

# **Submission to the 2022 Independent Review of Infrastructure Australia August 2022**

Lauchlan McIntosh

I appreciate the opportunity to make this submission, while it is brief, I would be happy to discuss and or provide further or supporting information as required. A brief CV is appended. The submission is made in my personal capacity.

## **Recommendations.**

- 1. IA must prioritise road safety assessment in infrastructure projects to ensure the Australia's road safety objectives over the next decade to reduce the annual number of fatalities by at least 50 per cent and serious injuries by at least 30 per cent by 2030 are met.**
- 2. IA must recognise and prioritise the benefits of safe road infrastructure.**
- 3. IA must recognise the benefits of safe road vehicles.**
- 4. IA must recognise the skills and capacity necessary in achieving safe road infrastructure, safe vehicles and the skills and facilities needed in trauma management of road crashes.**
- 5. Setting a hurdle rate which includes the overall safety benefits, ie real trauma reductions, to meet the targets set by the National Infrastructure and Transport Ministerial Meeting for assessment of infrastructure investment for recommendation to government is essential and should be a feature of IA assessments.**

# 1. OVERVIEW

I have been and remain an advocate for reform of infrastructure management for over 20 years.

I have been concerned that within infrastructure investment, especially in the road network, the importance of the full economic (including social and productivity) benefits of ensuring that road transport infrastructure as a safe system has been largely ignored by Infrastructure Australia (IA). This submission firstly outlines the need for ensuring priority is given to safe road infrastructure, safe road vehicles and the skills/capacity to design, implement and maintain not only the physical structures but also the vehicles that use them and the medical and related health services required to reduce the impact of trauma associated from unnecessary crashes caused by less than best practice safe infrastructure and vehicles.

A brief comment is made in response to the Review questions.

Regrettably the concept of “SAFE” has been relegated to being only a component of road infrastructure capital and maintenance investment, rather than as occurs in most industrial private organisation investments where “SAFETY FIRST” is the priority.

Whether IA, or any other administrative mechanism assesses the benefits of infrastructure investment, the safety outcomes should be the priority for planning and assessment of the responsibility and accountability of the final outcome.

For example, the recent BHP Half Yearly Report News release (16<sup>th</sup> August 2022) has the first sentence.

## ***Safe, reliable production***

- *There have been no fatalities at BHP for over three-and-a-half-years. High-potential injury frequency declined by 30% during the year.*

BHP obviously sees “SAFETY FIRST” as the key priority for its business.

The national Transport and Infrastructure Council in December 2021 agreed the release of the National Road Safety Strategy 2021-2030 which

*sets out Australia's road safety objectives over the next decade and includes key priorities for action and targets to reduce the annual number of fatalities **by at least 50 per cent and serious injuries by at least 30 per cent by 2030**. The Strategy continues the commitment to the [Safe System approach](#) and strengthening all elements of our road transport system under three key themes: Safe roads, Safe vehicles and Safe road use.*

No IA report that I am aware of, has suggested or recommended that the national infrastructure investment should be assessed to achieve such a target outcome by 2030.

The safety benefits, in road infrastructure have been well recognised for years.

For example a CEDA national project "Infrastructure- Getting on with the job (CEDA April 2005 p60) reported;

*Congested road infrastructure imposes significant economic costs. Apart from lost productivity through traffic delays, congestion also contributes to air pollution and accident rates and the costs associated with these. Urban congestion prolongs emission output and hence increases the health costs of air pollution related illness (BTRE 2000). Australia's bill from early deaths and other health effects of traffic pollution range from \$2.7 to \$3.9 billion (AusLink 2004, p. 11).*

*Despite safer vehicles and roads and driver behaviour yielding excellent results in recent years (the national road toll declined by over 50 per cent between 1981 and 2002), the drop in road fatalities has reached a plateau and the current costs of road accidents in Australia still totals over \$15 billion per annum, or almost 2 per cent of GDP (BTRE 2000). As the Australian Automobile Association observes,*

