be provided to Councils to assist in the monitoring of travel speed on their roads to inform speed management, enforcement and public education.

2.2 Safer roads and roadsides

A safe road environment forms an integral part of a Safe System. Such an environment is one which recognises the realities and limitations of human decision making. In other words, the road environment must not place demands upon the driver, or other road users, which are beyond their ability to manage, or which are outside normal road user expectations.

Tasmania's approach to safe roads is described in the Action Plan under the themes of Making our rural roads safer and Improving safety in our towns and cities. Infrastructure as a primary road safety measure is reflected in the Action Plan, whereby 75% of available funding under the Plan is allocated to making Tasmania's roads safer.

The Action Plan notes that 60% of Tasmania's road fatalities occur in rural areas. Tasmania's rural road network is relatively vast, and infrastructure needs to be supported by other measures, consistent with Safe System thinking, such as safer speed limits supported by infrastructure in built up areas where vulnerable road users, pedestrians and cyclists, are exposed to motorised traffic.

A large part of the road network is under local government control, and concerns about road safety capability and capacity is an ongoing issue. There is a need to build and retain road safety engineering capability and work towards embedding the Safe System approach across Councils.

The identified safer infrastructure actions under the two related Action Plan themes are consistent with the Safe System approach. Progress is being made with local government through additional funding for treatments in urban areas and on rural roads. There is a clear direction in the Action Plan towards promoting mass action infrastructure treatments and a 'corridor' approach.

The concept of 'star rating' roads in well documented.(9) Reporting on the inbuilt safety standard of our roads through star rating or minimum engineering standards help focus policy and investment. For example, under the iRAP 'star rating' methodology, it is put forward that a person's risk of death or serious injury is approximately halved for each improvement in star rating.(9) Establishing a minimum infrastructure standard for Tasmania's section of the national highway and state rural highways that carry high volumes of traffic is strongly recommended. Utilising agreed standards enables a baseline to be set, and progress to be measured.

Safety star ratings provide an important opportunity to engage with the community on road safety issues. They are easily understood, easy to explain, and can be used to guide policy and decisions about infrastructure investments. Open data should be embraced to facilitate research and raise awareness. The community want to know about the safety of our roads, and to know that their taxes are making real improvements to the safety of those roads.

The publication of the AusRAP ratings has been recommended by multiple Parliamentary Inquiries. A key finding from the Victorian Parliamentary Inquiry into the Increase in Victoria's Road Toll this year, was that there is no legislative obligation for roads to be built or maintained to a certain standard to increase safety for road users. The report recommended "That the Victorian Government publish an annual report on the road standards that state the star ratings for highways, arterial roads and other roads of significance, such as urban roads with high pedestrian and cyclist activity, in Victoria".(10)

This follows from the publication of infrastructure star ratings being one of several related recommendations of the 2020 Federal Joint Select Committee "the Australian Government work with the states and territories to develop a plan and timeline for the harmonisation of data, including definitions, relating to casualty crashes, road safety ratings, and speeding across the network. Such data should be published regularly".(11)

As noted in the Action Plan, motorcyclists are overrepresented in Tasmania's crash statistics. The Action Plan recognises the need to consider motorcycle safety on rural roads and that motorcycle 'friendly' infrastructure treatments should be identified through specialist road safety audits.

Recommendation: Infrastructure star ratings on Tasmanian roads should be routinely reported on publicly. A strategy based on crash and speed measurement data be developed to prioritise a program of road safety infrastructure treatment and remediation works.

2.3 Safe vehicles

New safety features are continually entering the vehicle market. Some of these features are estimated to dramatically reduce road trauma from their targeted crash types. To be effective, many new features require road conditions to meet specific threshold standards, and all must take account of the human interaction required from the driver.

