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 Sir Peter Cosgrove AK MC (Retd), Governor-General of the Commonwealth of Australia.

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About the Australasian College of Road Safety

A proposal for resourcing national road safety to reduce the tragedy of increasing deaths and injuries on our roads

2017-2018 ACRS Pre-Budget Submission

Fostering communication, networking, professionalism and advocacy in road safety
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Executive Summary

Given the tragic recent rapid rise in deaths (Figure 1, BITRE, 2017 & ACRS) and injuries (Figure 2, BITRE, 2016) from road crashes across Australia, this request is for the Federal Government to recognise and fund the National Road Safety Strategy (NRSS) (Australian Transport Council, 2011) within its budget processes, with a reinstatement of national road safety funding including strong support for existing programs. This request updates previous requests from the College in 2014 and 2015, and comes after we have seen the deeply concerning increase in the number of both deaths and serious injuries on Australian roads over this period.

This request includes specifically a collaborative program between the Commonwealth Government and the Australasian College of Road Safety to assist in building knowledge and capacity for road safety professionals and practitioners, especially in rural and regional Australia where 66% of the trauma occurred during 2015 (Transport and Infrastructure Council, 2016). The collaborative program will allow expansion of existing road safety activities of the College. This includes improving the distribution of best practice road safety research results to assist in reducing the alarming increase in road trauma costs to the nation.

Road trauma - that is deaths and serious injuries in Australia - is tragically rising after decades of reductions. Our performance when compared internationally has fallen from among the top ten to the bottom of the top 20 countries. The cost of this trauma to our nation continues to be over A$30bn per year.

The Federal Government has specific road and vehicle safety responsibilities. While it funds a range of road safety related measures, it unfortunately 1) has no specific overarching budget program, 2) has no comprehensive national research program, 3) does not record the costs of road trauma in affected portfolios, and 4) has no mechanism to measure the loss of national productivity associated with the many impacts of road crashes.

A recent OECD ITF 2016 report (OECD, 2016) and a BITRE report in 2014 (BITRE, 2014) recommended a paradigm shift in management of road safety, in building research and in leadership with emphasis on a “Safe Systems” approach. While such a “Safe Systems” approach has been recognised for some time in Australian road safety strategies and plans, the messages and techniques need to be urgently communicated to the many “on ground” practitioners and community groups across the country. Over the last 5 years the ACRS has successfully developed enhanced road safety communication programs through weekly online alerts, professional journals, city-based chapter meetings, and a significantly expanded annual conference (the Australasian Road Safety Conference series (ARSC 2015–) which has attracted 600-700 delegates per event.

The College is in a unique independent position to build on that success to expand current programs beyond its membership of direct stakeholders and politicians to a much wider audience of local engineers, road and vehicle designers, social and community workers, local administrators, police, etc.

In relation to the proposed collaborative program, it is proposed to include funding communication specialist(s) at the College for 3 years to support and extend the College’s communications programs to a wider audience, with particular emphasis on engaging stakeholders in rural and regional Australia. (Note: This level of funding is in line with that currently provided by the federal government to the Australian Bicycle Council secretariat - $165,000 pa (Austroads, 2016)).

The College also reaffirms its previous request for the funding of 7 collaborative programs to the value of $5.2m over 3 years, and encourages the Government to have an adequately resourced national budget for successful implementation of the National Road Safety Strategy.
1.0 Background

Road trauma is one of the highest ranking public health issues we face as a nation today, and the number of people affected, particularly through serious injuries as a result of road trauma, is increasing (Figure 1, BITRE, 2017 & ACRS, Figure 2, BITRE, 2016). Death and injury from road trauma in rural and regional Australia are over-represented in the statistics, in 2015 accounting for around 66% of all trauma. Each week in Australia 25 people die and at least 700 are seriously injured, and the ripple effect of each road trauma event to our families and communities is enormous.