*"... fixing the roads has a greater potential to save lives than most people think. The federal government's National Road Safety Strategy estimates that by 2010 around 332 lives could be saved each year through improved roads, 175 because of safe vehicles, 158 by better driver behaviour and 35 by the use of new technology. You shouldn't die from making a simple mistake on our roads. Our infrastructure needs to be designed with safety at the forefront" (Australian Automobile Association 2004).*

In 2017 the then Minister for Urban Infrastructure, the Hon Paul Fletcher, in response to my request (then as President of the Australasian College of Road

Safety) to make road safety a priority for IA as the CEO had told me it “was not on his agenda”, wrote that IA did consider a “range of economic, environmental and social issues including road safety”.

I had noted then that many roads were “not fit for purpose”, annual costs were in the order of \$30bn pa, and that of the 100 seriously injured every day, 5 were permanently disabled-every day.

Those costs have not reduced. (Many reports, submissions to recent Parliamentary inquiries update these, to which the Review will have access.)

- **IA must prioritise road safety assessment in infrastructure projects to ensure the Australia’s road safety objectives over the next decade to reduce the annual number of fatalities by at least 50 per cent and serious injuries by at least 30 per cent by 2030 are met.**

## **2.SAFE Road Infrastructure**

The Federal Office of Road Safety states;

*The Australian Government is investing \$33.4 billion over four years from 2020-21 to improve safety on Australian roads. This is part of a \$120 billion investment in transport infrastructure to manage our growing population, meet our national freight challenge and get Australians home sooner and safer.*

<https://www.officeofroadsafety.gov.au/programs>

This includes a program of fast roll out of lifesaving road safety treatments on rural and regional roads, and as a response to the COVID-19 pandemic committed \$500m to supporting road safety improvements by States and Territories that can be completed in 12 months.

Some of this funding is on “a take it or leave it basis” and requires a specific safety outcome. This welcome development will have a Reporting and Program Management system to measure progress and those outcomes. Simple, effective measures with proven road safety benefits have and are being rolled out although there are reports of long delays for some local government projects.

The Submission to this Review by Rob McInerney (CEO of IRAP) sets out the projected costs of unsafe roads over the current decade (+\$300bn) projected in many well researched and reported studies and inquiries. He also reports that with respect to road safety in the IA 2021 plan;

**Road safety:** The *2021 Plan* does not attempt to cover significant policy reform opportunities relating to road safety, although some recommendations would benefit this area.

The Australian Government's Office of Road Safety is currently leading the development of a new *National Road Safety Strategy* for 2021–2030. The strategy will recognise that road safety is not solely a transport problem. Infrastructure Australia will support its development as appropriate.

As noted above the National Road Safety Strategy 2021-30 sets out Australia's road safety objectives over the next decade, Safe roads, Safe vehicles and Safe road use.

However despite the recorded intention of the Infrastructure and Transport Ministers in their Communique in February 2022 to consider in their second meeting in 2022 and Action (or Resource) Plan, such a plan was not mentioned in their August 2022 meeting. The Government's proposed investment as set out above is valuable although absent from the IA's Plan,

While IA has begun including road safety benefits into specific projects, these are still as an individual projects, not as SAFETY FIRST for all road transport capital and maintenance projects.

<https://www.infrastructureaustralia.gov.au/map/regional-road-network-safety-improvements>

Rob McInerney's submission sets out comprehensively how the integration of road assessment programs (eg AusRAP/iRAP) into road infrastructure can deliver the necessary "SAFE" priority. AusRAP the star rating of roads for safety was launched in Australia in 2005, almost 20 years ago, but a comprehensive adoption has been hindered due to a lack of commitment by our current

institutional structures (including IA) and a lack of accepting responsibility by governments for delivering SAFE infrastructure as a priority.