Tasmania's approach to safe vehicles is described in the Action Plan under the Improving safety through vehicles and technology theme. The Action Plan notes:

- Tasmania has the oldest vehicle fleet in the country with an average age of 12.8 years, as at 2018
- The rate of fatal crashes per registered vehicle is four times higher for vehicles aged 15 years or older than for vehicles aged 5 years or younger
- The majority of new cars are purchased by fleet buyers. Fleet managers should purchase vehicles with the highest safety rating

Increasingly this fleet will include electric vehicles, and differing levels of autonomous technology. Effort should be made to understand what crash risks are associated with these vehicle operating conditions and new risks compared with internal combustion engine vehicles.

As noted in this submission, Tasmania is a small jurisdiction and has limited capacity to influence or accelerate vehicle fleet turnover or uptake of new automotive technology.

Recommendation: A minimum vehicle safety standard of ANCAP 5 star or better be adopted by Tasmanian fleet owners.

2.4 Safe people

As noted in the Action Plan, extensive research has clearly demonstrated that much of the behaviour contributing to crashes is not irresponsible or negligent, but the result of imperfect humans making everyday mistakes.(12) The Safe System approach emphasises that such mistakes should not result in fatal or serious injuries, and therefore the road environment should be forgiving of human error. It is important that road designers understand human performance, capabilities and behaviours.(3, 13)

Tasmania's approach to safe people is described in the Action Plan under the themes of Saving young lives, Encouraging safe road use and Making visitors safer. Safety for young road users, particularly those learning to drive, was a key first year focus under the Action Plan. The Government is to be congratulated for regulating to strengthen Tasmania's Graduated Licencing System (GLS). A strong GLS is widely recognised to provide a positive contribution to improving road safety. It is noted that the next step in young road user safety is the investigation of best practice novice licensing for motorcyclists. Engagement with motorcycle representative bodies is strongly encouraged.

Improving safety for those driving for work is recognised in the Action Plan. Road vehicle use is a significant cause of workplace injuries and fatalities in Tasmania. Between 2009 and 2018, 54% of work-related deaths for workers in Tasmania involved a vehicle, and 64% of those occurred on a public road. Considerable work has been progressed to reflect the importance of road safety as part of Australia's existing Work Health and Safety legislative framework. In 2019, heads of Workplace Safety Authorities approved the Vehicles as a Workplace: Work Health and Safety Guide.(13) The guide assists organisations with the development of safe road use policies, initiatives, and programs. Active take-up of this guide by all workplaces should be actively encouraged and provides an opportunity to build collaboration across Government and the private sector.

The Action Plan notes that automated speed cameras are relatively under-utilised as a deterrence and enforcement mechanism in Tasmania. It also notes that in other states and territories, enhanced speed camera programs have resulted in significant reductions in serious injury and fatalities on the road. It is understood that the Australian Capital Territory has recently developed a comprehensive safety camera enforcement strategy, which may provide valuable insight for Tasmania. Based on local media reports, it is clear work is underway to consider the optimum scale and types of automated speed enforcement technology for Tasmania. ACRS recommends this work be progressed as a high priority.

It is noted that other Australian jurisdictions, particularly NSW and Qld, have implemented new automated technology to detect illegal use of mobile phones and failure to wear a seatbelt. Distraction/inattention is identified through crash reporting as a significant contributor to crashes.(14) In Tasmania, Police crash reporting indicates that inattention, including illegal use of mobile phones, is a contributing factor in almost 1 in 4 crashes.(1) However, it is noted camera detection technology for these applications is in its infancy and the road safety benefits have yet to be widely evaluated. It is important that Tasmania prioritise the expansion of mobile speed cameras as the road safety benefits are well proven through extensive evaluation across Australia and internationally.(6)

The Safe System recognises that road users will make mistakes but the transports 'system' should be managed in such a way that mistakes do not lead to serious injury and death. To fully realise the inbuilt safety of road infrastructure and vehicles, safe road users should do their best to follow the road rules, be attentive, and not be affected by drugs or alcohol. There is strong evidence that road safety public education combined with enforcement is an effective road safety measure. Ongoing public education to inform and remind road users of the road rules and dangers of bad road use choices is important.