Figure 1: Deaths from Road Trauma in Australia 2010-2016
Comparison with NRSS targets and current trend (Source data: BITRE, 2017, Chart ACRS)

The causes and consequences of road trauma continue to have a serious impact on Australia’s productivity, estimated by the federal government to cost our economy $27bn per year in 2011 ($32bn in today’s dollars) – similar to Australia’s annual Defence Budget of $31.9m for 2015/16 (DoD, 2015) and equivalent to 18% of health expenditure (BITRE, 2014) and 1.8% of the national GDP (OECD, 2016). Work-related road crashes account for 33% of all occupational fatalities in Australia and 15% of the national road toll (CARRS-Q, 2014).

Australia’s performance has not improved to the same degree as many Organization of Economic Cooperation and Development (OECD) countries since the year 2000. The OECD IRTAD Annual Report 2014 reports that ‘Success in improving safety levels over the decade since 2000 continues to be unequally spread, both across countries and across transport modes. The … least success was recorded for the United States (-20.0%) and Australia (-28.5%) as well as in a number of observer countries’ (OECD, 2014).
Unfortunately, as well as an increase in deaths from road crashes, the number of serious injuries from road crashes in Australia is increasing each year. Between 2000 and 2013, the number of (Australian) people hospitalised due to road crashes increased from 26 963 to 35 059 (OECD, 2016).

The number of serious injuries now sits at over 37,000 per year, and continues to rise (Figure 2, BITRE, 2016).

*Figure 2: Australian road fatalities and injuries*  
Historical and modelled: 1965-2030 (Source: BITRE, 2016)

Furthermore, transport crash injury cases increased from 12% to 13% of all injury hospitalised cases during the periods 2012-2013 and 2013-2014 (AIHW, 2016), meaning the rising trend of these hospitalisations is placing an increasing strain on our health budget. Therefore we are currently ‘in reverse’ in our efforts to meet the 30% serious injury reduction targets set collectively by Federal, State and Local governments under a COAG agreement.

While the majority of road safety improvements are implemented and seen as the responsibility of State, Territory and Local Governments, the impact of road trauma is evident in programs across all Federal portfolios, in business, and of course across the community. World best practice in reducing road trauma recognises the need for a “systems approach”, a united effort involving all governments, business and the community to adequately address this serious and tragic health productivity and social issue.

Three of the top measures suggested by road safety experts—research, management and leadership—are strategic and were listed as not amenable to economic analysis in the BITRE report 'Impact of road trauma and measures to improve outcomes' (BITRE, 2014). These important strategic activities are, however, addressed in the broader Review of the National Road Safety Strategy (Austroads, 2015). This Austroads report identifies 13 priority areas for which more emphasis is recommended because of changing crash patterns or a real or perceived lack of activity.
The College as an effective independent national network, is able to assist in bringing all groups together to expedite achievements across all 13 priority areas identified in the report, with the following three examples having immediate relevance to this submission:

