ROAD SAFETY MANAGEMENT CAPACITY REVIEW

WESTERN AUSTRALIA

Final Report

September 2010

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EXECUTIVE SUMMARY

ES1. Overview

Having pursued a results-oriented focus since the 1990s, Western Australia has made significant progress over the last two decades in reducing per capita death rates in road traffic crashes. Unsurprisingly for an active jurisdiction in road safety, Western Australia's road safety management system is in an advanced phase of development when compared globally. This systematic road safety management capacity review, using the ‘state of the art’ World Bank road safety management assessment framework, confirms that many elements of its management system are consistent with international good practice. However, with the shift to the Safe System approach, there are system elements that require strengthening.

At the same time, the road safety results being achieved indicate that Western Australia has some way to go before it can join the global leaders in road safety performance. The road death rate across the WA network in 2009 was 8.6 per 100,000 of population which is about twice that of the global leaders. On rural roads, the very high death rate of 21 deaths per 100,000 of population compares with performance achieved in low-income countries in the Asia-Pacific region. Nearly half of all major trauma patients in WA received their injuries in road crashes which are the leading cause of death in WA for those aged between 1-24 years. The trend in deaths since 2006 has been upward and while there was a reduction in 2009, there were 30 more deaths than the lowest number achieved in 2005. Road traffic injury in WA is costly and the annual socio-economic cost is conservatively estimated at $2 billion.

Western Australia has adopted global best practice in its long-term goal to eliminate death and long-term injury on its network. It has embarked upon a bold path with its Towards Zero strategy which demands governmental leadership, meaningful shared responsibility and sustained investment to reach new levels of high performance. It must now find the way to implement the strategy. Western Australia is to be congratulated for taking stock of where it currently sits and assess what it needs to do to achieve its ambitious road safety goal. Based on national and international good practice and information provided by the senior management of key road safety partners and stakeholders in WA, this independent review has identified some scope for future action.

Addressing the long-term goal of eliminating death and long-term injury elimination influences management functions and interventions in ways that differ profoundly from typical targeted approaches of the past. It requires both a shift to a more protective system (separating dangerous mixed road use, better speed management, more crash protective roads and vehicles, good recovery and rehabilitation mechanisms) as well as achieving higher levels of user compliance with the key road safety rules in terms of speed, driver impairment by alcohol and other drugs and the use of safety equipment. At the same time, international best practice indicates that this ambitious vision for the future requires ownership and accountability in the lead agency and its governmental partners for challenging but achievable interim targets and performance indicators. This essential ingredient for success is currently lacking in the Western Australia activity. It is clearly a major impediment to progress in implementing Towards Zero and securing sustainable funding for its evidence-based approaches.

The capacity review concludes that Western Australia is currently in the ‘establishment’ phase of its investment strategy for the implementation of Towards Zero. In view of the government’s highly ambitious long-term goal, further activity in this phase is needed to build capacity, target the effort and prepare the way for rapid ‘growth’.

An investment strategy to 2020 is proposed to prepare further for rapid growth in Western Australia’s efforts to address its serious road safety problem and achieve its desired results. The recommendations are underpinned by the adoption of the proposed interim target to reduce deaths and serious injuries by 40 per cent by 2020. They include as priorities the development of an enhanced safety performance framework and strengthening of other key institutional management capacity, particularly lead agency and roads authority strengthening, for the delivery of accountable, well-orchestrated, funded and effective Towards Zero activity. The key role of local government, industry and the non government sector partnerships in delivering benefits also receives attention.

A key element of the recommended investment strategy is the spearhead activity entitled the Towards Zero Booster Program (to 2014). This has been designed to strengthen lead agency capacity, accelerate knowledge transfer across the Towards Zero partnership, promote innovation in targeted high-risk sections of the network, achieve quick results and build the platform for a more scaled up approach across the remainder of the network. Immediate and short term gains can also be expected from conventional interventions derived from national and international best practice, especially enhanced enforcement combined with publicity as envisaged in Towards Zero, while improvement of the protective features of the network, the vehicle fleet and the emergency medical system which are delivering returns in other jurisdictions will bring big benefits in the medium to long-term.

The recommendations will rely heavily on substantially strengthened capacity in the ORS and important upgrades in MRWA and in local government in particular, together with commitment to an upgraded level of funding. This is a major issue for the delivery of the improvements identified. There are also necessary capacity strengthening requirements in WAPOL, DoT and other agencies. These high level recommendations were presented to a Perth workshop in August 2010 and received broad support.

A 40% reduction in deaths and serious injuries by 2020 as foreseen by Towards Zero is considered within WA’s reach, but will require governmental commitment to the target, substantial resourcing of the lead agency and of MRWA and local government road safety efforts, major knowledge transfer within and beyond government, supported by strong coordination and performance accountability frameworks plus increased funding.
ES 2. Review aims and methods

As a prelude to the implementation of Towards Zero and, in line with international best practice, a peer review of road safety management in Western Australia has been carried out by international road safety experts. The independent review was carried out during the period from May to September 2010, funded by the Road Safety Council with project management by the Office of Road Safety. It involved initial stakeholder questionnaires and face to face meetings with a wide range of road safety partners and stakeholders comprising senior managers and decision-makers, road safety professionals and technical experts from the key governmental agencies, professions, the non governmental sector and industry.

The purpose of this review has been to:

• provide an independent, qualitative peer review of Western Australia’s road safety management capacity to deliver Towards Zero outcomes;
• reflect back from partners and stakeholders about strengths and weaknesses of current approaches and to achieve a high-level consensus of senior management on next steps;
• recommend any further multi-sectoral ‘good practice’ action to build capacity where gaps are identified for implementing Towards Zero.

Figure 1: The road safety management system

Safety management capacity in Western Australia has been reviewed in a systemic way which takes account of all elements of the safety management system and their interactions. Activity has been reviewed across best practice road safety management dimensions using systematic checklists used by the World Bank and recommended by the OECD. These dimensions comprise institutional management functions which provide the foundation for system-wide interventions by all relevant sectors in order to achieve results (See Figure 1).

The consultants have drawn upon the stakeholder responses, their experience and judgement to provide findings and an overall assessment of the present situation and recommendations for change and improvement to assist delivery of Towards Zero.

A highly summarized assessment is presented in this Executive Summary for each element of the road safety management system. Strengths and weaknesses and high-level recommendations for capacity building are outlined. The approach used in the review also distinguishes between the establishment, growth and consolidation phases of a country’s long-term investment strategy for road safety and recommendations for priority actions based on the capacity review are presented.

Recommendations for (a) short to medium-term measures to 2020 and (b) concurrent shorter term booster program measures to 2014 are set out in summary in Section 4 of the Report (and in detail for each in Section 5, Recommendations).

ES 3. High-level review findings

**ES 3.1 System Level Results**

Western Australia’s main road safety results are presented here - for final and intermediate outcomes and key reported institutional outputs. Findings on target-setting and safety performance indicators are presented in later sections on Focus and Monitoring and Evaluation.

**Final outcomes**
The trend in deaths since 2006 has been upward and while there was a reduction in 2009, there were 30 more deaths than the lowest number achieved in 2005. The road death rate across the network in 2009 was 8.6 per 100,000 of population which was about twice as high as the global leaders. On rural roads, the very high death rate of 21 deaths per 100,000 of population compares with performance achieved in low-income countries in the Asia-Pacific region. Nearly half of all major trauma patients in WA received their injuries in road crashes and road crashes are the leading cause of death in WA for those aged between 1-24 years. Road traffic injury in WA is costly and the socio-economic cost is conservatively estimated at $2 billion.

While most deaths (70%) involve motor vehicle occupants, the highest risk of serious and fatal injury is sustained by motorcyclists, pedal cyclists and pedestrians. Record linkage studies indicate that certain road user groups – pedestrians, cyclists and motorcyclists in WA appear to be heavily under-reported by police as requiring hospitalisation. At the same time, motor vehicle casualties appear to be over-represented by police as hospitalisations.

**Box 1 Main final outcome results: WA 2009 (provisional data)**

- Total road deaths – 192
- Total serious injuries - 2548
- Road deaths per 100,000 of population – 8.6
- Total socio-economic costs - $2 billion annually (not based on WTP).
- 70% of deaths were to motor vehicle occupants
- 17% were motorcyclists.
- 69% of all deaths were in single vehicles crashes
- 40% of deaths occurred outside built up areas on 110 km/h roads.
- Regional death rates were 3-4 times higher than metropolitan rates.
- 24% of deaths in met areas occurred on roads with a 70 km/h speed limit
- 63% of deaths in regional WA occurred on roads with a 110 km/h speed limit.
- Alcohol was a suspected factor in 33% of fatalities.
- Excess speed was a factor in 32% of fatal crashes.
- 23% of motor vehicle occupants were not wearing a seat belt at the time of a fatal crash.
- 10% of motorcyclists were not wearing crash helmets at the time of a fatal crash.

**Intermediate outcomes:** The review has compiled reported information on key system-wide intermediate outcomes which have a bearing on final outcomes.

**Box 2 Key intermediate road safety outcomes**

- **network vehicle speeds.** In 2007, mean vehicle speeds in metropolitan and rural areas were below the posted speed limit in representative sections of the road network. A downward trend was evident in metropolitan mean speeds on 60km/h and 70 km/h roads, an increase on 100km/h roads in Perth. Drivers on metropolitan 60km/h and 70 km/h roads drive on average 1.2 km/h faster than drivers on the same speed limits on rural roads. In 2008, for Perth, 47% of vehicles exceeded the speed limit in 60 m/h zones and 27 % exceeded the limit in 100 km/h zones. For rural and regional WA, 41% exceeded the limit in 60 km/h zones, 35% in 100 km/h zones and 57% in 110 km/h zones. Tracking surveys indicate a decline in community perception of risks associated with speeding and an increase in self-reported speeding behaviour.
- **seat belt wearing rates.** No recent observational surveys have been carried out. An observational survey in May 2006 indicated wearing rates of:
  - % driver use correctly restrained -98%
  - % front seat passenger use correctly restrained - 96%
  - % front seat occupants total correctly restrained - 95%
  - % rear seat occupants total correctly restrained - 89%
  - In the 1-4 age groups only 63% were correctly restrained. The Kimberley region has the lowest general wearing rate at 72% which was 15% lower than the State average. A telephone survey of self-reported behaviour was carried out in the first two months of 2010.
- **motorcycle and moped helmet wearing rates.** No recent observational surveys have been carried out. Helmets are not used in 10% of deaths.
- **cycle helmet wearing rates** No recent observational surveys have been carried out.
- **alcohol use in traffic** The level of drinking and driving in normal traffic has not been measured in representative sections of the network since 2001, but alcohol is suspected in 33% of total crash deaths.
- **fleet safety standards.** The State-wide fleet is not yet analysed according to ANCAP safety rating, although there
are plans to do so.

- **safety rating of road infrastructure** AusRAP protocols for rural roads have been used as one indicator of the safety quality of the road infrastructure. Of the assessed rural roads, 36.8% meet the four-star rating which corresponds to a safe road.

- **recovery of road crash victims** In metropolitan areas in 2008/9, emergency response between notification and arrival at scene was: 88% within 15 minutes (target 90% within 15 minutes); urgent calls: 86% within 25 minutes (target 90% within 25 minutes); non urgent calls: 80% within 60 minutes (target 90% within 60 minutes). For major trauma transfer to major Perth hospital the average response time was 1 hour in metropolitan areas and 12 hours in rural areas. New emergency response times from notification to arrival at scene were set in May 2010.

**Institutional outputs:** The review has compiled annually reported information on key road safety institutional outputs across the road safety management system.

**Box 3 Key institutional road safety outputs**

- **Breath testing**
  Each driver is breath-tested 0.7 times (2008/9) compared with 1.5 times in 2003/4 and 1 test per driver is current national best practice.

- **Speed checks**
  The number of vehicles monitored by speed camera fell from 20.8 million in 2002/3 to 11.2 million in 2008/9, a reduction of some 46%. In 2009, the number of non-speed camera speed briefs, infringements and cautions by month =198,975

- **Seat belt checks**
  The number of seat belt checks is not reported annually. The police use a self-reporting indicator. In 2009, total seat belt briefs, infringements and cautions totalled 5,897 in country areas and 7,392 in metropolitan areas.

- **Mobile phone use**
  In 2009 the number of mobile phone use infringements and cautions was 15,947.

- **Black spot treatments**
  In the State Program: A total of 158 projects were funded in 2008-09, with 29 projects on State roads and 129 projects on local roads costing a total of $20 million. In the Commonwealth Black Spot Program: A total of 46 projects were funded in 2008-09 from this Federal program at a cost of $5.9 million. An additional 36 rural and 7 metropolitan projects were funded from the Economic Stimulus Packages 1 and 2 for Black Spot projects. New indicators for ORS have been established following its move to Main Roads WA relating to the effectiveness of road safety awareness campaigns and its efficiency in processing RTTF projects.

**High-level recommendation:** Based on the knowledge built and modeling conducted during the Booster Program, develop, agree and adopt a range of system-wide intermediate outcome targets based on agreed institutional output targets which can contribute to the headline outcome 2020 target to reduce deaths and severe injuries.

**ES 3.2 Institutional management functions**

**Results focus:** The new WA Results focus for the long-term is clear and unambiguous. In 2009, Parliament adopted the ambitious long-term Towards Zero strategy to eliminate death and serious injury in its road traffic system and to adapt the design and performance of the road traffic system to this goal.

However, ‘ownership’ varies across the partnership with limited Safe System initiative. A safety performance framework for the interim has been proposed but has yet to be adopted or further developed. Since the adoption of the strategy, the key agencies have yet to fully adopt Towards Zero in their national strategies and identify meaningful targets and indicators for annual performance agreements.

**Strengths**

- Long-term goal to eliminate death and serious injury.
- Professionally and publicly supported road safety strategy adopted by Government based on data-led approaches and analysis.
- Road safety is clearly core business for key agencies.
- Active, competent lead agency
- Best practice use of independent peer review

**Weaknesses**

- Lack of agreed safety performance framework.
- No final or intermediate outcome targets agreed for the interim.
- Current performance indicators are limited, are not well-aligned to strategy.
- Limited embedding of road safety within the core activity of many agencies and associated limited capacity is constraining whole of government activity.
- Lack of annual accountability for road safety.
- Resulting limited effectiveness of lead agency and key agencies in implementing otherwise good practice strategy.

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\*Although black spot treatments are not generally considered to be part of a Safe System approach in Europe,\*
High-level recommendation: Formally adopt the 2020 target of a 40% reduction in deaths and serious injuries; strengthen the lead agency (ORS) role; specify agency responsibilities and accountabilities through a Safety Performance Framework across safe system elements and regularly report these and establish KPI’s in CE’s contracts; implement the proposed Towards Zero Booster Program to achieve quick results and build multi-sectoral knowledge about Towards Zero while preparing for and implementing the measures necessary to achieve the 2020 goal (and beyond).

Coordination: WA has a range of well-established coordination structures and mechanisms at State and local levels but coordinated decision-making to achieve results across the governmental agencies for policy, strategy, legislation and budgets needs tightening to address the ambition of Towards Zero.

Strengths
- WA has well-established coordination structures at State and local levels.
- The Road Safety Council is an active and competent advisory body and plays a key role.
- Funding mechanisms and professional networks are in place which can be used further to strengthen vertical coordination of road safety.
- Innovative partnerships with industry aimed at Towards Zero goals offer substantial potential opportunities for improved performance.
- ORS is working actively in the development of an ISO road safety management standard for organisations.

Weaknesses
- The absence of a safety performance framework to achieve road safety results in the short to medium term is resulting in a lack of focus for coordination efforts.
- Senior management acknowledges that the current framework for coordination across agencies needs to be strengthened to support governmental decision-making.
- There is a need for an additional grouping of Senior Managers from the key agencies to support their Chief Executives group and the Ministerial Council.
- WorkSafe is not included in road safety strategy partnership arrangements and not represented on RSC.
- Vertical coordination between State and local government is weak.
- Bi-partisan Parliamentary engagement by the lead agency has not continued.

High-level recommendation: Strengthen intergovernmental horizontal and vertical coordination, the key delivery partnerships and ORS capacity to facilitate this. Encourage bi-partisan Parliamentary engagement, strengthen partnerships with industry and galvanise local government participation and effectiveness.

Legislation: WA has a generally comprehensive legislative framework, but additional provisions are needed to align legislation further in support of Towards Zero and its results focus.

Strengths
- WA has a generally comprehensive legislative framework.
- In general, the capacity for developing legislative proposals is good, although some business case development awaits funding.
- The lead and other key agencies are active in seeking support for further legislative development in support of Towards Zero.

Weaknesses
- A range of legislative instruments are required to support Towards Zero in the short to medium term.
- The long-term goal of the road safety strategy is not established in legislation, as in some European countries.
- The lead agency does not have an agreed role to lead/facilitate the legislative change process to expedite implementation of new policy.
- The duties of the governmental lead agency for road safety are not set out in legislation.
- Institutional roles, responsibilities and accountabilities for Towards Zero are not formally established.
- No specific legal duty exists for road safety locally.
- The current speed limit framework, aspects of the driver licensing and vehicle standards frameworks do not reflect international or national good practice.

High-level recommendation: Formally specify institutional roles, responsibilities and accountabilities for Towards Zero in Memoranda of Understanding, policy documents, annual performance agreements and in legislation where appropriate. Adopt the recent RSC legislative proposals for interventions. ORS to have agreed and resourced role to lead/facilitate development of road safety-related rules by relevant agencies.

Funding and resource allocation: WA’s funding mechanisms are consistent with international best practice but annual levels of funding across agencies - whether core funding, road safety fund resource, insurance industry support - are insufficient to address annual budgets for Towards Zero implementation. The societal cost of road crash injury far exceeds the amount being spent and large potential exists for a substantial return on investment.
### Strengths
- WA has an excellent range of good practice funding mechanisms including specifically allocated core funding; a road safety fund; a format for specific allocations from State to local government and an insurance sector contribution.
- The Road Trauma Trust Fund provides a transparent mechanism for funding multi-agency initiatives and uses a resource allocation framework.
- WA will adopt willingness to pay in cost-benefit analysis.

### Weaknesses
- The identified annual increases required to implement Towards Zero, agreed across Government, are not being provided in core funding, road safety fund resource, or insurance industry support.
- A cut in Safe Roads Program funding was made for 2010/11 – the first year of strategy implementation.
- Evidence-based road safety activity for local government has been funded mainly by the RTTF.
- Business cases need to be strengthened using cost-benefit, cost-effectiveness, ‘strategic fit’ analysis as appropriate.
- The allocation to the Road Trauma Trust Fund comprises only a small proportion of current camera fines and resource allocation procedures will need to be strengthened once the safety performance framework for Towards Zero is established further.
- Road safety activity receives only limited funding in most local government budgets.

### High-level recommendation:
Achieve increased priority of necessary road safety activities to attract appropriate and sustained levels of core annual funding for all key agencies; explore new and revised funding mechanisms and sources; establish strong business cases and a rational framework for resource allocation.

### Promotion:
Best practice ‘promotion’ is evident in several areas of WA activity. However, key elements of the Safe System model are not generally understood or adequately promoted.

#### Strengths
- The long-term vision of Towards Zero is being promoted by the ORS and the RSC as core business and a shared responsibility.
- Strong advocacy outside government for Towards Zero implementation has commenced and receives strong support from the Road Trauma Trust Fund.
- There are emerging examples of industry leadership position of good road safety practice within and outside worksites which exceed currently accepted community standards.

#### Weaknesses
- Strong promotion of Towards Zero by Chief Executives of all key agencies is not evident.
- Strong agency partnership work combining publicity and police enforcement needs to be restored.
- The value of speed management which is at the core of Safe System and Towards Zero is receiving insufficient promotion at a high level.
- Influential road safety advocates have not yet been identified in a systematic manner. Their support needs to be obtained.

### High-level recommendation:
Highlight the shared responsibility for Towards Zero as core business within government, especially at the senior management level in all the key agencies, as well as outside government by all the key agencies and research, health and road user communities including occupational health and safety. More government leadership by example is recommended. Seek bipartisan review of alcohol impacts upon the community and upon road safety outcomes. Advocacy for road safety by those outside government will be crucial and should be fostered.

### Monitoring and evaluation:
At State level, the collection, review, dissemination and sharing of data in WA presents elements of international best practice, but it lacks integration and follow-through with respect to Towards Zero needs. This is likely to reflect the absence of an agreed safety performance framework in support of targets for the interim.

#### Strengths
- A wide range of databases are available in support of monitoring and evaluation.
- Best practice record linkage is conducted and may be expanded.
- Independent peer review of road safety management system.
- Efforts are being made to improve the quality and or efficiency of key data systems.

#### Weaknesses
- There is an absence of recent intermediate outcome data on levels of drinking and driving, occupant crash protection (restraints and helmets), quality of the vehicle fleet and work-related safety.
- Further automation of data is needed to facilitate data sharing and analysis.
- Absence of long-term outcome analysis in trauma registries.

### High-level recommendation:
Improve measurement procedures, their systematic coverage, quality and reporting and strengthen related lead agency, health sector and local government capacity. Seek extended coronial inquest capacity to examine road safety crashes.

### Research and development and knowledge transfer:
Building State capacity for achieving effective knowledge transfer has commenced but needs strengthening to address the new ‘results focus’ at senior executive, practitioner and elected member levels. Capacity building for state road safety research and
development has commenced but needs strengthening to allow for the development a comprehensive road safety research and development program.

**Strengths**
- Both in-house and external capacity for road safety research in WA has been developed.
- Good practice guidelines, demonstration projects, an innovations forum, workshops etc are established mechanisms for knowledge transfer.

**Weaknesses**
- Current research capacity is efficient but too limited to meet Towards Zero strategic goals;
- A State road safety research strategy is envisaged but not yet in place;
- There are concerns that lack of capacity in State Govt. agencies is preventing a timely alignment of departmental policy with Towards Zero.

**High-level recommendation:** There is a clear and urgent need for in-service training, technical guidance and rapid knowledge transfer on Safe System principles and the evidence base for speed management and deterrence policing. There are some indications that this process has started, but this needs to be escalated at the professional level in State and local government as well as at the high strategic level of senior management and political levels. Prepare a Towards Zero research and development strategy.

**ES 3.3 Interventions**

Towards Zero requires high levels of safety performance of the road network as well as of the vehicles and people who use it. The review looked at a system-wide range of interventions to achieve results: planning, design and operation of the road environment; conditions of entry and exit of vehicles and road users to the road environment and the recovery and rehabilitation of crash victims in the road environment.

**Planning, design and operation of the road network:**

Safe Roads and Roadsides is a cornerstone of TZ which envisages investing in Safe System infrastructure. However, current standards and guidelines do not align at all well with Safe System principles.

Safe Speeds is a cornerstone of TZ which involves enhancing speed enforcement and further reflecting on the appropriateness of WA’s speed limits. However WA (and Australia) has some of the highest rural and urban speed limits in developed world.

Safe Road Users is a cornerstone of TZ and aims to integrate behavioral change programs with improved enforcement addressing impaired driving (alcohol, drugs, fatigue and distraction), restraint use, and speed choice. However, there are high rates of non-compliance with key safety rules and reduced enforcement outputs for deterring excess alcohol and speed.

**Strengths**
- Main Roads are intent on implementing Safe System principles in the WA network and a new Main Roads strategy is being prepared.
- Main Roads has a dedicated road safety branch.
- There is information about the safety quality of the WA road network.
- Safety limits for drinking and driving, drugs and driving and occupant restraint rules are generally in line with good practice.
- There is information about user compliance levels with key safety rules and how compliance can be improved.

**Weaknesses**
- The current road hierarchy does not provide the appropriate match between road function, speed limit, road layout and design required for safe use by all as envisaged in Towards Zero.
- As in other Australian States, WA has some of the highest rural and urban speed limits in the developed world.
- A clear prioritisation of higher-volume, higher-risk road sections requiring treatments is not available.
- While a Safe System approach is proposed by MRWA, current road treatment guidelines and policies in MRWA or in local government do not yet reflect this approach. Main Roads and local authorities have low capacity to implement well-established Safe System treatments.
- There is high-non compliance with several key safety rules and an unhelpful shift in emphasis away from targeted deterrent policing of excess alcohol and speed rules.

**High-level recommendation:** MRWA and Local Government to innovate and go beyond Australian standards to established international good practice, comprehensively match road and vehicle design standards to safe speed limits in line with international good practice and implement targeted Safe System speed limit reductions in the meantime, based on best value treatments/locations. Improving the deterrence value of police enforcement for speed and drinking and driving is crucial for delivery of large savings in the short term, until the scale of safety engineering improvements needed throughout the network can be realised. Implement the MUARC (Cameron) speed camera recommendations and review drink-driving enforcement strategies.
Conditions of entry/exit to road network - vehicle standards:

Safe Vehicles is a cornerstone of TZ and focuses on promoting the uptake of safer vehicles and key safety features, particular government and corporate fleets. WA activity reflects many elements of international best practice at State level both for private and commercial vehicles. However, the new ‘results focus’ requires substantial and continuous improvement of national standards, ANCAP, and creating the State demand for safety equipment which needs to be sustained over the longer term.

**Strengths**

- A whole of government fleet safety policy is being implemented which promotes safety equipment.
- Promotion of vehicle safety awareness and features to the public is good practice.

**Weaknesses**

- Gaps exist in coverage and quality of national vehicle safety standards compared with international best practice. The uptake of safety features in the Australian fleet has been slower than for most OECD countries.

**High-level recommendation:** Continue to advocate for raised national standards; use membership of ANCAP to ensure continuously improving higher standards in safety ratings; lead by example in in-house vehicle safety policies which are continuously upgraded in line with demonstrably effective new technologies which address TZ needs; promote advisory ISA and consider requiring advisory ISA for novice drivers.

Conditions of entry/exit to road network- user standards:

The Graduated Driver Training Licensing scheme compares well internationally but there is scope for entry and exit conditions (e.g. licensing, penalties) to be better aligned to Towards Zero.

**Strengths**

- WA has introduced a Graduated Driver Licensing scheme which compares well internationally.

**Weaknesses**

- Gaps exist in the coverage and quality of the Graduated Driver Licensing scheme compared with national best practice, particularly in the number of hours required for accompanied driving and the age of access to provisional licences.
- Proposals made for the upgrading of penalties await adoption.

**High-level recommendation:** Improve graduated driver/rider licensing to national and international best practice as well as removing anomalies in excess alcohol and excess speed compliance regimes.

Recovery and rehabilitation of crash victims:

The emergency medical services are acknowledged by stakeholders as being integral to the new ‘results focus’ but they are not included as a system provider for road safety in day to day strategic management processes.

**Strengths**

- Trauma registries have been established in the major teaching hospitals.
- Emergency medical response targets are in place.
- Following a major review in 2007, recommendations to improve access to the emergency medical system, trauma care and rehabilitation are being implemented.

**Weaknesses**

- WA's geography poses severe challenges for prompt trauma care in remote areas.
- The potential contribution of improved post impact care in reducing road traffic injury is unknown for WA.

**High-level recommendation:** Review the potential contribution of emergency medical services, trauma care and long-term rehabilitation to further reducing road deaths and serious injuries.

**ES 3.4 Lead agency**

The ORS is recognised as carrying out its lead agency role in a competent and inclusive manner by all stakeholders and displays many elements of international good practice. However, ORS capacity needs strengthening.

**Strengths**

- The ORS is recognised as carrying out its lead agency role in a competent and inclusive manner by stakeholders.
- The ORS displays many elements of good and best practice in carrying out its management functions.

**Weaknesses**

- The absence of an adopted safety performance framework for agreed final outcomes, intermediate outcomes and institutional outputs for the interim is a major weakness in the WA results focus and the ORS activity needs to be strengthened in this area.
- The ORS, like its key partners in government, does not have defined accountabilities for road safety performance in WA.
The absence of this framework and associated funding by government is inhibiting road safety progress in WA and the ability of ORS to lead it.

The ORS duties are not defined in legislation.

The ORS’s internal capacity in key delivery areas needs to be strengthened in view of the scale and scope of urgent Towards Zero tasks particularly in the delivery of the ORS contribution to results focus, coordination, funding and resource allocation, legislation, monitoring and evaluation and research & development and knowledge transfer.

**High-level recommendation:** The ORS will need to play a pre-eminent role in all of the seven institutional management functions identified as underpinning the road safety management system in the next steps of Towards Zero. It will need to take responsibility for what it is solely accountable for as well as prompting, encouraging and assisting activities on the part of other key road safety partners and stakeholders.

### ES 4. Overall assessment and high-level recommendations

The review acknowledged, at its outset, that Western Australia’s road safety management system is in an advanced phase of development when compared internationally. This systematic review confirms that many elements of its road safety management system are consistent with international good practice. At the same time, the road safety results being achieved indicate that Western Australia has some way to go before it can join the global leaders in road safety performance and is in the very early stages of shifting towards the desired Safe System.