In parts of the United Kingdom, motorists who are caught committing certain road traffic offences can be given the opportunity to attend an education course as an alternative to prosecution. It is understood this alternative to prosecution or 'diversionary' program relates to offences including speeding, illegal use of a mobile phone, failure to stop at a red traffic signal, and failure to wear a seat belt. It is not known whether these programs have been evaluated regarding road safety effectiveness. However, such program may offer the opportunity to further embed knowledge of safe system amongst the broader community, provide practical knowledge of using our roads safely, and help dispel the myth that traffic policing is simply 'revenue raising'.

Recommendations: Prioritise initiatives under the Action Plan – supporting and monitoring recent enhancements to Tasmania's GLS; review current motorcycle novice licensing arrangements against best practice; development of an automated camera enforcement strategy and Action Plan. ACRS also recommends an ongoing commitment to the provision of road safety public education including a focus on road rules for existing licence holders, and investigation of alternatives to prosecution for certain traffic offences, such as education and training programs.

3. Implementation

3.1 Inquiry into the National Road Safety Strategy 2011-2020

The National Inquiry into the National Road Safety Strategy (NRSS) 2011-2020 reported in September 2018. Learnings can undoubtedly be made for improving road safety in Tasmania from the findings and recommendations (p5 (8)):(15)

> *A key finding of the Inquiry is implementation failure. The lack of focus on a harm elimination agenda means that sub-optimal results are unintentionally achieved because some improvement in safety is often regarded as sufficient or is assumed. We accept that we are making the roads, vehicles and users "safer" but frequently miss the opportunity to make the "SAFE" outright. The distinction is subtle but vitally important. As part of providing a safe transport system, we must move from a coping mechanism to one that fixes the problem once and for all.*

As noted at the outset of this submission, Tasmania's Strategy is well founded. The above may provide insight to help explain why Tasmania's road safety performance has plateaued. A summary of the NRSS Inquiry report and recommendations is provided at Appendix B.

3.2 Funding for road safety

It is understood the Road Safety Levy is the dedicated source of funding for road safety in Tasmania. Established in legislation, the Levy is collected from all Tasmanian registered motor vehicles and is only to be used for the purposes of improving road safety. Funding for road safety across Australia varies from annual budget allocation, vehicle class levies (motorcycle licence levy in Victoria), specific funding program and fines collected from automated enforcement.

The Towards Zero Action Plan details the Tasmanian Government's plans to invest more than $75 million in road safety over the five-year life of the plan. This complements the Tasmanian and Australian Government's investment of $1.5 billion on major state road construction projects to improve efficiency and safety on Tasmania's roads during the life of the Action Plan.

Of the $1.5 billion of state and national funding available for road projects over the life of the Action Plan, the bulk is allocated to several large-scale congestion relieving focused projects (Bridgewater Bridge replacement, Hobart airport interchange grade separation, Hobart southern approaches, Perth bypass). These projects will improve safety on a very small part of the road network and, as such, will not contribute towards Tasmania achieving the road trauma target of 200 or fewer serious injuries by 2026 with any magnitude. Commencing in 2014, the 10-year Midland Highway safety upgrade stands out as a transformative road safety project. This project aims to address the problem of head and runoff road trauma on a 'corridor basis' or entire highway basis.

Both Victoria and NSW(16) have specific safe system safer road programs. Under the Victorian Towards Zero Road Safety Strategy 2016-2020, the $1.4 billion Safe System Road Infrastructure Program was launched.(17) The program targets regional and rural roads noting the disproportionate level of road trauma on these roads.

Recommendation: Fines collected from automated speed enforcement be made available for safe system road safety infrastructure improvements with the oversight of the Tasmanian Road Safety Advisory Council (RSAC).