Safety rating of the road infrastructure itself as McInerney's submission outlines can be comprehensively made for mandatory specification of desired Star Rating targets for all road users (pedestrians, cyclists, motorcyclists, and vehicle occupants and associated actual performance measured and reported routinely).

- **IA must recognise and prioritise the benefits of safe road infrastructure.**

### **3.SAFE Road Equipment**

Other factors must be considered in the investment and maintenance of the road network in ensuring safety is prioritised.

Road user behaviour is routinely considered as the key factor in safety outcomes of road infrastructure, although in industry "the worker made a mistake" is not an acceptable or appropriate defence outcome for management in unsafe incident investigations. It is well established that road users should not die or be seriously injured making a mistake and or as the result of unsafe infrastructure. The National Road Safety Strategy for 2021-2030 as noted above has clear trauma reduction targets. It is vital that all best practice safe road components must be also considered. (As also occurs nationally in the investment in air, rail, and maritime infrastructure facilities.)

All the equipment which are used on the road network must also be safe.

My submission to the 2021 Joint Select Committee on Road Safety (attached) set out as a case study the impacts from the delays in mandating/encouraging new safe technologies into the vehicle fleet (including trucks). While many fleet operators insist on this technology in new vehicles, mandating and or incentivising the latest equipment can ensure that Australia has a modern safe fleet. (Modern, world best practice vehicles generally have considerable environmental benefits as well. Modernising Australia's aged truck fleet for example would have real safety and environmental benefits. Similar benefits would accrue for motorcycles and buses.)

Considerable national and international research demonstrates the real advantages of collision avoidance technology.

<https://research.monash.edu/en/publications/the-potential-benefits-of-autonomous-emergency-braking-systems-in>

These benefits summarise the reduction in trauma in fatal and all injury crashes could be from 15 to 38%.

Such life saving measures of up to date, safe vehicles will be a major contributor to safe infrastructure.

*In June 2012, over nine years ago, the then Federal Minister responsible for road safety, the Hon Catherine King MP said in Parliament:*

*“We will continue to work hard over the next two years, as we evaluate the case for mandating a range of further measures, such as:*

- *Electronic Stability Control for light commercial vehicles;*
- *Brake assist technology for passenger cars;*
- *ABS technology for motorcycles; and*
- ***ABS, lane departure warning systems and advanced emergency braking systems for heavy vehicles.”***

*(<https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22chamber%2Fhansard%2F3e4e9532-bf3c-4623-bc6b-c0e926ad7cec%2F0050%22;src1=sml> )*

Ten years passed before the Assistant Minister to the Prime Minister Kevin Hogan in March 2022 announced;

*“Vehicle technology has an important role to play in saving lives and livelihoods on our roads, which is why we have introduced new standards requiring AEB and ESC systems to be installed in all new heavy vehicles.*

*“Mandating this technology for heavy vehicles is expected to save around 100 lives and avoid over 2,300 serious injuries over 40 years.*

*AEB and ESC systems must be installed from 1 November 2023 for all new models of heavy vehicles.*

*For existing models already in circulation, these life-saving systems must be installed in new buses from 1 November 2024, and new goods vehicles over 3.5 tonnes from 1 February 2025.*

<https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F8455910%22;src1=sml>

The consumer testing program for light vehicles (ANCAP) notes;

*ANCAP’s encouragement of new safety technologies has resulted in economic benefits in excess of \$440 million over the period 2019 to 2021 through fewer crashes causing fatalities, serious injuries and vehicle damage.*

With such benefits available now for vehicles on national road infrastructure why is this not a priority and why is the installation delayed until 2025?

- **IA must recognise the benefits of safe road vehicles .**

#### **4.SAFE Infrastructure Skills and Capacity**

The skills and workforce capacity necessary to design, manufacture, install and operate SAFE infrastructure must be included in any investment assessment.

This was a recognised in the Inquiry into the National Road Safety Strategy 2011-2020.