Like several European countries and New Zealand, Western Australia has embarked upon a bold path and its new results focus for the long-term demands a new and higher level of road safety performance, leadership and institutional delivery. Based on the information provided by senior management of stakeholders in Western Australia and with reference to national and international good practice this independent review has identified scope for future action.

Achieving the outcomes outlined in Towards Zero will not be achieved overnight but will require political will, strong leadership and a scaling up of sustained investment into the long-term. This is widely acknowledged by all involved. This is expected to include the commencement of the long-term work envisaged, as well as clear agreement across agencies in all relevant sectors and a focus on interim goals to prevent death and disability by 2020. Short-term gains can be expected from conventional interventions derived from national and international best practice, especially enhanced enforcement combined with publicity as envisaged in the Strategy. Improvement of the protective features of the network, the vehicle fleet and the emergency medical system, supported by improved public understanding of Safe System means, will bring big benefits in the medium and longer term. The measures to be taken to achieve this build in capacity can be systematically listed and recommendations for a Towards Zero Investment strategy for the medium term (to 2020) are presented.

The World Bank and the OECD note the importance of a staged approach to investment in establishment, growth and consolidation phases which (a) acknowledges the barriers imposed by insufficient safety management capacity to meet the desired goals and (b) addresses the challenge of accelerating the institutional strengthening required to effectively govern the production of improved road safety results.

The capacity review concludes that Western Australia is currently in the ‘establishment’ phase of its investment strategy for the implementation of Towards Zero. The shift to a Safe System approach requires continuous innovation based on sound safety principles and new approaches, as well as the continued application of existing best practice. Further activity in this phase is needed to build capacity and prepare the way for rapid ‘growth’ in effective strategy implementation.

As a spearhead to this investment strategy, a Towards Zero Booster Program (to 2014) is recommended to accelerate the implementation of the strategy in the recognition that funding is tight, new approaches need to be developed, and measures taken need to be established and well grounded before they can be scaled up and applied State-wide. The aim of the proposed short-term investment to 2104 is to address high priority issues in a sequenced and manageable way and to build the platform for the medium (to 2020) to long-term delivery of Towards Zero goals.

### ES 4.1 A Towards Zero Booster Program for the short term (to 2014)

The aim of the specifically funded, four year program is to prepare further for rapid growth in Western Australia’s efforts to address its serious road safety problem and achieve its desired results. It would adopt the Toward Zero interim outcome target to 2020 and operate in addition to the proposed recommendations outlined in the broader investment strategy for the medium term, which would gradually build in line with the developing capacity to 2020.

Eric Howard and Associates, Jeanne Breen Consulting, Tony Bliss, Bruce Corben, September 2010
Towards Zero Booster Program: Aims
- Build lead agency capacity
- Accelerate the implementation of Towards Zero to achieve quick results
- Build knowledge across the agencies and local government
- Focus on the goal of eliminating deaths and serious injury and related targets in activities
- Carry out multi-sectoral components in urban and regional corridors using:
  - safety planning and engineering
  - deterrent policing and supporting publicity
  - enhanced emergency medical response
  - publicity about program though local government
  - targeted speed limit reviews where risk is high

The purpose of the Booster Program is to build the knowledge across the agencies and local government and the WA community as well as lead agency capacity (see section 4.3 below) that would allow for a scaled up approach across the rest of the network within four years. The Booster Program would provide a focus for development of the broader coordination, accountability and related improvement activities which are essential in our view to achieving a fully results focused road safety approach in Western Australia. It would target the elimination of death and serious injury in several high-risk sections and areas of the urban and regional network (See Section 5.1 of Final Report).

Towards Zero Booster Program: Key elements of interventions
Regional and urban programs
- safety engineering (run-off road and intersections)
- combined police enforcement and publicity
- enhanced emergency medical response
- program publicity at community level
- local government involvement
- targeted speed limit reviews where risks are high

Urban residential areas x 2
- review speed limits (MRWA and LG)
- area-wide traffic management and self-enforcing traffic calming
- some combined police enforcement and publicity
- enhanced emergency medical response
- program publicity at community level
- local government commitment essential

ES 4.2 Towards Zero Investment Strategy to 2020
Detailed priority recommendations from the review address institutional delivery by the lead agency and its key partners of key interventions to achieve road safety results to 2020 in order to achieve the Towards Zero 40% reduction target. (See Table 5.2 in Section 5.2). The higher level issues which are addressed by these recommendations are:
- formally adopting the Towards Zero target of a 40% reduction in deaths and serious injuries
- strengthening the dedicated management capacity of the ORS the lead agency, in particular, in the carrying out of its leadership role in government as well as supporting capacity development in the State and local roads authorities.
- establishing the necessary results focus for WA through assembly of a robust safety performance framework for agencies collectively and individually (with indicators for outcomes, intermediate outcomes and institutional outputs, adoption of agreed targets for improvement in those indicators over the period to 2020, together with a clear documented and agreed statement of each agency’s road safety role, and repositioning agency policies for Towards Zero needs, especially in State roads and local authorities, WA policing, occupational safety, insurance and health sectors;
- establishing and specifically funding a Towards Zero Booster Program to 2014 as the priority next step in TZ implementation and capacity development.
- building rapid knowledge transfer processes and tools, ORS, key governmental partners and professional organisations to actively develop tools for knowledge transfer for agencies and stakeholders
- improving horizontal and vertical coordination within government and delivery partnerships with business, civil society and elected representatives. Encourage bi – partisan support with parliamentary and councillor engagement, promotion and monitoring of Towards Zero to underpin awareness and political priority for road
- gaining substantially increased funding through the development of quality business cases and introducing new funding mechanisms.
- driving innovative public promotion based on an effective communication strategy to alert the community to the realities of risk and road use and the shared responsibility for effective action to reduce that risk.
local government support by ORS and MRWA through regional MRWA engagement, more flexibility for local
governments to reduced speed limits on their road networks, using the current review of funding to
mainstream safety into local government infrastructure, and to link allocations to infrastructure related safety
performance
- Establishing a Towards Zero research and development strategy,
- implementing priority interventions and revising guidelines across the road traffic system.

**ES 4.3 Lead agency strengthening**

It is envisaged that ORS would operate as the program owner and project coordinator for the Towards Zero
Booster Program on behalf of government with the individual agencies managing the Program components for
which they are responsible and accountable.

- The further development of Western Australia’s results focus - the overarching institutional management
  function - is clearly the priority task for ORS. This entails the further preparation of a safety performance
  framework (SPF) at State level for the Booster Program to 2014 and for the Investment Strategy to 2020.
  Challenges include securing the SPF adoption as well as defining core responsibilities and accountabilities
  for its delivery across the road safety partnership in MoUs, annual performance agreements, policy
  documents and legislation, as appropriate. All key agencies and partners will need to play a role in the
  Booster Program, using it to build Towards Zero management capacity.

- A more robust monitoring and evaluation system will need to be established as a priority by ORS and
  partners in support of the results focus task, both for the Booster Program and the 2020 framework for the,
  particularly in the areas of data collection, analysis and reporting. ORS capacity is limited here and needs to
  be strengthened so that data on the state safety performance (including intermediate outcomes and
  institutional inputs) can be collected through surveys or analysis where gaps exist and accessed easily,
  efficiently and transparently. This will also rely on the key agencies providing adequate data on indicators of
  performance for which they have agreed to be measured and accountable in a digestible form to ORS. The
  ORS will also need to carry out and report on the monitoring and evaluation to the RSC, the Chief
  Executives Group and the Ministerial Council, and manage relevant knowledge transfer activity. A
  dedicated, funded safety data unit is recommended.

- The effective coordination of the multi-sectoral activities envisaged in the Booster Program will depend upon
  strengthened horizontal and vertical coordination arrangements and improved efficiency and focus of bi-
  lateral partnerships. A further priority for ORS will be to strengthen and re-focus coordination groups across
  government; at chief executive and senior manager levels, developing and deepening the key bi-lateral
  delivery partnerships as well as developing tools to assist vertical coordination, especially with local
  government. A dedicated, funded coordination unit is recommended.

- The ORS and partners will need to promote the activities of the Booster Program as the spearhead of the
  Towards Zero strategy in a specially funded campaign. This will be a crucial vehicle for the government to
  signal to partners, stakeholders and the wider community what is meant by a Safe System approach, the
  benefits it confers on all, and the shared societal responsibility critical to its success. As indicated by the
  Chair of the RSC, broad multi-sectoral communication with the engagement of senior management is
  needed to draw in the community and business sector to better understand the shared responsibilities for
  Towards Zero and ORS will need to play a leading coordinating role in this promotion.

- ORS and partners will need to review the legislative changes required to support achievement of Towards
  Zero goals by 2020, during the Booster Program, including agency duties and roles. It would also be in line
  with international good practice for ORS to take the lead for the facilitation, development and coordinated
  implementation of Towards Zero policy and legislation. Capacity will also be needed to support the
  management of interventions targeting innovative safety engineering, general deterrence enforcement and
  associated social marketing, and improved post-crash services.

- Securing sustainable funding for the Booster program and the 2020 strategy will require priority review. The
  lead agency will need to identify and pursue proposals for new funding mechanisms and sources and assist
  the key agencies with business case development to enhance resource allocation decisions.

- The knowledge transfer and research and development tasks are important to the further development of
  Towards Zero and the ORS will need to continue play a key role in the development and provision of
  updates on effective intervention, good practice guidelines, survey protocols and crash analysis tools. In-
  service training will be all be important to securing the rapid knowledge transfer goals of the Booster
  Program. ORS will need to lead the review of research needs and to continue to build capacity for their
direction and management.

Strengthening lead agency capacity to conduct this task will require dedicated unit(s) in all these areas in the
ORS’s Policy and Strategy Branch. In this way, the Booster Program can start to develop the capacity which will
be needed for effective implementation of the broader, ongoing Investment Strategy to 2020.
Introduction
1. Introduction

As a prelude to the implementation of the new Towards Zero road safety strategy by the key agencies in the State and in line with international best practice, the Road Safety Council of WA commissioned a road safety capacity review for Western Australia.

The stated purpose of this capacity review was to provide an assessment of the extent to which Western Australian agencies have the necessary elements in place to achieve road safety outcomes, including an appropriate accountability and reporting framework and key performance indicators.

The review was carried out between May-August 2010 and the findings were presented to and generally accepted by an agency and stakeholder workshop held in Perth on 20th August 2010.

This report presents the background, main findings and recommendations of this independent peer review, conducted within the framework of international best practice.

Having pursued a results-oriented focus since the 1990s, Western Australia has made significant progress over the last two decades in reducing per capita death rates in road traffic crashes. During this period, road safety organization in Western Australia has been recognized as demonstrating many of the elements of the good practice which have been adopted widely in other countries.

In March 2009, Western Australia announced Towards Zero\(^3\) in the State Parliament as its new road safety strategy for Western Australia aiming for a higher level of ambition than achieved in the past. In presenting a vision for an inherently safe road system for future generations, the Toward Zero strategy anticipates that Western Australia will fully address Safe System which is widely accepted as the latest paradigm and best practice phase of road safety management. The cornerstones of Toward Zero comprise strategies and recommended actions for Safe Road Use, Safe Roads and Roadsides, Safe Speeds, Safe Vehicles and Safe Foundations.

The evolution of road safety management to Safe System has been outlined by the World Bank\(^4\) and the OECD\(^5\). Knowledge gained from successive phases over the last fifty years has highlighted the importance of an ambitious results-focus for the long-term and defined quantitative targets for the interim which demand system-wide, evidence-based intervention which is underpinned and delivered by the sound foundation of accountable, institutional management. While crashes may occur, the new societal focus is for stepped, sustainable reductions towards the eventual elimination of death and long-term injury. New emphasis is being given to the quality of institutional management to allow the implementation of intervention of sufficient scope and depth to achieve final and intermediate road safety outcomes. The challenge for high-income countries will be to continue to innovate on the basis of sound safety principles and to go beyond what is currently known to be effective, to achieve even higher levels of performance. Safe System is recommended by both international organisations to country and state governments irrespective of their socio-economic status and by ISO to all organisations irrespective of their size in the current project committee draft of ISO 39001 (unpublished).

A framework for road safety management and its assessment towards these ends and built on global good practice has been developed and is in use by the World Bank\(^4\) and has been adopted by the ITF/OECD.\(^5\) The road safety management system pyramid on which this assessment framework is based (Figure 1) comprises three inter-related elements: institutional management functions, interventions and results. Managing for road safety results requires an integrated and accountable response to these system elements.

\(^3\) Towards Zero, Road Safety Strategy endorsed by the Government of WA, Perth, March 2009
Consideration of all elements of the road safety management system and the linkages between them becomes critical for any jurisdiction seeking to identify and improve its current performance levels.

A key recommendation of the World Bank and ITF/OECD to jurisdictions embarking on new safety strategies and higher levels of ambition is to carry out a road safety management capacity review using an assessment framework which has been tested in low, middle and high-income countries. The new World Bank guidance is addressed to low and middle income countries as well as to high-income countries who seek higher levels of performance. For example, a recent review of road safety management capacity in Sweden revealed that achieving the level of ambition set by Vision Zero will require systematic reforms to overcome revealed capacity weaknesses.\(^6\)

In preparation for implementing the Towards Zero approach to road safety, Western Australia has stated that the overall safety culture of the state’s road safety management system be evaluated systematically against the state of the art assessment framework. In so doing, Western Australia has joined Sweden in being the first OECD jurisdictions to commission such a review and is to be congratulated for taking this initiative.

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Methodology
2. Methodology

This section sets out the methodology of the road safety management capacity review providing an outline of the approach taken, the review objectives, the consultation schedule, the detailed methodology and assessment tools used and the reporting schedule.

2.1 Outline of approach

The review has comprised:

(i) A review of road safety management capacity in Western Australia using international best practice

A road safety management capacity review in Western Australia has been carried out in line with international best practice. This has used the road safety management assessment framework and checklists developed by the World Bank. It has involved review of all elements of the road safety management system and their linkages as outlined in Figure 1.

Figure 1: Road safety management system

The review comprised several phases:

• Phase 1 – A preparation phase comprising a) review of initial stakeholder information prepared by the customer and other relevant overview material of road safety in Western Australia; b) development of a number of questionnaires based on checklists developed and used by the World Bank to be sent to a variety of stakeholders and c) the organization of stakeholder engagement for face to face meetings (Appendix 2).

• Phase 2 - in-State face to face stakeholder meetings conducted between 31.5.10 and 14.6.10 in Perth, Bunbury, East Fremantle, Joondalup and Broome.

• Phase 3 - preparation of a draft report

• Phase 4 - a high-level stakeholder workshop to discuss findings

• Phase 5 - preparation of a final report.
(ii) A qualitative evaluation of institutional preparedness to implement *Towards Zero*
Use of the guidelines has necessitated a qualitative rather than quantitative evaluation. This has served to try and identify institutional responsibilities and accountabilities for the implementation of *Towards Zero*; to provide a platform to reach an official consensus on State capacity strengths and weaknesses; to identify next steps and the ways and means of addressing *Safe System* goals, (including, as outlined in the *Towards Zero* Strategy, means to achieve possible multi-sectoral projects to strengthen the implementation of the strategy e.g. multi-sectoral *Safe System* transformations of urban area junctions and residential areas and regional highway links). This approach reflects the new emphasis being given in *Safe System* approaches to the quality of institutional management to allow the implementation of interventions of sufficient scope and depth to achieve desired final and intermediate road safety outcomes. This evaluation has addressed the key issues raised by the customer concerning agency responsibilities, accountabilities and contribution to *Towards Zero*.

(iii) International benchmarking and engagement with senior stakeholders
The guidelines also recommended that the review should be conducted by experienced, internationally recognized road safety specialists with senior management experience at country and international levels to facilitate engagement with stakeholders at the highest level. The team comprised:

Eric Howard - Eric Howard and Associates (team leader)
Jeanne Breen - Jeanne Breen Consulting
Tony Bliss - Road safety specialist of the World Bank
Bruce Corben - MUARC

2.2 Review objectives
The specific objectives of the review team have been to:

- Set out an integrated multi-sectoral framework used globally in road safety management capacity review as the basis for dialogue with the main stakeholders in Western Australia. The aim has been to identify institutional responsibilities and accountabilities and assess the readiness of key organisations and individuals involved in road safety services at all levels in the management pyramid to implement *Towards Zero* strategies and countermeasures to achieve results. As part of the benchmarking of the key elements of the road safety management system against international good practice, the review has made a qualitative assessment of issues identified by the customer such as:
  - *To what extent does each agency recognise the importance of reducing road crashes and, as a result, road trauma?*
  - *To what extent can each agency contribute to the achievement of the road safety goals set out in the *Towards Zero* strategy, given its constraints and broader responsibilities?*
  - *How can each agency’s capacity to deliver the road safety goals within the *Towards Zero* strategy be improved?*

- Reach official consensus on road safety management capacity weaknesses and institutional strengthening and investment priorities to overcome them. The prime focus has been to seek to ensure a strong inclusive collaboration with senior government officials at all times throughout the process to assist in the process of building upon past successful activity to meet strategy needs. The review team has been committed to a full and frank discussion of road safety management issues across the State, including the relative roles and responsibilities, to assist in achieving a clear understanding by stakeholders of these matters and determining their response to the potential public policy challenges that lie ahead in achieving the desired ambitious road safety outcomes.

- Identify *Safe System* implementation projects to boost *Towards Zero* activity with a focus on investment in institutional strengthening and evidence-based innovation and intervention and build on past work to demonstrate what can be achieved in future.
2.3 Consultation schedule

Stakeholders at all levels of road safety management, program design and implementation, and research and evaluation in Western Australia have been involved in this review. These have included members of the Ministerial Road Safety Council and those responsible for road safety and for setting and enforcing rules and regulations for land-use planning, design, operation and inspection of the road network, vehicle construction and inspection, conditions and standards for entry and exit to the network of road users and vehicles, and emergency response and trauma care services; senior officials from these Departments and agencies; capital city local government; regional government; local road safety practitioners and researchers; relevant professional organisations and industry groups; leaders of key community groups via peak organizations, and road user organizations.

The consultation comprised a) a request by email to around 100 stakeholders (comprising key WA road safety agency stakeholders, WA local and regional agencies; researchers; NGOs and private sector organisations) for completion of targeted questionnaires based on World Bank road safety management capacity checklists and MUARC evaluations for Towards Zero, seeking to assess current awareness within stakeholder groups of Towards Zero strategies and Safe System thinking and their current and proposed responses to these adopted State Government policy positions and b) following assessment of the qualitative responses, one to one meetings using World Bank checklists with over 85 of those respondents who have a leading role in delivering Towards Zero programs. Representative bodies of local authorities have been consulted and engagement has taken place with four local authorities in metropolitan (East Fremantle, Joondalup), regional (Bunbury) and remote areas (Broome) of Western Australia to understand more of the local context.

The capacity review comprised one to one meetings of about one hour and a half duration with key stakeholders over a two and a half week period. The combination of information from the questionnaire responses and stakeholder meetings has informed a qualitative assessment of road safety management capacity in Western Australia for the delivery of Towards Zero.

2.4 Detailed methodology

Using standard World Bank checklists (See Appendix 1), the team has reviewed current and planned practice systematically against the good practice dimensions of institutional management functions, interventions and results as outlined on the basis of questionnaire responses and discussions with key governmental stakeholders (as well as important NGOs, experts in industry and civil society). The review team has followed key steps according to the World Bank guidance in conducting the evaluation.

(A) System level results – current status

A summary of road safety related results of the operation of the system of road use in WA. This is a status report on the condition of some elements of the system, reflecting final outcomes, intermediate outcomes and institutional outputs. It is an essential means of informing discussions about current performance.

Figure 2 below highlights the appraisal of safety management capacity in terms of its results focus at the system level. Checklist 1 addresses this issue and was systematically applied to further explore all relevant issues in more detail using Checklists 2–12.
Figure 2: Appraising results focus at system level

(B) Institutional management functions – Appraising results focus

Figure 3 highlights the appraisal of safety management capacity in terms of its results focus at level of the institutional management functions. Checklists 6–11 assisted the review team in working through each institutional management function identified in Figure 3 and explored linkages with the identified interventions and their desired focus on results. The aim was to assess the extent to which the key institutional management functions needed to implement the Toward Zero strategy are in place at State level. Current Safety Performance Indicators (Intermediate indicators of outcomes) in the Towards Zero strategy were reviewed and gaps identified to inform recommendations for extension/augmentation.

Figure 3: Appraising results focus at institutional management function level

(C) Interventions - Appraising results focus

The next step within the surveys and the interviews was to appraise the results focus at the interventions level using Checklists 2–5 across each of the three categories of intervention. Engaging key stakeholders, the review worked through the three broad categories of intervention as set out in Figure 4. It explored linkages between the identified interventions and their outputs, their intended intermediate outcomes and final outcomes. In so doing it
addressed the four cornerstones of the Toward Zero strategy of Safe Road Use, Safe Roads and Roadsides, Safe Speeds and Safe Vehicles and took account of and sought to build on, if necessary, the recommendations for action in the Strategy document (the safe system cornerstone Initiatives) and the MUARC modelling report. The appraisal also explored key Safe System areas not covered by the strategy such as the recovery and rehabilitation of crash victims.

Figure 4: Appraising results focus at interventions level

(D) Lead agency - Assessing the role

The next phase of the review required an assessment of the lead agency role for road safety in Western Australia.

The vital role of the lead agency and related coordination arrangements in achieving road safety results is highlighted by the World Health Organization, OECD and World Bank. Safety management capacity to deliver the lead agency role effectively in WA was reviewed against international good practice of seven identified institutional management functions using the World Bank’s Checklist 12.

In good practice countries the lead agency plays a pre-eminent role in most of these seven institutional management functions (as outlined in Figure 4) although sometimes it can adopt more of a guiding, encouraging or catalytic role. The lead agency takes responsibility within government for the development of the national or state road safety strategy and its results focus, the overarching institutional management function. It also usually takes responsibility for horizontal inter-governmental coordination arrangements; (vertical coordination of national or state, regional and local activities; coordination of the necessary delivery partnerships between government partners and stakeholders, professional, non-governmental and business sectors and parliamentary groups and committees); ensuring comprehensive legislation is pursued; securing sustainable annual funding and a rational framework for resource allocation; high-level promotion of the road safety strategy across government and society; periodic monitoring and evaluation of road safety performance; and the direction of research and development and knowledge transfer.

Notwithstanding the recent study and developments associated with the move of the Office of Road Safety to Main Roads WA, the lead agency management functions were assessed

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against Checklist 12 and international good practice. This included discussion of road safety ownership issues associated with the Safe System goal and final and intermediate outcomes across Government, necessary coordination, legislation, funding, promotion, delivery and monitoring and evaluation of safety performance indicators. Some gaps in delivery were identified and recommendations for augmentation developed.

2.5 Reporting

On the basis of the consultation with key stakeholders using the assessment framework highlighted above and previous evaluations of road safety performance in Western Australia, the review team has prepared main findings which evaluate the readiness of Road Safety Council agencies, organisations, and individuals in Western Australia to adopt Towards Zero principles and practices. Recommendations have been made about what is needed to drive WA road safety achievement towards the long-term zero goal. This also includes recommendations on the major investment build needed as well as a review of the staged investment strategy required in the interim to implement the Towards Zero strategy. The findings and recommendations cover all elements of the road safety management system (results, interventions, and institutional management functions).

The main findings were presented by the review team at a high-level stakeholder Workshop on 20th August 2010 in Perth. This event involved the key governmental stakeholders and other invited stakeholders. The aim, which was achieved, was to forge consensus on the key actions required to achieve the next steps towards implementing Towards Zero. A workshop report can be found in Appendix 3.
Main findings
3. Main findings

This section presents the main findings of the road safety management capacity review based on the written inputs and face to face meetings of the senior management of key stakeholders and expert reference to national and international good and best practice.

3.1. Introduction

At its outset, this review noted that Western Australia’s road safety management system is acknowledged as comprising many elements of international good practice. Indeed, no jurisdiction anywhere in the world today could be described as implementing world’s best practice comprehensively across its road safety management system. However, the increasingly high ambition of jurisdictions active in road safety in improving road safety results is encouraging their senior management to look more closely at the quality of the different elements of the road safety management system and their linkages.

The findings presented in this Section represent a systematic examination of how well WA’s road safety management system is set to move forward to achieve the ultimate goal of Towards Zero – the State road safety strategy which has formed the basis of road safety work in WA since March 2009. The assessment has been made on the basis of the considerable inputs of the senior management of key stakeholders and expert reference to national and international good and best practice. Particular reference has been made to Appendices 2-4 of a recent World Bank review of global good practice in road safety management and the OECD review on meeting ambitious road safety targets. The task has been to reflect back to senior management of the key stakeholders the information and insights they have provided in our face to face meetings and in documents forwarded or requested – both published and unpublished. Full details of the road safety management capacity review findings are presented in tabular form in Appendix 4.

Initial responses to the circulated questionnaires setting out questions drawn from the World Bank checklists were notable for displaying a high degree of alignment around four key issues. These were:

- the absence of - and need for – an agreed safety performance framework
- the need for greater clarity in the responsibilities of agencies and stakeholders
- the substantial shortfalls in current funding and the need for change
- difficulties with ready access to reliable, timely data about performance

The main focus of the capacity review has been upon the management of road safety in WA by the government institutions which make the dominant contribution. Civil society, and industry entities are addressed, but within the context of government support, influence or involvement in shared activity towards achieving Towards Zero results.

This assessment commences with a summary of the results achieved to date in the current road safety management system in WA, expressed as final and intermediate outcomes and annually reported institutional outputs. It then moves on to systematic review of WA’s results focus- the overarching institutional management function taking into account WA’s stated ambition for road safety, how it plans to achieve it in the short to medium and longer term and who is responsible and accountable for its delivery. Findings are then presented on other aspects of institutional delivery and the scope and quality of the current and planned intervention. For each element, good practice definitions and dimensions are highlighted and strengths and weaknesses assessed.

3.2. System-level road safety results

Final outcomes

In recent years, road safety work in the State has been carried out against the background of a growing population, rapid socio-economic growth and rising traffic volumes. As elsewhere, current road safety activity is also taking place against the background of a global financial crisis.

The trend in deaths since 2006 has been upward and while there was a reduction in 2009, there were still 30 more deaths than the lowest number achieved in 2005. The road death rate across the network in 2009 was 8.6 per 100,000 of population which was more than twice as high as the global leaders. On rural roads, the very high death rate of 21 deaths per 100,000 of population compares with performance achieved in low-income countries in the Asia-Pacific region. Nearly half of all major trauma patients in WA received their injuries in road crashes and road crashes are the leading cause of death in WA for those aged between 1-24 years. Road traffic injury in WA is costly and the socio-economic cost is conservatively estimated at $2 billion.

While most deaths (70%) involve motor vehicle occupants, riders of two-wheeled vehicles sustained the highest risk of serious and fatal injury is sustained by motorcyclists, pedal cyclists and pedestrians. Record linkage studies indicate that certain road user groups – pedestrians, cyclists and motorcyclists in WA appear to be grossly under-reported by police as requiring hospitalisation. At the same time, motor vehicle casualties appear to be over represented by police as hospitalisations.

<table>
<thead>
<tr>
<th>Box 3.1 Main final outcome results: WA 2009 (provisional data)</th>
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</thead>
<tbody>
<tr>
<td>• Total road deaths – 192</td>
</tr>
<tr>
<td>• Total serious injuries - 2548</td>
</tr>
<tr>
<td>• Road deaths per 100,000 of population – 8.6</td>
</tr>
<tr>
<td>• Total socio-economic costs - $2 billion annually (not based on WTP).</td>
</tr>
<tr>
<td>• 70% of deaths were to motor vehicle occupants</td>
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<tr>
<td>• 17% were motorcyclists.</td>
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<tr>
<td>• 69% of all deaths were in single vehicles crashes</td>
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<tr>
<td>• 40% of deaths occurred outside built up areas on 110 km/h roads.</td>
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<tr>
<td>• Regional death rates were 3-4 times higher than metropolitan rates.</td>
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<tr>
<td>• 24% of deaths in met areas occurred on roads with a 70 km/h speed limit</td>
</tr>
<tr>
<td>• 63% of deaths in regional WA occurred on roads with a 110km/h speed limit.</td>
</tr>
<tr>
<td>• Alcohol was a suspected factor in 33% of fatalities.</td>
</tr>
<tr>
<td>• Excess speed was a factor in 32% of fatal crashes.</td>
</tr>
<tr>
<td>• 23% of motor vehicle occupants were not wearing a seat belt at the time of a fatal crash.</td>
</tr>
<tr>
<td>• 10% of motorcyclists were not wearing crash helmets at the time of a fatal crash.</td>
</tr>
</tbody>
</table>

Intermediate outcomes

The review has compiled reported information on key system-wide intermediate outcomes which have a bearing on final outcomes.
Institutional outputs

The review has compiled annually reported information on key road safety institutional outputs across the road safety management system.