3.3 Target setting and measuring progress

The Strategy sets a near term target of 200 or fewer serious injuries by 2026. It is noted that at the national level, Ministers have agreed to a target of zero road related fatalities and serious injuries by 2050 under the forthcoming National Road Safety Strategy 2021-2030. Ministers have also set targets for 2030 of: a 50% reduction in fatalities and an interim 30% reduction in serious injuries.(18)

Under the Strategy, the primary measure of success is the overall reduction in road trauma, and progress is being tracked against the 2026 target. Consistent with best practice, a series of more specific outcome indicators track changes in trauma levels across road user type, crash types, urbanisation, and other categories. While decreases in these measures are the desired outcome, they do not help inform how components of the system are performing, optimised or best coordinated.

Intermediate or safety performance indicators allow assessment of the effectiveness of road safety interventions and understanding of gaps. The aim is to show the level of road safety that exists: the state of the system. This is different and complementary to measuring outcomes, and the level of implementation or interventions (outputs). Safety performance indicators measure the influence of the interventions rather than the quantum of the interventions.

The development and reporting of safety performance indicators can assist in understanding progress against objectives and measuring interventions. This approach is adopted by the best performing road safety countries and is being progressed as part of the National Road Safety Strategy 2021-2030. Examples of safety performance indicators include:

- Share of travel on high-speed rural roads with nominated infrastructure standards
- Share of sober drivers
- Share of road length of designated motorcycle routes with crash barriers with motorcycle protection
- Average age of the light vehicle fleet

- Share of new light vehicles sold with Lane Keep Assist Systems; Autonomous Emergency Braking Systems; adaptive cruise control; automatic emergency services notification

Recommendation: Tasmania adopt the Australian Government's target of zero road fatalities by 2050 and interim targets for fatalities and serious injuries of 50% and 30% reductions respectively. A methodology be established for 'intermediate' or 'safety performance indicators' for road safety in Tasmania and that these performance measures be published on an annual basis.

4. Governance

The Tasmanian RSAC is the peak body in Tasmania for road safety policy advice to Government.(19) RSAC makes recommendations to Government about road safety policy and public education programs, expenditure of the Road Safety Levy and oversees the advertising campaigns. The Council's work is based on the Towards Zero Strategy. Listed members include the CEO of the Motor Accident Insurance Board, a road safety expert, Deputy Secretary of the Department of State Growth, CEO of the Department of Police and Emergency Management, CEO of the Royal Automobile Club of Tasmania and road user representative, Tasmanian motorcycle representative, the Chair of the Tasmanian Bicycle Council and road user representative, and the Executive Director of the Tasmanian Transport Association.

Information regarding the Strategy, road safety in Tasmania and the role and work of the RSAC is published on the road safety website. Of note:

- There are a number of informative documents available that provide an overview of the Strategy, Action Plan, governance and reporting of road safety activities and public education in Tasmania
- A progress report against the Action Plan is published on a quarterly basis
- Terms of Reference for the RSAC are not available
- There are no pedestrian or health representatives on the RSAC
- The lead agency for road safety in Tasmania, the Department of State Growth, is represented by the Deputy Secretary rather than the CEO (unlike the other agencies represented)
- There is no annual report

The December 2020 progress report 28 of the 42 initiatives listed in the Action Plan are on schedule, 4 are delayed, 3 are experiencing major delay or on hold, and 8 are yet to commence.

ACRS notes that Western Australia has a similar model of road safety governance, including an independent Road Safety Council. This council identifies measures to improve road safety and has oversight of available funding. The WA Road Safety Council publishes a concise annual report detailing the work of the Council and expenditure of funds.(20)

Recommendation: A Tasmanian road safety report be published on an annual basis describing the work of the RSAC, road safety actions, road safety performance, and expenditure against the Road Safety Levy, and made available to the public.

5. Knowledge transfer

It is well accepted that a structured approach to knowledge transfer is the basis for an organisation to thrive. Recently the Academic Expert Panel supporting the 3rd Global Ministerial Conference for Road Safety 2020 noted the importance of capacity as a prerequisite for lifting road safety performance.(21) Backed by research, the Panel noted that a strong road safety management system is correlated with good road safety performance, and, in turn, a strong road safety management system must be underpinned by knowledgeable road safety professionals. The Panel concluded that a lack of capacity among road safety professionals is a major barrier to progress.