<table>
<thead>
<tr>
<th>National Strategic Leadership</th>
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<tbody>
<tr>
<td>Internationally, road safety management is a growing focus of attention as various institutions and jurisdictions recognise that the limits to improved road safety performance are, in part, shaped by the capacity of the road safety management system operating in a country.</td>
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<tr>
<td>Many stakeholders (canvassed during this project) thought that the accountability for road safety is unclear and does not assist the leadership task.</td>
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<tr>
<td>Improvement in institutional structures, capacities and delivery arrangements at a national level were identified as part of the “First Steps” agenda. Governance arrangements for road safety under the Transport and Infrastructure Council have been modified in the last two years to improve national oversight and coordination of the NRSS and provision of policy advice to Commonwealth, state and territory governments. A review of governance and management arrangements for road safety could be considered to assist subsequent decision-making.</td>
</tr>
<tr>
<td>Internationally, a common tool for addressing these matters is a road safety management capacity review and this methodology (or aspects of it) would be useful.</td>
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<tr>
<td>There was also concern about a lack of engagement in the implementation of the NRSS. Many of the nongovernment stakeholders referred to a lack of engagement on the national road safety issue.</td>
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<tr>
<td>Consideration could be given to establishing and formalising a strong stakeholder engagement process.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Communication Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication of road safety messages is essential in gaining support for road safety initiatives.</td>
</tr>
<tr>
<td>All jurisdictions face similar challenges in communicating Safe System principles and shifting community perceptions in favour of interventions that will work. The literature review found some innovative and promising communication campaigns, reflecting a variety of approaches.</td>
</tr>
<tr>
<td>The College already has efficient communication networks and could extend these with additional resources. The cooperative development of resources and guidelines to assist jurisdictions in communication activities could be part of the action plan.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monitoring Serious Injuries and Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road safety has long relied upon road fatality counts as the main outcome indicator. It has been recognised that this provides an incomplete basis for planning and monitoring because initiatives directed at reducing deaths are not necessarily effective at reducing other harm, particularly persisting disability.</td>
</tr>
<tr>
<td>Measurement of serious road injury is currently limited and often disconnected. Substantial improvement is necessary because of the large numbers of cases, the burden of disability resulting from many of the cases, and the differences in trends and other aspects of the data between fatalities and serious injuries. A “Big Data” approach should be considered to assist in the measurement and monitoring of serious injuries, to improve the availability and reliability of information for analysis.</td>
</tr>
</tbody>
</table>
In a similar vein, the 2016 OECD Annual Report (OECD, 2016) includes the following statement:

**Organisation of road safety (in Australia)**

In Australia’s federal system, government responsibilities for road safety vary across jurisdictions. The Australian Government is responsible for regulating safety standards for new vehicles and for allocating infrastructure resources, including for safety, across the national highway and local road networks.

State and territory governments are responsible for funding, planning, designing and operating the road network, managing vehicle registration and driver licensing systems, and regulating and enforcing road user behaviour.

Local governments have responsibilities for funding, planning, designing and operating road networks in their local areas.

Notably absent in the definition of “Organisation of road safety” in Australia is the beneficial impact that the numerous other stakeholders, across government agencies and in the broader community, can and do have on reducing road trauma. In this submission the College calls for additional support so that we can expand collaborative efforts already in place within the College to recognise, reward, collaborate and coordinate the efforts of these many stakeholders - from economists to researchers to medical professionals, business, carers and disability advocates - to improve road trauma outcomes substantially beyond the capacity of government-only action. This is especially important given the alarming rising trend we are seeing in both deaths and serious injuries.

As stated above, road trauma currently costs the economy 1.8% of GDP. The College has an extensive network of member organisations and relationships with stakeholders, and has an excellent track record in bringing all groups together to collaborate to enhance our road safety outcomes. The College is therefore best placed to provide the government and Australian communities with well-planned, efficient and coordinated support to bring our nation back to being a leader on the world stage in terms of road trauma reductions.

In this submission, the College requests a total of $5.2m over 3 years to fund activities aimed at substantially increasing Australia’s road trauma reduction rate – an investment by the Australian government that will have ripple effects across the economy and society for many years.

The Coalition’s Road Safety Policy (LNP, 2013) recognises that the rate of progress in road trauma reductions has slowed in recent years, and also recognises that effective change is necessary. The Policy sets out a plan to increase our combined efforts to reduce road trauma:

*Under a Coalition government the Transport Minister will work closely with all stakeholders to encourage a collaborative approach to research, innovation and the delivery of new programmes to help save lives and reduce injuries on our roads. This will include existing road safety researchers and bodies such as the Australian Research Council, the National Health and Medical Research Council, and the Australasian College of Road Safety to build scale in research and assist in the development of road safety initiatives.*

The Coalition has committed expenditure in road safety through Departmental programs which include Black Spot funding, supporting State-specific activities through COAG, support of Local Government road safety awards, the AAA Keys to Drive Program, participation in ANCAP, support for the Bicycle Council, Vehicle safety research, various NTC programs as well as some AID road safety programs to name a few.