Box 3.3: Key institutional road safety outputs

- **Breath testing**
  Each driver is breath-tested 0.7 times (2008/9) compared with 1.5 times in 2003/4 and 1 test per driver is current national best practice. The ORS tracker survey indicates a downward trend in the number of drivers who recall being breath tested from 47% in 2004 to 30% in 2009.

- **Speed checks**
  The number of vehicles monitored by speed camera fell from 20.8 million in 2002/3 to 11.2 million in 2008/9, a reduction of some 46%. In 2009, the number of non speed camera speed briefs, infringements and cautions by month =198,975.

- **Seat belt checks**
  The number of seat belt checks is not reported annually. The police use a self-reporting indicator. In 2009, teseat belt briefs, infringements and cautions totalled 5,897 in country areas and 7,382 in metropolitan areas.

- **Mobile phone use**
  In 2009 the number of mobile phone use infringements and cautions was 15,947.

- **Black spot treatments**
  In the State Program: A total of 158 projects were funded in 2008-09, with 29 projects on State roads and 129 projects on local roads costing a total of $20 million. In the Commonwealth Black Spot Program: A total of 45 projects were funded in 2008-09 from this Federal program at a cost of $5.9 million. An additional 38 rural and 7 metropolitan projects were funded from the Economic Stimulus Packages 1 and 2 for Black Spot projects.10

  New indicators for ORS have been established following its move to Main Roads WA relating to the effectiveness of road safety awareness campaigns and its efficiency in processing RTTF projects.

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10 Although black spot treatments are not generally considered to be part of a Safe System approach in Europe,
3.3. Institutional Management

3.3.1 Towards Zero: Results Focus?

"Results focus can be interpreted as a pragmatic specification of a jurisdiction’s degree of ‘ambition’ to improve road safety and the agreed means to achieve this. In the absence of a clearly specified focus on results all other institutional management functions and related interventions can lack cohesion and direction and the efficiency and effectiveness of safety programmes can be undermined."\(^{11}\)

Results focus is usually addressed in good practice across five dimensions: appraising current road safety performance through high-level strategic review; adopting a far-reaching road safety vision or goal for the longer term; analysing what could be achieved in the shorter term; setting targets by mutual consent across the road safety partnership and establishing mechanisms to ensure stakeholder accountability for results."\(^{12}\)

As summarized in Appendix 5, four distinct phases can be identified in the evolution of road safety ambition or focus on results and Western Australia’s results focus for the long-term is currently in the fourth and most advanced phase. This section considers the State delivery of the Results focus against the international good practice dimensions mentioned above.

Appraising current road safety performance through high-level strategic review
Western Australia has adopted international good practice in assessing its road safety performance as a prelude to preparing its new road safety strategy. The lead agency and its partners have utilised in-house capacity as well as external technical expertise in reviewing performance. The RSC conducts initial performance reviews with its partners using special groups e.g. the road safety outcomes group, before every new strategy and six monthly reviews of performance thereafter for the RSC and Ministerial Council.

In addition to identifying the scope for action and related priorities, high-level review of road safety performance is also required to develop a consensus across government around building or improving organizational capacity to manage for and to agree results. The step to commission the current independent peer review of road safety management capacity in WA in 2010 represents global best practice. WA is only the second high-income jurisdiction to implement the OECD and World Bank recommendations in this area and the first jurisdiction to use the new World Bank assessment framework.

At the same time and despite some good initiatives in general data collection and record linkage (see 3.3.6 Monitoring and Evaluation), existing safety performance data outlined in the previous section compared with international best practice is limited and requires review by the key agencies for future target-setting and performance appraisal.

Adopting a far-reaching road safety vision or goal for the longer term
The Towards Zero strategy comprises a long-term goal which aims for the elimination of death and disability and proposes a Safe System approach towards intervention. While the achievement of this ambition may take decades, current knowledge indicates that solutions are currently available to prevent the vast majority of death and disabling injuries.

Towards Zero was approved by the WA Parliament on 19th March 2009 and by every member of the Ministerial Road Safety Council (which comprises the key Cabinet Ministers (Ministers for Road Safety, Transport, Health, Education, Planning, Local Government and Regional Development) and of the Road Safety Council of WA (comprised of the key governmental agencies and the RACWA). The strategy aspires towards leading edge solutions aiming at sustainable longer term improvements to save lives and prevent serious

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\(^{12}\) For further specific examples of good practice for institutional management functions see Annexes 2-4 of 10.
injuries into the future. Its cornerstones are Safe Roads and Roadsides, Safe Speeds, Safe Vehicles, Safe Road Use and Safe System Foundations which, apart from specific consideration of the emergency medical system, comprises a comprehensive system-wide approach to intervention, whilst acknowledging the importance of strengthening institutional management.

**Analysing what could be achieved in the shorter term**

The OECD report highlighted that in addition to establishing the long-term Safe System goal of elimination of death and disability, it is necessary to identify what can be achieved in the interim. The sum of good practice suggests that this should involve a target-setting process which takes due account of problem analysis, future long-term casualty, traffic and demographic trends, scenario planning, computer modelling, analysis of cost-effectiveness and public acceptability of system-wide measures as well as other institutional management considerations such as the availability of resource. Typically, working papers analysing the effects of a range of countermeasures are developed and published to inform target-setting and strategy development. Headline targets are backed up by intermediate outcome targets and a published multi-sectoral strategy and plan of agreed targeted outputs which address the highest risks in the system to save lives and prevent disability in the short term, is presented as well as continuing to enact longer term solutions.

The *Towards Zero* strategy is a product of high-level strategic review utilising in-house and external expertise and extensive consultation with stakeholders across Government, Parliament, the professional and business sectors and the community. A specific measurable final outcome target is proposed in the strategy based on detailed modelling and extensive consultation. *Towards Zero* states that a publicly acceptable level of activity could deliver a reduction in 11,000 deaths and serious injuries over the period from 2008 to 2020, a reduction of around 40% compared with the annual average number of KSI between 2005 and 2007. At the same time, no regional or municipal final outcome targets, intermediate outcome or institutional output targets are proposed in *Towards Zero*.

**Setting targets by mutual consent across the road safety partnership**

The major and serious weakness of *Towards Zero* activity to date is that government has yet to agree the final outcome target which was proposed on the basis of wide public and governmental consultation or stipulate a broad safety performance framework to support it. The review found support for the adoption of this target by the senior management of the key agencies. Various action programs have been proposed, discussed and agreed at various stages since the launch of *Towards Zero*, though many of the actions seem to have evolved with time into a more general character. The RSC has proposed a range of safety performance indicators. No intermediate outcome targets have been set, though there are health sector targets for emergency medical response outcomes which relate to road safety although not to *Towards Zero*. The institutional output framework is very limited and needs to be aligned to the road safety strategy.

With much justification, stakeholders believe that the lack of an agreed and robust safety performance framework is a major impediment to securing progress in road safety in Western Australia. The international experience is clear - in the absence of a clearly specified focus on results all other institutional functions and related interventions can lack cohesion and direction and the efficiency and effectiveness of safety programs can be undermined.

**Ensuring stakeholder accountability for results**

With reference to the legal duties, annual performance agreements, agency strategies and sign up to *Towards Zero*, road safety is clearly a core responsibility of several governmental agencies led on behalf of government by the Office of Road Safety. However, no agency (including the lead agency) has accountability for achieving final road safety outcomes and agencies are not accountable for their shared responsibilities for intermediate outcomes or for pursuing the institutional outputs that are key to delivery of *Towards Zero*.
**Lead agency**  The ORS sits quasi-independently within Main Roads WA as the lead agency for road safety in WA. It is considered to be a competent agency and its evidence-based approach has the confidence of the key agencies. Its duties are not defined in legislation. The Executive Director of ORS reports to the Minister of Road Safety (who is also the Minister for Police amongst other responsibilities) and the Managing Director of Main Roads WA. The ORS forms the executive arm of the Road Safety Council – the main road safety advisory body which has legislative responsibility for advising government on programs, initiatives and their implementation. ORS carries out a range of management functions and while part of Main Roads, it does not itself have core responsibility for primary service delivery in any road casualty reduction or transport-related function. Thus, mechanisms for leverage of resource and activity of its partner agencies measured against key targets and indicators are crucial for its success. Findings on ORS delivery of the key road safety management functions against international good practice is outlined in Section 3.5 Recommendations are made for strengthening capacity in key areas.

**Multi-sectoral accountability**  In addition to the Office of Road Safety, the key agencies which have core responsibilities for road safety are Main Roads WA, Department of Transport, WA Police, Department of Health, WorkSafe (although not a member of the RSC), Department of Education, Department of Planning, ICWA and Local Government. In addition a range of other governmental and non governmental agencies share road safety responsibilities e.g. the Department of Justice, Treasury, RAC WA, WALGA, engineering, medical, and research organisations such as IPTE, IPWEA, ARRB and C-MARC, community networks (e.g. RoadWise) and special interest groups such as KIDSSAFE.

There is wide acknowledgement of the need for shared responsibility and multi-sectoral delivery across the transport system to realise the highly ambitious long-term goal of *Towards Zero*. However, the shared multi-sectoral road safety responsibilities of different governmental stakeholders for *Towards Zero* are not formally defined either in legislation, annual instructions or performance agreements and are only very generally referred to in the road safety strategy.

While stakeholders acknowledge that there has been improved engagement since the launch of *Towards Zero*, there is much to do to embed road safety as a core activity of many of these agencies. Full sharing of responsibility between agencies is not yet evident and road safety management capacity in all key agencies is in need of strengthening. Strategic commitment appears to be getting lost in the detail across government in Cabinet and within agencies and for most, road safety remains an ad hoc activity. There is not yet strategic understanding of *Towards Zero* implementation at the Ministerial Road Safety Council.

Stakeholders commented that the necessary accountability at most senior levels in the agencies was not universally achieved as yet and that the systemic cross government machinery was not yet working effectively (See Section 3.3.2 Coordination). The absence of an agreed safety performance framework for the interim, unsatisfactory budget outcomes to effectively launch *Towards Zero* and delays in several important regulatory and legislative issues were all put forward as evidence for this position.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>• Long-term goal to eliminate death and serious injury.</td>
<td>• Lack of agreed safety performance framework.</td>
</tr>
<tr>
<td>• Professionally and publicly supported road safety strategy adopted by Government based on data-led approaches and analysis.</td>
<td>• No final or intermediate outcome targets agreed for the interim.</td>
</tr>
<tr>
<td>• Road safety is clearly core business for key agencies.</td>
<td>• Current performance indicators are limited and not well-aligned to strategy.</td>
</tr>
<tr>
<td>• Active, competent lead agency</td>
<td>• Limited embedding of road safety within the core activity of many agencies and associated limited capacity is constraining whole of govt. activity.</td>
</tr>
<tr>
<td>• Best practice use of independent peer review</td>
<td>• Lack of annual accountability for road safety.</td>
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<td></td>
<td>• Resulting limited effectiveness of lead and key agencies in implementing otherwise good practice strategy.</td>
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</table>
Assessment: The new WA results focus for the long-term is clear and unambiguous but its ‘ownership’ varies across the partnership with limited Safe System initiative. A safety performance framework for the interim has been proposed but has yet to be adopted or further developed. Since the adoption of the strategy, the key agencies have yet to fully adopt Towards Zero in their operational strategies and identify meaningful targets and indicators for annual performance agreements.

3.3.2 Towards Zero: Coordination?

“Good practice ‘coordination’ concerns the orchestration and alignment of the interventions and other related institutional management functions delivered by government partners and related community and business partnerships to achieve the desired focus on results.’

Good practice ‘coordination’ is addressed across five key dimensions:
- horizontally across central government
- vertically from central to regional and local levels of government
- specific delivery partnerships between government,
- non-government and business at the central, regional and local levels
- parliamentary relations at central, regional and local levels

International best practice indicates that effective coordinating arrangements allow for decision-making at senior institutional levels which are accountable as well as appropriately resourced. They include a dedicated secretariat in the lead agency to harmonize delivery arrangements across partner agencies to achieve road safety results and serve as a platform for mobilizing political will and resources.

Source: GRSF, Bliss & Breen 2009

National coordination
WA plays a key role in advising on national strategy developments at senior management levels (NRSEG, SCOT, ATC) as well as other important forums such as ANCAP and Austroads. National road infrastructure standards need to be aligned with best safety engineering practice. Vehicle and equipment standards are negotiated nationally and also need to be aligned at every opportunity with international best practice in view of their strong influence on the quality of the WA fleet.

Horizontal coordination
WA has well-established coordination structures across State government. The main multi-sector coordinating bodies are the Ministerial Council on Road Safety and the advisory Road Safety Council (RSC) and its working groups with the Office of Road Safety providing the executive governmental arm.

- Ministerial Council for Road Safety
The Council brings together Ministers from 6 agencies: Police, Health, Education, Transport (including Main Roads and ORS), Planning, Local Government and Regional Development. It meets around 3 times a year and receives progress reports from the RSC which monitor trends in road trauma and implementation. It is apparent that development of a strategic understanding of road safety needs should be an early priority at the Ministerial Road Safety Council.

Road Safety Council
Chaired by an independent Chairman, the RSC is a strong and effective advisory body comprising representatives from the range of governmental agencies with responsibilities for road safety as well as a motoring organization. The Council’s functions are set out in legislation.
Box 3.4 Road Safety Council functions, Road Safety Council Act 2002

(a) To identify measures to improve the safety of roads in the State and to reduce the deaths of people, the injuries to people, and the damage to property, resulting from incidents occurring on roads in the State;
(b) To recommend to relevant bodies and persons the action that should be taken to implement those measures;
(c) To coordinate the implementation of those measures by relevant bodies and persons;
(d) To evaluate and monitor the effectiveness of those measures;
(e) To evaluate and monitor the safety of roads in the State; and
(f) To recommend to the Minister how money standing to the credit of the Account should be spent to implement those measures and to facilitate the performance of the Council’s functions.

The RSC oversaw the development of *Towards Zero* and advises on its implementation. The RSC presents an annual report on activities to the Minister after 1st July each year. Its oversight of the Road Trauma Trust Fund provides an effective coordinating mechanism for multi-sectoral activity. The RSC is well-supported by the Office of Road Safety which provides a dedicated and funded secretariat.

While the RSC is clearly an influential and very competent advisory body it is not a decision-making body for government on road safety. Stakeholders report that while RSC meetings are well-attended by representative agencies, the senior level of management is typically not present. Discussions do not involve those who take final decisions on budgets, policies or legislative developments across all the responsible governmental sectors who do not seem to be communicating with each other in a systematic way. Clearly the establishment of a safety performance framework in which key agencies are clearly accountable annually for performance will provide a solid basis for coordination efforts. Stakeholders agree that there is scope for tightening current coordination arrangements across government. Recommendations for additions to the existing framework are made towards this end in Figure 5.

*Vertical coordination*

Local government is represented on the RSC through WALGA and the Minister for Local Government is represented on the Ministerial Council. Various frameworks and networks exist (e.g. funding mechanisms, the Safety Innovations group, the RoadWise network) which provide foundations for effective working.

The RoadWise program supported by the RTTF and coordinated by WALGA is playing an active role in promoting and encouraging activity in support of *Towards Zero* locally. A centrally-based development team of six focuses on coordinating state-wide initiatives; planning new programs; producing tools and resources; and administering community road safety grants. Each regional road safety officer covers one region and services between 4–25 local government areas.

It is clear, however, that this area presents a substantial challenge for successful implementation. Stakeholders report a range of problems. Concern was expressed by several contributors about the amount of approvals needed before local government can implement internationally proven innovative practices. There is concern about the safety quality of existing standards and guidelines; concern about the safety quality of innovative treatments and the lack of consistency with State-wide programs and their funding; the lack of available funding for safe treatments. The challenge of capacity development of middle management and senior staff and elected members was considered a critical matter limiting progress.

There was concern expressed that the priority for state government/local government interaction on road safety tended to be strongly operational with considerable difficulty being experienced by both parties in establishing a more strategic focus. This also serves to limit
ready understanding of the road safety influences and impacts of a range of broader policies and activities adopted at State and local levels.

**Specific Governmental delivery partnerships**

Good, comprehensive frameworks exist for bilateral and multi-agency partnerships. The Office of Road Safety works assiduously towards these ends. Good relationships generally exist between agencies but need to be strengthened to ensure outputs actually deliver Towards Zero needs. International experience indicates that effective bilateral partnerships between police, roads authorities, local government, lead agency, occupational and health agencies are all key to achieving better road safety results.

*Figure 5: Recommended road safety coordination structure for WA.*
Non-government and business at the central, regional and local levels
There is no State level umbrella non governmental organization for road safety in WA, but several organizations play an active role. Key agencies have engaged actively with a range of non governmental organizations and the business sector such as the RAC WA, the Motor Cycle Industry Association, the Industry Road Safety Alliances, Transport Forum WA and several user forums.

Industry Road Safety Alliances
A number of road safety improvement partnerships or alliances with industry have been established, built around the Safe System approach, responding to a need expressed by many larger companies for a focus on improved road safety for their employees- on site, travelling to and from the worksite to/ from home and for their safety on the road network in general.

These alliances include the South West Alliance, Pilbara Alliance, Heavy Vehicles Road Safety Working Group, Utilities Working Group and the WA State Mining and Petroleum Alliance and represent some 300,000 employees currently, with scope for extension. Some of the larger mining companies involved in these alliances have developed (with the RSC through the ORS) innovative proposals now being explored internationally for supply by manufacturers of 4 wheel drive vehicles which meet improved rollover safety standards. Speed compliance measures, for example, introduced on some mining company sites are leading edge practice, well ahead of community norms. They offer interesting opportunities to promote the demonstrable benefits of safe behaviours using new technologies to the broader community.

The South West Industry Alliance comprising six industrial partners, three local government partners and four State government departments has adopted the Safe System model for road safety, uses the OLA process for problem solving and seeks; a coordinated, proactive approach to road safety; to identify and address road safety hazards; to participate in safety improvement on relevant road networks; and to educate workforces and communities about road safety , which has lead to a range of road safety initiatives.

These achievements are to be commended. This good international practice approach demonstrates not only the numerous opportunities available for innovative partnership activities of this nature, but also has the substantial potential to promote road safety to the broader community through information about the innovative and far sighted practices adopted on work - sites (and beyond) which are supported by the Companies and are well ahead of general community acceptance in some cases.

The ORS is also playing towards the development of an ISO road safety management standard which will play a part in encouraging safety performance frameworks for road safety in private sector organisations.

Transport Forum WA
This Alliance is supported by the ORS and works with the WA transport industry to examine and apply safety improvements. The developed strategy is based on adoption over time by an organisation of one of four levels of safety compliance (including the soon to be finalised ISO 39001 road safety management standard). It is intended to extend this approach to every transport industry operator and in concert with roll out of chain of responsibility implementation it is considered to offer major opportunity for improving heavy vehicle safety performance in WA.

Parliamentary relations at central, regional and local levels
An all-party Parliamentary reference group with an independent chair was established during the preparation of the Towards Zero strategy, but no longer meets. Experience shows that a bi-partisan approach to road safety can provide the support and continuity need for a long-term road safety strategy as well as achieving results in the short to medium term.
Strengths

• WA has well-established coordination structures at State and local levels.
• The Road Safety Council is an active and competent advisory body and plays a key role.
• Funding mechanisms and professional networks are in place which can be used further to strengthen vertical coordination of road safety.
• Innovative partnerships with industry in pursuit of Towards Zero goals offer substantial opportunities for improved performance.
• ORS is working actively in the development of an ISO road safety management standard for organisations.

Weaknesses

• The absence of a safety performance framework to achieve road safety results in the short to medium term is resulting in a lack of focus for coordination efforts.
• Senior management acknowledges that the current framework for coordination across agencies needs to be strengthened to support governmental decision-making.
• There is a need for an additional grouping of Chief Executives from the key agencies supported by a level of their Senior Managers to support the Ministerial Council.
• WorkSafe is not included in road safety strategy partnership arrangements and is not represented on the RSC.
• Vertical coordination between State and local government is weak.
• Bi-partisan Parliamentary engagement by the lead agency has not continued.

Assessment: WA has a range of well-established coordination structures and mechanisms at State and local levels but coordinated decision-making to achieve results across the governmental agencies for policy, strategy, legislation and budgets needs tightening to address the ambition of Towards Zero.

3.3.3 Towards Zero: Legislation?

“Legislation’ concerns the legal instruments necessary for governance purposes to specify the legitimate bounds of institutions, in terms of their responsibilities, accountabilities, interventions and related institutional management functions to achieve the desired focus on results.’

The good practice dimensions of legislation are:
• Reviewing the scope of the legislative framework.
• Developing and updating legislation needed for the road safety strategy.
• Consolidating legislation.
• Securing legislative resources for road safety.’

Source: GRSF, Bliss & Breen 2009

Reviewing the scope of the legislative framework:
Improvements in the legislative framework for intervention are reviewed by the RSC and all the key agencies and a variety of proposals have been put forward. It is suggested that the RSC also includes in the scope of its reviews the legislative duties and accountabilities for road safety to meet Towards Zero needs. If Towards Zero is to steer road safety work well into the future, consideration might be given to adopting its long-term goal in legislation, as practised elsewhere. Establishing the statutory duties of the Office of Road Safety also deserves consideration.

There is no legal duty for road safety at local level. While most state agencies (as well as the local government associations and some local authorities) show commitment to road safety, the acknowledgement amongst individual local authorities of the need to carry out road safety monitoring and activity is by no means universal. In addition, local government is being inhibited from implementing innovative international best practice through an unnecessarily restrictive requirement to seek approvals from Main Roads for relatively small scale road safety improvements e.g. mini-roundabouts and speed management in residential areas.
Developing and updating legislation needed for the road safety strategy.
A range of measures have been proposed by the RSC or are in the pipeline which would provide good support for Towards Zero implementation. These include: owner onus for camera offences; mandatory BAC testing in the case of serious injury; alcolocks for repeat offenders and high risk first time offenders (programs have been introduced in other Australian states e.g. Victoria, New South Wales and Northern Territory), and a range of graduated licensing provisions. The capacity for effective management of speed, excess alcohol and young novice driver risk will be dependent on the quality of the legislative framework within which it has to operate. Some aspects of the vehicle safety standard and equipment framework are not in line with international good practice.

Consolidating legislation.
State and national legislation is consolidated periodically.

Securing legislative resources for road safety
Several agencies are involved in proposing legislation to Cabinet. Securing funding for the development of business cases for road safety legislation, especially in the current financial climate is important.

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<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>• WA has a generally comprehensive legislative framework.</td>
<td>• A range of legislative instruments are required to support Towards Zero in the short to medium term.</td>
</tr>
<tr>
<td>• In general, the capacity for developing legislative proposals is good, although some business case development awaits funding.</td>
<td>• The long-term goal of the road safety strategy is not established in legislation, as in some European countries.</td>
</tr>
<tr>
<td>• The lead and other key agencies are active in seeking support for further legislative development in support of Towards Zero</td>
<td>• The duties of the governmental lead agency for road safety are not set out in legislation.</td>
</tr>
<tr>
<td></td>
<td>• Institutional roles, responsibilities and accountabilities for Towards Zero are not formally established.</td>
</tr>
<tr>
<td></td>
<td>• No specific legal duty exists for road safety at local level.</td>
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<tr>
<td></td>
<td>• The current speed limit framework, some aspects of the driver licensing framework and the vehicle standards framework do not reflect international or national good practice.</td>
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Assessment: WA has a generally comprehensive legislative framework, but additional provisions are needed to align legislation further in support of Towards Zero and its results focus.

3.3.4 Towards Zero: Funding and resource allocation?

‘Good practice “funding and resource allocation” concerns the financing of interventions and related institutional management functions on a sustainable basis using a rational evaluation and programming framework to allocate resources to achieve the desired focus on results.’

In good practice, ‘funding and resource allocation’ is carried out across two dimensions:
• Ensuring sustainable funding resources.
• Establishing procedures to guide allocation of resources across safety programs.

Source: GRSF, Bliss & Breen 2009

Ensuring sustainable funding
The WA road safety budget comprises funding from core central and local government funding based on fees and taxes; a well-established road safety fund based on 30% of fine
income from speed and red light camera offences and a relatively small contribution from the government insurer.

Core funding

The strategy recognizes that priority focus on roads and roadsides (plus targeted increased police enforcement) can produce the largest overall reductions in deaths and serious injuries. New road safety improvements are needed on single vehicle run-off road crashes and intersection crashes. The Safe Roads and Black Spot Programs and support for police enforcement comprise the two main elements of State government agency core funding for road safety intervention.

- Safer Road and Black Spot Programs

For 2009/10, government renewed funding for two existing programs comprised – the $35 million Safer Roads Program ($161 million allocated between 2005/6 and 2009/10) and the $20 million Black Spots program. Increased annual allocations of $30 million for the Black Spots program and $90 million for the Safer Roads Program were requested for 2010/11 and for the following three financial years, commensurate with the increasing level of annual investment for Safer Roads and maintenance of the black spot budget envisaged in Towards Zero. The Safer Roads Program was allocated $35 million, around 50% of which is to be spent on bridge improvements, so allowing only $17.5 million for roads and roadsides over the full forward estimates period.

The global financial crisis has severely impacted the government’s budget position, leading to a reduction in fact in the base funding rather than the required increase to deliver Towards Zero or any move towards improved outcomes. The Strategy envisages a further $125m annually being allocated for further targeted safety programs on the State road network. This compares with a $1.4 bn. overall MRWA roads budget in 2010/11. It will be important for the delivery of the planned Strategy outcome by 2020 for targeted infrastructure safety funding to move towards that level (a further $125 million annually) as soon as possible. The necessary funding could be sought from consolidated revenue, reordered priorities within available overall roads funding, an ICWA commercially based contribution, a motorcycle levy on sales to fund high-risk treatments to improve motorcycling safety, etc.

- Core funded police enforcement

WA Police received funding of $30 m in 2009/2010 for upgrading the existing speed and red light camera fleet to digital operation and update back office processing systems associated with offence processing. While these measures are not inconsistent with the MUARC (Cameron) recommendations, substantial additional funding would be required to implement the Enhanced Speed Enforcement Strategy in order to achieve the projected 26% reduction in fatal crashes. Funding priorities would be additional mobile cameras and hours of operation and moving mode radar units.

There is great and well justified concern amongst governmental and non governmental stakeholders that while State and local governments have signed off the road safety strategy, they are not committing higher levels of resources to priority Safe System treatments and the ramping up of police speed enforcement particularly for speed compliance, outlined in the strategy on an annual basis. Appendix 6 presents an outline of the level of funding sought for this purpose, based on the MUARC recommendations, subsequent RSC (confirming) recommendations and the shortfalls which the current budget position represents.

Road safety capacity building deserves urgent attention in ORS, Police, Main Roads, Health and local government core budgets. Agencies need to give greater attention to building further capacity in support of Towards Zero, to finding funding to establish strong business cases for intervention development and implementation and to fund the rapid knowledge transfer necessary is some areas to make progress.
Following an agreement between Main Roads and Local Government since 1995, local government receives 27% of vehicle licensing fees for local roads. This is an important mechanism for improving ‘vertical coordination’ of Towards Zero. It provides the opportunity for Safe System infrastructure and speed management components to be considered and specific safety outcome performance indicators to be agreed as a condition of continued road funding. A new strategy is currently being negotiated for how these monies are to be distributed and the 2010/11 budget is expected to be around $120 million. Road safety is expected to be a priority component in the new agreement accompanied by performance indicators. The negotiation of the Agreement is on hold for one year by agreement of both parties.

**Road Trauma Trust Fund**

The Fund represents a transparent and best practice mechanism for funding multi-sectoral Towards Zero activity (going beyond core road safety business funding). Legislation provides for one third of all monies collected from red light and speed camera offences to be credited to the Road Trauma Trust Fund Project. The fund is well-managed by the ORS, albeit with efficient but overly limited capacity. Assessment criteria have been defined and multi-agency project assessment groups have been brought together. The Road Safety Council Finance sub-committee makes recommendations for funding to the RSC. A total of $23,389,000 has been assigned for 2010/11 comprising:

- Safe Speeds – 7.8% (of total budget)
- Safe Roads and Roadsides – 4.6%
- Safe Vehicles – 5.9%
- Safe Road Use – 43.8%
- Safe System Foundations – 15.6%
- $15m for ORS managed expenditure and $8m grants to external agencies.

The RTTF is an important and successful pillar of WA road safety funding and the percentage contribution from needs to be strengthened. Agencies seem to rely on RTTF funding for a range of activity e.g. business case development which might be carried out in other areas of activity as part of core funding. It is understood that applications for road safety project funding grants to the RTTF from community and other groups was almost double the available funding in the most recent funding round.

