National Road Safety Strategy 2011–2020

Implementation status report

November 2015

Purpose of report

The *National Road Safety Strategy 2011–2020* (NRSS) was approved and released by the former Australian Transport Council on 20 May 2011. The NRSS represents the commitment of federal, state and territory governments to an agreed set of national road safety goals, objectives and actions. It has the specific target of reducing Australia's annual number of road deaths and serious injuries by at least 30 per cent by 2020.

Following a comprehensive review of progress in 2014, a new Action Plan for the three years from 2015 to 2017 was developed cooperatively by Commonwealth, state and territory transport agencies, and was endorsed by the Transport and Infrastructure Council in November 2014.

The National Road Safety Action Plan 2015-2017 (the Action Plan) details a range of priority national actions to be taken by governments over the three years from 2015 to 2017.

This report provides:

1. an assessment of overall progress towards the high-level Directions laid out in the NRSS, for each of the four cornerstone areas: Safe Roads, Safe Speeds, Safe Vehicles and Safe People
2. an update of the key statistical measures of progress outlined in the NRSS
3. a comprehensive report on the nineteen priority actions detailed in the Action Plan, including simple 'traffic light' indicators of progress.

Implementation responsibilities and coordination arrangements

Given Australia's federal system of government, responsibilities for implementing the NRSS are distributed across nine jurisdictions and align with the established roles of each area of government:

- The Australian Government has responsibility for allocating agreed infrastructure resources to the national highway and local road networks, and for regulating safety standards for new vehicles.
- State and territory governments have primary responsibility for funding, planning, designing and operating the road network, managing vehicle registration and driver licensing systems, and enforcing road user behaviour.

Transport agencies in each jurisdiction take the lead role in implementing and facilitating the Directions and specific actions set out in the NRSS and Action Plan. There are a number of other key bodies that provide support in relevant areas, including Austroads, the National Transport Commission (NTC), the Australia New Zealand Policing Advisory Agency (ANZPAA) and the National Heavy Vehicle Regulator (NHVR).

National coordination arrangements for the NRSS are managed though two cross-jurisdictional committees:

- The Austroads Safety Task Force (STF), comprised of senior road safety officials from Australian Government, state, territory and New Zealand transport agencies, the NTC, and ANZPAA.

- The Strategic Vehicle Safety and Environment Group (SVSEG), comprised of representatives from Australian Government, state, territory and New Zealand transport agencies, the NTC, the NHVR, and from automotive industry and road user bodies.

Progress towards the high level Directions

There is a considerable amount of activity underway relating to the majority of the high level Directions in the NRSS. Some of the identified directions are difficult to influence directly and may require more targeted efforts in future, such as a reduction in the average fleet age in Australia, and the development of technology to combat driver fatigue.

Statistical progress

The primary statistical measures of progress under the NRSS are the annual numbers of road crash deaths and serious injuries. These and a range of other *high-level outcome measures* are used to track Australia's road safety performance over the 10-year life of the NRSS, relative to the baseline period of 2008–2010.

The NRSS has also established a range of *safety performance indicators* to help assess progress in addressing specific road safety issues. These indicators are mainly, though not exclusively, based on national road crash data.

The BITRE, in cooperation with state and territory agencies, has developed a national road crash database to support these statistical measures of progress. The current status report draws on the *fatal* crash data in the database to report against most of the NRSS indicators. Measures of progress based on *serious injury* crash data will be included in future status reports, once an adequate source of national serious injury data is established.

While these statistical indicators are an important tool for monitoring progress, it is also important to monitor changes in the broader operating environment. The NRSS notes that road trauma levels are influenced by a vast array of factors. Many of these – including changing economic conditions – are difficult to predict and are beyond the direct control of governments and road safety organisations. Road safety strategies therefore need to be alert to such challenges and flexible in their responses.

Statistical progress – key points

A later section of this report (page 14) presents the full set of NRSS outcome measures and performance indicators with latest available results. Key points are noted below.

High level outcome measures

- In 2014, there were:
  - 1,155 road crash deaths: a reduction of 19.0% relative to the baseline (1,426)
  - 1,055 fatal road crashes: a reduction of 18.7% relative to the baseline (1,297)

Safety performance indicators

Fatality reductions in 2014 were significantly greater than average for the following categories:

- single vehicle crashes (-23.2%)
- intersection crashes (-22.3%)
- crashes on metropolitan roads (-24.4%)
- young drivers and motorcycle riders (-32.5%)
- drivers and motorcycle riders with a blood alcohol concentration (BAC) above the legal limit (-45.6%)
- crashes involving an unlicensed driver or motorcycle rider (-32.7%)
- vehicle occupants killed who were not wearing a restraint (-25%)

Fatality reductions in 2014 were significantly lower than average for the following categories:

- crashes on remote roads (-6.7%)
- older drivers and motorcycle riders (+19.6%)
- cyclists (+36.1%)
- crashes involving a heavy vehicle (-11.5%)

Action Plan implementation

The nineteen actions detailed in the Action Plan are grouped into four broad areas of activity under the following headings:

- Prioritising our investments in infrastructure
- Improving the safety of our vehicle fleet
- Encouraging safer road use
- Advancing the Safe System

The detailed status report commencing on page 17 of this document identifies the main jurisdictional responsibilities for each action item and provides a summary of progress to date. Colour-coded markers are used to indicate whether actions are progressing satisfactorily or whether they require more attention. This report is a summary of the situation across all jurisdictions; the mix of measures adopted in individual jurisdictions, and the details of specific measures, may vary to reflect local circumstances and priorities.