*As noted in recommendation 6, there doesn’t appear to be a plan for the political, economic and community skills needed to build the overarching management capacity, and it seems there is limited understanding of the technical, planning, social and engineering expertise—and the training needed— necessary over the next decade to ensure we can achieve the programs and projects needed.*

*As an indication, a scan by LinkedIn of its 10 million members in Australia shows the following distribution of government employees who specifically mention “road safety” as a headline in their job description:*

*Queensland 573, Victoria 491, New South Wales 464, South Australian 133, Western Australia 123, Australian Capital Territory 28, Tasmania 3, Northern Territory 2.*

*A recent capacity review of road engineering by Austroads also identified issues relating to ongoing management and maintenance of the nation’s roads, but not safety capacity.*



*The inquiry suggests a key future task should be a detailed analysis of current skills across all the relevant portfolios and an estimate of the future skills needed to achieve the transformation sought in road safety performance.*

*Inquiry into the NRSS 2011-2020 p67 “*

While this data is out of date, and incomplete, it shows a clear disparity in road safety skills capacity across the country. Any assessment by IA of road investment must include a full analysis of the capacity needed to implement projects. Not only the workforce itself, but the skills and competence available in all aspects from planning to implementation.

The 2021 report of IA's Infrastructure Australia's Market Capacity Program makes no mention of the complex skills needed in design and management of safe roads although it does recognise the need to address skill (including some safety) in rail transport. The Track Safe Foundation in April 2021 reported;

*Fatalities and injuries on the Australian Rail Network 2001-2019*

*Incidents also cause disruption and delays to hundreds of services each year, impacting customers and economic efficiency. The average annual economic burden of railway safety incidents in Australia during the period 2007-2015 was estimated to be approximately \$360.1 million*

<https://tracksafefoundation.com.au/wp-content/uploads/2021/09/2021-04-TrackSAFE-Fatalities-Injuries-2001-2019-Fact-Sheet.pdf>

With 40,000 serious injuries occurring annually from road crashes today and forecast by the BITRE to increase to 50,000 by 2030 there must be recognition of the considerable failure the road system to be safe and the need for a range of management, professional and operation skills, and capacity to make it safe.

Costs over the next decade are reliably forecast at least \$300bn in this decade, \$30bn annually now. Concern over rail safety skills is warranted. Why then are the skills needed in road safety overlooked?

Also, the treatment of these very large numbers of serious injuries in terms of subsequent personal, institutional, social and productivity losses, resulting from that failure requires capacity in our medical, health and care services and facilities (currently overloaded), in terms of skills, capacity and associated

infrastructure. Recognising this is essential in any analysis of the benefits of a SAFE infrastructure road system within that “range of economic, environmental and social issues including road safety” suggested by Minister Fletcher in 2017.

Again, this was recognised in the Inquiry into the National Road Safety Strategy 2011-2020;

*This inquiry recommends that our national capacity to manage and improve trauma care be urgently investigated and resources allocated to not only continue funding for the ATR, but to implement change to reduce preventable death from injury by up to 50% with the associated benefits of:*

» *reducing trauma,*

» *improving national productivity, and*

» *reducing the unnecessary, unplanned burden of road crashes on our health system.*

*Inquiry into the NRSS 2011-2020 p20*

Management and governance competence is also vital.

McInerney also makes a key point on skills within IA;

- The key skills needed for good governance – including sector specific skills for committees of the Board as needed – should be identified and representation on the Board reflect those skill areas. AICD or similar training for all Board Members should be a minimum to ensure accountable and strategic direction is provided for the organisation.
- **IA must recognise the skills and capacity necessary in achieving safe road infrastructure, safe vehicles and the skills and facilities needed in trauma management of road crashes.**

## **5. INFRASTRUCTURE AUSTRALIA REVIEW Guiding questions**

## ***Infrastructure Australia's (IA) Role, Effectiveness and Governance***

I am unclear of how IA is held accountable for its studies and reports and how the work duplicates or replaces that of the plethora of existing government departments, coordinating departments, and interdepartmental committees or other agencies/commissions. These either commission “independent” reviews, seek submissions, again duplicating often volunteer, pro-bono advice.