**Strategic Traffic Enforcement Project STEP Program**

STEP is a funding agreement between the Road Safety Council and WA Police. It was established to provide additional allocations of funding to police districts across the State to meet the particular needs (above base line enforcement activity) of various districts. These needs were to be distilled from an analysis of the crash and other data for the district and they would drive the relative size of the funding allocation to districts determined by Police at the Centre. However, this has not been possible to achieve for the last two six monthly payments to districts. WAPOL has allocated an identical amount to all Police districts.

Critical to the successful deployment of this STEP funding and the valuable contribution it can make to improved road safety performance, is that the agreement between RSC and Police is clear in requiring strategic analysis of the crash characteristics in each Police district which then supports the request for the top up funding to each district. Police would then centrally determine recommendations for funding allocation based on the regional analyses.

STEP seeks to drive the further development of this strategic analysis capability within Police. Strengthened reporting and accountability to the RSC are required and knowledge transfer support for WAPOL is also likely to be necessary. Allocations to districts in future should be based on data analysis and relative likely benefit (through potential serious casualty reduction).
Refreshed commitments between WAPOL and RSC to a more strategic process and outcome are considered desirable.

**Financial impacts arising from the MUARC (Cameron) speed camera recommendations.**

Professor Max Cameron (as outlined in Section 3.4.1) has proposed a targeted speed camera and hand-held speed device program for WA to achieve a 26% reduction in fatal crashes. Current activity by WAPOL to upgrade existing cameras and back office processes will go some way to realising these benefits but it is critical that the Cameron program be implemented if the *Towards Zero* target is to be seriously pursued. The financial characteristics of such a program were estimated in 2006 figures to be:

- monthly social cost savings $16m;
- monthly offence revenues experienced in the early months of the implementation $ 17m; but this level would fall rapidly to perhaps half that level as behaviour changed
- monthly costs of operation $ 2.3 m plus amortisation of additional back office processing costs, say a total of $2.8m.

It would be advisable for net revenues from the program (which could be around $60m annually) to be transparently recorded by Treasury and returned to road safety investment, for example to underpin the safer road infrastructure program and potentially other programs such as encouraging safer car purchase by young drivers. These expenditures could be reported annually to the public.

**Insurance sector**

In 2009, the Insurance Commission of Western Australia (ICWA) contributed $2.8 million to Road Safety Council approved education programs as well as leading a cross government initiative on an online crash injury database. ICWA's contribution to road safety is made against the background of the lowest premiums in Australia and the downward trend in insurance claims and amounts paid out following motor vehicle injury claims which was approximately $288 million in 2008/9. As practised in the insurance sector elsewhere, ICWA should consider substantially increasing its investment in road safety in areas which will give demonstrable value for money returns. On an ongoing annual basis the increasing operating surplus - if premiums were to be held at current levels - could be allocated to specific programs (through the RTTF) for *Towards Zero* implementation.

With a 50% increase in sales over last 10 years and an increasing death rate, a levy on motorcycle insurance could provide a further useful funding mechanism and source of funds. In Victoria there is a supplementary third party insurance levy for motorcycles with funds being directed to addressing high risk locations for motorcycling and other relevant projects with advice about objects of expenditure provided by a Motorcycle Advisory Council reporting to the Minister for Road Safety.

**Establishing resource allocation procedures**

While agencies promote evidence-based approaches and measures, cost benefit analysis is not used widely. Other allocation methods such as value for money and *Towards Zero* fit are used. Business cases need to be prepared making a strong case for funding, particularly in the current financial climate. While a BCR basis would be preferred, this may not always be possible given the relatively light traffic volumes across much of the WA road network. Alternatively, *value for money* and *strategic fit with the Strategy* should be the key principles guiding investment priorities. The ORS and Main Roads indicate that the Value of Statistical Life (VoSL) developed by the University of Sydney and subsequently adopted by the New South Wales RTA (ie., based on willingness to pay approaches) will be adopted and used in WA in the financial year beginning 1st July 2010.

Project assessment criteria have been defined for the Road Trauma Trust Fund:

- *Towards Zero* benefit
- Strategic alignment to 5 cornerstones of *Towards Zero*
- Political, government and community interests
- Investment value
Notwithstanding the conscientious efforts that are made using current project assessment criteria, the ORS and RSC should consider how these criteria can be strengthened once the specific safety performance framework is established further to ensure that the RTTF is meeting the priority Towards Zero objectives for the short to medium term.

**Strengths**

- WA has an excellent range of good practice funding mechanisms including specifically allocated core funding a road safety fund; a format for specific allocations from State to local government and an insurance sector contribution
- The Road Trauma Trust Fund provides a transparent mechanism for funding multi-agency initiatives and uses a resource allocation framework.
- WA will adopt *willingness to pay* in cost benefit analysis.

**Weaknesses**

- The identified annual increases required to implement Towards Zero, agreed across Government, are not being provided in core funding, road safety fund resource, or insurance industry support.
- A cut in Safe Roads Program funding was made for 2010/11 – the first year of strategy implementation.
- Evidence-based road safety activity local government has been funded mainly by the RTTF.
- Business cases need to be strengthened using cost benefit, cost-effectiveness, strategic fit analysis as appropriate.
- The allocation to the Road Trauma Trust Fund comprises only a small proportion of current camera fines and resource allocation procedures will need to be strengthened once the safety performance framework for Towards Zero is established further.
- Road safety activity receives only limited funding in most local government budgets.

**Assessment:** WA’s funding mechanisms are consistent with international best practice but annual levels of funding across agencies - whether core funding, road safety fund resource, insurance industry support - are insufficient to address annual budgets necessary for successful for Towards Zero implementation. The societal cost of road crash injury far exceeds the amount being spent annually and large potential exists for a substantial return on investment to be achieved from increased funding.

### 3.3.5 Towards Zero: Promotion?

‘Good practice ‘promotion’ concerns the sustained communication of road safety as a core business for government and society and emphasizes the shared societal responsibility to support the delivery of the interventions required to achieve the desired focus on results.

This function goes beyond the understanding of promotion as road safety advertising supporting particular interventions and addresses the overall level of ambition set by government and society for road safety performance.’

The good practice dimensions of ‘promotion’ are:

- Promoting a far-reaching road safety vision or goal
- Championing and promotion at a high level
- Multi-sectoral promotion of effective intervention and shared responsibility
- Leading by example with in-house road safety policies
- Developing and supporting safety rating programs and the publication of their results
- Carrying out jurisdiction wide advertising
- Encouraging promotion at the local level.

*Source: GRSF, Bliss & Breen 2009*
Promoting a far-reaching road safety vision or goal

Led by the ORS, RSC and WALGA at State and local levels, Towards Zero has been promoted effectively to allow adoption by Government and win support from the professional, business sector and local community.

Outside government, the RACWA has been active in advocating for shared governmental action on road safety, expressing concerns for lack of agency accountabilities and budgets for road safety. C-MARC regularly advocates for attention to be given to key road safety problems and the Safe System approach both externally and within the University.

Championing and promotion at a high level

A communications plan is being devised by the Chair and ORS to advocate Towards Zero and RSC positions. RSC stakeholders have responded positively to the Chair’s recent request that media work be shared. Towards Zero states that speed is at the core of the road safety problem and indeed a Safe System approach without a strong speed management element cannot be described as Safe System. Preparedness to talk about issues such as speed has been raised by the Chair of the RSC in his report on his first hundred days as a key issue.

“It is vital that our leaders, including those in our road authorities, motoring clubs and the vehicle industry, step up to the line and lead community debate on the important issue of speed regulation. I have sensed reluctance on the part of some members of the leadership team to drive a debate in an area that will be initially unpopular and met by some resistance within their constituencies. But raising the performance bar for road safety leaders means marshalling the courage to take on greater political risk and to face up to the speed controversy within the context of a supportive ‘new look’ media campaign. Our experts have knowledge of the speeding problem that far exceeds road users generally and I contend that, armed with this knowledge, our road safety agencies, including our road user representative, have a moral obligation to engage with the community and to share their knowledge about the speed paradox.”

In order to improve awareness of the evidence which road safety research provides and in recognition of the poor levels of understanding which exists around much of this information in the community generally, there would be benefit in developing a selected group of highly regarded members of the community as influencers who could seek to guide and inform senior decision makers and opinion leaders in the WA community. This would require senior management time and resource but is an indispensable means to shift awareness.

Multi-sectoral promotion of effective intervention and shared responsibility

While there are many examples of good multi-sectoral activity in support of developing tools for Towards Zero, examples of combined promotion by agencies for example on publicity and enforcement on speed or drinking and driving activity are not clearly evident.

There are emerging examples of good road safety practice in Towards Zero applications adopted by industry within and outside worksites in WA (identified through the ongoing Industry Partnership and Alliance Programs actively supported by the ORS) which exceed a number of currently accepted community standards. This leadership activity should be promoted to the community to challenge current thinking by some and improve understanding of good practice generally.

Leading by example with in-house road safety policies

The development and adoption of the whole of governmental fleet represents best international practice. Whilst active and successful with ORS in establishing State governmental policy on Safe Fleets, WorkSafe could consider increasing its role in promoting road safety to employees in its occupational health and safety programs. The RSC Chair has also called for more specific targeting of the private sector towards the wider application of vehicle safety rating policies by fleet managers.

The ORS has played a key role in promoting and utilising the safety rating of vehicles via the governmental fleet safety policy, its website, and its Stars on Cars campaign. All agencies have played a key role in ensuring the use of star rating thresholds in governmental fleet
safety policies. Main Roads supports the further development of Enhanced AusRAP and uses network safety ratings as one indicator of network safety quality. The rating of safety products and services is used as a key mechanism for communicating information to professionals and motorists by their representative organisations.

**Carrying out national advertising**

Approval processes for advertising have been restrictive in recent months but now appear to be resolved.

**Encouraging promotion at the local level**

WALGA is active in promotion at the local level through the RoadWise network. KIDSAFE is active in promoting correct child restraint use locally.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The long-term vision of Towards Zero is being promoted by the ORS and the RSC as core business and a shared responsibility.</td>
<td>• Strong promotion of Towards Zero by Chief Executives of all key agencies is not evident.</td>
</tr>
<tr>
<td>• Strong advocacy outside government for Towards Zero implementation has commenced and receives strong support from the Road Trauma Trust Fund.</td>
<td>• Strong agency partnership work combining publicity and police enforcement needs to be restored.</td>
</tr>
<tr>
<td>• There are emerging examples of industry leadership positions of good road safety practice within and outside worksites which exceed currently accepted community standards</td>
<td>• The value of speed management which is at the core of Safe System and Towards Zero is receiving insufficient promotion at a high level.</td>
</tr>
<tr>
<td></td>
<td>• Influential road safety advocates have not yet been identified in a systematic manner. Their support needs to be obtained.</td>
</tr>
</tbody>
</table>

**Assessment:** Best practice ‘promotion’ is evident in several areas of WA activity. However, key elements of the Safe System model are not generally understood or adequately promoted. Promotion of Towards Zero as core business within government, especially at the senior management level in all the key agencies, as well as outside government by the research, health and road user communities, is necessary.

### 3.3.6 Towards Zero: Monitoring and evaluation

**Good practice ‘monitoring and evaluation’** concerns the systematic and ongoing measurement of road safety outputs and outcomes (intermediate and final) and the evaluation of interventions to achieve the desired focus on results.

The good practice dimensions of ‘monitoring and evaluation’ are:

- Establishing and supporting data systems to set and monitor final and intermediate outcomes and output targets.
- Ensuring transparent review of the road safety strategy in terms of results, interventions and institutional management functions.
- Making any necessary adjustments to interventions and institutional outputs needed to achieve the desired results.

**Establishing and supporting data systems**

The State coverage of the main data systems supporting good practice road safety data systems activity is summarised in Box 3.5.

### Box 3.5: Summary of monitoring and evaluation data systems in Western Australia

A range of data systems are in place and several agencies share responsibility for the collection of road crash statistics (WA Police, Main Roads, Health Dept, ICWA, Justice Dept., Australian Dept of Infrastructure, Transport, Regional Dev. and Local Govt, ABS and Synovate).

- **Traffic data** Traffic volume is estimated from using a combination of ABS and MRWA data.
- **Vehicle and driver registries** WA uses a system called TRELIS – the Transport Executive Licensing System which is administered by the Department of Transport. The system is currently being rationalised towards greater efficiency.

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Eric Howard and Associates, Jeanne Breen Consulting, Tony Bliss, Bruce Corben, September 2010

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Data is not always available and in accessible form for use by multiple agencies and there is concern about this fragmentation. Given the nature of the prevention paradox, some latent or existing data, such as average road network speeds (Main Roads) and average breathalyser readings (Police), would be even more useful in gauging the effects of countermeasures than numbers of illegally excessive readings.
There is limited monitoring and evaluation at local level where numbers can be small and capacity limited and working arrangements between Main Roads and local government needs to be improved towards these ends.

Data sharing arrangements between key governmental and research agencies are reported as being satisfactory for crash injury data bases but the efficiency of these could be improved. A few problems with the sharing of police traffic offence data were reported and the temporary lack of access to licensing data (e.g. make and model for vehicle safety monitoring).

All these are priority areas for ORS and partner agency attention to confirm gaps in coverage and overcome identified problem areas.

**Ensuring transparent review of the road safety strategy in terms of results, interventions and institutional management functions.**

The RSC conducts regular and transparent review of the road safety management system. The RSC carries out six monthly reviews of performance for the RSC and Ministerial Council. With executive support from the ORS, the RSC has established the *Towards Zero Outcomes Review Group* which brings together several agencies on a quarterly basis. The aim is to ensure that the combined knowledge, information and data gathering resources of all RSC agencies are enhanced, applied, and shared to enable more accurate and timely measurement, analysis, mentoring and reporting of progress of the implementation of *Towards Zero* and to better inform future policy development and implementation. However, consistent high level representation from all relevant agencies is an issue. Improved capacity to analyse data trends in a timely manner and bring this to the attention of the decision making hierarchy should be a priority action for the proposed ORS Safety Data Unit. Prior to implementing *Towards Zero*, the RSC also initiated and funded a road safety management capacity review of the WA system in 2010.

**Making any necessary adjustments to interventions and institutional outputs**

Consistent with international good practice, the results of monitoring and evaluation are presented and discussed at all levels of the road safety strategy coordination hierarchy to improve the focus on achieving results.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A wide range of databases are available in support of monitoring and evaluation.</td>
<td>• There is an absence of recent intermediate outcome data on levels of drinking and driving, occupant crash protection (restraints and helmets), quality of the vehicle fleet and work-related safety.</td>
</tr>
<tr>
<td>• Best practice record linkage is conducted and may be expanded.</td>
<td>• Further automation of data is needed to facilitate data sharing and analysis.</td>
</tr>
<tr>
<td>• Independent peer review of road safety management system is carried out.</td>
<td>• Absence of long-term outcome analysis in trauma registries.</td>
</tr>
<tr>
<td>• Efforts are being made to improve the quality and or efficiency of key data systems.</td>
<td></td>
</tr>
</tbody>
</table>

**Assessment:** At State level, the collection, review, dissemination and sharing of data in WA presents elements of international best practice, but it lacks integration and follow-through with respect to *Towards Zero* needs. This is likely to reflect the absence of a safety performance framework in support of targets for the interim.
3.3.7 Towards Zero: Research and development and knowledge transfer

‘Good practice ‘research and development and knowledge transfer’ concerns the systematic and ongoing creation, codification, transfer and application of knowledge that contributes to the improved efficiency and effectiveness of the road safety management system to achieve the desired focus on results.

This vital institutional management function has guided the design and implementation of national strategies that have sustained reductions in road deaths and injuries, in the face of growing mobility and exposure to risk. It aims to produce a cadre of international, national and local professionals who can contribute research-based approaches and knowledge to road safety policy, programs and public debate. Knowledge transfer must be grounded in practice by a ‘learning by doing’ process, backed with sufficient targeted investment to overcome the barriers presented by the evident capacity weaknesses.

The good practice ‘research and development and knowledge transfer’ dimensions are:

• Developing capacity for multi-disciplinary research and knowledge transfer
• Creating a national road safety research strategy and annual program
• Securing sources of sustainable funding for road safety research
• Training and professional exchange.
• Establishing good practice guidelines.
• Setting up demonstration projects.’

Source: GRSF, Bliss & Breen 2009

Developing capacity for multi-disciplinary research and knowledge transfer

A survey of State road safety research capacity conducted by C-MARC (Dec 2009) indicates that, notwithstanding the State access to a strong diversity of academic and skills areas for application to road safety, particularly within government, there are few experienced road safety researchers working in the field. Efficient capacity for State research management exists within the ORS. This capacity needs to be nurtured to provide a cadre of experienced professionals outside government who, at State level, can contribute to road safety strategy development and evaluation, provide ongoing evidence based support to all the key agencies and provide an authoritative, impartial contribution to the public debate.

The C-MARC (Curtin-Monash Accident Research Centre) was established with State funding in December 2008 and work commenced in April 2009. Currently, the capacity is small (3 academic members – 1 has a Research Fellowship aligned to Main Roads) and the aim is for partnership working with other University departments (e.g. Public Health, Occupational Health) and research centres in other States (e.g. MUARC). C-MARC has both research and promotional functions and contributes to the State road safety debate. Projects funded for 2009/10 include a range of baseline and contract projects.

Prior to the establishment of C-MARC, the MUARC based in Victoria and which has system-wide expertise and large capacity in road safety research played a significant role in the development of the new strategy. C-MARC anticipates partnership working with MUARC. The ARRB Perth branch has small road safety capacity (1 person), but the organisation nationally has capacity in system-wide road safety research. Austroads also carries out research and knowledge transfer activity.

Creating a national road safety research strategy and annual program

A Towards Zero road safety research strategy has not yet been developed but ORS indicates that there may be plans to do so.

Securing sources of sustainable funding for road safety research

ORS budgets for State-funded road safety research and the budgeted amount for road safety research funding for 2010/11 is $1.81 million. This will need to be reviewed alongside funding sources when the State road safety research strategy is established.

Training and professional exchange.

Some of the agencies identify the maintenance and development of technical expertise to deliver Towards Zero as the leading challenge for professionals in WA. As the RSC Chair...
notes, keeping abreast of best practice and technological developments is of the utmost importance to good road safety management

Main Roads has set up a Safe Systems Innovation team within the Project Development Section. In early 2010, Main Roads and Local Government formed a trials/innovations review panel to promote new ideas. A new program to train traffic engineering associates has also been set up and four staff are now on the program. The program is targeted at mature age people with no technical skills and TAFE graduates. The course includes a range of road safety issues e.g. speed zoning reviews, road safety reviews etc. The Australian Institute of Traffic Management and Planning and the Institute of Public Works Engineers Australia are considering a Traffic Engineering /Planning Diploma Course. Questions were raised during the review as to whether traffic policing is being given sufficiently high priority in the police service, both in terms of in-service training and career prospects.

Establishing good practice guidelines.
A range of good practice technical guidance exists on enforcement, safety engineering and safety education and may need to be reviewed by the RSC against Towards Zero needs. Technical guidance based on international good practice and the results of Safe System demonstration projects need to be compiled to assist in the State roll out of safety engineering treatments.

Setting up demonstration projects
WA uses road safety demonstration projects in support of Towards Zero. For example, the WA ISA project involves the development and demonstration of a low cost compact ISA unit that can be retrofitted to most modern vehicles and is marketable to the public.

Proactive Safe System engineering activity represents a significant difference in approach to traditionally employed 'reactive' approaches in WA and, indeed in other parts of Australia. In Europe, demonstration projects and start up programs have played a key role. In the Netherlands, for example, a funded and targeted Start Up program was used to 1) allow local authorities to identify targeted access roads in residential areas which have a residential access function with a maximum speed limit of 30km/h and 2) provide for implementing a certain percentage of these into residential access 30 km/h zones within a 5 year period and to replace targeted signalised or other junctions with roundabouts for inter-urban rural intersections.

Strengths

• Both in-house and external capacity of road safety research in WA has been developed.
• Good practice guidelines, demonstration projects, an innovations forum, workshops etc are established mechanisms for knowledge transfer.

Weaknesses

• Current research and knowledge transfer capacity is efficient but too limited to meet Towards Zero strategic goals;
• A State road safety research strategy is envisaged but is not yet in place;
• There are concerns that lack of capacity in State Government. agencies is preventing a timely alignment of departmental policy with Towards Zero.

Assessment: Building State capacity for achieving effective knowledge transfer has commenced but needs strengthening to address the new ‘results focus’. There is a clear and urgent need for in-service training, technical guidance and rapid knowledge transfer on Safe System principles and the evidence base for speed management and deterrence policing. There are some indications that this process has started, but this needs to be escalated at the professional level in State and local government as well as at the highly strategic senior management and political levels. Capacity building for state road safety research and development has commenced but needs strengthening to allow for the development a comprehensive road safety research and development program.
3.4 Interventions

3.4.1 Towards Zero: Planning, design, operation and use of the road network?

| Good practice ‘planning, design, operation and use of the road network’ to achieve the desired results comprises standards and rules cover the safe planning, design, construction, operation and maintenance of the road network; and govern how it is to be used safely by setting speed and alcohol limits, occupant restraint and helmet requirements, and restrictions on other unsafe behaviors. Compliance aims to make road planners, designers, operators, and users adhere to safety standards and rules, using a combination of education, enforcement and incentives. Both standards and compliance regimes also address the needs of high-risk users in the network. |

The good practice dimensions of the planning, design, operation and use of the road network to achieve the desired results comprise:

- Establishing comprehensive safety standards and rules and associated performance targets for the planning, design, operation and use of roads.
- Aligning speeds limits with Safe System design principles.
- Ensuring compliance regimes are in place to ensure adherence to specified safety standards and rules.
- Ensuring that safety standards and rules and related compliance regimes clearly address the safety priorities of high-risk road user groups.
- Establishing comprehensive safety standards, rules and performance targets

Source: GRSF, Bliss & Breen 2009

Safe Roads and Roadside is a cornerstone of Towards Zero and aim to improve road infrastructure by designing and maintaining roads and roadsides to reduce the risk of crashes occurring and the severity of injury if a crash does occur; as well as providing a transport system that supports safe outcomes. In particular Towards Zero focuses on improving safety at intersections; reducing the risk of run-off-road crashes through sealing shoulders, installing audible edge lines, removing roadside hazards and/or installing safety barriers; and expanding the Black Spot and Safer Roads Programs. Government financial capacity to respond to the level of investment in infrastructure safety proposed in Towards Zero has been severely impacted by the Global Financial crisis in 2008/09 and 2009/10. (See Section 3.4. on Funding and resource allocation and recommendations provided.

Towards Zero states that the task ahead involves ‘Going beyond the Australian ‘standards’. Indeed there is acknowledgement globally that road engineering standards adopted in most high income countries do not reflect Safe System principles. Main Roads WA, WALGA and the IPWEA are committed to introducing Safe System principles into the engineering of the road network and are currently defining new road safety strategies/agreements which will take better account of this stated aspiration. Road design guidelines have recently been reviewed but not yet against Safe System road safety engineering principles such as those outlined in Box 3.6. Current capacity is limited both at State and local levels and needs to be expanded as rapidly as possible through in-service training and access to the international knowledge base, guidelines and demonstration projects.
Box 3.6: Targeting specific crash types based on Safe System thinking

The main crash types that a Safe System approach needs to address are usually pedestrian crashes, crashes at intersections, run-off-road crashes and head-on crashes.

Pedestrian fatal and serious injury crashes
To minimize the likelihood of fatal outcomes from any vehicle-pedestrian crash, impact speed should not exceed 30km/h. Intervention options which could assist in achieving fatality reductions include:

- Separating pedestrians and vehicles physically by fencing or other barriers.
- Lowering the travel speeds of vehicles by reducing and enforcing speed limits at or below 30km/h.
- Providing adequate traffic light controlled road crossings in areas of high pedestrian activity in order to encourage pedestrian use of these crossings and their compliance with the signals.
- Promoting pedestrian-friendly vehicle design.

Fatal and serious injury crashes at intersections
Based on Safe System principles, the impact speed in a side impact crash should not exceed 50 km/h. Opportunities to reduce impact speeds include:

- Lowering speed limits, especially in the vicinity of intersections on 60, 70 km/h and 80 km/h arterials.
- Improving intersection controls with roundabouts, traffic signals, platforms or other treatments.
- Applying skid resistance pavement treatments to improve braking performance.
- Modifying traffic signals to allow fully controlled turning movements, albeit at the cost of reduced intersection throughput.

Fatal and serious injury run-off-road crashes
These can be reduced by ensuring that roads include some of the following features:

- Wide paved shoulders.
- Tactile edge lining and centre lining.
- Clear roadsides for 10 to 15 meters or roadsides with objects shielded by flexible barriers.
- Lower speed limits to provide more recovery time.

Requiring that new vehicles are fitted with electronic stability control (to reduce skidding out of control - sideways crashes into road side objects or rollover crashes) will also help.

Fatal and serious injury head on crashes
These can be addressed by:

- Lowering speed limits on two lane two way roads to 70km/h or less.
- Constructing a divided carriageway.
- Installing a centre median between the two opposing lanes of traffic.

And reduced by

- Safe speeds in general.

Aligning speeds limits with Safe System design principles.

Safe Speeds is a cornerstone of Towards Zero. The strategy aims to ensure that speed limits and travel speeds reflect the safety of the road infrastructure by undertaking speed enforcement and education, and establishing speed limits according to the features of the road and roadside, vehicle crash-worthiness and the functional performance and known limits of the road user.

As in other Australian States, WA has some of the highest rural and urban speed limits in the developed world. Main Roads stated that a review of the road hierarchy, geometry and speed limits so that road function achieves a better match with speed limit, road design and layout is not envisaged in the near future.

A default 50 km/h speed limit has been introduced for urban areas and general acceptance is reported of reductions in residential streets from 60 km/h to 50 km/h. Some 40km/h zones are being implemented in residential areas although implementation of 30km/h limits is rare. However, urban arterial roads continue to operate with a 60 km/h limit (or higher). Speed limit reductions below 60 km/h on urban arterial roads have to be approved by Main Roads.

Public surveys indicate that while there is not widespread support for blanket speed limit reductions there is increased support from 2008 levels for targeted reductions in limits. Again, demonstration projects will be useful, as has proved to be the case in several

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European countries, in aligning speed limits with Safe System design principles to allow eventual roll out elsewhere in the road network.

A range of other rules and standards are in place covering the use of the road network and these are discussed together with compliance in the following section.

Ensuring compliance regimes are in place

Road safety impact assessment, road safety audit and road safety inspection

Area-wide road safety impact assessment is not carried out on any road type or for any land use development, although interest was expressed in this road safety tool. Road safety audit is carried out for new projects although not always to international best practice safety engineering standards. The State rural highway network has received an AusRAP star rating and 36.8% is rated at a safety level of 4 stars and above.

Network safety management

The main objective of Main Roads is to implement proactive treatments to reduce single vehicle crashes and improve the safety of roadsides. Systematic network safety management is planned to start in 2010. The Safer Roads Program (introduced in 2005/6) aims to create more forgiving roads and roadsides to reduce the number of people killed or seriously injured on the highway and main roads network and specifically to reduce the incidence and consequences of single vehicle run off crashes, crashes at major intersections and other significant risks such as head on crashes. Problems exist with funding an expanded Safer Roads Program in line with the recommendations made in Towards Zero and in the priority action list agreed in March 2010 (See Section 3.3.4 on Funding and resource allocation).

Black spot management?

Through State and federally funded programs WA carries out well-supported remedial treatment at priority crash locations. Again, problems exist with funding an expanded Blackspot Program in line with the recommendations made in Towards Zero and in the priority action list agreed in March 2010 (See Section 3.3.4 on Funding and resource allocation).

Speed management?

Speed is at the core of WA’s road safety problem and the all the key governmental agencies are agreed that management of its reduction needs to be addressed urgently. In 2009, it was estimated that around 32 per cent of all fatal crashes involved excess speed within limits which are already not in line with international good practice. In 2008, for Perth, 46.7 per cent of vehicles exceeded the speed limit in 60 km/h zones and 26.3 per cent exceeded the limit in 100 km/h zones. For rural and regional WA, 41 per cent exceeded the limit in 60 km/h zones, 35 per cent in 100 km/h zones and 57 per cent in 110 km/h zones. In 2007, mean vehicle speeds in metropolitan and rural areas were below the posted speed limit of the roads surveyed. A downward trend in metropolitan mean speeds on 60km/h and 70 km/h roads and an increase on 100km/h roads in Perth were recorded. Drivers on metropolitan 60km/h and 70 km/h roads drive on average 1-2 km/h faster than drivers on the same speed limits on rural roads. ORS weekly tracking surveys indicate a decline in community perception of risks associated with speeding and an increase in self-reported speeding behaviour.