There is an ongoing need to fully embed Safe System principles and best practice across all those who have a responsibility for managing the transport system and influence road safety outcomes. The Action Plan recognises the need for knowledge transfer and includes an action to facilitate training sessions, workshops, and fora across Tasmania to improve safe system knowledge across stakeholders.

In addition to the actions being progressed, there are many formal and informal ways to support an uplift in knowledge transfer. There are expert road safety research institutions located in a number of Australian universities. These centres of excellence provide specialist research, evaluation, and teaching in the field of road safety.

Recommendation: Initiate a collaborative approach with an established mainland road safety research institution, with the view to develop, establish and build capacity in specialist road safety research or evaluation within the University of Tasmania or similar body.

5.1 ACRS Chapter

As noted in the submission, ACRS is the region's peak membership association for road safety and its members include experts from all areas of road safety. Through its members, ACRS is committed to the promotion of road safety as a critical organisational objective within government, business and the community; and the promotion and advocacy of policies and practices that support harm elimination.

ACRS has chapters in most States and Territories in Australia except Tasmania. However, it is noted that steps are underway to establish a Chapter or greater formal presence in Tasmania. Currently the Victorian Chapter has kindly fostered a relationship with Tasmania including participation on its organising committee and has invited Tasmania to participate in Victorian Chapter events.

ACRS welcomes the opportunity to be more actively involved in Tasmania. A strong local membership base would undoubtedly provide a platform for sharing knowledge, best practice and road safety advocacy.

Recommendation: A structured approach to road safety leadership, management and practice be developed for Tasmania.

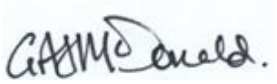
Conclusion and Recommendations

ACRS strongly supports a commitment to improving road safety in Tasmania, working towards the elimination of fatal and serious injuries. While the current Strategy and Action Plan in Tasmania are well founded, progress has stalled recently, and changes must be made in order to achieve the stated goals and make real improvements.

ACRS recommends:

- Progressing the development of a speed moderation and community engagement strategy as a matter of urgency
- Publication of infrastructure star ratings on Tasmanian roads
- Minimum vehicle safety standard of ANCAP 5 star or better for Tasmanian fleet owners
- Improved funding and governance of road safety in Tasmania including annual reporting by the RSAC
- Annual publication of safety performance indicators for road safety in Tasmania
- Establish a road safety research institution at the University of Tasmania
- A structured approach to road safety leadership, management and practice

ACRS welcomes this opportunity to provide this submission to the Inquiry and contribute to improving road safety in Tasmania. Please do not hesitate to contact us if you need any further information.