The College supports and encourages continued funding of these. However, resourcing of these programs tends to be disconnected with each organisation seeking funds on a case by case basis -
almost competing for a very small funding pool, particularly when measured against infrastructure spending and the real costs of road trauma to the nation.

We believe that part of the paradigm shift needed in road safety management will be recognition of the importance and value of new “disruptive” technologies (i.e. “a technology that displaces an established technology and shakes up the industry, or a ground-breaking product that creates a completely new industry” (WhatIs, 2016)) in data management, communication, vehicles and post trauma care, all of which should be encouraged and monitored to assist in reducing road trauma.

The College does not believe that any new money is necessarily required for the funding, as the value of the programs proposed could be funded adequately as an almost “rounding” figure within the current national roads infrastructure budget which is in $Billions. A relatively small reallocation may be possible if specific funds are not available. Funding the programs suggested below will assist in building scale in road safety nationally. This is vital. We believe there is little value in the Federal Government funding State and Local Government roads unless there is national leadership and a coordination program to ensure that those funds are committed to align with a specified reduction in road trauma. The economic benefits which will accrue across so many Federal as well as State and Local Government portfolios will be much greater than the outlays proposed here. Benefits of various specific improvements alone are set out in the recent BITRE report.

However, to be most effective, a multifaceted national program which covers the five major road safety action pillars is necessary. While the Government has acknowledged the College’s past two Budget Submissions, no reallocation of or new resources have been made available to the College or the Department. This is particularly disappointing given the trauma increases we are experiencing.

Given the recent and tragic increase in road deaths and injuries, every effort must be undertaken to lift our target reduction in deaths and injuries by a further 20% at least, to bring us in line with the targets of the majority of OECD countries.

At the recent 2\textsuperscript{nd} High Level Conference on Road Safety in Brazil, attended by an Australian Federal Minister and senior representatives from Australia, a global target to reduce road trauma by 50% by 2020 was agreed. While this may seem aspirational, we urgently need to be able to determine what we can be doing to effectively work toward such a target.

Priority budget spending areas recommended in this report are designed to support the government and College’s road trauma reduction work, as well as supporting the recommendations outlined in the Coalition’s Road Safety Policy. These key recommendations support the wider government actions as well as improved outcomes for Australian society a whole. We believe this program can be used to leverage greater involvement in other related contributions and activities by many stakeholders.
2.0 Supporting data

The 2014 ACRS Submission to the Australian Road Safety Community (ACRS, 2014) outlined concerns over the continued and substantial cost of road trauma to the Australian economy and societal well-being as a whole (Figure 3, ACRS, 2014).

Figure 3: Cost of road trauma to the Australian economy with 0%, 30% and 50% reduction targets
$bn cumulative 2011-2020

As outlined in our 2015 Submission to the Senate Inquiry into Aspects of Road Safety in Australia (ACRS, 2015), although there are many good examples of effective road trauma reduction programs occurring in organisations across Australia, there is a fragmentation and disconnection that detracts from Australia achieving the maximum benefit and effect of these programs. This is hindering the potential gains that Australia can make.

ACRS continues to strive for increased collaboration and a more coordinated collective response to combat road trauma. ACRS initiatives have included encouraging national political parties to develop road safety policies, building new alliances such as with companies and national health research bodies, carer and disability organisations etc, expanding communication networks and publications, and compiling comprehensive submissions to government and the road safety community.