Police enforcement

The numbers of vehicles monitored by speed camera fell from 20,766,824 (2002/3) to 11,197,211 (2008/9), a reduction of some 46 per cent. In 2008, and in preparation for the 2009/10 year, new criteria were introduced for the use of speed cameras. The Towards Zero Strategy identified measures to improve speed compliance as one of the major potential contributors (along with infrastructure safety investment) to the reduction of 11,000 serious casualties sought in the Strategy. Evidence-based advice on best practice in speed enforcement was funded by ORS in 2006 and a recommended package of speed enforcement programs was proposed by MUARC. If fully implemented this would have
resulted in a reduction of 36 deaths, 210 hospital admissions and 357 medically tested injury crashes annually.

MUARC (Professor Max Cameron) defined a package of speed enforcement programs in 2006, confirmed in 2008, for the WA road environment. Evidence of the effects on speeds and road trauma in other jurisdictions due to speed camera systems and manual speed enforcement was reviewed to support estimation of the predicted benefits. The recommended package was estimated to produce a 25 per cent reduction in fatal crashes, 12 per cent reduction in crashes resulting in hospital admission, and 9 per cent reduction in medically-treated injury crashes. An increase in the number and mix of speed camera devices including mobile, fixed, point-to-point (P2P) and hand-held technologies is recommended to deliver at least 12,000 camera hours in total per month – 3,000 in regional WA and 9,000 in the metropolitan area on urban arterial roads. (This compares to an assumed pre-existing base level before July 2010 of 3000 hours of operation per month of the multi – nova cameras; 2400 in Perth and 600 in regional/remote WA). In addition 15000 hours of operation of mobile radar units on rural local roads were recommended, (compared to a reported 2004 level of some 10,000 hours per month) plus additional laser speed detectors at black spot sites on urban local roads and fixed/ point to point cameras in Perth.

WA Police are currently digitising the existing speed and red-light camera fleets and upgrading back office processing operations. An initial budget of $30 million has been allocated for this task.

The relative contribution of the current program to upgrade/ digitise the existing speed and red-light camera fleets to the total program recommended by Professor Cameron are set out in Table 1 below for which information has been drawn from RSC minutes.

Table 1: Upgrading/digitising program for existing speed and red light cameras

<table>
<thead>
<tr>
<th>Device</th>
<th>Currently in operation (to be confirmed by WA Police)</th>
<th>Following WA Police improvements</th>
<th>Cameron Recommendations</th>
<th>Gap awaiting approval and funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile speed cameras</td>
<td>23 Multanova</td>
<td>23 Vitronix Poliscan</td>
<td>57 mobile devices</td>
<td>34 mobile devices</td>
</tr>
<tr>
<td>Fixed spot speed camera</td>
<td>0</td>
<td>Limited trial of P2P technology proposed</td>
<td>24 including P2P</td>
<td>24 including P2P</td>
</tr>
<tr>
<td>installations including P2P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red light cameras</td>
<td>30 with capacity to rotate through 62 sites</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Speed red light cameras</td>
<td>1</td>
<td>30 fixed site</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Moving mode (mobile) radar</td>
<td>176*</td>
<td>176</td>
<td>264</td>
<td>88</td>
</tr>
<tr>
<td>units</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hand held speed camera</td>
<td>286 hand-held laser speed detectors*</td>
<td>286 hand-held laser speed detectors plus 14 LTI 20/20 TruCam</td>
<td>131 hand-held laser speed detectors</td>
<td>0</td>
</tr>
</tbody>
</table>

* Operational in 2006 at time of writing original Cameron report, to be confirmed by WA Police.

The Government is encouraged to build upon recent investment in some cameras, camera upgrades and upgraded back office systems by fully implementing the 2006 MUARC Report recommendations, especially for additional mobile cameras and hours of operation and moving mode radar units. This will be a vital step in support of the Strategy. It will quickly achieve substantial overall fatal crash reductions (26%) and other injury crash reductions through diminishing widespread low level (and substantial higher level) speeding.

ISA Main Roads is working with the Office of Road Safety on the Intelligent Speed Assist (ISA) initiative. Speed limits on the WA public road network have been mapped which will allow promotion and take up of equipment which will assist drivers to stay within State and local speed limits.
**Alcohol management**

Probationary licence holders are subject to a BAC of 0.02gm% and full licence holders to a BAC of 0.05gm%. A Repeat Drink Driving Strategy has been proposed comprising several measures. Proposals await adoption on the mandatory testing for blood alcohol for serious injury and on alcohol interlocks. In 2004, there were 40 drink driving related fatalities comprising 22% of all fatalities. In 2009, there were 63 drink driving related fatalities comprising 33% of all fatalities (increasing from 56 in 2008 (27%). The number of driver/rider fatalities with an illegal BAC was 45 in 2009. This compares, for example, with a level of 50 in Victoria in 2009, indicating a WA rate more than 2.2 times greater per population in 2009. In addition, 36% of all killed and tested drivers and riders in WA in 2009 had a BAC in excess of 0.05%. This compares to a 25% level in Victoria. The level of drinking and driving in normal traffic is not known.

Research shows that if breath testing is to reduce deaths and serious injuries, it must be highly visual, random and continuous for the general driving population to result in a long-term deterrent impact. Around 1 in 0.7 drivers were breath tested in WA (during 2008/2009) compared with 1 in 1.80 (during 2000/2001) and 1 in 1.5 (during 2003/2004) and compared to accepted good practice Australian levels of 1 test per driver annually. In 2008/9 levels of breath testing fell by around 35% compared with 2003/2004 and by around 25% compared with levels in 2007/8. The ORS tracker survey indicates a downward trend in the number of drivers who recall being breath tested from 47% in 2004 to 30% in 2009. Drinking and driving penalties have remain unchanged since 1997 and are significantly lower than in Victoria and New South Wales for both drink and drug driving.

**Drugs management**

New laws providing for roadside screening of three illegal drugs (THC, methamphetamine and MDMA) came into effect on October 2007 accompanied by publicity. Following a review in 2009, further amendments have been proposed endorsed by the RSC and the Minister.

One drug/alcohol testing bus commenced operation in 2007 in metropolitan and rural areas.

**Seat belts and child restraints management**

Monitoring shows that 23% of fatally injured motor vehicle occupants were not wearing a seat belt at the time of the crash in 2009. 92% of new vehicles in Australia are reported to have seat belt reminders fitted for the driver, but the level of fitment in the WA fleet is not monitored. A voluntary agreement is being pursued in Australia covering fitment in the front seats though other jurisdictions (e.g. EU) are to propose legislation. WA is preparing to implement new national child restraint legislation in late 2010, preceded by a three month public education campaign. The regulations will specify the type of restraint to be used at specific ages as well as specifying where children must be seated in a vehicle. KIDSAFE and the WALGA RoadWise programs provide training and support for the network of Type 1 Child Car Restraint Fitters. The ICWA has supported a Belt Up sponsorship programme targeted the use of restraints amongst young males through engagement in rural and regional football clubs.

**Helmets management**

Around 10% of fatally injured motorcyclists were not wearing crash helmets. Motorcycle and bicycle helmet use in normal traffic has not been monitored for some years.

**Fatigue management**

Fatigue is identified as contributing to around 30% of road traffic crashes in WA. WorkSafe has been responsible for developing legislation and an associated code of practice to manage fatigue in commercial vehicle drivers. WorkSafe inspectors promote fatigue management information when visiting worksites across the state. Main Roads produces a guide to roadside amenities, rest areas and distances from the nearest town.
Addressing the safety priorities of high-risk road user groups
All high-risk user groups will benefit from the strategies for safer roads and roadsides, safer speeds and safer user interventions proposed in Towards Zero.

Young drivers  Further improvements to the graduated driver license scheme have been proposed by the RSC (see Section 2.3.5).
Pedestrians  Children and older people will benefit from area-wide safety projects and speed management in urban and residential areas.
Motorcyclists and moped users  A graduated licensing scheme is currently under discussion in WA. The Motorcycle and Scooter Safety Forum conducted by the RAC on behalf of the RSC is addressing user concerns about a broad range of road safety issues and has produced action statements to be made available on the ORS website.
Cyclists  The Perth Bicycle Network (PBN) comprises a network of cycling routes that provides a safer cycling environment throughout the Perth Metropolitan area. In 2008/9, the Government allocated around $2 million to create shared paths and other cycling facilities to extend the PBN. In 2008/9, the Regional Bicycle Network program (formerly Country Pathways Grants Scheme) allocated $750,000 to local government authorities throughout the regions on a matching dollar-for-dollar basis to help with the planning, development and promotion of shared paths and cycling facilities in regional Western Australia. Following a review the development of a new PBN plan is underway. Bicycle helmet use is mandatory for adults and children in WA.

Strengths
- Main Roads are intent on implementing Safe System principles in the WA network and a new Main Roads strategy is being prepared.
- Main Roads has a dedicated road safety branch.
- There is information about the safety quality of the WA road network.
- Safety limits for drinking and driving, drugs and driving and occupant restraint rules are generally in line with good practice.
- There is information about user compliance levels with key safety rules and how compliance can be improved.

Weaknesses
- The current road hierarchy does not provide the appropriate match between road function, speed limit, road layout and design required for safe use by all as envisaged in Towards Zero.
- As in other Australian States, WA has some of the highest rural and urban speed limits in the developed world.
- A clear prioritisation of higher-volume, higher-risk road sections requiring treatments is not available.
- While a Safe System approach is proposed by Main Roads, current road treatment guidelines and policies in MRWA or in local government have low capacity to implement well-established Safe System treatments.
- There is high-non compliance with several key safety rules and a marked shift in emphasis away from targeted deterrent policing of excess alcohol and speed.

Assessment: Safe Roads and Roadsides is a cornerstone of TZ which envisages investing in Safe System infrastructure. However, current standards and guidelines do not align at all well with Safe System principles.

Safe Speeds is a cornerstone of TZ which involves enhancing speed enforcement and further reflecting on the appropriateness of WA’s speed limits. However WA (and Australia) has some of the highest rural and urban speed limits in developed world.

Safe Road Users is a cornerstone of TZ and aims to integrate behavioral change programs with improved enforcement addressing impaired driving (alcohol, drugs, fatigue and distraction), restraint use, and speed choice. However, there are high rates of non-compliance with key safety rules and reduced enforcement outputs for deterring excess alcohol and speed.
WA has taken on great challenges in improving the safety of the planning, design, operation and use of the network as outlined in Towards Zero. Improving the deterrence value of police enforcement for speed and drinking and driving is crucial for delivery of large savings in the short term, until the scale of safety engineering improvements needed throughout the network can be realised.

3.4.2 Towards Zero: Entry and exit of vehicles to and from the road network?

"Entry and exit of vehicles to and from the road network’ interventions concern the conditions under which vehicles can safely use the network. They set specific safety standards and rules and establish compliance regimes to achieve this safety.”

Safe Vehicles is a cornerstone of Towards Zero and focuses on strongly encouraging the uptake of safe vehicles and specific safety features such as Electronic Stability Control (ESC), and side and curtain (head protecting) airbags compulsory for government vehicles; educating and encouraging corporations, employees and community members to purchase safe vehicles; lobbying manufacturers to fit safety features as standard; and continuing to investigate emerging vehicle safety technology. The Safe Vehicles initiatives outlined in the strategy are estimated to have the potential to save 2,900 people from being killed or seriously injured over the life of the strategy.

Cars

State promotion (ORS) of car safety ratings (e.g. Stars on Cars) and requirements throughout government (all agencies) that key vehicle safety equipment should be included in in-house governmental safe fleet policies represents lead global best practice. A national survey conducted by the AAA showed that two thirds of WA consumers were aware of safety rating for vehicles compared with the national figure of 55 per cent.

The State-wide fleet is not yet analysed according to ANCAP safety rating, although there are plans to do so. No information is available to indicate the level of fitment in the State fleet of electronic stability control and side curtains or other important safety equipment such as seat belt reminders in the front and rear of cars.

Some Australian Design Rules and aspects of ANCAP are lagging behind other leading jurisdictions internationally. For example, there are legislative requirements for the fitment of electronic stability control (ESC) (US), and safer car fronts for pedestrians (EU). While it is understood that industry agreement for provision of front seat belt reminder systems may be imminent in Australia, rear seat belt reminders do not appear to be on the national agenda and this warrants early attention by WA (and other States/Territories) to encourage a mainstream supplier to provide this and for it to be promoted. A legislative proposal for the fitment of seat belt reminders in front and rear positions is expected at EU level.

The Royal Perth Hospital trauma registry indicates that seatbelt compliance remains poor in major trauma victims particularly among rear seat passengers, with 49 per cent being reported as not wearing a seatbelt, compared to 11.7 per cent of drivers (adjusted for not recorded). Swedish research indicates that seat belt reminders have the potential to increase normal traffic use of belts to nearly 99 per cent.

EuroNCAP is, arguably, more stringent than ANCAP. It now includes more tests /assessments than ANCAP e.g whiplash, child occupant safety assessment, safety assist (speed limitation and seat belt reminders). It also requires good performance in the pedestrian tests to achieve the single 5 star new car performance rating. Euro NCAP has recently announced use of a unique methodology which allows the potential safety benefits of any new technology to be determined. The new process is based on the assessment of scientific evidence presented by the vehicle manufacturer.
ISA is being encouraged and promoted by the key agencies and the mapping of speed limits which, in itself, represented international good practice, creates a framework for ISA assist implementation.

Motorcycles
There has been little standardisation or voluntary agreement in Australia in relation to fitment of anti-lock braking systems or daytime running lamps on motorcycles. The motorcycle manufacturing industry in EU countries has embarked on voluntary agreements for the fitment of DRL (all new vehicles) and ABS (year on year % increases in fitment to models). The European Commission has announced (20.7.2010) its intention to propose the mandatory fitting of Advanced Brake Systems, Automatic Headlamp On and updated anti-tampering measures (so speed controls cannot be removed) for certain categories of PTWs. In addition, the development of technical standards on protective equipment such as clothing are envisaged as well as study of the feasibility of equipping motorcycles with an airbag and/or including the airbag in the protective clothing.

The national motorcycle helmet standard is reported by experts as providing lower crash protection to ECE Reg. 22.5 and no national helmet safety rating scheme exists, as in the UK, to offer information for helmet buyers.

Heavy goods vehicles
The fitment of front, rear and side under run protection on heavy commercial vehicles has yet to be required in national legislation, as they have elsewhere (EU). Light commercial vans, as elsewhere, are not required to provide effective vehicle occupant crash protection, as in cars.

Strengths
- A whole of government fleet safety policy is being implemented which promotes safety equipment.
- Promotion of vehicle safety awareness and features to the public is good practice.

Weaknesses
- Gaps exist in coverage and quality of national vehicle safety standards compared with international best practice. The uptake of vehicle safety features in the Australian fleet has been slower than for most OECD countries.

Assessment: WA activity reflects many elements of international best practice at State level both for private and commercial vehicles. However, the new ‘results focus’ requires substantial and continuous improvement of national standards, ANCAP and creating the State demand for safety equipment which needs to be sustained over the longer term.

3.4.3 Towards Zero: Entry and exit of road users to and from the road network?

'Entry and exit of road users to and from the road network' interventions concern the conditions under which users can move safely in the network. They set specific safety standards and rules and establish compliance regimes to achieve this.'

Graduated driver licensing
The Graduated Driver Training and Licensing scheme was introduced in February 2001 and requires 25 hours of supervised driving before eligibility for testing for a probationary license from 17 years of age. In 2008, several further provisions were introduced: six month learner phase two, up to three year learner’s permit duration, zero blood alcohol content for novice drivers and night time driving restrictions for the first six months of driving solo.

Policy options for peer passenger restrictions are currently being finalised by the RSC’s Novice Driver Review Implementation Group. A proposal to establish a business case to support the introduction of increased supervised driving hours for learner and provisional drivers awaits funding. National best practice also comprises 120 hours of accompanied
driving and later access to a provisional motor vehicle licence (at 18 years) with a four year probationary licence period. There are, however, issues around access to licensing for young people in remote and urban disadvantaged communities. The vastness of WA creates problems for driver licensing and it may be necessary to reduce the mandated amount of supervised experience for learners in remote communities, even though the level is already low when compared against best practice.

A graduated rider licensing system exists for motorcyclists and the Department of Transport is currently consulting on improvements to international best practice. Currently, riders may apply for an R-E learner permit at 16 years of age. Applicants for an R-E learner permit must pass a motorcycle theory test and may be required to pass a road rules test. A provisional licence is available from 17 years.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA has introduced a Graduated Driver Licensing scheme which compared well internationally.</td>
<td>Gaps exist in coverage and quality of the graduated driver licensing scheme compared with national best practice, particularly in the number of hours required for accompanied driving and the age of access to provisional licences.</td>
</tr>
<tr>
<td>Proposals made for the upgrading of penalties await adoption.</td>
<td></td>
</tr>
</tbody>
</table>

**Assessment:** The Graduated Driver Training Licensing scheme compares well internationally but there is scope for entry and exit requirements (e.g. licensing, penalties) to be better aligned to *Towards Zero*.

### 3.4.4 Towards Zero: Recovery and rehabilitation of crash victims from the road network?

"Recovery and rehabilitation of crash victims from the road network" concern post-impact care. Standards and rules and compliance regimes cover effective delivery of emergency medical and rehabilitation services to crash victims.

Effective post-crash care is characterized by efficient emergency notification, fast transport of qualified medical personnel, correct diagnosis at the scene, stabilization of the patient, prompt transport to point of treatment, quality emergency room and trauma care, and extensive rehabilitation services.

Source: GRSF, Bliss & Breen 2009

Australia’s trauma care is generally of a high standard when compared internationally. The geography of WA, however, presents challenging problems for post impact trauma care in rural areas.

**Access to the emergency medical system**

Research has shown that the total death rate from trauma in the Australian population increases with remoteness, with very remote areas having a rate 2.4 times higher than that of the major cities. A study of almost 4,500 major trauma patients in Western Australia over nine years found that motor vehicle crashes were responsible for almost half of them. Three groups of patients were studied: (1) metropolitan major trauma transported directly to a major Perth hospital, (2) metropolitan major trauma transported initially to a secondary hospital and then to a major Perth hospital; and (3) rural major trauma transferred by the Royal Flying Doctor Service to a major Perth hospital. The time from the trauma to reaching the major hospital varied considerably between the three groups, being about 1 hour, 4 hours, and 12 hours respectively. Another study of major trauma transfers in Western Australia found that the median transfer time was 9 hours 12 minutes with 93% of patients

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14 Fatovich et al, 2009
15 Gupta and Rao, 2003
arriving at the Major Trauma Service (Royal Perth Hospital) within 24 hours. The study was not able to determine whether time delays were due to delays in initiating the transfer, prolonged travelling times, or delays in the preparation of the patient for travel.

Emergency Response is provided by the St John Ambulance, the Flying Doctor Service Western Operations, and voluntary systems in country areas. Recommendations for triage destination and transport times and for establishing a medical retrieval system were made in a major review of trauma and services in 2007. The Minister of Health announced new targets to improve ambulances service response times in May 2010.

For rural and remote areas where access to medical assistance presents problems, the World Health Organisation recommends that it may be possible to identify particularly motivated or well-placed workers, such as public servants, taxi drivers, or community leaders, and train them to provide a more comprehensive level of pre-hospital care. In addition to learning a more extensive range of first-aid skills, this group could be taught the basic principles of safe rescue and transport. With this level of training, a kit of simple equipment and supplies and access to a suitable vehicle, WHO maintains that these individuals can provide an acceptable level of trauma care while transporting an injured person to an appropriate healthcare facility.

**Trauma care system**

Several jurisdictions in Australia have State Trauma Systems. A review of trauma system and services in 2007 (DoH, 2008) concluded that ‘despite a number of reviews of trauma services in Western Australia recommending the introduction of a system to streamline the delivery of trauma management, the provision of acute trauma services is still poorly coordinated in this State’. Acute trauma services are provided, with varying degrees of complexity, at the three adult and one paediatric teaching hospitals and at a number of smaller metropolitan and country hospitals. The establishment of a trauma system, trauma bypass and the dedicated State Major Trauma Service at RPH were three significant changes to trauma care in 2008. Some aspects of the trauma system services to be implemented are described below:

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**Box 3.7 Extract from Trauma System and Services, Report of the Trauma Working Group, DoH, 2008**

A Trauma System will be developed, encompassing the continuum of care from injury detection and control, through definitive care and rehabilitation, incorporating all hospitals and health care facilities in Western Australia. The goal of the trauma system will be to deliver each patient to the trauma care facility, which has the right resources to match his/her needs, in the shortest time possible.

Trauma care will be delivered within a tiered system of hospitals and health care facilities, each of which will be allotted a designated role based upon its capacity to provide particular levels of care that match patient needs.

The system of designation of hospitals and health care facilities that has been recommended by the Trauma Working Group and will be implemented in Western Australia is as follows:

- **Major Trauma Services**: Form the central hub of the trauma system and provide definitive care for most of the State’s major trauma caseload.
- **Metropolitan Trauma Services**: Provide a second level of trauma care to the Major Trauma Services.
- **Urban Trauma Services**: Provide definitive care for non-major trauma according to the availability of local expertise for their local communities.
- **Regional Trauma Services**: Located in a country regional centre, will provide a regional focus for definitive care of non-major trauma according to the availability of local expertise.
- **Rural Trauma Services**: Country hospitals, which have 24-hour availability of an on-duty medical practitioner, serving local communities.
- **Remote Trauma Services**: Small hospitals and health centres, which have no immediately available general practitioners, serving people in remote areas.

The Royal Perth Hospital created Western Australia’s first designated Trauma Services team in 2006. Following the 2007 review, the main Major Trauma Service will be transferred to the new Fiona Stanley Hospital after 2012. The review also recommended that consideration needed to be given at that time to co-locating tertiary rehabilitation services, including services for patients with brain injury, spinal injury and major limb injury, on the Fiona Stanley Hospital campus.
Three major teaching hospitals run trauma registries and the 2007 review recommended the establishment of a State Trauma Registry in line with international and national good practice. Outcome data is not yet analysed systematically as a result of limited of capacity and no information is available on the level of permanent disability arising from road traffic crashes.

There is currently a suggestion in WA to move to no fault coverage for catastrophic injuries under the current fault based 3rd party insurance scheme.

### Strengths
- Trauma registries have been established in the major teaching hospitals.
- Emergency medical response targets are in place.
- Following a major review in 2007, recommendations to improve access to the emergency medical system, trauma care and rehabilitation are being implemented.

### Weaknesses
- WA’s geography poses severe challenges for prompt trauma care in remote areas.
- The potential contribution of improved post impact care in reducing road traffic injury is unknown for WA.

**Assessment:** The emergency medical services are acknowledged as being integral to the new ‘results focus’ but they are not included as a system provider for road safety in day to day strategic management processes.

### 3.5 Lead agency role (in relation to institutional management functions)

Effective organization to achieve results requires strong leadership and support from a lead governmental organization to transform multi-sectoral shared responsibility for road safety into concerted results-based action. Experience shows that responsible and accountable road safety leadership at country, state, provincial and city levels is vital to success.

In good practice countries, the lead agency is formally established with its role being invariably defined in legislation, government policy documents and in annual performance agreements. The lead agency plays a pre-eminent role in all of the seven institutional management functions identified as underpinning the road safety management system. It takes responsibility for what it is solely accountable for as well as prompting, encouraging and assisting activities on the part of other key road safety partners and stakeholders. In good practice, the lead agency takes responsibility within government for the development and management of the road safety strategy and its results focus – the overarching institutional management function - as well as coordination arrangements. It works to ensure a comprehensive legislative framework; sustainable sources of annual funding and a rational framework for resource allocation; high-level promotion of safety strategy across Government and society; periodic monitoring and evaluation of road safety performance; and the direction of research and development and knowledge transfer.

**Source:** GRSF, Bliss & Breen 2009

This capacity review also considered the key ORS’s lead agency role in the delivery of the State institutional management functions against international good practice with specific reference to Annex 2 of the World Bank’s global good practice guidance on road safety management.

The ORS is the lead agency for road safety in WA and the executive arm of the Road Safety Council on behalf of government. While its duties are not set out in legislation, it sees its duties as:

- leading the development of road safety strategy for WA on behalf of the RSC and the Minister for Road Safety;
- providing executive support, coordination and evidence-based advice on road safety policy and strategy to the RSC member agencies, Government and the community;
- monitoring and reporting progress using data obtained from the following agencies;
• delivering road safety community education campaigns focusing on key road safety issues including the major risk behaviours of speeding, drink driving, not wearing seatbelts and fatigue and encouraging the purchase of safer vehicles.

The ORS business plan sees its lead agency key focus as optimizing Policy and Strategy development, Education and Communications and management of the Road Trauma Trust Fund and associated business resources to deliver effective and efficient services to benefit the community in WA.

The ORS office comprises 33 staff, 6 of whom are part-time, 5 are temporary staff and 14 are funded by the RTTF. Recommendations are made in later sections for some capacity strengthening.

3.5.1 Results focus and the lead agency role

In good practice, the lead agency has the main responsibility within government for managing the jurisdiction’s results focus and ensuring that system-wide interventions are agreed and implemented by the responsible authorities across government and wider society. The lead agency concerns itself not only with the development of the national road safety strategy and targets, but also all the institutional management functions which contribute to its success.

Source: GRSF, Bliss & Breen 2009

ORS is an assiduous, but under-resourced lead agency which has led the development of internal and external analysis (MUARC) on the Towards Zero strategy of the road safety situation, identification of evidence-based initiatives, strategy options and draft strategy prior to consultation with agencies, business sector, civil society and Parliament on what might be acceptable to partner agencies and the community.

ORS and RSC have been successful in obtaining agreement on a long-term and good practice Safe System goal in the Towards Zero strategy. They have been successful in persuading partner agencies in signing up to the proposed final outcome targets in Towards Zero.

However, ORS and partner agencies have been less successful to date in persuading government as a whole to adopt interim targets. Since the adoption of the strategy, the key agencies have yet to fully adopt Towards Zero in their operational strategies and agree meaningful targets and indicators (including ORS) for annual performance agreements. Neither the lead agency nor partner agencies are accountable for the key road safety results. While new indicators for ORS have been established following its move to Main Roads WA, these are very limited and relate only to the effectiveness of road safety awareness campaigns and ORS’s efficiency in processing RTTF projects.

Despite the conscientious efforts of existing part-time staff, ORS’s data and monitoring capacity is severely limited. This is evidenced by the lack of readily available key safety performance data collected or collated by the lead agency on system-wide intermediate outcomes and multi-sectoral institutional outputs and delayed annual public reporting of road crash injury statistics. It is recommended that an appropriately-resourced Safety Data Unit (minimum of thee full-time staff) serving the results focus and monitoring and evaluation functions be established within the Policy and Strategy branch.

Establishing a working and accountable safety performance framework to 2020 which is owned by ORS and its partners remains the immediate ORS priority. It is recommended that the ORS strengthens its capacity and sharpens its focus internally on the performance framework for the interim, particularly in the area of data support and reporting. ORS also needs to focus on proposing sharpened agency responsibilities and accountabilities for Towards Zero for inclusion in annual performance agreements, Memoranda of Understanding etc.

The ORS must play the major role in the further development of the State results focus and its Booster program to achieve results in the interim as recommended in Sections 5.1 and
ensure that sufficient project management capacity is available towards this end, particularly in the ramp up phase over the next 12 months, but also ongoing, in its Policy and Strategy Branch.

3.5.2 Coordination and the lead agency role

In good practice countries coordination is a function of the leadership of road safety to achieve results. The rationale for coordination is always the jurisdiction’s results focus and the lead agency plays the pivotal management role.

The ORS manages and supports the coordination activities of the Road Safety Council throughout the State, and related road safety task forces, and provides administrative support to the Ministerial Council for Road Safety. The ORS provides advice at local, regional and national levels. The ORS creates road safety partnerships with key stakeholders in pursuit of strategy objectives, often with the aid of Memoranda of Understanding. As observed earlier, efficient ORS/police partnerships need to be restored and ORS/WorkSafe partnerships are likely to be productive in furthering work-related road safety. ORS has consulted Parliament, the business and non-governmental sectors in road safety strategy development and is working towards further coordination. The ORS also supports the development of partnerships and community programs at the local level.

The lack of senior management engagement in multi-sectoral planning and an agreed safety performance framework is inhibiting the effective coordination efforts of the ORS and RSC and these need to be resolved quickly for ORS to be effective in this important management function across government.

The main priority for ORS is to strengthen and refocus coordination groups across government to ensure an effective decision-making hierarchy across government which better links the inputs of the road safety managers’ level with Chief Executives and the Ministerial Council.