Implementation status – key points

General points

- In this status report, most Action Plan items have been coded yellow, indicating that action has commenced and is being progressed. It should be noted that action to date may be limited to early steps only, and/or action only by some jurisdictions.
- A number of the actions involve initial research and investigation work that is needed to underpin effective road safety interventions. This work is mainly being progressed through the Austroads Safety Program. The status report identifies relevant projects that have either commenced or are at the planning stage..

Prioritising our investments in infrastructure

- All states and territories have infrastructure treatment programs in place that target the major crash types and vulnerable user groups. Ongoing efforts to implement Actions 1 and 2 will be aided by Austroads work to facilitate the implementation of the Australian National Risk Assessment Model (ANRAM).
- The development of an assessment framework and training package to assist with translating Safe System knowledge and research into practice is well underway.
- A planned review of road infrastructure safety programs (including black spot programmes), with the aim of better aligning assessment methodologies with the Safe System approach, is yet to commence.

Improving the safety of our vehicle fleet

- A proposal to mandate pole side impact occupant protection has been released in a Regulation Impact Statement (RIS) for public consultation. A study providing key data for a RIS on motorcycle ABS has been completed and one on heavy vehicle ESC is underway.
- The Australian Government has written to businesses encouraging the purchase of vehicles with targeted technologies with high safety potential, and SVSEG is monitoring research and further opportunities for promotion.

Encouraging safer road use

- The National Transport Commission (NTC) has work underway to assess a number of enforcement approaches to reduce speeding by heavy vehicles, and (with the NHVR) has made recommendations to improve roadworthiness, to be considered by Ministers in November 2015.
- Research to consider ways to build better community support for effective speed management is underway, with the development of potential interventions to be completed by mid-2016.
- In the past year most states and territories have increased the application of lower speed limits to some extent in areas of higher pedestrian and cyclist activity. All will continue their efforts in this area.
- With the commencement of the WA programme next year, all jurisdictions will have alcohol interlock schemes in place for drink driving offenders. Some are currently reviewing and expanding these arrangements, and Victoria has expanded its programme to apply to a much broader range of drink driving offenders.
- Through its Road Policing Forum, ANZPAA has continued to work with all jurisdictions to strengthen national road safety and enforcement operations.

Advancing the Safe System

- Austroads work to establish an operational framework for C-ITS safety applications is progressing well. Austroads has also commenced work with the NTC investigating actions to support the deployment of automated vehicles.
- Most jurisdictions have implemented some projects trialling and demonstrating the potential of various Safe System interventions to improve safety for vulnerable road users. There may be scope for some larger scale demonstration projects, and Austroads is also considering a project to coordinate case studies and develop conclusions to inform the development of Safe System transformation guidelines.
- The National Road Safety Partnership Program (NRSPP) has attracted a strong and growing level of participation from the private sector.
- An Austroads pilot project will provide proof of concept for a national approach to data linkage for producing non-fatal hospitalised injuries in Australia. This may provide a means to resolving the long-recognised lack of national serious injury data, addressing Action 19.

Abbreviations and other terms

ABS	Anti-lock braking systems
ADR	Australian Design Rule
ANCAP	Australasian New Car Assessment Program
ANRAM	Australian National Risk Assessment Model
ANZPAA	Australia New Zealand Policing Advisory Agency
AusRAP	Australian Road Assessment Program
Austroads	Association of Australian and New Zealand road transport and traffic authorities
BITRE	Bureau of Infrastructure, Transport and Regional Economics
HVNL	Heavy Vehicle National Law
NGTSM	National Guidelines for Transport System Management
NHVAS	National Heavy Vehicle Accreditation Scheme
NHVR	National Heavy Vehicle Regulator
NRSS	National Road Safety Strategy 2011–2020
NTC	National Transport Commission
Operation AUSTRANS	Nationally coordinated police operation targeting road safety issues in the heavy vehicle transport sector
Operation CROSSROADS	Nationally coordinated policing operation targeting a range of road safety offences in major holiday periods
RIS	Regulation Impact Statement
STF	(Austroads) Safety Task Force
SVSEG	Strategic Vehicle Safety and Environment Group
TISOC	Transport and Infrastructure Senior Officials Committee
WTP	Willingness-to-pay

Progress towards NRSS Directions

The following tables detail progress made towards the high-level Directions outlined in the NRSS in relation to Safe Roads, Safe Speeds, Safe Vehicles and Safe People.

Safe Roads

Direction	Progress
Adoption of improved standards for road design, construction and operation to reflect Safe System principles.	▪ All jurisdictions are making efforts to reflect and adopt Safe System principles for road design, construction and operation. ▪ This overall Direction will be more fully realised over time with the development and adoption of revised national guidelines and standards. A number of current Austroads projects are contributing to this effort, including those projects described in later in this report, against Action 4. In addition: – A three-year research project, 'Improving the performance of Safe System infrastructure' (ST1767), is examining road infrastructure elements identified as Safe System solutions. Results from the first year were published in November 2013 and the project is expected to conclude in late 2015. – A project to identify and investigate low cost measures, and new or innovative treatments to improve safety on locally controlled roads, 'Safe system roads for local government' (ST1769), is also scheduled to conclude in mid-2016.
All new roads and upgrades of existing roads will be designed, built and operated in accordance with Safe System principles.	▪ Most jurisdictions have adopted Safe System principles for new road construction and upgrades and some have revised or are revising (for example the ACT) their road design standards to reflect Safe System principles.
A substantial reduction in serious casualties due to run-off-road, head-on and intersection crashes.	▪ All jurisdictions have implemented road treatments to target these crash types, including audible edge and centre lines, wider sealed shoulders, roadside safety barriers, roadside hazard treatments, and junction treatments. – Much of this work has been done through specific programs with dedicated funding for certain crash types or interventions, including the QLD Safer Roads Sooner Program, the NSW Safer Roads Program, the Safe System Road Infrastructure Program in Victoria, and WA's Regional Run-Off Road and Intersections programs. ▪ Some states have recorded reductions in these crash types in the past year (or over a longer period, based on monitoring of progress under state road safety strategies). National safety performance indicator data (page 30) shows a 22.8 per cent overall reduction in head-on crashes relative to the NRSS baseline, and a 14.3 per cent reduction in intersection crashes.