Increased collaborative efforts in the community sector, especially with the young and elderly, vulnerable road users, etc show what can be achieved, often with relatively small investment. These efforts can occur in tandem with the development and implementation of major infrastructure and technological changes that can support long-term change.
The collaborative development of sound overarching frameworks such as the recently developed National Road Safety Research Framework (ACRS & NHMRC, 2013) should be considered a top priority to achieve the goals of the NRSS. This would help to elevate Australia’s ranking in comparison to other OECD countries (Figure 4, ACRS), as well as increasing Australia’s productivity – provided we can address the existing disparity across Australian jurisdictions in road safety performance.

Figure 4: Australia’s performance in lowering the national road toll
Comparison with performance of other OECD countries 2000-2014 (see Appendix 2 data)

Encouraging and supporting collaborative organisations, particularly those with a proven track record such as ACRS, is important for a number of reasons. Primarily it empowers Australia’s collective road safety community to make greater gains in road trauma reductions. Importantly it also increases efficiency and reduces potential duplications across competing or fragmented programs that have similar aims. A renewed focus on supporting collaboration will benefit Australia’s road trauma outcomes, and will have flow on effects to the economy and social well-being of our nation.

The proposals outlined in this 2017-18 Pre-budget Submission are aimed at significantly increasing Australia’s achievements in reducing road trauma, in line with recommendations in the Coalition’s Road Safety Policy, the National Road Safety Strategy 2011-2020, and the UN Decade of Action for Road Safety 2010-2020.
3.0 Priority Budget Spending Areas

1. Communicate with all road safety stakeholders through to the general public, by expanding ACRS’s already successful communication networks to reach a broader stakeholder audience. This may include specific seminars at the annual conference or separately, site visits, distribution materials etc (in line with Section 7 of the Coalition Policy). The communication strategy would involve a strong focus on connecting with regional and remote stakeholders who are working to reduce their significant over-representation in road death/injury statistics. This strategy would include employment of dedicated regional and remote communications specialist(s)/coordinator(s).
   Contribution requested: $750,000 over 3 years.

2. Develop and implement with government agencies, including the transport and health sectors, an agreed Road Safety Communications & Marketing Plan to coordinate the often mixed road safety messages to the general public (in line with Section 7 of the Coalition Policy).
   Contribution requested: $390,000 Term: 3 years

3. In conjunction with the NHMRC and ARC, Implementation and monitoring of Australia’s National Road Safety Research Framework, developed in conjunction with all existing road safety stakeholders, and in particular encourage a major collaboration with new technology providers. This would include the development of a National Road Safety Research Plan (NRSRP).
   Contribution requested: $1,500,000 over 3 years.

4. Coordinating the focus on injury data collection and reporting, in collaboration with the Bureau of Infrastructure, Transport and Regional Economics (BITRE), to meet OECD reporting guidelines for estimating serious injuries (with a Maximum Abbreviated Injury Score – MAIS - of 3 and more).
   Contribution requested: $1,500,000 over 3 years.

5. Encouraging constituency across the community – building an innate desire to expedite trauma reductions, including leveraging engagement with the annual conference. Engagement programs with stakeholders, particularly those with broad outreach across the Australian public.
   Contribution requested: $270,000 over 3 years.

6. Rewarding the achievers: Continue and expand on the tradition of recognising our greatest achievers and advocates by expanding the Australasian Road Safety Award Program to reward a larger number of stakeholders and sectors for their valuable efforts to reduce road trauma.
   Contribution requested: $360,000 over 3 years.

7. Support increased international collaboration across all stakeholder sectors. Expand on the level of international collaboration evident at the inaugural Australasian Road Safety Conference, including bringing selected international delegates to future conferences and assisting in setting up an ACRS international Outreach Chapter and/or ACRS ASEAN Chapter. As detailed in the recent letter from Dr Etienne Krug at the World Health Organization (WHO) to Hon Michael McCormack MP, the WHO are “very keen to explore further how the Government of Australia might be able to collaborate with WHO to support countries, in particular in the WHO |Western Pacific Region, to define priorities and make the urgent progress needed”. Some ideas for follow up included...
   “Facilitating capacity development for road safety in low-income and middle-income countries through a specific programme at the Australasian Road Safety Conference 2016 in Canberra”.
   Contribution requested: $450,000 over 3 years.
Summary:

- Contribution sought per year: $1,740,000
- Term: 3 years
- Total Contribution sought: $5,220,000

Table 1: Contribution sought by ACRS to improve road trauma reduction outcomes

<table>
<thead>
<tr>
<th>Program</th>
<th>2015/16</th>
<th>2016/17</th>
<th>2017/18</th>
<th>Total over 3 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Road safety stakeholder expansion</td>
<td>$ 250,000</td>
<td>$ 250,000</td>
<td>$ 250,000</td>
<td>$ 750,000</td>
</tr>
<tr>
<td>2. Road safety Communication &amp; Marketing Plan</td>
<td>$ 130,000</td>
<td>$ 130,000</td>
<td>$ 130,000</td>
<td>$ 390,000</td>
</tr>
<tr>
<td>3. Progressing the National Road Safety Research Framework</td>
<td>$ 500,000</td>
<td>$ 500,000</td>
<td>$ 500,000</td>
<td>$ 1,500,000</td>
</tr>
<tr>
<td>4. Assisting with injury data harmonisation</td>
<td>$ 500,000</td>
<td>$ 500,000</td>
<td>$ 500,000</td>
<td>$ 1,500,000</td>
</tr>
<tr>
<td>5. Increasing constituency across the community</td>
<td>$ 90,000</td>
<td>$ 90,000</td>
<td>$ 90,000</td>
<td>$ 270,000</td>
</tr>
<tr>
<td>6. Rewarding the outstanding road trauma reduction achievers</td>
<td>$ 120,000</td>
<td>$ 120,000</td>
<td>$ 120,000</td>
<td>$ 360,000</td>
</tr>
<tr>
<td>7. Promoting international collaboration with key stakeholders</td>
<td>$ 150,000</td>
<td>$ 150,000</td>
<td>$ 150,000</td>
<td>$ 450,000</td>
</tr>
<tr>
<td><strong>Total per year</strong></td>
<td>$ 1,740,000</td>
<td>$ 1,740,000</td>
<td>$ 1,740,000</td>
<td>$ 5,220,000</td>
</tr>
</tbody>
</table>
4.0 Bibliography


5.0  Attachments

Attachment 1 – ACRS Membership

The Australasian College of Road Safety membership consists of the following:

- All Australian and New Zealand road safety research agencies
- Australian and New Zealand universities
- Injury prevention, brain injury and neuroscience research organisations
- Australasian medical representative groups
- Australian federal government road safety & health promotion agencies
- State and Territory road transport agencies
- Local government agencies
- Policing agencies (both federal and state)
- Emergency services agencies
- Road safety research funding organisations
- Medical associations
- Safety promotion and training agencies
- Carer advocacy groups and associations
- Independent road safety consultants
- State vehicle and personal insurance agencies
- Driving schools and instructor associations
- Road safety advocacy groups, including motorcycles, children, youth, pedestrians, cyclists
- Road industry groups, including vehicles, trucks, roads
- International road safety consultants, agencies and advocacy groups
- Fleet safety associations
- Independent economist consultants and companies
- Engineers & engineering associations
- Legal firms
- Trucking companies
- Vehicle manufacturing companies
- Vehicle safety advocacy and testing organisations
- Other public or private companies interested in or working in the field of road safety
- Secondary, tertiary and post-graduate students currently studying in the road trauma field
- Interested members of the public
Imagine the consequences...

Imagine if our nation was providing defence forces to combat war overseas, and that 25 soldiers were dying and 600 being seriously injured each week - week after week, year after year. Imagine if there was no end in sight, and the wartime fatalities had increased in the last calendar year compared to the year before. The public and political pressure to end these mass casualties would be immense.