ORS will also need to play a key role in sharpening vertical coordination between and within central, regional and local government by developing tools (e.g. updates on effective intervention, good practice guidelines, survey protocols, crash analysis tools etc) and ensuring accountabilities are set out in legislation and Memoranda of Understanding; strengthening and rolling out specific delivery partnerships and engaging in bi-partisan parliamentary relations, through the Minister and supporting guidance for locally elected representatives.

It is suggested that a specific Coordination Unit be established in the ORS with appropriate capacity, especially for horizontal coordination across the key agencies.

3.5.3 Legislation and the lead agency role

In good practice countries the lead agency plays a major role in ensuring that appropriate legislation is in place to meet the road safety task.

The ORS plays a major role in facilitating and coordinating with its partners the development of road safety legislation at State level in support of Towards Zero. It also plays an important role in advising on national legislation and the periodic consolidation of road safety rules.

Specifically, ORS reviews legislative needs for the strategy in consultation with its partners in the coordination body. One example is the current proposal for alcohol interlock devices and associated provisions. It has a list of proposals which have been endorsed by the RSC and which are awaiting Ministerial adoption. ORS plays a role in developing and consulting the road safety partnership and public on proposals for major primary as well as secondary road
safety legislation and for consolidating and implementing national rules. For example, the ORS managed the implementation of new initiatives to improve novice driver safety following the relevant amendments to the Road Traffic Act 2007, working with its partners in DoT, WA Police in managing change and community education.

The ORS has established in-house capacity for these activities and provides policy advice in support of their implementation, although it needs to ensure that some multi-disciplinary engineering, behavioural and medical expertise is represented in-house to contribute to the system-wide issues which need to be addressed by its partner agencies.

As recommended in Table 5.1 (recommendation 3.1), in addition to implementing these provisions, ORS should encourage review of legislative duties and accountabilities of agencies/ departments/ local governments for road safety to meet Towards Zero needs. It would also be in line with international good practice for ORS to take the lead for the development and coordinated implementation of Towards Zero legislation.

### 3.5.4 Funding and lead agency role

In good practice countries the lead agency plays a major role in ensuring that secure and sustainable funding is available in government budgets and from all other available sources as well as establishing procedures to guide the rational allocation of resources across safety programs which allows a strong business case for road safety funding.

The ORS advocates for increased take-up of road safety in core government funding. It plays the major role in managing the funding of road safety programs through the Road Trauma Trust Fund. The ORS facilitates evaluation of project cost-effectiveness and project prioritization. The ORS (with RSC support) has also advocated for the adoption of Willingness to Pay (WTP) in assessing potential benefits of interventions to influence WA road safety resource allocation.

The ORS has allocated in-house capacity in support of this activity but the tight government HR environment is restricting capacity to employ necessary staff for funded RSC/RTTF projects. There are budget restrictions due to Government Funding Criteria (an HR limit and contractual services for a maximum period of 3 months) which are also affecting all agencies on which ORS relies to make progress in implementation (e.g. on legislative changes). As outlined in Section 2.3.10, the human resource levels and process necessary to establish staffing for approved RSC/RTTF-managed projects need to be resolved urgently.

In addition, ORS capacity (and MRWA capacity augmentation) needs to be found to help identify and pursue proposals for new funding mechanisms and sources and to assist the key agencies with business case development.

### 3.5.5 Promotion and the lead agency role

In good practice countries the lead agency plays a major role in promotion of the jurisdictional road safety strategy and the shared responsibility for its delivery. It promotes the need for a focus on results, promotes the means by which they can be achieved as well as the core business responsibilities of the key stakeholders for implementation across government and wider society. Its aim is to create a receptive climate for activity to achieve road safety results.

The ORS plays a major role in promoting and facilitating a shared approach to road safety across all government agencies, local government and other partners and stakeholders. The ORS manages public relations activities, media, campaigns and mass media initiatives, community engagement, agenda setting initiatives, partnership programs and other promotional campaigns at the state level.
The ORS has encountered problems with approval problems for advertising (which are now reported to have been resolved) which has temporarily affected their efficient partnership work in this area for Towards Zero interventions. The ORS has established partnerships to help WA lead by example for in-house governmental fleet safety policies. The ORS also promotes local efforts in support of the state road safety strategy.

As indicated by the Chair of the RSC, broad multi-sectoral communication with the engagement of senior management is needed to draw in the community and business sector to better understand the shared responsibilities for Towards Zero and ORS will play a leading coordinating role in this.

### 3.5.6 Monitoring and evaluation and the lead agency role

In good practice countries monitoring and evaluation of the jurisdiction’s road safety performance is usually the responsibility of the lead agency and its related coordinating body. The lead agency plays the major role by ensuring that appropriate data systems, linkages and management capacity are established to set and monitor targets and strategies; conducting transparent reviews of the national road safety strategy and its performance; and making any necessary adjustments to ensure that results are achieved.

The delivery of the ORS monitoring and evaluation function is currently being carried out by the Policy and Strategy Team. Facilitating and improving the collection, sharing and analysis of road safety data as well as monitoring and reporting on the implementation of the strategy and road safety progress in WA are key strands of the ORS business plan. The ORS/RSC have commissioned this independent road safety management capacity review, as recommended to jurisdictions as international best practice by the OECD and World Bank.

The ORS/RSC reports on a variety of final outcome indicators to the Ministerial Council. The ORS monitoring and evaluation function carried out by the ORS Policy and Strategy Team does not yet extend to key system-wide intermediate outcomes and institutional outputs. Capacity is limited here and needs to be strengthened so that data on the State’s safety performance can be collected through surveys or analysis where gaps exist and accessed easily, efficiently and transparently. This will also rely on the key agencies providing adequate data on indicators of performance for which they have agreed to be measured and accountable in a digestible form to ORS.

As recommended previously, the ORS, RSC and other key agencies need to review data bases, survey needs, data accessibility and prompt publication of results once the safety performance framework supporting Towards Zero targets to 2020 has been agreed. Furthermore the ORS, to be accountable on behalf of government, should create capacity for receiving six monthly updates on all annually reported agency safety performance data and for reporting these twice a year to the RSC, Chief Executives and the Ministerial Council. A cross agency Memorandum of Understanding towards this end is required.

### 3.5.7 Research and development and knowledge transfer and the lead agency role

In good practice countries the lead agency plays a major role in research and development and knowledge transfer which is fundamental to achieving road safety results.

Research and development Leading and managing the road safety research and evaluation program and leading on specific demonstration projects e.g. ISA, IDDL, RDDS, CCR are key strands of the ORS business plan. This function is currently being carried out by the Policy and Strategy Team.

Further to developing a new independent road safety research facility at C-MARC, the ORS has made a start in actively assisting the RSC agencies in identifying the research that may
be required to support each Agency’s implementation initiatives. ORS has not yet proposed a State road safety research strategy and annual program but this is an anticipated development in the short-term. Continuing innovation in Safe System approaches, particularly in vehicle and road safety engineering are key to meeting Towards Zero objectives. The ORS needs to take the lead in ensuring research support at State and national levels.

Knowledge transfer The ORS plays a major role in building understanding and capacity in support of Towards Zero between implementing agencies, politicians, leaders and the community. As indicated in Section, ORS/RSC needs to lead a major educational effort aimed at senior management at official and political levels as well as at technical level is required if Towards Zero principles are to be embedded in the policies of the key agencies at State level. Local government representatives indicated a need for support in educating staff, executives and elected members about road safety management barriers and opportunities; and innovative safe system focused intervention development and application.

If WA is to make rapid progress with implementing Toward Zero, an extensive knowledge transfer program around Safe System principles needs to be agreed and carried out. This is an ongoing process which has commenced in WA and some projects are being supported in the RTTF. ORS, Main Roads and all government agencies with road safety responsibilities should also devise a strategy to provide a substantial program of support for local government, which also includes additional targeted funding.

Fostering strategic research and development and encouraging knowledge transfer is a key role for ORS, but currently has very limited capacity in its Policy and Strategy section.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>• The ORS is recognised as carrying out its lead agency role in a competent and inclusive manner by stakeholders.</td>
<td>• The absence of an adopted safety performance framework for agreed final outcomes, intermediate outcomes and institutional outputs for the interim is a major weakness in the WA results focus and the ORS activity needs to be strengthened in this area.</td>
</tr>
<tr>
<td>• The ORS displays many elements of good and best practice in carrying out road safety management functions.</td>
<td>• The ORS, like its key partners in government, does not have defined accountabilities for road safety performance in WA.</td>
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</table>

Assessment: Much of the ORS delivery of its road safety management function is generally in line with international good and best practice. However, ORS’s effective leadership of the road safety strategy is seriously constrained by the absence of a safety performance framework and annual accountability to embed the ownership of the strategy within the activities of key agencies, provide more efficient coordination mechanisms across State government and respond to insufficient levels of resource. Capacity in all institutional management functions needs to be strengthened.

Overall Assessment
4. Overall assessment

On the basis of the findings of the review, an overall assessment is made of the current capacity of WA’s road safety management system to implement Towards Zero and achieve its desired goals.

The review acknowledged, at its outset, that Western Australia’s road safety management system is in an advanced phase of development when compared internationally. This systematic review confirms that many elements of its road safety management system are consistent with international good practice. At the same time, the road safety results being achieved indicate that Western Australia has some way to go before it can join the global leaders in road safety performance. WA is in the very early stages of shifting towards the desired Safe System.

Like several European countries and New Zealand, Western Australia has embarked upon a bold path and its new results focus for the long-term demands a new and higher level of road safety performance, leadership and institutional delivery. Based on the information provided by senior management of stakeholders in Western Australia and with reference to national and international good practice this independent review has identified scope for future action.

Achieving the outcomes outlined in Towards Zero will not be achieved overnight but will require political will, strong leadership and a substantial scaling up of sustained investment into the long-term. This is widely acknowledged by all involved. This is expected to include the commencement of the long-term work envisaged, as well as sharp multi-sectoral agreement and focus on interim goals to prevent death and disability. Short-term gains can be expected from conventional interventions derived from national and international best practice, especially enhanced enforcement as envisaged in the Strategy. Improvement of the protective features of the network, the vehicle fleet and the emergency medical system, supported by improved public understanding of Safe System means and principles such as shared responsibilities, limiting crash forces to survivable levels through altering the system and moving to an ethical approach to serious road injury over time, will bring big benefits in the medium and longer term.

The World Bank and the OECD note the importance of a staged approach to investment in establishment, growth and consolidation phases which (a) acknowledges the barriers imposed by insufficient safety management capacity to meet the desired goals and (b) addresses the challenge of accelerating the institutional strengthening required to effectively govern the production of improved road safety results.

The capacity review concludes that Western Australia is currently in the ‘establishment’ phase of its investment strategy for the implementation of Towards Zero. The shift to a Safe System approach requires continuous innovation based on sound safety principles and new approaches, as well as the continued application of existing best practice. Further activity in this phase is needed to build capacity and prepare the way for rapid ‘growth’ in effective strategy implementation.

4.1 Preparing for growth – Towards Zero Booster Program (to 2014)

As a spearhead to the investment strategy to 2020, a Towards Zero Booster Program (to 2014) is recommended as a priority to accelerate the implementation of the strategy in the recognition that funding is tight, new approaches need to be developed, and measures taken need to be established and well grounded before they can be scaled up and applied State-wide. The aim of the proposed short-term investment is to address high priority issues in a sequenced and manageable way and to build the platform for the medium to long-term delivery of Towards Zero goals. It will demonstrate to the community the opportunity for systematic activity to deliver measurable road safety benefits. (See Figure 6 below which
indicates the two pronged approach recommended to moving road safety achievement of Towards Zero ahead as a key outcome of this Review.) Recommendations for the Booster Program (to 2014) are set out in Section 5.1

**Figure 6: Towards Zero Booster Program to 2014 and the underpinning (and developing) Towards Zero Investment Strategy to 2020**

![Diagram showing the two programs and their underpinning strategy over time]

### 4.2 Rapid growth to 2020 – Towards Zero Investment Strategy (to 2020)

The measures to be taken to achieve this build in capacity can be systematically listed and recommendations for an Investment strategy for the medium term (to 2020) are presented in Section 5.2.

The priorities for this growth phase are seen as establishing, implementing and monitoring a robust performance management framework for all participating agencies; strengthening institutional delivery and rolling out a targeted safety program of evidence-based measures systematically across the State. It is as much about investment in the growth of road safety management capacity as it is about investment in interventions.

The challenge for Western Australia as with other high-income jurisdictions will be to continue to combine the best international practice in step-wise targeted road safety programs and well as innovate on the basis of sound safety principles. This will entail going beyond what is currently known to be effective, particularly in vehicle and road safety engineering, to achieve even higher levels of performance.

As the OECD has emphasized, while continuing efforts to review improve all elements of the road safety management system will be needed, a special emphasis on the key institutional management function of ‘results focus’ will be essential, along with a heightened priority being placed on research and development and knowledge transfer, to sustain the high levels of innovation necessary to implement a Safe System approach.

### 4.3 Consolidation – Beyond 2020

Beyond 2020, the key priorities will be to roll out the safety program further and, if not before, devolve the performance management framework comprising final and intermediate outcome targets and institutional outputs to regional and local levels; reviewing and improving institutional management and operational efficiency; reviewing and reforming lead agency role and functions and related coordination arrangements; reviewing and internationally benchmarking safety policies and interventions, and implementing reforms; sustaining comprehensive multi-sectoral measures across the total road network.
Recommendations
5. Recommendations

A 40% reduction in deaths and serious injuries as foreshadowed by Towards Zero is considered within WA’s reach, but it will require government to commit to the 40% reduction target, substantial resourcing of the lead agency and of MRWA and local government road safety efforts, major knowledge transfer activities within and beyond government, supported by strong coordination and performance accountability frameworks plus increased funding.

A two-pronged approach is recommended for the WA investment strategy to the medium term to 2020 which is set out in Section 5.2. It is recommended that this is spear-headed by a Booster Program to 2014 as set out in section 5.1.

5.1 A Towards Zero Booster Program for the short term (to 2014)

5.1.1 Introduction

The aims of a specifically funded four year TZ Booster Program are to accelerate cross-agency implementation of Towards Zero efforts to address Western Australia’ serious road safety problem by strengthening the capacity of the lead agency and participating agencies and stakeholders; building knowledge across the agencies and local government; focusing on the long term goal of eliminating deaths and serious injury and interim outcome and output targets; carrying out targeted multi-sectoral improvements in demonstration projects in urban and regional corridors to achieve some quick results and which can help to provide the dimensions for a scaled up approach across the rest of the network within four years and carrying out policy reviews and strategy development in key areas identified by the capacity review.

At its outset, the Booster Program would adopt the Toward Zero interim outcome target to 2020 and provide for the further development of WA’s safety performance framework. It would operate in addition to the proposed recommendations outlined in the broader investment strategy for the medium term set out in section 5.2 which would gradually build on a ‘business as usual’ the basis in line with the developing capacity to 2020.

Box 5.1 Towards Zero Booster Program: Aims

- Build lead agency capacity
- Accelerate the implementation of Towards Zero to achieve quick results
- Build knowledge across the agencies and local government
- Focus on the goal of eliminating deaths and serious injury and related targets in activities
- Carry out multi-sectoral components in urban and regional corridors using:
  - safety planning and engineering
  - deterrent policing and supporting publicity
  - enhanced emergency medical response
  - publicity about program though local government
  - targeted speed limit reviews where risk is high

The overall sequencing of the project or program preparation process is crucial to successful implementation. World Bank good practice guidance advises that such preparation is conducted through eight distinctive steps:

1. Set project objectives
2. Determine scale of project investment
3. Identify project partnerships
4. Specify project components
5. Confirm project management arrangements
6. Specify project monitoring and evaluation procedures
7. Prepare detailed project design
8. Address project implementation priorities

Some initial suggestions are set out in subsequent sections for the establishment of the Booster Program.

5.1.2 Program objectives

The general aim of the TZ Booster Program is to anchor State capacity building efforts in a systematic, measurable and accountable investment program that simultaneously builds management capacity while rapidly achieving safety improvements in targeted high-risk corridors and areas. In short, the Program would be as much concerned with ‘how to’ as well as ‘what to’ organize in the priority next steps in road safety in WA.

The core objectives could be stated as:

- To accelerate the transfer of road safety knowledge to program participants.
- To rapidly strengthen the capacity of the lead agency and participating agencies and stakeholders.
- To achieve quick proven results and obtain benchmark performance measures to provide further dimensions to a State rollout program.

5.1.3 Scale of program investment

Available sources of funding will need to be reviewed and agreed before the commencement of the program.

It is recommended that the variety of funding sources is maintained in the interests of securing sustainable annual funding for Towards Zero activity e.g. specific allocations in core funding, RTTF funding; local authority funding, ICWA funding to ensure sustainability in the current financial climate.

The Road Trauma Trust Fund has proved to be a successful vehicle for transparent multi-sectoral funding but its current income will clearly be insufficient. Current estimates for additional camera offence income based on recent upgrades are also uncertain. It is recommended that Ministers consider allocating 100% rather than 30% of net income from camera operations to road safety.

5.1.4 Program partnerships

It is important that the project is designed to maximize the opportunities to engage all relevant partners and stakeholders who share an interest in its outcomes and have potential to contribute to improving these.

Key Governmental Agencies

The project partners for the TZ Booster Program will include the key governmental agencies: ORS, MRWA, DoT, WAPOL, DoH, DoP, DoE, Local Govt and the key governmental advisory body - the Road Safety Council which will play a key advisory role.

The key governmental agencies are:
- Office of Road Safety - lead agency on behalf of government, road safety strategy development and coordination.
- Main Roads WA - planning, design, operation and use of WA road network.
- Department of Transport – Public transport, walking and cycling policies, driver licensing and vehicle registration
- Local Government – road safety in the community and on local roads
- WA Police – enforcement of key road safety rules
Office of Road Safety (ORS)

It is envisaged that the ORS would operate as the program owner and provide coordinated management support for the TZ Booster Program; establish its results focus with its program manager partners, coordinate and promote its activities, set up any necessary policy reviews, carry out and report on the monitoring and evaluation to the RSC, the Chief Executives Group and the Ministerial Council, and manage relevant knowledge transfer activity. Strengthening lead agency capacity to conduct this task would require new dedicated units to be established in the ORS’s Policy and Strategy Branch (see Section 5.1.5 below).

Main Roads Western Australia (MRWA)

As the State highway authority, MRWA has a key role in helping to define the program’s results focus, identifying and implementing engineering components and providing guidance and support to local governments.

Key responsibilities in the context of the program might include:

• together with other agencies, adopting the long term vision, targets and strategy for the TZ Booster Program projects;
• establishing together with other government agencies clear road safety roles for the program/projects;
• accountability together with other government agencies for road safety outcomes and road authority outputs in the program/project;
• making human and financial resources available for road safety;
• helping to identify and to implement cost-effective road safety interventions within the context of the TZ Booster Program projects;
• participating in the TZ Booster Program coordination, working groups and training, including local government technical support and training;
• adopting protocols for the measurement of safety performance;
• participating in /conducting surveys of intermediate outcomes;
• participating in work to upgrade road crash injury databases and registries.

WA Police (WAPOL)

Key responsibilities in the context of the project might include:

• together with other agencies, adopting the long term vision, targets and strategy for the TZ Booster Program projects;
• establishing together with other government departments clear road safety roles for the program/project;
• accountability together with other government departments for road safety outcomes and police outputs for the program/project;
• accountability for police outputs needed to deliver the road safety outcome and strategy;
• making human (e.g. piloting State Highway Traffic Patrol) and financial resources available for road safety;
• participating in the TZ Booster Program coordination, working groups and training;
• adopting protocols for the measurement of safety performance;
• participating in surveys of intermediate outcomes;
• participating in work to upgrade road crash injury databases and registries.
• carrying out good practice deterrence activity comprising higher levels of combined police enforcement and publicity in key areas
• procuring equipment needed for the project.

**Department of Transport (DoT)**

Key responsibilities in the context of the project might include:

• together with other agencies, adopting the long term vision and targets for the *TZ Booster Program* projects;
• establishing together with other government agencies clear road safety roles for the projects;
• accountability together with other government agencies for road safety outcomes in the projects;
• together with other agencies, ensuring an effective State road safety coordination hierarchy to facilitate cross governmental decision-making and consultation;
• accountability for transport sector outputs needed to deliver the *TZ Booster Program* especially licensing and registration system data ease of access for Police operational activity and ORS and other Agencies policy analysis and development;

**Department of Health (DoH)**

Key responsibilities in the context of the project might include:

• together with other agencies, adopting the long term vision, targets and strategy for the *TZ Booster Program* projects;
• establishing together with other government agencies clear road safety roles for the projects;
• accountability together with other government agencies for road safety outcomes in the projects;
• together with other agencies, ensuring an effective State road safety coordination hierarchy to facilitate cross governmental decision-making and consultation;
• accountability for health sector outputs needed to deliver the *TZ Booster Program*;
• making human and financial resources available for road injury prevention;
• participating in the *TZ Booster Program*; coordination, technical working groups and training;
• establishing computerized health sector surveillance (final outcomes, trauma registry) of road injury in the projects;
• measuring emergency response;
• participating in surveys of intermediate outcomes (emergency response);
• helping to identify and to implement cost-effective road injury prevention interventions within the context of the *TZ Booster Program*;
• participating in community awareness and education activities.
• developing emergency service pre-hospital care outputs;
• developing first-responder training for targeted groups
• procuring equipment needed for the project e.g. determining call centre system and equipment requirements for emergency callout for road trauma focused on pilot locations and funding to an agreed amount

**DoE**

Key responsibilities in the context of the project might include:

• together with other agencies, adopting the long term vision, targets and strategy for the *TZ Booster Program* projects;
• establishing together with other government departments clear road safety roles for the program/project;
• accountability together with other government departments for road safety outcomes and educational outputs for the program/project;
• developing and supporting delivery of targeted information programs through primary, secondary and tertiary educational institutions in the demonstration projects regions.

**DoP**

Key responsibilities in the context of the project might include:
• together with other agencies, adopting the long term vision, targets and strategy for the TZ Booster Program projects;
• establishing together with other government departments clear road safety roles for the program/project;
• accountability together with other government departments for road safety outcomes and land use planning outputs for the program/project;
• review with ORS knowledge on area-wide safety impact assessment.

WorkSafe
Key responsibilities in the context of the project include:
• together with other agencies, adopting the long term vision, targets and strategy for the TZ Booster Program projects;
• establishing together with other government departments clear road safety roles for the program/project;
• accountability together with other government departments for road safety outcomes and WorkSafe outputs for the program/project;
• become a member of the RSC and the road safety managers and road safety executive groups;
• review with ORS the development of a State work-related road safety strategy and introduce initially in Booster program regions.

ICWA
Key responsibilities in the context of the project include:
• together with other agencies, adopting the long term vision, targets and strategy for the TZ Booster Program projects;
• establishing together with other government departments clear road safety roles for the program/project;
• accountability together with other government departments for road safety outcomes and ICWA outputs for the program/project;
• working with other agencies to examine opportunities to contribute to targeted infrastructure safety initiatives

Local Government
Key responsibilities in the context of the project include:
• together with other agencies, adopting the long term vision, targets and strategy for the TZ Booster Program projects;
• establishing together with other government departments clear road safety roles for the program/project;
• accountability together with other government departments for road safety outcomes and local government outputs for the program/project;
• Working through WALGA, IPWEA and MRWA/ORS to develop awareness and training for practitioners/ elected members and communities.

Professional and non-governmental organizations
Other RSC Members such as WALGA and RACWA clearly have a role to play in the demonstration projects as will other professional, non-governmental organisations and research sector organizations such as C-MARC. Educational (schools, universities, business (e.g. large companies sited adjacent to the corridors), health and community organizations within demonstration project areas can be identified.

5.1.5 The program components
These include institutional capacity strengthening priorities, targeted interventions in high-risk corridors and areas, and policy reforms where weaknesses have been identified.
(i) Institutional capacity strengthening priorities

Building lead agency capacity

It is envisaged that ORS would operate as the program owner and project coordinator for the Towards Zero Booster Program on behalf of government with the individual agencies managing the Program components for which they are responsible and accountable.

- The further development of Western Australia’s results focus is clearly the priority task for ORS. This entails the further preparation of a safety performance framework at State level for (a) the Booster Program to 2014 and (b) the system wide rollout to 2020, securing adoption as well as defining core responsibilities and accountabilities for delivery of both activity areas across the road safety partnership in MoUs, annual performance agreements, policy documents, legislation, as appropriate. All key agencies and partners will need to play a role in the Booster Program, using it to build Towards Zero management capacity in their agency.

- A more robust monitoring and evaluation system will need to be established as a priority by ORS and partners in support of the results focus task, both for the Booster Program and the 2020 framework, particularly in the area of data collection, analysis and reporting. ORS capacity is limited here and needs to be strengthened so that data on the state safety performance (including intermediate outcomes and institutional inputs) can be collected through surveys or analysis where gaps exist and accessed easily, efficiently and transparently. This will also rely on the key agencies providing adequate data on indicators of performance for which they have agreed to be measured and accountable in a digestible form to ORS. The ORS will also need to carry out and report on the monitoring and evaluation to the RSC, the Chief Executives Group and the Ministerial Council, and manage relevant knowledge transfer activity. A dedicated, funded safety data unit is recommended.

- The effective coordination of activities across the sectors envisaged in the Booster Program will depend upon strengthened horizontal and vertical coordination arrangements and an improved focus on efficient bi-lateral partnerships. A further priority for ORS will be to strengthen coordination groups across government; at chief executive and senior manager levels for the Booster Program and the 2020 Program management, developing and deepening the key bi-lateral delivery partnerships as well as developing tools to assist vertical coordination. A dedicated, funded coordination unit is recommended.

- ORS and partners will need to review the legislative needs for achieving the Towards Zero proposed target for 2020 during the Booster Program, including agency duties and roles. It would also be in line with international good practice for ORS to take the lead for the facilitation, development and coordinated implementation of Towards Zero policy and legislation. Capacity will also be needed to support the management of interventions developed by other agencies targeting innovative safety engineering, general deterrence enforcement and improved post-crash services as well as the ORS further developing its associated social marketing programs.

- Securing sustainable funding for the Booster Program and the 2020 strategy will require priority review. It is fundamental to achieving progress to the Towards Zero goals that additional funding to at least the levels set out in Table 5.1 below is secured. The lead agency will need to identify and pursue proposals for new funding mechanisms and sources and assist the key agencies with business case development to enhance resource allocation decisions.

- The ORS and partners will need to promote the activities of the Booster Program as the spearhead of the Towards Zero strategy in a specially funded campaign. This will be a
crucial vehicle for the government to signal to partners, stakeholders and the wider community what is meant by a Safe System approach, the benefits it confers on all, and the shared societal responsibility critical to its success. As indicated by the Chair of the RSC, broad multi-sectoral communication with the engagement of senior management is needed to draw in the community and business sector to better understand the shared responsibilities for Towards Zero and ORS will need to play a leading coordinating role in this promotion.

- The research and development and knowledge transfer tasks are important to the further development of Towards Zero. The ORS will need to press for the development and provision of updates on effective intervention, good practice guidelines, survey protocols, crash analysis tools, and in-service training by all agencies which will all be important to securing the rapid knowledge transfer goals of the Booster Program. It is crucial that ORS continues to play a key role in leading the review of research needs and building capacity for their direction and management.

Strengthening lead agency capacity to conduct these tasks will require dedicated unit(s) in all these areas in the ORS’s Policy and Strategy Branch. In this way, the Booster Program can start to develop the capacity will be needed for effective implementation of the broader, ongoing 2020 Program.

**(ii) Targeted multi-sectoral intervention**

The Booster Program would be a well-targeted exercise, concentrating on evidence-based activity across the sectors on relatively small high-risk sections of the urban and regional network.

In order to produce rapid results it is recommended that the booster program “demonstration projects” target sections of the road network with higher concentrations of death and serious injuries to maximize the scale of likely benefits and certainty of achieving them. Certain portions of the State and city networks experience a larger relative proportion of WA’s overall road deaths and injuries and can be targeted accordingly.