Safe Roads (continued)	
Direction	**Progress**
All levels of government to: - have assessed risk on their road network and re-focused road investment programs to treat higher-risk sections of the road network (road segments, traffic routes and defined areas) in addition to more targeted black spot programs	▪ Several jurisdictions have commenced use of tools such as ANRAM and AusRAP star ratings to assess risk on their road networks and to prioritise funds for road safety investment.
- have adopted and applied the willingness-to-pay (WTP) methodology to value reductions in fatalities and injuries	▪ As reported under Action 5, the development of WTP values is currently being progressed through Austroads' NGTSM Update project. The revision is to be completed in 2016 and will provide updated WTP values based on those previously developed by NSW. ▪ Most jurisdictions have already adopted willingness-to-pay values for road safety projects though some are awaiting the endorsement of the NGTSM update.
- be assessing the benefits and costs of safety treatments using a whole-of-life assessment	▪ Most jurisdictions use a whole of life assessment when evaluating the costs and benefits of road safety treatments.
- have accepted accountability and responsibility for the road safety performance of their networks in accordance with Safe System principles.	▪ All jurisdictions have integrated safe system principles into road safety project planning and are making efforts to continue to improve the understanding and acceptance of this accountability and responsibility throughout their organisations and with local government. For example, VicRoads has launched an organisational culture change and capability development strategy to embed Safe System thinking into its development and management of Victoria's road network; and Main Roads WA is finalising its Road Safety Management System framework, which aligns with the intent of ISO 39001, the international standard for road traffic safety management systems.

Safe Speeds

Direction	Progress
Speed limits that reflect a better balance between safety and mobility objectives.	▪ Austroads 'Model National Guidelines for Setting Speed Limits at High-risk Locations' proposes a set of model national guidelines for setting speed limits at high risk locations, published in March 2014. The model guidelines represent a harm reduction approach and will inform future revisions of relevant Austroads Guides on speed limits. ▪ Most jurisdictions continue to work to implement safer speeds in rural and urban environments, particularly on roads with a high crash risk. Some are currently reviewing speed zoning guidelines to work further towards a Safe System approach.
A substantial improvement in overall compliance with speed limits, particularly on highly trafficked and/or higher-risk sections of the road network.	▪ All jurisdictions maintain a continual strong focus on speed limit enforcement, and some have increased the number of fixed and/or mobile speed cameras to improve speed compliance in highly trafficked and high risk locations. ▪ WA, SA and QLD have seen reductions in vehicle speeds across both urban and rural roads (data was not available for all jurisdictions). The ACT is rolling out a program of speed and volume surveys to assist with evaluation of the impact of mobile road safety cameras. ▪ The current Austroads project 'Creating, sustaining and/or increasing public demand for safer speeds – identification of interventions for trial' (SS1962), to be completed in mid-2016, is also expected to contribute to improvements in the longer term.
Network-wide alignment of speed limits with the inherent risk and function of the road and roadside environment.	▪ All jurisdictions are consulting with local governments, the community and police to review speed limits and continue to work towards better alignment of speed limits with both risk and function of the road and roadside environment.

Safe Vehicles

Direction	Progress
A regulatory system ensuring that proven safety design features and technologies are mandated in new Australian vehicles as quickly as possible.	▪ The Commonwealth works with the states and territories to pursue a strong and progressive program of vehicle safety regulation. Preparations to mandate a pole side impact occupant protection standard for new light vehicles are well advanced and research is underway to support regulatory packages on motorcycle ABS and heavy vehicle ESC.
A greater penetration of five-star Australasian New Car Assessment Program (ANCAP) rated vehicles in the general fleet, with ANCAP star ratings available for all new vehicles.	▪ All jurisdictions are promoting increased uptake of five-star ANCAP rated vehicles in a range of ways, through fleet vehicle policies, education campaigns and through direct support for the ANCAP program. Queensland conducted a campaign targeting parents of young drivers. ▪ ANCAP reports that safety ratings are now available for 92% of new vehicles sold (April 2015).
A reduction in the average fleet age in Australia.	▪ The national average fleet age for 2014 is 10.1 years and is slightly greater than the average in the baseline period of 10.0 years (2008 to 2010). ▪ No specific action has been undertaken aimed at reducing fleet age, beyond the promotion of high safety rated vehicles detailed above, and below.
Enhanced safety commitment from the commercial sector, including a demand for fleets to be equipped with key safety features such as five-star ANCAP rated vehicles, ESC, side curtain airbags, alcohol and seatbelt interlocks, and ISA.	▪ Some jurisdictions have worked directly with major fleet providers to promote the uptake of safer vehicles with high ratings and targeted safety technologies.
A substantial increase in the proportion of heavy vehicles with advanced braking systems and other safety technologies.	▪ The new ADRs mandating Anti-lock Brake Systems (ABS) for heavy vehicles came fully into force in January 2015. The ADRs also set requirements for vehicles to have systems in place that support the further uptake of advanced braking systems such as Electronic Stability Control (ESC).
Significant improvement in the safety of the light commercial vehicle fleet.	▪ A proposal to mandate a pole side impact occupant protection standard for new light commercial and light passenger vehicles through the ADRs was progressed, with the final regulatory package to be presented for decision later in 2015. ▪ A new ADR mandating ESC for light commercial vehicles will come into force in November 2015.