IA encourages and accepts templated submissions by applicants for Commonwealth funding for projects over \$250m, which are apparently collated by specialist staff, reporting to a CEO under a specific Ministerial charter, who also reports to a Board of Ministerial selected “independent” infrastructure experienced individuals. While Commonwealth Government employees are not included, their exclusion is likely to lead to duplication of effort. The fact that the last IA Budget report (31 March 2022) by the CEO of IA noted that only 63% of projects funded were on the IA Priority list or had a business case assessed by IA, suggests that 37% were assessed elsewhere in Government.

<https://www.infrastructureaustralia.gov.au/listing/newsletter/ceo-newsletter-federal-budget-update-2022>

How do the Board members contribute their knowledge and how are they held collectively and individually accountable? Do they act as chairs of specialist committees or contribute as for example Commissioners at the Productivity Commission? Who assesses their competence and contribution?

Their 2019 Australian Infrastructure Audit was subject to a poor review by an economic commentator Judith Sloan.

*Consider the 642-page contribution of Infrastructure Australia, released this week — The Australian Infrastructure Audit 2019. It is a pitiful document, full of meaningless homilies and worthy sounding gobbledygook.*

<https://www.theaustralian.com.au/inquirer/another-day-another-600-pages-of-audit-stuff-and-nonsense/news-story/d73c4bc37166c5de3a2f8a195ab66311>

As noted previously the enormous national social and financial impacts of unsafe road infrastructure was basically overlooked in that apparent comprehensive Audit.

Another question is what is special about the \$250m investment level? Benefit, or return on investment (economic- including social, environmental etc) would be a more valuable hurdle.

McInerney's submission to this Review makes the following points;

- *I note the Federal Department's recent review of transport projects ([https://www.bitre.gov.au/sites/default/files/rr\\_145\\_vol1.pdf](https://www.bitre.gov.au/sites/default/files/rr_145_vol1.pdf)) that showed many of the big 'travel time' related projects actually had BCR's <1. Road safety investment frequently has BCR's significantly greater than 1 and given the road trauma \$300 billion+ cost over the next Decade these benefits need to be captured. Refer to the IRR analysis completed as part of the FIA Foundation "Investing to Save Lives" report <https://www.fiafoundation.org/resources/investing-to-save-lives> and also the recent World Bank /IFC report <https://blogs.worldbank.org/ppps/private-investment-road-safety-can-save-lives>*
- **Setting a hurdle rate which includes the overall safety benefits, ie real trauma reductions, to meet the targets set by the National Infrastructure and Transport Ministerial Meeting for assessment of infrastructure investment for recommendation to government is essential and should be a feature of IA assessments.**

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## Lauchlan McIntosh AM FACRS

*I have overseen and made many submissions and presentations to various Parliamentary Inquiries, Conferences and Summits on national infrastructure related issues in my various roles including as Executive Director of the Australian Automobile Association (AAA), Chair of the CEDA Infrastructure Project “Getting on with the Job”, Chairman of the Australasian New Car Assessment Program (ANCAP), President of the Australasian College of Road Safety, President of Intelligent Transport Systems Australia (ITSA), Inaugural Director of the International Road Assessment Program (iRAP), and Board member and Chairman of the Towards Zero Foundation and Global NCAP (a UK based international road safety charity.) I was an advisor to the Federal Government Inquiry into the National Road Safety Strategy 2011-2020 commissioned by the Hon Darren Chester MP which was received in the Parliament with bipartisan acceptance by the Hon Michael McCormack MP and the Hon Anthony Albanese MP in 2018.*