**Box 5.2 Towards Zero Booster Program: Key interventions**

- **Regional and urban arterial road focused programs**
  - safety engineering (run-off road and intersections)
  - combined police enforcement and publicity
  - enhanced emergency medical response
  - program publicity at community level including schools and health facilities
  - local government involvement
  - targeted speed limit reviews where risks are high

- **Urban residential areas x 2**
  - review speed limits (MRWA and LG)
  - area-wide traffic management and self-enforcing traffic calming
  - some combined police enforcement and publicity
  - enhanced emergency medical response
  - program publicity at community level including schools and health institutions
  - local government commitment essential

**Regional arterial road focused safe system program and contributors**

- by ORS and partners: identifying and agreeing the safety performance framework of the program, roles and accountabilities;
- by ORS and partners: identifying baseline surveys and data needs;
- by MRWA: 100 km of highway radiating from Perth to be treated per year (from 2011/2012 to 2013/2014) with infrastructure safety measures to address run off road crashes (see below), based on substantial (eg., 25 km) sections treated in each
location. (Commence with planning in 2010/2011, additional funding of $30m. in 2011/2012, increasing to $60m. in 2012/2013 and to $90m. in 2013/2014.);

- by WA Police; speed, drink driving and seat belt wearing enforcement at the recommended intensity suggested by the MUARC (Cameron) Report for speed and by best practice drink driving enforcement and seat belt wearing enforcement, all at times which reflect known higher risk behaviours. (Additional operational cost estimates need to be developed by WA Police);

- additional resourcing by DoH to provide emergency response in accordance with targeted standards;

- promotional campaigns lead by ORS through local government and local communities to strengthen awareness of activities, their purpose and to support and combine with deterrence activity by Police. (ORS to develop cost estimates); DoH to augment information provision through local health facilities

- review of speed limits by MRWA in consultation with local government at higher risk locations where infrastructure treatments not feasible, such as intersections, or through towns;

- monitoring of safety outcomes and outputs by ORS and reporting to the government and public through the RSC.

**Urban arterial (metro) safe system program and contributors:**

- by ORS and partners: identifying and agreeing the safety performance framework for the program, roles and accountabilities;

- by ORS and partners: identifying baseline surveys and data needs;

- by MRWA; Treatment of higher crash risk intersections on urban arterials in Perth, with infrastructure safety measures (see below), (commencing with planning in 2010/2011, design and service relocation in 2011/2012 with funding of $ 2m., service relocation and construction in 2012/2013 with funding of $5m and construction in 2013/2014 with funding of $10m. for treatments at an estimated 8 locations)

- by WA Police; speed, drink driving and seat belt wearing enforcement at the recommended intensity suggested by the MUARC (Cameron) Report for speed and by best practice drink driving enforcement and seat belt wearing enforcement, all at times which reflect known higher risk behaviours on the route on which the treatments take place. (Additional operational cost estimates need to be developed by WAPOL)

- Additional resourcing by DoH to provide emergency response in accordance with targeted standards

- Promotional campaigns lead by ORS through local government and local communities to strengthen awareness of activities, their purpose and to support deterrence activity by Police. (ORS to develop cost estimates). DoH to augment information provision through local health facilities.

- Review of speed limits by MRWA in consultation with local government at higher risk locations where infrastructure treatments not feasible on the route, or through higher pedestrian activity areas on the route on which the treatments take place.

- Monitoring of crash outcomes by ORS and reporting to the government and public through the RSC.

**Urban residential street speed limit reduction trials in areas of two municipalities and contributors**

- by ORS and partners: identifying and agreeing the safety performance framework of the program, roles and accountabilities;

- by ORS and partners: identifying baseline surveys and data needs;

- Signage by local government with MRWA support;

- Some minor infrastructure (traffic calming etc) by local government;

- Some combined police enforcement and publicity (by ORS and local government);
 Setting performance targets for the Booster Program “demonstration projects”

It is recommended that performance targets are set for the identified higher risk corridors and areas which are to be treated as part of the Booster program. These should take the form of final outcomes, intermediate outcomes, and outputs. Every effort must be made to get reliable baseline estimates of current performance in the targeted corridors and areas and this will require combining available police and health sector data.

- Adopt the *TZ long-term vision* - for the sections and areas treated - of eliminating deaths and serious injury;
- Develop and adopt interim outcome targets for projects e.g. challenging but achievable % reduction in deaths and serious injuries for all users within the lifetime of the program;
- Develop and adopt intermediate outcome targets for the projects e.g. challenging but achievable reductions in mean speed, excess speed, drinking and driving; increases in Enhanced AusRAP star ratings; increases in % ANCAP ratings for occupational fleets in area; increases in helmet and seat belt use, increases in emergency medical response within the lifetime of the program, and safe system intermediate outcomes such as increases in proportion of intersections which meet safe system requirements, increase in lengths of highways where run off road hit fixed object crashes are not possible, or where risk is reduced (through sealed shoulders and tactile edgeline and centreline) and proportion of higher pedestrian use precincts where speed limits are safe system compliant.;
- Develop and adopt Institutional outputs e.g. a specified number of speed checks, breath tests, seat belt and crash helmet checks, intersections treated, lengths treated, pedestrian areas treated with lower limits.

(iii) Policy reforms

In parallel with the focus on high-risk corridors and areas through the *Towards Zero Booster Program*, it is recommended that the program also addresses the State policy reform priorities identified by the capacity review and highlighted as a mainstream component of the *Towards Zero Investment Strategy to 2020* discussed in Section 5.2.

Where relevant and feasible, addressing these priorities on a longer term statewide basis should be informed by the booster project activity to progress effective policy reform.
Table 5.1 Priority recommendations for Towards Zero Booster Program to 2014

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<th>Build lead agency capacity within the Booster Program. The ORS would be expected to act as the program owner of the Towards Zero Stimulus Program, reporting to the RSC, Chief Executives Group and Ministerial Council; to develop and agree with partners the program outcome and output targets, indicators, baseline data and accountabilities comprising its results focus across the road safety partnership, coordinate and promote activities, monitor crash outcomes, report these outcomes to the government and public through the RSC and start to support appropriate knowledge transfer activity concerning study tours and in-service training. Review of the programs in 2013/2014 would provide the basis for recommendations to government about the scale and focus of ongoing programs. Lead agency capacity to conduct these tasks would require new dedicated unit(s) to be established in the ORS’s Policy and Strategy Branch in support of the range of management functions involved in the Booster Program as outlined in 5.1.1 and in driving and monitoring delivery of the underlying 2020 Program.</th>
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<td>Establish a funded program of demonstration projects on high-volume state roads, targeting run off road crashes on rural arterials radiating out from Perth into regional WA and intersections on high volume urban arterials in Perth with higher crash risk, through: infrastructure measures, supported by intensive deterrent policing and combined publicity, additional resourcing for an enhanced emergency medical response by DoH, publicity by the ORS through local government and local communities about the program objectives supplemented by speed limit reviews in high risk locations where the risk cannot adequately be reduced by the infrastructure treatments, and where pedestrian activity is higher. Some targeted area-wide speed management in residential streets is also recommended as a third demonstration activity through MRWA with local government support and some police enforcement with publicity by local government. Ramp up of the full level of investment envisaged in the MUARC advice for Towards Zero about infrastructure safety programs needs to be informed by a more complete analysis of crash risk on the WA arterial (and local road) network and improved awareness of the efficacy of alternative treatment options. This process of full review of risk and treatment options would be assisted by the implementation of the recommended Booster (demonstration) program over 3 years from 2011/2012 which will enable understanding and insights to be developed by MRWA and by Local Government practitioners including the use (with progressively increasing availability for application) of emerging tools such as the National Risk Assessment Methodology or the enhanced AusRAP. The deterrence policing activity and associated publicity will require specific allocations of resource. The additional speed camera equipment proposed (and strongly endorsed in this review) in the MUARC (Cameron) Report will upon implementation, give police sufficient equipment resource for state wide activity and delivery of benefits and the Booster Program demonstration project sections of the arterial network would be an important focus of increased activity drawing on the increased capacity. The publicity programs for the Stimulus enforcement activity will require additional funding (to be determined by the ORS). An overall promotional campaign should be carried out to position the Booster Program as the spearhead of the TZ strategy. This will enable government to signal to partners, stakeholders and the wider community what they mean by a Safe System approach and to spell out the shared responsibility inherent to the safe system model. Adequate resourcing will again be an issue for ORS.</td>
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<td>Establish a funded program of demonstration projects on high-volume state roads, targeting run off road crashes on rural arterials radiating out from Perth into regional WA and intersections on high volume urban arterials in Perth with higher crash risk, through: infrastructure measures, supported by intensive deterrent policing and combined publicity, additional resourcing for an enhanced emergency medical response by DoH, publicity by the ORS through local government and local communities about the program objectives supplemented by speed limit reviews in high risk locations where the risk cannot adequately be reduced by the infrastructure treatments, and where pedestrian activity is higher. Some targeted area-wide speed management in residential streets is also recommended as a third demonstration activity through MRWA with local government support and some police enforcement with publicity by local government. Ramp up of the full level of investment envisaged in the MUARC advice for Towards Zero about infrastructure safety programs needs to be informed by a more complete analysis of crash risk on the WA arterial (and local road) network and improved awareness of the efficacy of alternative treatment options. This process of full review of risk and treatment options would be assisted by the implementation of the recommended Booster (demonstration) program over 3 years from 2011/2012 which will enable understanding and insights to be developed by MRWA and by Local Government practitioners including the use (with progressively increasing availability for application) of emerging tools such as the National Risk Assessment Methodology or the enhanced AusRAP. The deterrence policing activity and associated publicity will require specific allocations of resource. The additional speed camera equipment proposed (and strongly endorsed in this review) in the MUARC (Cameron) Report will upon implementation, give police sufficient equipment resource for state wide activity and delivery of benefits and the Booster Program demonstration project sections of the arterial network would be an important focus of increased activity drawing on the increased capacity. The publicity programs for the Stimulus enforcement activity will require additional funding (to be determined by the ORS). An overall promotional campaign should be carried out to position the Booster Program as the spearhead of the TZ strategy. This will enable government to signal to partners, stakeholders and the wider community what they mean by a Safe System approach and to spell out the shared responsibility inherent to the safe system model. Adequate resourcing will again be an issue for ORS.</td>
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<td></td>
<td>Regional arterial program The regional arterial run off road crash treatment component of the program would include an infrastructure safety component of additional funding for three years from 2011/2012 (see table below) for safe system improvements to the higher risk sections of the regional arterial network. Potentially 100 km per year (at the funding levels from year 4) of the network would be treated with sealed shoulders, tactile lining (plus wire rope barriers for some higher risk portions of the length) and hazard removal where feasible. The infrastructure program would be supported by activities by other agencies as outlined earlier on the lengths of network which become a focus of this Towards Zero Booster Program. The benefits of this program will also be augmented by steadily increasing proportions of vehicles in the WA fleet with electronic stability control and lane departure warning technology.</td>
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|   | Urban (metro) arterial program The urban (metro) arterial intersection crash treatment component of the program would include an infrastructure safety component of additional funding for three years from 2011/2012 (see table below) for safe system improvements to the higher risk sections of the regional arterial network. Potentially 100 km per year (at the funding levels from year 4) of the network would be treated with sealed shoulders, tactile lining (plus wire rope barriers for some higher risk portions of the length) and hazard removal where feasible. The infrastructure program would be supported by activities by other agencies as outlined earlier on the lengths of network which become a focus of this Towards Zero Booster Program. The benefits of this program will also be augmented by steadily increasing proportions of vehicles in the WA fleet with electronic stability control and lane departure warning technology. |

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<tr>
<td>Planning</td>
<td>$30m</td>
<td>$60m</td>
<td>$90m</td>
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Eric Howard and Associates, Jeanne Breen Consulting, Tony Bliss, Bruce Corben, September 2010
infrastructure safety component of additional funding for three years from 2011/2012 (see table below) for safe system improvements to the intersections on high volume urban arterials in Perth with higher crash risk, potentially up to 8 intersections treated in year 4 with roundabouts, with platforms on the minor roads or other treatments. The infrastructure program would be supported by activities by other agencies as outlined earlier on the lengths of network on which the intersections are treated in this Towards Zero Booster Program.

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<td>Planning</td>
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<td>$5m</td>
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5 Urban residential street speed limit reduction trials in areas of two municipalities
A targeted speed limit reduction in an area of residential streets in two urban municipalities is recommended, lead by MRWA with support and publicity from the relevant local government and some enforcement by Police. Funding support by State government would need to be determined.

6 Policy reforms relevant to the booster program areas
Reviews might include: road planning and design standards against Safe System principles; police action and combined publicity on speed and drinking and driving against best practice deterrence principles; vehicle standards and safety ratings against international best practice; funding and resource allocation processes; legislative needs of Towards Zero; the development of a new work-related road safety strategy. These policy areas are a mainstream focus of the Investment strategy to 2020, see Section 5.2

5.2 Towards Zero Investment strategy for the medium term (to 2020)

Statewide policy reform priorities identified by the capacity review will be among key issues to be addressed through the Towards Zero Investment Strategy to 2020, some of which will be necessary for and overlap with the effective management of Booster Program intervention.

Examples of policy reform priorities identified in the capacity review include Review of:

- road planning and design standards against Safe System principles
- police action on speed and drinking and driving against best practice deterrence principles.
- State vehicle standards and safety ratings against international best practice.
- funding and resource allocation processes and commitments
- legislative, regulatory and data system needs of Towards Zero
- support for the development of a new work-related road safety strategy.

Priority recommendations from the review also address institutional delivery by the lead agency and its key partners of the necessary key interventions to achieve road safety results. All detailed recommendations for the medium term to 2020 are set out in Table 5.2.

The higher level issues which are addressed by the detailed recommendations are:

- formally adopting the Towards Zero target of a 40% reduction in deaths and serious injuries
- strengthening the dedicated management capacity of the ORS the lead agency, in particular, in the carrying out of its leadership, coordination and advisory role in government as well as supporting capacity development in the State and local roads authorities.
- establishing the necessary results focus for WA through assembly of a robust safety performance framework for agencies collectively and individually (with indicators for outcomes, intermediate outcomes (including individual safe system elements) and institutional outputs, adoption of agreed targets for improvement in those indicators over the period to 2020, together with a clear documented and agreed statement of each agency’s road safety role, and repositioning agency policies for Towards Zero needs, especially in State roads and local authorities, WA policing, occupational safety, insurance, transport and health sectors. Agencies to provide twice yearly reporting of results to the RSC and to Ministers;
- establishing and specifically funding a Towards Zero Booster Program to 2014 as the priority next step in knowledge transfer, TZ implementation and capacity development.
gaining substantially increased funding through the development of quality business cases and achieving introduction of new funding mechanisms while following through to ensure key specific initiatives receive required funding.

Improving horizontal and vertical coordination within government and delivery partnerships with business, civil society and elected representatives (by the ORS and all relevant agencies). Local government support by ORS and MRWA through regional MRWA engagement on road safety issues, supported centrally by ORS; MRWA to give local government more flexibility in application of Safe System treatments and reduced speed limits on their road networks, reflecting safe system understanding; Using the current review of State funding for local government infrastructure to renew the focus on safety engineering, to mainstream safety into local government infrastructure, and to link allocations to infrastructure related safety performance. Encouraging bi – partisan support with parliamentary and councillor engagement, promotion and monitoring of Towards Zero to underpin awareness and political priority for road safety (as the leading cause of major trauma for the health service; the leading cause of death for infants and school aged children and young people (1-24 years) and a major source of public concern.)

- driving innovative public promotion based on an effective communication strategy to alert the community to the realities of risk and road use and the shared responsibility for effective action to reduce that risk.
- promoting the availability and benefits of safer vehicles to the community and encouraging improved community safety standards through role modelling behaviour within government and through other actions (eg. High levels of vehicle safety for work related settings)
- monitoring, evaluation and reporting of performance will be vitally important with ORS, MRWA and WA Police to lead.
- Establishing a Towards Zero research and development strategy.
- building rapid knowledge transfer processes and tools. ORS, key governmental partners and professional organisations to actively develop tools for knowledge transfer across the road safety stakeholders based on good practice, particularly on safe system treatments, and establish short in-service Safe System courses relevant to the work of every key agency and local government.
- implementing priority interventions and revising associated guidelines and standards across the road traffic system for improved infrastructure safety and vehicle safety (nationally as well as statewide), GLS upgrades, safer road use measures, effective access to data by police for enforcement activity and enhanced recovery and rehabilitation of crash victims.
### Table 5.2 Recommendations for Towards Zero Investment Strategy to 2020

**INSTITUTIONAL MANAGEMENT FUNCTIONS**

<table>
<thead>
<tr>
<th>1</th>
<th>Results focus: Establish a clear safety performance framework and agency accountabilities to 2020</th>
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<tbody>
<tr>
<td>1.1</td>
<td>Strengthen lead agency capacity in the Policy and Strategy Branch of the governmental lead agency - ORS - in support of results focus actions, the oversight of which is the lead agency's responsibility on behalf of government. ORS to focus on the State performance framework.</td>
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<tr>
<td>1.2</td>
<td>Confirm agency responsibilities for achieving Towards Zero results. Led by the governmental lead agency ORS, review and formally establish the role and duties of the key agencies to deliver Towards Zero using as appropriate legislation; annual performance agreements; agency operational strategies; Memoranda of Understanding. Reposition agency policies for Towards Zero needs, especially in State roads, WA policing, occupational safety, insurance and health sectors and work with WALGA and IPWE to achieve in local authorities.</td>
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<td>1.3</td>
<td>Work towards a best practice framework for 2020 results. Develop via further modelling (where necessary) and demonstration projects a safety performance framework to 2020 which links final outcomes, intermediate outcomes and institutional outputs wherever possible for key areas of activity identified in Towards Zero.</td>
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<td>1.4</td>
<td>Share final outcome targets. Adopt the Towards Zero intermediate outcome target of a 40% reduction in annual deaths and a 40% reduction in serious injuries by 2020, (compared to the 2005 to 2007 average levels) as set out in Towards Zero and report on agency annual performance agreements (ORS, Main Roads WA, DoT, WA Police, DoH, WorkSafe and ICWA). Encourage local government adoption of overall outcome targets.</td>
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<tr>
<td>1.5</td>
<td>Share intermediate outcome targets. Develop and adopt performance targets to 2020 (and a shorter term if necessary) for the four safe system elements of Towards Zero and apply to ORS, Main Roads, DoT, WA Police, DoH, WorkSafe and ICWA with reference to those adopted by the RSC and in international good practice:</td>
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<tr>
<td>1.6</td>
<td>Establish agency outcome and institutional outputs. Establish further agency-specific targets and indicators for outcomes and outputs for all governmental signatories of TZ for annual performance agreements (e.g. number of vehicles assessed for speed compliance per month and emergency medical response indicators), linking outcome and output targets where possible and through further modelling where necessary. The NZ Road Safety to 2010 targets and the MUARC speed recommendations provide clear good practice examples. Differentiate between headline measures to be monitored and reported and other more detailed measures to be utilised which assist operational management.</td>
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<td>1.7</td>
<td>Require agency reporting. Require reporting on performance measures a minimum of twice a year to Chief Executives, the RSC, and then to the Ministerial Council (and the new committees proposed by this review.)</td>
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<tr>
<td>1.8</td>
<td>Make key agency leadership accountable. Include KPIs for targeted reductions in serious and fatal casualties adopted for the State in employment contracts of senior executives of these agencies.</td>
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<tr>
<td>1.9</td>
<td>Require lead agency accountability for reporting. The ORS should assume responsibility for preparing this report on agency performance which should also be published on the ORS website, as recommended by the Chair of the RSC.</td>
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**2 Coordination**

| 2.1 | Strengthen lead agency capacity by establishing a dedicated coordination unit in the Policy and... |
2.2 Enhance decision-making mechanisms across Government. The recent decision to establish a Chief Executive’s group meeting 3 times a year and agreeing priorities for recommendations to the Ministerial Road Safety Council is strongly supported. It is recommended that the road safety decision-making hierarchy is strengthened further by establishing a further grouping of Senior Managers from the same key agencies (including ORS, MRWA, DoT, WAPOL, ICWA, (Education, DoH, WorkSafe, Local Govt. Rep, Planning attend as necessary) meeting regularly with a focused agenda and clear accountabilities to support their CEs and the MRSC in policy development and implementation. The Chair of the RSC should be invited to attend the CE and NRSC meetings.

2.3 Strengthen bi-lateral partnerships and business sector involvement. The ORS and WorkSafe should strengthen its bi-lateral partnership to produce a work-related road safety strategy which provides guidance to employers on how to take forward Towards Zero strategies and measures and to deliver their duty to prevent loss of life and injury in the workplace. WorkSafe should be invited to join the RSC. The potential of the important ORS/WA Police partnership combining publicity and enforcement should be fully realised. The ORS/Department of Planning is encouraged to review in conjunction with local government and to introduce area-wide road safety impact assessment in land-use planning and State (especially ORS, MRWA, WAPOL, Planning, MoT) and Local governments should work to improve the strategic nature of their engagement through Memoranda of Understanding or other mechanisms to balance the strongly operational nature of current activity.

2.4 Galvanise local government involvement. Notwithstanding the efforts of WALGA, RoadWise supported by the RTTF in the promotion of Safe System approaches and the Councils keen to progress safer communities the following actions are recommended:

2.4.1 The road safety duty of local authorities. Government to establish a legal duty for local authorities to fully embrace road safety principles in their policies and operations;

2.4.2 Stimulating local activity. Main Roads and Local Government to use the current review of State government funding for local government infrastructure to renew the focus on urban and rural safety engineering programs and to mainstream safety into local government infrastructure through specific allocations requiring key safety performance indicators agreed at State level;

2.4.3 The computer says no! Main Roads and Local Government to establish mechanisms as soon as possible to give local government more flexibility in the ready application of international best practice in Safe System treatments and reduced speed limits on their road networks, rather than measure proposals against standards and guidelines which are not yet aligned to the knowledge.

2.4.4 Regional engagement through MRWA on road safety issues. The ORS could utilise identified capacity in Main Roads Regions to support development of a staff resource to provide a source of broadly based road safety advice to local governments and Road wise committees at local / regional level. These staff could be regularly briefed by the ORS and effective communication established. This is a further coordination task for which ORS will need to consider resourcing needs. MRWA will need to consider resourcing of a position in each region.

2.4.5. Support elected representatives. Encourage arrangements to facilitate bi-partisan parliamentary and councillor engagement, promotion and monitoring of Towards Zero road safety to assure political priority and sustainable funding to address road traffic injury, in view of the fact that it is the leading cause of major trauma for the health service; the leading cause of death for infants and school aged children and young people (1-24 years) and a major source of public concern.

3 Legislation

3.1 Strengthen lead agency capacity. The ORS should take the lead for the facilitation, development, proposal and coordination of implementation of Towards Zero legislation in conjunction with the responsible agency for the relevant legislation. Ensure that its policy sections comprise an appropriate balance of multi-disciplinary staff capacity and that clear, agreed procedures for sign off by responsible agencies are in place.

3.2 Establish duties and accountabilities in legislation where appropriate to meet Towards Zero needs and establish a legal duty for carrying out road safety activity in support of the State road safety strategy for local government. (see results focus and coordination);

3.3 Continue to improve the legislative framework for key interventions by adopting RSC proposals, particularly on owner onus, graduated licensing systems, scooters, extraordinary license after disqualification for a drink driving offence, mandatory alcohol testing and alcohol interlocks.

3.4 Ensure that the powers of proposing legislation and enforcing it should be separated at agency level in line with international good practice.

4 Funding and resource allocation: Increase funding, review funding sources and mechanisms and develop business cases to achieve 2020 results.
| 4.1 | Strengthen lead agency capacity. The ORS has the major role in managing the funding of road safety programs through the Road Trauma Trust Fund and facilitates evaluation of project cost-effectiveness and project prioritisation. Capacity is needed to help identify and pursue proposals for additional core funding, new funding mechanisms and sources and to assist the key agencies with business development cases. |
| 4.2 | Increase levels of core funding in priority areas: Increased funding to match the levels identified for delivery of the strategy is crucial. A listing of original funding needs identified in the recommended strategy, plus the priority action list agreed in March 2010 by the RSC, plus actual funding available in 2010/2011 is attached as Appendix 6. |
| 4.2.1 | Review policy to allow re-positioning and increased priority for road safety engineering in core budgets at national, State and local levels. |
| 4.2.2 | Identify targeted urban and rural safety engineering projects on State roads (major gains by 2020) and identify targeted infrastructure projects on local government roads producing highest benefits to cost. Main Roads WA and local government need to prioritise the higher-volume, higher-risk road sections which will provide best safety returns for targeted investment measures or for targeted speed limit reviews. (See Recommendation 8.6) Programs would be focused on (i) single vehicle run-off-road crashes in rural areas; and (ii) intersection crashes and pedestrian safety measures in urban areas (as proposed in TZ and in MUARC work). |
| 4.2.3 | Implement MUARC speed management recommendations, especially for additional mobile camera and hours of operation (major early gains) and combined publicity (WAPOL, ORS). |
| 4.2.4 | Prepare a State program for combined publicity and enforcement programs on drinking and driving. The reduction in alcohol testing levels and the survey evidence of public perception that testing has diminished is of concern. Road safety authorities are encouraged to continue their road safety actions (e.g. driving enforcement – WAPOL is encouraged to conduct a brief review of drink driving enforcement activity [seeking the best balance for WA between detection and deterrence policing] utilising MUARC input; providing supporting education campaigns that focus on enforcement and also tackling community attitudes and beliefs about alcohol and driving). |
| 4.2.5 | Prepare a State program for combined publicity and enforcement on non wearing of seat belts, child restraints and crash helmets, and mobile phone use. |
| 4.2.6 | Prepare and fund multi-sectoral demonstration projects (including particularly the Booster program set out in Section 5.1) in the short term, concurrent with or to prepare for Statewide roll out of interventions. |
| 4.3 | Review funding sources and mechanisms ORS should lead a review of existing funding sources as well as potential new mechanisms to secure sustainable, annual funding. Particular consideration should be given to funding from consolidated revenue, reoriented priorities within available overall roads funding (e.g. earmarking a percentage of existing Main Roads WA funding for safety engineering, over and above Safer Roads and Black Spot programs), an increased ICWA contribution (combining ICWA and new Government funding for infrastructure safety projects), a portion of national infrastructure funding, royalties for regions, an increased proportion (100%) of the net offence revenue diverted to the RTTF and other means, such as a levy on new motorcycle sales to address high risk sections of the network. |
| 4.4 | Develop business cases Develop strong business cases for projects based on cost benefit analysis where appropriate, cost-effectiveness and ‘strategic fit’ for these increased expenditures using core funding, RTTF funding and insurance funding. For example, the RSC should ask the ICWA Board for their support in requesting the preparation of necessary detailed business cases for investment in targeted road safety – infrastructure – perhaps in association with part government funding for projects, i.e. joint funding. The RSC could seek MRWA’s contribution to this process by leading the commissioning of necessary business case work involving agencies. Use of WTP in line with international good practice, will increase the value of preventing death and disability and raise the importance of road safety projects relative to other competing societal interests. It is important that the Value of Statistical Life (VoSL) is updated periodically. |
| 5 | Promotion: Increase promotion to encourage public demand for road safety to achieve 2020 results |
| 5.1 | Lead agency capacity / resourcing to lead the development and focus on the above issues is essential. |
| 5.2 | Draw up and propose a high-level strategy for the high-level multi-sectoral promotion of Towards Zero (ORS) to explain to the wider community the limits of current protection in the road traffic system and the case for speed management as a public health issue rather than a transport issue. It would target improved societal understanding of the high and avoidable numbers of deaths and serious injuries on the road and the need for shared responsibility. Activity would be monitored by a global performance indicator. |
5.3 Government to promote and pursue work-related road safety initiatives to the community and lead by example with in-house policies. ORS and partners should expand their best practice efforts in creating a continuous demand for vehicle safety equipment through use of consumer information and in-house safety policies. WA should review State and organisational safe fleet policies and public procurement periodically to encourage the fitment of demonstrably effective technologies e.g., seat belt reminders, alcolocks, and ISA as well as other emerging technologies. WorkSafe could require all organisations to report the safety quality of their light passenger fleets in an agreed manner annually. Good practice by business should be promoted to the community. The ORS should explore with Industry opportunities to promote effectively to the community the innovative measures being pursued (and explored) on many WA work sites to improve road safety outcomes.

5.4 Seek bi-partisan support and engagement in Towards Zero promotion and implementation. For example, given the increasing level of fatalities involving drink driving in WA and the high proportion of alcohol involved driver/ rider fatalities in WA in 2009 compared to, for example, Victoria, (some 2.2 times), government may wish to consider the broad issue of alcohol accessibility, consumption and impacts in the community including its role in fatal road crashes being brought to the attention of the Parliament’s Health and Education Standing Committee currently conducting an Inquiry into “Review of alcohol treatment and issues in Western Australia”.

5.5 Encourage strong and sustained advocacy by NGO, professional, research sector and user organisations, particularly on speed and drinking and driving. Identify potentially influential high level road safety advocates through a systematic and resourced process. Develop programs to inform these advocates and develop their effectiveness in influencing WA community leaders.

6 Monitoring and evaluation

6.1 Strengthen lead agency capacity and establish a Safety Data Unit within the ORS’s Policy and Strategy Branch.

6.2 Review data bases, survey needs, data accessibility and ensure prompt publication of results once the safety performance framework supporting Towards Zero targets to 2020 has been agreed (ORS and key agencies).

6.3 Reporting. The ORS should be accountable on behalf of government for receiving six monthly data on all annually reported agency safety performance data and for reporting these twice a year to the RSC, Chief Executives and the Ministerial Council. A cross agency Memorandum of Understanding towards this end is recommended.