Safe People: Responsible road use

Direction	Progress
Australia will have a best practice graduated licensing scheme for novice drivers and riders.	▪ Following an Austroads project examining the effectiveness of different components of graduated driver licensing (report published in February 2015), NSW has led the development of an Australian Graduated Licensing Scheme (GLS) policy framework. The policy framework, published in October 2014, provides guiding principles for GLS schemes across all jurisdictions. ▪ Some jurisdictions are reviewing their systems and some have already implemented changes to align with the national policy framework. ▪ A discussion paper on 'Elements of Graduated Licensing Systems for Motorcycle Riders,' was published by Austroads in November 2014. Tasmania is currently reviewing motorcycle training and safety programmes, and Victoria is rolling out a new motorcycle GLS which includes work underway to develop a new curriculum and testing program.
Increased use of effective protective equipment by motorcyclists.	▪ Most jurisdictions have either developed new campaigns or are reviewing their approaches to motorcycle safety, including the promotion of protective clothing. ▪ In Victoria, the Transport Accident Commission and other partners are currently developing a protective clothing consumer information program.
Substantially improved access to graduated licensing, and to vehicles with higher safety ratings, for Indigenous people.	▪ Most jurisdictions have developed specific licensing programs for remote areas, which include targeted assistance for Indigenous people/communities as appropriate to improve access to graduated driver licensing. ▪ The WA Road Safety Commission is preparing information on safer vehicles which meet the needs of people in remote areas, which is to be circulated online and in brochure form.
A best practice framework for the assessment of older drivers' fitness to drive will be available and all jurisdictions will have effective processes for managing older driver licensing.	▪ All jurisdictions have implemented the 'Assessing Fitness to Drive' guidelines which were released in 2012. ▪ Jurisdictions continue to monitor older driver safety and licensing issues and some have developed education resources to assist older drivers. ▪ A current Austroads project, 'Older Road User Emerging Trends' (SS1955) will investigate emerging trends and support the development of targeted countermeasures. The project is scheduled for completion in mid-2017.

Safe People: Responsible road use (continued)	
Development of suitable technology to combat driver fatigue.	▪ Specific work to assess technology targeting driver fatigue has not yet been commenced.
Road safety education resources will be developed and available to the pre-primary sector and all primary and high schools.	▪ Most jurisdictions have road safety education resources and programs in place targeting children ranging from early childhood, primary and high school.

Safe People: Irresponsible road use

Direction	Progress
Elimination of driving while impaired by alcohol or drugs as significant contributors to road trauma.	▪ In all jurisdictions, enforcement of drink and drug-driving laws are a strong priority for police and several have expanded their roadside drug testing operations. ▪ All jurisdictions have or will soon have alcohol interlock programmes in place for drink driving offenders, and some are under review. ▪ Victoria has recently expanded its interlock programme to apply to all convicted drink-drivers whose driver licence or learner permit is cancelled. In August 2015 Victoria introduced a new offence with stronger penalties for driving while affected by a combination of illicit drugs and alcohol over the legal limit. ▪ The ACT is developing new educational campaign about drug driving and Queensland ran a campaign targeting drink driving in 2014/15. ▪ Austroads research will continue to inform policy development in this area, including the project “Options for Rehabilitation in Interlock Programs” and a project to review Blood Alcohol Concentration limits.
Elimination of illegal mobile phone use while driving.	▪ Most jurisdictions are engaged in a range of activities to deter illegal mobile phone use including mass media campaigns, police enforcement activity and in some cases increased penalties. ▪ Jurisdictions are working together through the Australian Road Rules Maintenance Group to consider changes required to ensure the road rules are responsive to deter dangerous use of phones and other emerging in-vehicle technologies.
A substantial reduction in the rate of driving by those without a licence.	▪ Some jurisdictions are primarily pursuing this reduction through their efforts to improve licensing rates in remote and Indigenous communities, as detailed above. ▪ Automatic Number Plate Recognition (ANPR) is used to assist with identification of unlicensed drivers, and Victoria has commissioned research into other technologies which may prevent unlicensed driving by linking drivers to vehicles.
All vehicle occupants are effectively restrained.	▪ Restraint use is part of enforcement operations in all jurisdictions and also through the annual national Operation CROSSROADS. ▪ Most jurisdictions conducted education campaigns targeting seatbelt compliance, and some have also focused on awareness of proper use of child restraints.

High level outcome measures

Measure	Baseline (2008 – 2010)[1]	2014	% Change
Number of deaths resulting from road crashes	1,426	1,155	-19.0%
Number of road crashes resulting in deaths	1,297	1,055	-18.7%
Number of deaths per 100,000 population	6.5	4.9	-24.3%
Number of deaths per 100 million vehicle-kilometres travelled	0.65	0.48	-26.8%
Number of deaths per 10,000 registered vehicles	0.91	0.66	-28.0%

[1] Average annual number during the three-year period 2008 to 2010. Note the baseline figures shown here are rounded to whole numbers, but were not rounded to calculate percentage change calculations.