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References

1. Department of State Growth. Towards Zero: Tasmanian Road Safety Strategy 2017-2026. https://www.towardszero.tas.gov.au/: Tasmanian Government; 2016.
2. Department of State Growth. Towards Zero Action Plan 2020-2024. https://www.towardszero.tas.gov.au/: Tasmanian Government; 2019.
3. Office of Road Safety. National Road Safety Strategy: Safe System principles https://www.roadsafety.gov.au/nrss/safe-system: ORS; [cited 2021 20 August]. Available from: https://www.roadsafety.gov.au/nrss/safe-system.
4. Shelton D, Beer K, Tan T, Mani A, Beer T. Guide to Road Safety Part 1: Introduction to the Safe System. https://austroads.com.au/publications/road-safety/agrs-set: Austroads; 2021.
5. Austroads. Guide to Road Safety 2021 [cited 2021 26 August]. Available from: https://austroads.com.au/safety-and-design/road-safety/guide-to-road-safety#:~:text=The%20Austroads%20Guide%20to%20Road%20Safety%20examines%20road,safety%20in%20Austroads%E2%80%99%20member%20jurisdictions%20in%20recent%20years.
6. Hall C, Beer K, Robertson J, Nguyen T, Zafar F, Tan T, et al. Guide to Road Safety Part 3: Safe Speed. https://austroads.com.au/publications/road-safety/agrs-set: Austroads; 2021.
7. Department of State Growth. Midland Highway, Southern Outlet, South Launceston Speed Limit Review: Consultation & Findings Report. https://www.transport.tas.gov.au/__data/assets/pdf_file/0003/204735/Consultation_and_Findings_Report_Launceston_Southern_Outlet_Speed_Review_June_2019.pdf: Tasmanian Government; 2019.
8. Legislative Council Select Committee. Report on the Government's proposed rural road speed limit reduction from 100 km/hr on sealed roads. Report no. 15. https://www.parliament.tas.gov.au/ctee/Council/Reports/rsl.rep.130826.sw.final%20with%20Chair%20signature.pdf: Parliament of Tasmania; 2013.
9. International Road Assessment Programme. iRAP: A world free of high risk roads [cited 2021 26 August]. Available from: https://irap.org/.
10. Legislative Council Economy and Infrastructure Committee. Inquiry into the increase in Victoria's road toll - report. https://www.parliament.vic.gov.au/images/stories/committees/SCEI/Inquiry_into_the_Increase_in_Victorias_Road_Toll_/Report/LCEIC_59-04_Increase_in_Vic_road_toll.pdf: Parliament of Victoria; 2021.
11. Joint Select Committee on Road Safety. Improving road safety in Australia: Final report. https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Former_Committees/Road_Safety/RoadSafety/Report: Parliament of Australia; 2020.
12. Transport Accident Commission. New research reveals road trauma doesn't discriminate https://www.tac.vic.gov.au/about-the-tac/media-and-events/news-and-events/2021/new-research-reveals-road-trauma-doesnt-discriminate: TAC; [cited 2021 20 August]. Available from: https://www.tac.vic.gov.au/about-the-tac/media-and-events/news-and-events/2021/new-research-reveals-road-trauma-doesnt-discriminate.
13. Austroads, Comcare, Queensland Government, NSW Government, SafeWork SA, Worksafe ACT, et al. Vehicles as a workplace: Work health and safety guide - National guide. https://www.worksafe.qld.gov.au/__data/assets/pdf_file/0020/21629/vehicles-as-a-workplace-national-guide.pdf: Austroads; 2019.
14. Goodsell R, Cunningham M, Chevalier A. Driver distraction: a review of scientific literature. Report prepated for the National Transport Commission, Project no: 013817. https://www.ntc.gov.au/sites/default/files/assets/files/Driver%20distraction%20-%20A%20review%20of%20scientific%20literature.pdf: ARRB; 2019.
15. Wooley J, Crozier J, McIntosh L, McInerney R. Inquiry into the National Road Safety Strategy 2011-2020 https://www.roadsafety.gov.au/sites/default/files/2019-11/nrss_inquiry_final_report_september_2018_v2.pdf: Office of Road Safety; 2018.

16. Centre for Road Safety. Safe Roads: Engineering Safer journeys: Transport for NSW; [updated 12 November 2020; cited 2021 26 August]. Available from: https://roadsafety.transport.nsw.gov.au/stayingsafe/safer-roads/index.html.
17. Victorian Government. Towards Zero 2016-2020: Victoria's road safety strategy & action plan. https://www.towardszero.vic.gov.au/__data/assets/pdf_file/0010/183556/STU_0206_RS_STRATEGY_2016_web.pdf: Victorian Govenment; 2016.
18. Office of Road Safety. National Road Safety Strategy 2021-2030: Australian Government; 2021 [cited 2021 26 August]. Available from: https://www.officeofroadsafety.gov.au/nrss?_ga=2.137956720.1145775647.1629768929-1163551636.1609988186.
19. Road Safety Advisory Council Towards Zero. About Us: Department of State Growth; [updated 22 July 2021; cited 2021 26 August]. Available from: https://www.rsac.tas.gov.au/about-us/.
20. WA Government. About the Road Safety Commission [updated 25 August 2021; cited 2021 26 August]. Available from: www.rsc.wa.gov.au/About/Road-Safety-Council
21. Academic Expert Group, editor Saving Lives Beyond 2020: The Next Steps - Recommendations of the Academic Expert Group. 3rd Global Ministerial Conference on Road Safety; 2020; Stockholm, Sweden. Stockholm: Swedish Transport Commission; 2019.