Imagine if there were 5 Boeing 737 crashes every week in Australia, with 25 passengers dying and 600 being seriously injured each week. The public outcry would be enormous, the effects on our nation soul destroying. Every effort would be made to stem this tide of death and injury.

Imagine if there was an epidemic which consistently, year after year, was the leading cause of casualty in our population for 1-44 year olds. Imagine if it was the leading cause of death and injury in our young people between the ages of 15-24. The forces mobilised to counteract this epidemic would be enormous.

Imagine the effects on health system if our hospitals were dealing with the injured from these plane crashes, war events or epidemics – over 600 people per week - reaching the emergency doors with serious injuries, enduring lengthy hospital stays and for some a lifetime of disability.

Imagine the strain on our disability services and community support structures if our communities were dealing with these injured people – over 600 people per week – some requiring extensive and costly lifetime support.

Imagine the consequences of these deaths and injuries on our communities – the 25 deaths per week resulting in outpourings of grief from our families and communities, and the 600 people each week who are released from hospital to be cared for by families and communities in the longer term.

Imagine if the annual costs to our economy of these plane crashes, wartime efforts or epidemics was estimated to be over $27 billion. This is more than Australia’s current annual Defence budget of $26 billion. The political and social pressure to solve this problem would be enormous.

This is the road trauma reality – 25 people dead and 600 seriously injured every week.
Week after week.
Year after year.

The impact of road trauma is all-encompassing, covering the full spectrum of the political agenda. A much stronger focus on saving lives and injuries on our roads, covering all age groups and user groups, and including all facets of road crashes such as trauma services and post-crash care, would have a major impact on our economic and social well-being. Many solutions are simple and cost-effective.

(Note: More recent BITRE data estimates injuries rose to around 700 per week in 2014/15 and continue to rise – BITRE, 2016)
### 6.0 Appendices