Safety performance indicators

Measure	Baseline (2008 – 2010)[2]	2014 [3]	% change
Safe roads			
Number of deaths from head-on crashes	272	219	-19.6%
Number of deaths from single-vehicle crashes	655	503	-23.2%
Number of deaths from intersection crashes	301	234	-22.3%
Number of deaths from crashes on metropolitan roads	498	376	-24.4%
Number of deaths from crashes on regional roads	778	644	-17.2%
Number of deaths from crashes on remote roads[4]	138	129	-6.7%
Safe speeds			
Number of deaths from crashes where speed was a contributory factor	Data not available		
Mean free speeds at designated sites across the network	Data not available		
Percentage of vehicles speeding by vehicle type and offence category	Data not available		
Safe vehicles			
Average age of the Australian vehicle fleet (years)[5]	10.0	10.1	+1.4%
— Average age of passenger vehicles	9.7	9.8	+1.3%
Percentage of new light vehicles sold with a 5-star ANCAP rating[6]	56% (2010)	86%	53.6%
Percentage of new vehicles sold with key safety features	Data not available		

[2] Average annual number during the three-year period 2008 to 2010. Note the baseline figures shown here are rounded to whole numbers, but were not rounded to calculate percentage change calculations.
[3] Uses data from the National Crash Database.
[4] Totals for metropolitan, regional and remote categories do not add to the annual totals because some fatalities could not be coded to a regional category.
[5] Based on estimates from the annual Motor Vehicle Census, Australian Bureau of Statistics.
[6] This data sourced from ANCAP.

Safety performance indicators

Measure	Baseline (2008 – 2010)[2]	2014 [3]	% change
Safe people – responsible road use			
Number of young driver and motorcycle rider deaths (aged 17-25 years)	222	150	-32.5%
Number of deaths from crashes involving a young driver or motorcycle rider (aged 17-25 years)	469	330	-29.6%
Number of older driver and motorcycle rider deaths (aged 65+ years)	114	136	+19.6%
Number of deaths from crashes involving an older driver or motorcycle rider (aged 65+ years)	207	223	+7.7%
Number of motorcyclist deaths	234	191	-18.3%
Number of cyclist deaths	32	44	+36.1%
Number of pedestrian deaths	186	150	-19.4%
Number of deaths from crashes involving a heavy vehicle	252	223	-11.5%
Safe people – irresponsible road use[7]			
Number of drivers and motorcycle riders killed with a blood alcohol concentration (BAC) above the legal limit[8]	143	78	-45.6%
Number of deaths from crashes involving a driver or motorcycle rider with a blood alcohol concentration (BAC) above the legal limit[8]	205	126	-38.6%
Number of deaths from crashes involving an unlicensed driver or motorcycle rider[9]	143	96	-32.7%
Number of vehicle occupants killed who were not wearing a restraint	216	162	-25.0%

[7] Fatality counts for each of the following indicators are lower-bound estimates – due to a substantial number of cases with unknown values.
[8] Data excludes Victoria as BAC data were unavailable, and excludes Western Australia as licensing data (needed to determine legal BAC limit) was unavailable.
[9] Excludes data from Western Australia as licensing data was unavailable.

Prioritising our investments in infrastructure

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
1	Prioritise and treat high-risk rural and urban roads, focusing on the main crash types and vulnerable road users. *Implementation:* Apply spatial analysis (e.g. severe injury rate/cost heat maps, ANRAM analysis) to identify and prioritise sections of rural corridors and urban locations with high collective risk (fatal/serious injury crashes), focusing on: • crashes at major intersections • run-off-road crashes • head-on crashes • crashes involving vulnerable road users. Treat identified locations with tailored Safe System measures, to minimise fatal/serious injury risks. This may include demonstration/evaluation projects of emerging Safe System solutions. Progress to be tracked with measures including: lane-kilometres and numbers of intersections treated, estimated savings in targeted fatalities and serious injuries, and programme expenditure. *By end-2017:* Jurisdictions have identified, prioritised and commenced treating the top 10% of priority locations.	States and territories	▪ Most jurisdictions have identified and prioritised high-risk sections of state and national networks, based on the frequency and severity of casualty crashes, and will further review and treat these locations. ▪ A number of Austroads projects to develop the ANRAM software are scheduled for completion in late 2016.

Prioritising our investments in infrastructure

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
2	Assess road safety risk on state and territory controlled roads carrying the highest traffic volumes. *Implementation:* Complete ANRAM model development, and establish a memorandum of understanding between road agencies and the Australian Road Assessment Program (AusRAP) on reporting and communication protocols for star ratings. Individual jurisdictions to select roads to be assessed using ANRAM, based on collective risk potential (i.e. traffic volume/crash rates). *By 2016:* Fully functional ANRAM model, meeting specification and scope requirements set by Austroads. *By end-2017:* Reports on infrastructure-related road safety risk, including risk maps, for 50% of the key routes in each state and territory.	States and territories	▪ Queensland and NSW are undertaking AusRAP assessments which will provide star ratings for all roads. ▪ Victoria and SA have commenced coding their road networks for ANRAM assessment. ▪ WA and NT have used ANRAM and other tools for certain route assessments, and WA is preparing for wider use of ANRAM and other risk assessment models. ▪ A number of Austroads projects to develop the ANRAM software are scheduled for completion in late 2016.

Prioritising our investments in infrastructure

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
3	Review road infrastructure safety programmes to establish best practice processes for identifying, prioritising and developing projects based on fatal and serious casualty reduction criteria. *Implementation:* Establish a national committee to examine the assessment methodologies used for Commonwealth and state infrastructure programmes, and to develop best practice recommendations that align with the Safe System approach, with a focus on reducing fatal and serious injuries crashes. Jurisdictions to review their programmes, guided by the committee's recommendations. *By end-2017:* Establish and implement best practice programme procedures.	Commonwealth States and territories	▪ Austroads is to develop a project to review and identify best practice processes.