Appendix A

The Safe System approach

We believe that no Tasmanian should be seriously injured or killed as a result of their daily travel on our roads.

Our vision is of a future with zero deaths and serious injuries. To get there we know we have to think and act differently.

We have adopted the European model of creating a Safe System by focusing squarely on safer infrastructure and traffic management, as well as continuing to seek safer vehicles and extensive behavioural change.

A lot of our gains to date have come from protecting people when a crash occurs - seat belts, air bags, a raft of changes improving vehicle crashworthiness, motorcycle and bicycle helmets, reduced speed limits around schools and shopping strips, and so on. More recently, wire rope barrier has been introduced to minimise crash severity when a vehicle, for whatever reason, leaves the roadway.

These are applications of the first Safe System principle - as we are vulnerable beings, we can reduce casualties by reducing crash forces on the human body. Making our infrastructure safer is costly, but in the interim we can reduce crash forces by ensuring travel speeds do not exceed the level of safety inherent in our various roads.

For a very long time we have also focused our efforts on reducing the prevalence of high-risk behaviours by road users: risks such as speeding, drink and drug driving, driving fatigued, and so on. We have made gains in this area. For example, high intensity Random Breath Testing has substantially reduced the role of alcohol in serious crashes.

While we must continue our efforts to limit high risk and irresponsible behaviours, we must also look for other ways to supplement these efforts.

Extensive research has clearly demonstrated that much of the behaviour contributing to crashes is not irresponsible or negligent but the result of imperfect humans making everyday mistakes.

This is the second Safe System principle - we can change the design and operation of our system to reduce the likelihood of mistakes leading to serious crashes. Sealing gravel shoulders, improving sight distances, re-designing critical intersections, and tactile line markings are just some of the tools we have.

Our strategy has a target of reducing serious injuries and deaths to less than 200 by 2026. This is a big challenge and requires all of us to play our part.

Applying the principles of the Safe System means our approach to infrastructure has to continue to change, and we must redouble our efforts to achieve a moderation of travel speeds to match the level of safety built-in at present.

We must achieve all of this while engaging the community to play its part through responsible behaviour and consideration of all fellow road users.

This Action Plan outlines our journey and deserves everyone's full support.

Appendix B

Australia needs a dramatic change in road safety management

Key findings

There is a disconnect between intentions, resourcing and road safety practice

Australia needs a transformative approach to road safety, the Inquiry said. Road trauma targets are not being met and, at the same time, the Safe System approach espoused in the National Road Safety Strategy 2011–2020 is often not being honoured 'in the field'.

Not focusing on harm elimination means settling for sub-optimal results

Some improvement in safety is often regarded as sufficient or is assumed. We accept that we are making the roads, vehicles and users "safer" but frequently miss the opportunity to make them SAFE outright. We must move from a coping mechanism to one that fixes the problem once and for all.

More resources and a more intense focus are needed

Many safety aspects have not received sufficient focus or resources under the current National Road Safety Strategy. There are flaws in accountability, the scale and source of funding, gap analysis, capacity building, change management, quality assurance, technology, insurance and organisational culture.

Smart allocation of resources will enhance road safety

Smart application of safety initiatives demonstrated to the inquiry show a return across portfolios of up to 20:1. Leadership from the very top of government is required to recognise and unlock these multi-agency high returns on investment.

Road safety reform must scale-up the proven interventions and embrace new ideas

The consultative process provided a range of ideas and reforms. Many of these deserve further consideration within the context of developing future action plans and the next strategy.