#### Appendix 1

**Appendix 1: Australian road trauma costs 2011-2020**

*Comparison of costs ($b) – 30% vs 50% reduction targets*

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths (No.)</th>
<th>Injuries (No.)</th>
<th>Road trauma cost $b&lt;sup&gt;a&lt;/sup&gt;</th>
<th>% reduction from baseline&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Deaths (No.)</th>
<th>Injuries (No.)</th>
<th>Road trauma cost $b&lt;sup&gt;a&lt;/sup&gt;</th>
<th>% reduction from baseline&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Deaths (No.)</th>
<th>Injuries (No.)</th>
<th>Road trauma cost $b&lt;sup&gt;a&lt;/sup&gt;</th>
<th>% reduction from baseline&lt;sup&gt;b&lt;/sup&gt;</th>
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</thead>
<tbody>
<tr>
<td>NRSS Baseline</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>1,400</td>
<td>32,500</td>
<td>27</td>
<td>-3%</td>
<td>1,358</td>
<td>31,525</td>
<td>26.98</td>
<td>-5%</td>
<td>1,330</td>
<td>30,875</td>
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<td></td>
</tr>
<tr>
<td>2012</td>
<td>1,400</td>
<td>32,500</td>
<td>28.64</td>
<td>-6%</td>
<td>1,316</td>
<td>30,550</td>
<td>26.93</td>
<td>-10%</td>
<td>1,260</td>
<td>29,250</td>
<td>25.78</td>
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<tr>
<td>2013</td>
<td>1,400</td>
<td>32,500</td>
<td>29.50</td>
<td>-9%</td>
<td>1,274</td>
<td>29,575</td>
<td>26.85</td>
<td>-15%</td>
<td>1,190</td>
<td>27,625</td>
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<td>2014</td>
<td>1,400</td>
<td>32,500</td>
<td>30.39</td>
<td>-12%</td>
<td>1,232</td>
<td>28,600</td>
<td>26.74</td>
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<td>1,120</td>
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<tr>
<td>2015</td>
<td>1,400</td>
<td>32,500</td>
<td>31.30</td>
<td>-15%</td>
<td>1,190</td>
<td>27,625</td>
<td>26.61</td>
<td>-25%</td>
<td>1,050</td>
<td>24,375</td>
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<tr>
<td>2016</td>
<td>1,400</td>
<td>32,500</td>
<td>32.24</td>
<td>-18%</td>
<td>1,148</td>
<td>26,650</td>
<td>26.44</td>
<td>-30%</td>
<td>980</td>
<td>22,750</td>
<td>22.57</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>1,400</td>
<td>32,500</td>
<td>33.21</td>
<td>-21%</td>
<td>1,106</td>
<td>25,675</td>
<td>26.23</td>
<td>-35%</td>
<td>910</td>
<td>21,125</td>
<td>21.58</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>1,400</td>
<td>32,500</td>
<td>34.20</td>
<td>-24%</td>
<td>1,064</td>
<td>24,700</td>
<td>25.99</td>
<td>-40%</td>
<td>840</td>
<td>19,500</td>
<td>20.52</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>1,400</td>
<td>32,500</td>
<td>35.23</td>
<td>-27%</td>
<td>1,022</td>
<td>23,725</td>
<td>25.72</td>
<td>-45%</td>
<td>770</td>
<td>17,875</td>
<td>19.38</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>1,400</td>
<td>32,500</td>
<td>36.29</td>
<td>-30%</td>
<td>980</td>
<td>22,750</td>
<td>25.40</td>
<td>-50%</td>
<td>700</td>
<td>16,250</td>
<td>18.14</td>
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</tr>
<tr>
<td>Total</td>
<td>14,000</td>
<td>325,000</td>
<td>318.81</td>
<td></td>
<td>11,690</td>
<td>271,375</td>
<td>263.88</td>
<td></td>
<td>10,150</td>
<td>235,625</td>
<td>227.26</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Assumes 3% CPI, and utilises $27b figure estimate in NRSS 2011-2020 i.e. $3,180,598 per death and $316,869 per serious injury (2006 dollars)

<sup>b</sup> Assumes linear reduction over 10 years i.e. 42 deaths and 975 serious injuries (30%), and 70 deaths and 1,625 serious injuries per year (50%)
### Appendix 2: Australian road trauma reduction performance (percentile)

*In comparison to OECD countries, 2000-2014*

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities per 100,000 population (Measure 1)</th>
<th>Fatalities per 10,000 registered vehicles (Measure 2)</th>
<th>Fatalities per 100 million vehicle km (Measure 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>65%</td>
<td>68%</td>
<td>83%</td>
</tr>
<tr>
<td>2003</td>
<td>61%</td>
<td>67%</td>
<td>77%</td>
</tr>
<tr>
<td>2004</td>
<td>61%</td>
<td>67%</td>
<td>82%</td>
</tr>
<tr>
<td>2005</td>
<td>61%</td>
<td>67%</td>
<td>64%</td>
</tr>
<tr>
<td>2006</td>
<td>61%</td>
<td>65%</td>
<td>68%</td>
</tr>
<tr>
<td>2007</td>
<td>58%</td>
<td>65%</td>
<td>59%</td>
</tr>
<tr>
<td>2008</td>
<td>61%</td>
<td>54%</td>
<td>65%</td>
</tr>
<tr>
<td>2009</td>
<td>50%</td>
<td>56%</td>
<td>52%</td>
</tr>
<tr>
<td>2010</td>
<td>56%</td>
<td>50%</td>
<td>52%</td>
</tr>
<tr>
<td>2011</td>
<td>56%</td>
<td>50%</td>
<td>57%</td>
</tr>
<tr>
<td>2012</td>
<td>56%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>2013</td>
<td>56%</td>
<td>54%</td>
<td>50%</td>
</tr>
<tr>
<td>2014</td>
<td>56%</td>
<td>58%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Percentile = percentage of OECD countries that rank below Australia in terms of Fatality Rate