Prioritising our investments in infrastructure

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
4	Establish an assessment framework and training package to help translate current Safe System infrastructure knowledge and research into practice. *Implementation:* States and territories, through Austroads, to develop an assessment framework and related package, including an accreditation process, summarising current Safe System infrastructure and speed management knowledge and research. Promote these widely, including through a programme of workshops. *By 2015:* Assessment framework, training package, and supporting guides developed, and accreditation process established. *By 2016:* Workshops and assessment framework established. Safe System Assessment framework in use in industry. *By end-2017:* Supporting materials feeding into updates to the Austroads Road Design Guides.	States and territories Austroads	▪ This action is being progressed through two Austroads projects: – 'Development of a Safe System Assessment Framework for Road Infrastructure Projects' (SS1958) will develop a tool to determine whether infrastructure projects meet Safe System objectives. A national working group has been established, a workshop has been conducted and a literature review is complete, with the project scheduled for completion by June 2016. – 'Translating Safe System Infrastructure Research and Knowledge into Practice' (SS2016) will produce a guidance document and a series of workshops for road practitioners outlining knowledge and research about designing, managing and operating roads and roadsides within a Safe System environment. A national working group has been established and the project is scheduled for completion by June 2016.

Prioritising our investments in infrastructure

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
5	Apply national willingness-to-pay values for infrastructure investment and other road safety project appraisals. *Implementation:* Finalise Austroads scoping study on options for establishing Australian willingness-to-pay values. Jurisdictions to consider and agree on an implementation arrangements, which may include the longer term option of funding a comprehensive national study. *By end-2017:* Initial implementation of willingness-to-pay values based on available estimates and possible commencement of a comprehensive Australian study to produce updated values.	Commonwealth States and territories	▪ This action is currently being progressed through Austroads' National Guidelines for Transport System Management (NGTSM) Update project. ▪ The NGTSM revision is to be completed in 2016 and will provide updated WTP values based on those previously developed by NSW. ▪ Most jurisdictions have already adopted willingness-to-pay values for road safety projects though some are awaiting the endorsement of the NGTSM update. ▪ Austroads will give further consideration to developing a business case for the development of new WTP values based on a comprehensive Australian study.

Improving the safety of our vehicle fleet

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date	
6	Mandate pole side impact occupant protection standards for new vehicles. *Implementation:* Prepare a regulatory package early in 2015 *By early-2017:* Adoption of an Australian Design Rule (subject to RIS outcomes).	Commonwealth		▪ The Commonwealth released a Regulation Impact Statement (RIS) on 18 June 2015, for six weeks public consultation. This included a proposal (recommended option) to mandate a pole side impact occupant protection standard for new light vehicles. The final regulatory package, including final RIS and ADR for decision, is expected by end of 2015.
7	Mandate anti-lock brake systems for new motorcycles. *Implementation:* Prepare a regulatory package in mid-2015. *By mid-2017:* Adoption of an Australian Design Rule (subject to RIS outcomes).	Commonwealth		▪ The Commonwealth, together with Victoria, has released the results of a study by Monash University Accident Research Centre on the effectiveness of anti-lock brake systems for motorcycles.This report provides the key data needed for the RIS on ABS for motorcycles.
8	Mandate electronic stability control (ESC) for new heavy vehicles. *Implementation:* Prepare a regulatory package in accordance with Heavy Vehicle Braking Strategy (HVBS) Phase II around end 2015. *By end-2017:* Adoption of an Australian Design Rule (subject to RIS outcomes).	Commonwealth		▪ The Commonwealth is funding a study on the effectiveness of ESC for heavy vehicles in Australia. ▪ A detailed survey was carried out with operators and maintainers regarding reliability of advanced braking systems. ▪ The regulatory package is to be prepared in parallel with the study and survey.

Improving the safety of our vehicle fleet

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
9	Promote the market uptake of new vehicle technologies with high safety potential. *Implementation:* Jurisdictions to collaborate with ANCAP, industry and other stakeholders on the development and implementation of a promotional plan (coordinated through SVSEG). Targeted technologies to include Autonomous Emergency Braking, Lane Departure Warning and Intelligent Speed Advisory systems. *By end-2017:* Plan for promotional activities developed and implemented, with measurable increase in numbers/proportion of new vehicles equipped with targeted technologies.	Commonwealth States and territories (coordinated through SVSEG)	▪ The Commonwealth (in conjunction with ANCAP) has provided funding for a EuroNCAP working group examining the effectiveness of low speed Autonomous Emergency Braking (AEB) and Lane Departure Warning Systems (LDWS) for light vehicles. ▪ SVSEG is monitoring research on promising technologies, including opportunities for promotion. ▪ The Australian Government wrote to businesses in May 2015 drawing their attention to the National Road Safety Partnership Program and encouraging the purchase of vehicles with targeted technologies.

Encouraging safer road use

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
10	Strengthen speed compliance provisions in the Heavy Vehicle National Law (HVNL). *Implementation:* NTC to assess proposal to empower enforcement officers to ground heavy vehicles travelling 15 km/h or more over the posted speed limit; and to develop implementation options for consideration of Transport Ministers. NTC to progress related proposal to enable heavy vehicles travelling at speeds over 115 km/h to be deemed to have non-compliant speed limiters. *Intermediate* Transport and Infrastructure Council to consider proposed implementation arrangements. *By end-2017:* Implementation of HVNL changes as agreed by Transport Ministers.	NTC	▪ The NTC has commenced a project to assess enforcement approaches to reduce speeding by heavy vehicles. ▪ The project will consider options including the creation of a new sanction, grounding; or a simpler administrative process to effectively 'automate' existing penalties, through deeming speed limiters to be defective. ▪ A discussion paper for consultation is expected in the first half of 2016.

Encouraging safer road use

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
11	Implement measures to improve heavy vehicle roadworthiness. *Implementation:* Examine the operation and effectiveness of periodic roadworthiness inspections, industry accreditation schemes, including the National Heavy Vehicle Accreditation Scheme (NHVAS), and other roadworthiness assurance practices. Develop recommendations for the implementation of a more effective national roadworthiness regime. *Intermediate* Transport and Infrastructure Council to consider proposed improvements to heavy vehicle roadworthiness assurance processes. *By end-2017:* Implementation of arrangements as agreed by the Council.	NTC and NHVR	▪ NTC and NHVR have been conducting a joint program to improve roadworthiness of heavy vehicles. ▪ Changes to NHVAS business rules endorsed by the Transport and Infrastructure Council in November 2014, to strengthen the audit provisions relating to vehicle roadworthiness, came into effect in March 2015. ▪ Recommendations for regulatory and operational improvements supported by a Regulatory Impact Statement (RIS) are to be provided to the Transport and Infrastructure Council consideration in November 2015.
12	Implement programmes to build community understanding and support for effective speed management measures. *Implementation*: Austroads project work will examine potential ways of building community understanding and identify suitable interventions to trial in one or more jurisdictions. Recommended interventions will be considered for trial implementation. *By 2016* Completion of initial project work with recommended interventions to be trialled. *By end-2017:* Trial interventions to be initiated.	Austroads States and territories	▪ This action is being progressed through an Austroads project, 'Creating, sustaining and/or increasing public demand for safer speeds – identification of interventions for trial' (SS1962), which is to identify evidence-based interventions for trial and evaluation for safer speeds in the community. ▪ Initial project work has included the completion of a literature review and stakeholder consultation. The project is expected to be completed by June 2016.

Encouraging safer road use

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
13	Expand the application of lower speed limits in areas with high pedestrian and cyclist usage. *Implementation:* States and territories to work with local governments and key stakeholders to identify candidate areas and progressively implement reduced speed zones. *By end-2017:* Increased kilometres of the road network where there is high pedestrian and cyclist activity, covered by lower speed limit zones.	States and territories in consultation with local governments	▪ Most jurisdictions have implemented some additional lower speed limits in areas with high levels of pedestrian activity and/or cyclist usage, and are continuing to do so. – Queensland: Trialling reduced speed limits that apply when cyclists are present. – ACT: Implemented 40 km/h in town centres and similar areas; a new 20 km/h shared zone in the city; considering trial of 30 km/h school zones. – Victoria: Since the beginning of 2014, permanent lower speed limits of 40 km/h on 47.7km total road length and time-based 40 km/h speed limits on 15.6 km. – SA: Continuing to increase the number of 40km/h areas for pedestrians; also installing 'bicycle boulevards' using devices to create a lower speed environment giving priority to cyclists. – WA: Since the beginning of 2015, speed limit reduced from 50 to 40 km/h on three roads in the metropolitan area. – NT: Working with local government at planning stage to consider appropriate speed environments for pedestrians and cyclists; Darwin City Centre Master Plan adopted May 2015 requires consideration of reduced speed limits in city centre; Darwin Bike Plan also promotes lower speed environments – NSW: Implemented additional 40 km/h zones under the High Pedestrian Area Program (which is to be evaluated) as well as Local Traffic Areas, particularly in inner Sydney, and has plans to trial timed 40 km/h limits in recreational and entertainment precincts as well as wider application of 50 km/h in urban areas.

Encouraging safer road use

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
14	Continue to review and adjust alcohol interlock programmes to improve their effectiveness in addressing convicted drink driving offenders. *Implementation*: States and territories to review the use of alcohol interlocks for drink driving offenders. *By end-2017:* Jurisdictions to have reviewed their alcohol interlock schemes for convicted drink driving offenders and considered potential improvements.	States and territories	▪ All jurisdictions now have alcohol interlock programmes in place for drink driving offenders, except WA where a new programme will commence in mid-2016. The NSW programme commenced in February 2015. ▪ Those with longer-established schemes are either currently reviewing effectiveness (Tasmania, SA, NT) or have plans in place to do so (ACT, Queensland). ▪ In 2014 Victoria expanded its programme beyond repeat and high Blood Alcohol Concentration (BAC) offenders to all convicted drink-drivers whose driver licence or learner permit is cancelled as a result of the offence. ▪ The Austroads project "Options to extend coverage of alcohol interlock programs" was completed in September 2015.
15	Strengthen national police enforcement operations to improve road safety compliance. *Implementation*: States and territories to work with ANZPAA to identify and implement improvements to national enforcement operations, including opportunities to strengthen Operation AUSTRANS and Operation CROSSROADS. *By end-2017:* Demonstrable improvements to enforcement operations and compliance outcomes.	States and territories ANZPAA	▪ All jurisdictions participated in national road safety operations, including Operations CROSSROADS and AUSTRANS. Jurisdictions have also supported and participated in other national enforcement, education and awareness campaigns (Rail Safety, Fatality Free Friday, UN Safety Week). – Operation CROSSROADS is held biannually over fixed days during the Christmas and Easter holidays. It is an initiative of Police Commissioners to reduce road trauma by raising awareness of drink/drug driving, speeding, fatigue, distraction and not wearing seatbelts. – Operation AUSTRANS is held annually in May/June and is the only heavy vehicle road safety compliance and enforcement operation which has multi-agency and multi-jurisdictional participation across Australia and New Zealand. The operation targets driver fatigue, drug use, inappropriate speed and other road safety issues.

Advancing the Safe System

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
16	Establish an operational framework to enable the introduction and operation of Cooperative Intelligent Transport System (C-ITS) safety applications in Australia. *Implementation:* Austroads to lead the establishment of an operational framework, which will include licensing of radio communications, certification of equipment and services, and other supporting systems (e.g. security, privacy, positioning, etc). *By end-2016:* C-ITS deployment to be enabled so that equipment and applications fitted to new vehicles can be introduced and operated in Australia.	Austroads	▪ This action is being progressed through Austroads' C-ITS project (NT1785), which is taking a systems engineering approach to establishing the ongoing operational framework. – Austroads published the report 'Concept of Operations for C-ITS Core Functions' in March 2015, and system requirements documents are now being developed for Spectrum Management and Device Licensing, Standards Compliance, and a Security Credential Management System. – The Australian Communications and Media Authority (ACMA) is progressing its spectrum allocation process for ITS to use the 5.9 GHz band. Work to date has included assessing options for device license types and licensing conditions. The preference is to harmonise with Europe, but decisions pending in Europe regarding out-of-band emission limits have caused some delay to the ACMA process. An ACMA decision is anticipated in 2016. – Austroads published the report 'Cooperative Intelligent Transport Systems (C-ITS) Standards assessment' in January 2015. The assessment highlights differences between European and United States standards and concludes it will not be feasible to readily mix and match standards from different regions. Stakeholder consultations about standards to be adopted locally are underway, to determine which standards should be adopted locally. ▪ Austroads, along with the NTC and Commonwealth, are now leveraging and expanding on the C-ITS program of work to also consider the required support for automated vehicles.

Advancing the Safe System

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date
17	Implement and promote a range of Safe System demonstration projects in urban settings, with a focus on the safety of vulnerable road users. *Implementation:* States and territories, in consultation with local governments, to identify candidate locations and initiate Safe System transformation projects. Jurisdictions to prepare case studies that will inform the development of Safe System transformation guidelines, and contribute to broader awareness of road safety needs in urban/transport planning. *By end-2017:* A range of demonstration projects to have commenced, with some progressed to completion.	States and territories in consultation with local governments	▪ Most jurisdictions have implemented projects using safe system treatments and principles to improve safety for vulnerable roads users. Examples include: – WA is conducting a demonstration trial of urban cycling infrastructure aims to achieve a 30km/h environment without signposting or significant traffic calming measures. – NSW has implemented red light speed cameras (reducing pedestrian casualties), school zone safety improvements, and a trial of pedestrian countdown timers. – Queensland is trialling reduced speed limits at certain locations, applying when cyclists are present; and has implemented delayed starts for left turning traffic at intersections to give pedestrians time to start crossing, and infrastructure enhancements targeting cyclist safety on state-controlled roads. – The ACT plans to pilot an Active Streets programme in 2016, trialling safe system treatments to increase the number of children walking and riding to school. – VicRoads is developing a number of Safe System transformation projects expected to commence from 2015/16; has and continues to develop business cases that promote Safe System projects and will also promote broader awareness of Safe System principles; expects to implement a Safe System intersection design (Surf Coast Hwy/Kidman Ave - Raised Safety Platform) by 2017; and is developing projects to address lane departure crashes, with implementation to commence in 2015/16. ▪ Austroads will give further consideration to the development and coordination of case studies to inform the development of Safe System transformation guidelines.

Advancing the Safe System

Ref no.	Action	Jurisdictional responsibility	Implementation status Complete or well advanced / Commenced and progressing / No significant action to date	
18	Encourage private sector organisations to implement best practice fleet and workplace safety policies. *Implementation*: Work with the National Road Safety Partnership Program (NRSPP) and state-based partnership initiatives to encourage road safety improvements in the workplace. Promote the benefits of alcohol interlocks as a key safety measure for vehicle fleets. *By end-2017:* Increased private sector participation in road safety partnership programmes, and demonstrated implementation of best practice road safety policies.	Commonwealth States and territories		▪ The NRSPP resource centre has attracted over 1000 registered partners, with approximately 50 active partners involved in webinars, case studies and working groups. ▪ A significant number of the case studies/webinars demonstrate substantial improvements in workplace road safety. ▪ In August 2015 the NRSPP released a Business to Business video, 'Safer Vehicles are Better Business' and accompanying policy paper, 'Guide to the Development of a Safe Vehicle Purchasing Policy.' Insurance Australia Group lead the development of the video, with contributions from a number of NRSPP member companies and VicRoads. ▪ WA has established a number of regional alliances with industry and stakeholder partners to improve road safety in a collaborative fashion. This involves promotion of fleet and workplace policies to local industry, and WA also has an online workplace road safety portal to guide and support the development of workplace road safety policies in small to medium sized enterprises.
19	Examine and progress options to improve measurement and reporting of non-fatal and disabling injury crashes, particularly through the development of matched crash and hospital database systems. *Implementation*: Establish a national working group through Austroads to examine best practice options, review the position of individual jurisdictions, and develop recommendations for consideration and implementation. *By end-2017:* Recommendations developed and considered by all jurisdictions.	Commonwealth States and territories Austroads		▪ This action is to be progressed through an Austroads project, 'A national approach to measuring non-fatal crash outcomes' (SS2034), which involves the linking of police-reported crash data and hospital admissions data. – This pilot project will demonstrate the strengths and limitations of adopting a data linkage approach at a national level, and is expected to deliver proof of concept for the approach, and a single year of linked data. The project includes a review point in late-2016, and is expected to run until at least late 2017.