6.4 Ensure the data quality group under TZORG is adequately resourced and supported by agencies with high-level participation.

6.5 Use the WA Health Data Linkage System to understand trends and factors associated with serious injury (as distinct from deaths). Further dataset linkages are recommended in due course. The new ICWA crash injury database will provide a further monitoring tool.

6.6 Create capacity in Main Roads to enable MRWA to proceed rapidly to assess safety performance of the arterial road network and to give the necessary guidance and support to local government in assessing the safety performance of the local road network. Local government capacity needs to be substantially extended through WALGA, IPWEA, MRWA and ORS activity. The road crash data readily accessible to local government from the MRWAIRIS system is to be improved during 2011 and this should remain a priority action.

6.7 Extend Coronial Inquest capacity for review of road crashes.

7 Research and development and knowledge transfer

7.1 Ensure dedicated ORS capacity to coordinate the development of knowledge transfer tools and the State road safety research program.

7.2 Prepare a multi-disciplinary State road safety research strategy and program in support of Towards Zero and interim targets and continue to build external and internal research capacity.

7.3 Establish a multi-disciplinary expert advisory panel to contribute to annual review of research needs.

7.4 Develop knowledge transfer tools. The ORS and key governmental partners and professional organisations to actively develop tools for knowledge transfer based on good practice particularly on safe system treatments in rural areas and urban and residential areas, speed management and deterrence policing.

7.5 Develop a major educational effort aimed at senior management at official and political levels as well as at technical level to embed Towards Zero principles in the policies of the key agencies at State and local levels (ORS/RSC/WALGA).

7.5.1 Consider government study tours to key EU countries e.g., Sweden and Netherlands (to see infrastructure and speed measures working in tandem and to see range of transport safety policies) and to Australian States e.g., Victoria (graduated licensing and deterrent policing policies).

7.5.2 Establish short in-service Safe System courses relevant to the work of every key agency to transfer knowledge on Safe System principles and their successful application in WA, nationally and internationally.
**INTERVENTIONS**

<table>
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<tr>
<th>8</th>
<th>Planning, design, operation and use of the road network</th>
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<td>8.1</td>
<td>Building upon the important early steps taken by Main Roads WA and WALGA, current capacity within Main Roads and Local Government to review policies and guidelines to incorporate and implement Safe System road safety engineering principles needs to be expanded as rapidly as possible through in-service training, guidelines, study tours and demonstration projects.</td>
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<td>8.2</td>
<td>Main Roads WA should commence a review of its functional road hierarchy to better match function, speed limit, layout and design as soon as possible for use initially in demonstration projects.</td>
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<td>8.3</td>
<td>The Department of Planning is encouraged to review and introduce area-wide road safety impact assessment in land-use planning.</td>
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<td>8.4</td>
<td>Main Roads WA is encouraged to update its safety audit procedures to international best practice (5 stages) and the further development of Enhanced AusRAP.</td>
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<td>8.5</td>
<td>Main Roads is encouraged to establish a Project review committee for large projects to assist the embedding of understanding of safe system principles in project development. All road projects above an agreed value to be discussed in depth at concept stage by a senior Project Review Committee of Main Roads Directors and the proposing regional or major projects staff to identify critical safety issues and their potential resolution (and other issues including funding, traffic management, and scope of works).</td>
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<tr>
<td>8.6</td>
<td>MRWA and local government need to prioritise the higher-volume, higher-risk road sections which will provide best safety returns for targeted investment measures or for targeted speed limit reviews. Programs would be focused on (i) single vehicle run-off-road crashes in rural areas; and (ii) intersection crashes and pedestrian safety measures in urban areas (as proposed in TZ and in MUARC work), using Enhanced AusRAP tools and ratings where appropriate (for funding issues see recommendation 4 above and also the Towards Zero Booster program proposed in Table 5.1 in Section 5.1).</td>
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| 8.7 | Noting that public surveys indicate increased support from 2008 levels for targeted reductions in speed limits, it is recommended that:  
  - targeted speed limit reviews and reductions should be considered on higher-risk sections of the urban arterial network (60, 70 and 80 km/h sections);  
  - limits on arterials through higher pedestrian use locations such as strip shopping centres should be reduced to 40 km/h or lower.  
  - demonstration areas in residential areas of 30 km/h and 40 km/h should be encouraged and evaluated.  
  - more flexibility should be given to local governments requesting lower limits on their roads (and on State roads in their municipality). |
| 8.8 | Government is encouraged to build upon recent investment in some speed cameras, camera upgrades and upgraded back office systems by fully implementing the 2006 MUARC (Cameron) Speed Management Report recommendations, especially for additional mobile cameras and hours of operation to quickly achieve substantial serious casualty reductions. The investment would be self-funding. (See recommendation 4.2.3 on funding). |
| 8.9 | Given the increasing level of fatalities involving drink driving in WA, the reduction in testing levels and the survey evidence of public perception that testing has diminished, WA is encouraged to adopt outstanding proposals for mandatory blood testing and introduction of alcolocks. |
| 8.10 | Helmet and seat belt use needs periodic monitoring. |

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<tr>
<th>9</th>
<th>Entry and exit of vehicles to and from the road network</th>
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<tr>
<td>9.1</td>
<td>Develop an ORS/DoT strategy to address at national level gaps in the vehicle safety standard framework e.g. pedestrian protection, seat belt reminders in all seating positions, heavy vehicle underrun protection</td>
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<td>9.2</td>
<td>ORS and partners should expand their best practice efforts in creating a continuous demand for vehicle safety equipment through use of consumer information and in-house safety policies.</td>
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<tr>
<td>9.3</td>
<td>WA should review State and organisational safe fleet policies and public procurement periodically to encourage the fitment of demonstrably effective technologies e.g. seat belt reminders, alcolocks, and ISA as well as other effective emerging technologies.</td>
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<td>9.4</td>
<td>WA could give early consideration to the use of advisory ISA in graduated licensing schemes for novice drivers.</td>
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<tr>
<th>10</th>
<th>Entry and exit of road users to and from the road network</th>
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<tr>
<td>10.1</td>
<td>Increase the age of access to cars and two wheeled vehicles in line with international good practice</td>
</tr>
</tbody>
</table>
| 10.2 | Review GDL to introduce progressively best international practice e.g.:  
  - passenger restrictions in first year of probationary driving. |
- zero BAC to at least 22 years (as in Victoria),
- lower demerit point based suspension threshold for first years of probationary licensing,
- increased probationary license period to at least 4 years and recommended (voluntary) minimum of 120 hours of supervised practice for the total learner phase.

| 10.3 | DoT and ORS to jointly pursue means to increase the accessibility of licensing and offence mass data within TRELLIS for cost effective road safety research and evaluation purposes |
| 10.4 | DoT and ORS to jointly pursue means to meet local disadvantaged community needs for support for licensing access and encouragement of improved compliance with material road safety regulations |

### 11 Recovery and rehabilitation of crash victims from the road network

| 11.1 | The Road Safety Council and the Department of Health should acknowledge the emergency medical and trauma service as a system provider for road safety in day to day strategic management processes. |
| 11.2 | The Department of Health should review a) the level of permanent disability resulting from road traffic crashes and b) the potential for increased contribution of emergency medical services, trauma care and rehabilitation in WA of reducing road deaths and serious injuries. |
| 11.3 | While rolling out mandatory first aid requirements for the general driving population is not cost-effective, the Departments of Health and Transport should consider basic first aid support in commercial and public transport (buses, coaches, taxis) in driver testing in line with WHO advice. |
Bibliography
6. Bibliography


CAMERON M, and DELANEY A, Development of strategies for best practice speed enforcement in Western Australia, Final Report, Monash University Accident Research Centre, September 2006


INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALIA (Western Australia Division) INC. (2010): Annual Report, Perth.


LOGAN D, and CORBEN B. Towards Zero Implementation Action Prioritisation, Monash University Accident Research Centre, June 2009


Melbourne.


OFFICE OF ROAD SAFETY, *Regional Road Safety Planning – A Guide*, Office of Road Safety, Perth, Western Australia

OFFICE OF ROAD SAFETY, *Road Safety Partnership Program*, Office of Road Safety, Perth, Western Australia


WESTERN AUSTRALIA POLICE, *TRAFFIC POLICING STRATEGY, 2008 – 2010*, Western Australia Police, Perth
Appendices
### APPENDIX 1: World Bank Road Safety Management Capacity Review Checklists (2009)

#### Checklist 1: Results focus at system level

<table>
<thead>
<tr>
<th>Questions</th>
<th>Yes</th>
<th>Partial</th>
<th>Pending</th>
<th>No</th>
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<tbody>
<tr>
<td>Are estimates of the social costs of crashes available?</td>
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<tr>
<td>Are data on road deaths and injuries readily available?</td>
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<tr>
<td>Have the risks faced by road users been identified?</td>
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<tr>
<td>Drivers?</td>
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<tr>
<td>Passengers?</td>
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<tr>
<td>Motor cyclists?</td>
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<tr>
<td>Pedestrians?</td>
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<td>Cyclists?</td>
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<tr>
<td>Children?</td>
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<tr>
<td>Others?</td>
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<tr>
<td>Has a national vision for improved road safety performance in the longer-term been officially set?</td>
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<tr>
<td>Have national and regional targets been set for improved safety performance?</td>
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<tr>
<td>Social cost targets?</td>
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<td>Final outcomes targets?</td>
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<td>Intermediate outcomes targets?</td>
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<td>Intervention output targets?</td>
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<td>At risk group targets?</td>
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<td>Industry targets?</td>
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<td>Other targets?</td>
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<tr>
<td>Have all agencies responsible for improved safety performance been identified and are they formally held to account for their performance required to achieve the desired focus on results?</td>
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<td>Highways?</td>
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<td>Planning?</td>
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<td>Justice?</td>
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<td>Education?</td>
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<tr>
<td>Others?</td>
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<tr>
<td>Have industry, community and business responsibilities for improved road safety performance been clearly defined to achieve the desired focus on results?</td>
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<td>Are regular performance reviews conducted to assess progress and make improvements to achieve the desired focus on results?</td>
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<tr>
<td>Has a lead agency been formally established to direct the national road safety effort to achieve the desired focus on results?</td>
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<tr>
<td>Is the lead agency role defined in legislation and/or policy documents and annual performance agreements to achieve the desired focus on results?</td>
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</tbody>
</table>

**Notes**

It is important to probe the risks faced by different road user groups, assisted by available data from highway agencies, police, hospitals and other sources. It is also important to locate and rank those sections of the road network with the highest concentrations of deaths and injuries, across the hierarchy of urban roads and the hierarchy of inter-urban roads. Where data are deficient or simply unavailable, extensive consultations with relevant groups may be required to identify user groups most at risk and to locate hazardous sections of the network. The best starting point for these discussions is within the health sector, particularly with the emergency services that attend to casualties in the pre-hospital phase.

The issue of acceptable and achievable levels of safety and related responsibilities and accountabilities must be addressed at the highest operational and ministerial levels, especially across the transport and health sectors. In this dialogue it is important to identify and discuss the scale of the national health toll incurred by road crashes, compared to other causes of death and injury in the country concerned.
## Checklist 2: Planning, design, operation and use of the road network

<table>
<thead>
<tr>
<th>Questions</th>
<th>Yes</th>
<th>Partial</th>
<th>Pending</th>
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</thead>
<tbody>
<tr>
<td>Have comprehensive safety standards and rules and associated performance targets been set for the planning, design, operation and use of roads to achieve the desired focus on results?</td>
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<tr>
<td>National roads? Regional roads? Provincial roads? City roads?</td>
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<tr>
<td>Are the official speed limits aligned with Safe System design principles to achieve the desired focus on results?</td>
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<tr>
<td>National roads? Regional roads? Provincial roads? City roads?</td>
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<tr>
<td>For each category of roads (national, regional, provincial, city) are compliance regimes in place to ensure adherence to specified safety standards and rules to achieve the desired focus on results?</td>
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<tr>
<td>Do the specified safety standards and rules and related compliance regimes clearly address the safety priorities of high risk road user groups to achieve the desired focus on results?</td>
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<tr>
<td>Do the specified safety standards and rules and related compliance regimes compare favorably with international good practice?</td>
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</table>

**Notes**

- Each country will have its own defined network hierarchy and the road categories assessed must be adjusted to this. The checklist is indicative of the network coverage required.

- Close attention should be paid to the safety standards that are set for road network design and the extent to which they are clearly defined within a hierarchy of roads and respond to identified road user risks.

- It is important to review road safety audits to ensure compliance with these standards and if network surveys and inspections are regularly carried out for safety maintenance and hazard identification purposes.

- Police enforcement of safety standards and rules must be carefully examined. Particular attention should be paid to police operational practices targeting unsafe behaviours, like speeding, drink-driving, and the non-wearing of safety belts and helmets.

- Likewise, police enforcement of the safety of commercial transport operations—both freight and passenger—must be reviewed.

- It is most important to assess if the overall scale of police enforcement initiatives is sufficient to ensure effective compliance. Experience in good practice jurisdictions indicates that up to 20% of total police budgets are dedicated to strategic road policing activities, with the emphasis being on general enforcement operations.

- The extent to which road user education and awareness campaigns are designed to support police enforcement initiatives should also be appraised.
### Checklist 3: Entry and exit of vehicles to and from the road network

<table>
<thead>
<tr>
<th>Questions</th>
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</thead>
<tbody>
<tr>
<td>Have comprehensive safety standards and rules and associated performance targets been set to govern the entry and exit of vehicles and related safety equipment to and from the road network to achieve the desired focus on results?</td>
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<tr>
<td>Private vehicles?</td>
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<td>Commercial vehicles?</td>
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<tr>
<td>Public transport vehicles?</td>
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<tr>
<td>Motor cycle helmets?</td>
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<tr>
<td>Cycling helmets?</td>
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<tr>
<td>For each category of vehicle and safety equipment (private, commercial, public, helmets) are compliance regimes in place to ensure adherence to the specified safety standards and rules to achieve the desired focus on results?</td>
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<tr>
<td>Vehicle certification?</td>
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<tr>
<td>Vehicle inspection?</td>
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<td>Helmet certification?</td>
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</tbody>
</table>

### Checklist 4: Entry and exit of road users to and from the road network

<table>
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<tr>
<th>Questions</th>
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</thead>
<tbody>
<tr>
<td>Have comprehensive safety standards and rules and associated performance targets been set to govern the entry and exit of road users to and from the road network to achieve the desired focus on results?</td>
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<tr>
<td>Private drivers and passengers?</td>
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<tr>
<td>- Cars?</td>
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<td>- Heavy vehicles?</td>
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<td>- Motorcycles?</td>
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<tr>
<td>Commercial drivers?</td>
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<td>Public transport drivers?</td>
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<td>- Taxis?</td>
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<td>- Buses?</td>
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<td>- Non-motorized vehicles?</td>
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<tr>
<td>For each category of driver (private, commercial, public) are compliance regimes in place to ensure adherence to the specified safety standards and rules to achieve the desired focus on results?</td>
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<tr>
<td>Driver testing?</td>
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<tr>
<td>Random checks?</td>
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<tr>
<td>Do the specified safety standards and rules and related compliance regimes clearly address the safety priorities of high-risk road user groups to achieve the desired focus on results?</td>
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<tr>
<td>Young drivers?</td>
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<td>Older drivers?</td>
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<td>Commercial drivers?</td>
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<tr>
<td>Public transport drivers?</td>
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### Note

The extent to which driver licensing standards take account of the higher crash risks of novice drivers and older drivers should be carefully considered.

### Checklist 5: Recovery and rehabilitation of crash victims from the road network

<table>
<thead>
<tr>
<th>Questions</th>
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<tr>
<td>Have comprehensive safety standards and rules and associated performance targets been set to govern the recovery and rehabilitation of crash victims from the road network to achieve the desired focus on results?</td>
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<tr>
<td>Pre-hospital?</td>
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<tr>
<td>Hospital?</td>
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<tr>
<td>Long-term care?</td>
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<tr>
<td>For each category of post-crash service (pre-hospital, hospital, and long-term care) are compliance regimes in place to ensure adherence to the specified safety standards and rules to achieve the desired focus on results?</td>
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<tr>
<td>Do the specified safety standards and rules and related compliance regimes clearly address the safety priorities of high-risk road user groups to achieve the desired focus on results?</td>
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<tr>
<td>Do the specified safety standards and rules and related compliance regimes compare favorably with international good practice?</td>
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### Note

Post-crash services merit close attention, especially in a world of middle-income countries where safety performance is poor and high benefit cost ratios can be anticipated from improved emergency and rehabilitation services.
### Checklist 6: Coordination

<table>
<thead>
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<tr>
<td>Are interventions being coordinated horizontally across agencies to achieve the desired focus on results?</td>
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<tr>
<td>Are interventions being coordinated vertically between national, regional, provincial and city agencies to achieve the desired focus on results?</td>
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<tr>
<td>Have robust intervention delivery partnerships between agencies, industry, communities and the business sector been established to achieve the desired focus on results?</td>
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<tr>
<td>Have parliamentary committees and procedures supporting the coordination process been established to achieve the desired focus on results?</td>
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</table>

**Note**
National coordinating bodies may exist, but unless their membership includes agencies that are fully accountable and funded for road safety results, experience suggests they will be ineffective. More specifically, in good practice countries these coordinating bodies are usually the extension of accountable lead agencies that own and use them as platforms for mobilizing resources and coordinating and focusing multi-sectoral partnerships in pursuit of agreed results.

### Checklist 7: Legislation

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<th>Questions</th>
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<tr>
<td>Are legislative instruments and procedures supporting interventions and other institutional management functions sufficient to achieve the desired focus on results?</td>
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<tr>
<td>Are legislative instruments and procedures supporting interventions and other institutional management functions regularly reviewed and referred to achieve the desired focus on results?</td>
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**Note**
Specialist skills will most likely be required to review road safety legislation. This will depend on the complexities of the legal codes and the extent to which they have been structured or restructured to consolidate previous legislation. Road safety legislation typically addresses road, vehicle and user

### Checklist 8: Funding and resource allocation

<table>
<thead>
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<th>Questions</th>
<th>Yes</th>
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<tr>
<td>Are sustainable funding mechanisms supporting interventions and institutional management functions in place to achieve the desired focus on results?</td>
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<td>Centre budget?</td>
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<td>Fees?</td>
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<tr>
<td>Other sources?</td>
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<td>Are formal resource allocation procedures supporting interventions and institutional management functions in place to achieve the desired focus on results?</td>
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<td>Cost effectiveness?</td>
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<td>Cost benefit?</td>
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<tr>
<td>Is there an official Value of Statistical Life and related value for injuries to guide resource allocation decisions?</td>
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<tr>
<td>Are funding mechanisms and resource allocation procedures supporting interventions and institutional management functions sufficient to achieve the desired focus on results?</td>
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**Note**
Identifying and quantifying total funding allocated to agencies for road safety can be difficult, particularly when it is embedded in broader sector budgets. However, it is important to seek high-level continuation of annual budget sources, processes and fixes.
## Checklist 9: Promotion

<table>
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<th>Questions</th>
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<tbody>
<tr>
<td>Is road safety regularly promoted to achieve the desired focus on results?</td>
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<tr>
<td>Overall vision and goals?</td>
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<td>Specific interventions?</td>
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<td>Specific target groups?</td>
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## Checklist 10: Monitoring and evaluation

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<tbody>
<tr>
<td>For each category of roads (national, regional, provincial, city) are sustainable systems in place to collect and manage data on road crashes, fatality and injury outcomes, and all related road environment/vehicle/road user factors to achieve the desired focus on results?</td>
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<tr>
<td>For each category of roads (national, regional, provincial, city) are sustainable systems in place to collect and manage data on road network traffic, vehicle speeds, safety belt and helmet wearing rates to achieve the desired focus on results?</td>
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<tr>
<td>For each category of roads (national, regional, provincial, city) are systematic and regular safety rating surveys undertaken to quality-assure adherence to specified safety standards and rules to achieve the desired focus on results?</td>
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<tr>
<td>Risk ratings?</td>
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<td>Road protection scores?</td>
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<tr>
<td>For each category of roads (national, regional, provincial, city) are systems in place to collect and manage data on the output quantities and qualities of safety interventions implemented to achieve the desired focus on results?</td>
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<tr>
<td>Safety engineering treatments?</td>
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<td>Police operations?</td>
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<td>Promotional activities?</td>
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<td>Driver training?</td>
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<tr>
<td>Vehicle testing?</td>
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<tr>
<td>Emergency medical services?</td>
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<tr>
<td>For each category of vehicles and safety equipment (private, commercial, public, helmets) are systematic and regular safety rating surveys undertaken to quality-assure adherence to the specified safety standards and rules to achieve the desired focus on results?</td>
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<tr>
<td>Vehicle safety rating?</td>
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<td>Helmet testing?</td>
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<tr>
<td>For each category of post-crash service (prehospital, hospital, long-term care) are systematic and regular surveys undertaken to quality-assure adherence to the specified standards and rules to achieve the desired focus on results?</td>
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<tr>
<td>Are regular surveys taken of road user and community attitudes to road safety interventions to achieve the desired focus on results?</td>
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<td>Are systems in place to monitor and evaluate safety performance against targets regularly to achieve the desired focus on results?</td>
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<tr>
<td>Do all participating agencies and external partners and stakeholders have open access to all data collected?</td>
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## Checklist 11: Research and development and knowledge transfer

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<td>Has national road safety research and development strategy been established to achieve the desired focus on results?</td>
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<tr>
<td>Vehicle factors?</td>
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<td>Highway factors?</td>
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<td>Institutional factors?</td>
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<td>Other factors?</td>
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<tr>
<td>Has an independent national road safety research organization been established to achieve the desired focus on results?</td>
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<td>Vehicle factors?</td>
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<td>Other factors?</td>
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<td>Have demonstration and pilot programs been conducted to achieve the desired focus on results?</td>
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<tr>
<td>Other factors?</td>
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<td>Are mechanisms and media in place to disseminate the findings of national road safety research and development to achieve the desired focus on results?</td>
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<td>Other?</td>
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### Checklist 12: Lead agency role and institutional management functions

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<td>Does the lead agency (or de facto lead agency/agencies) effectively contribute to the results focus management function?</td>
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<tr>
<td>- Appraising current road safety performance through high-level strategic review?</td>
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<tr>
<td>- Adopting a far-reaching road safety vision for the longer term?</td>
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<tr>
<td>- Analyzing what could be achieved in the medium term?</td>
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<td>- Setting quantative targets by mutual consent across the road safety partnership?</td>
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<tr>
<td>- Establishing mechanisms to ensure partner and stakeholder accountability for results?</td>
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<tr>
<td>Does the lead agency (or de facto lead agency/agencies) effectively contribute to the coordination management function?</td>
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<tr>
<td>- Horizontal coordination across central government?</td>
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<tr>
<td>- Vertical coordination from central to regional and local levels of government?</td>
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<tr>
<td>- Specifies delivery partnerships between government, non government, community and business at the central, regional and local levels?</td>
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<tr>
<td>- Parliamentary relations at central, regional and local levels?</td>
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<tr>
<td>Does the lead agency (or de facto lead agency/agencies) effectively contribute to the legislation management function?</td>
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<tr>
<td>- Developing and supporting legislation needed for the road safety strategy?</td>
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<tr>
<td>- Consolidating legislation?</td>
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<tr>
<td>- Securing legislative resources for road safety?</td>
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<tr>
<td>Does the lead agency (or de facto lead agency/agencies) effectively contribute to the funding and resource allocation management function?</td>
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<tr>
<td>- Ensuring sustainable funding sources?</td>
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<tr>
<td>- Establishing procedures to guide the allocation of resources across safety programs?</td>
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<tr>
<td>Does the lead agency (or de facto lead agency/agencies) effectively contribute to the promotion management function?</td>
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<tr>
<td>- Promotion of a far-reaching road safety vision or goal?</td>
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<td>- Championing and promoting at a high level?</td>
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<tr>
<td>- Multi-sectoral promotion of effective interventions and shared responsibility?</td>
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<td>- Leading by example with in-house road safety policies?</td>
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<tr>
<td>- Developing and supporting safety rating programs and the publication of their results?</td>
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<tr>
<td>- Carrying out national advertising?</td>
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<tr>
<td>- Encouraging promotion at the local level?</td>
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<tr>
<td>Does the lead agency (or de facto lead agency/agencies) effectively contribute to the monitoring and evaluation management function?</td>
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<tr>
<td>- Establishing and supporting data systems to set and monitor final and intermediate outcome and output targets?</td>
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<tr>
<td>- Transparent review of the national road safety strategy and its performance?</td>
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<tr>
<td>- Making any necessary adjustments to achieve the desired results?</td>
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<tr>
<td>Does the lead agency (or de facto lead agency/agencies) effectively contribute to the research and development and knowledge transfer management function?</td>
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<tr>
<td>- Creating a national road safety research strategy and annual program?</td>
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<tr>
<td>- Securing sources of sustainable funding for road safety research?</td>
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<tr>
<td>- Training and professional exchange?</td>
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<tr>
<td>- Establishing good practice guidelines?</td>
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<tr>
<td>- Setting up demonstration projects?</td>
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</table>

**Note:**

Refer to Annex 2.2 for a detailed description of the role of the lead agency in the identified institutional management functions and related country case studies.
### APPENDIX 2: Western Australia Road Safety Management Capacity Review.

#### List of Stakeholders Interviewed, June to August, 2010

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rob Johnson</td>
<td>Minister for Road Safety; Police</td>
<td>Minister for Road Safety, Police and Emergency Services</td>
</tr>
<tr>
<td>Professor C. D’Arcy Holman</td>
<td>Independent Chair Road Safety Council</td>
<td>School of Population Health M431, University of WA</td>
</tr>
<tr>
<td>Eric Lumsdon</td>
<td>Director General</td>
<td>Department of Planning</td>
</tr>
<tr>
<td>Lew Watts</td>
<td>General Manager Insurance</td>
<td>Insurance commission of Western Australia</td>
</tr>
<tr>
<td>Terri Agnew</td>
<td>General Manager, RAC</td>
<td>The Royal Automobile Club of WA (RAC)</td>
</tr>
<tr>
<td>Matt Brown</td>
<td>Head, Member Advocacy</td>
<td>The Royal Automobile Club of WA (Inc)</td>
</tr>
<tr>
<td>Rose Moroz</td>
<td>School Innovation and Reform Unit</td>
<td>Department of Education</td>
</tr>
<tr>
<td>Graeme Webb</td>
<td>Curriculum Development</td>
<td>Department of Education</td>
</tr>
<tr>
<td>Andrew Thompson</td>
<td>Director Syllabus Development and Resources</td>
<td>Department of Education</td>
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<tr>
<td>Mal Parr</td>
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</tr>
<tr>
<td>Menno Henneveld</td>
<td>Managing Director</td>
<td>Main Roads WA</td>
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<tr>
<td>Nina Lyhne</td>
<td>Executive Director</td>
<td>Worksafe</td>
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<tr>
<td>Dr Andrew Robertson</td>
<td>Director Disaster Management, Regulation &amp; Planning Public Health Division</td>
<td>Western Australian Department of Health</td>
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<tr>
<td>Kim Snowball</td>
<td>A/Director General</td>
<td>Western Australian Department of Health</td>
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<tr>
<td>Maxine Burrell</td>
<td>Trauma Program Manager</td>
<td>Department of Health Royal Perth Hospital, Emergency Department</td>
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<tr>
<td>Sudhakar Rao</td>
<td>State Director of Trauma</td>
<td>Department of Health Royal Perth Hospital, Emergency Department</td>
</tr>
<tr>
<td>Reece Waldock</td>
<td>Director General</td>
<td>Department of Transport</td>
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<tr>
<td>Ken Travers</td>
<td>MLA Shadow Minister for Transport</td>
<td>State Parliament</td>
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<tr>
<td>Engel Prendergast</td>
<td>Roadwise Regional Team Leader</td>
<td>WALGA</td>
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<tr>
<td>Michelle McKenzie</td>
<td>Executive Manager, Infrastructure</td>
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<tr>
<td>Iain Cameron</td>
<td>Executive Director</td>
<td>Office of Road Safety</td>
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<tr>
<td>Shayne Maynes</td>
<td>Assistant Commissioner</td>
<td>Western Australia Police, South Metropolitan Region</td>
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<tr>
<td>Michelle Fyle</td>
<td>Commander</td>
<td>Western Australia Police</td>
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<tr>
<td>Andrew Plunkett</td>
<td>Senior Research Analyst</td>
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<tr>
<td>Chris Sammells</td>
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<td>Western Australia Police</td>
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<tr>
<td>Richard Lange</td>
<td>Chief of Staff Minister of Police: Emergency Services: Road Safety</td>
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<td>G.A(Geoff)Stewart</td>
<td>Inspector</td>
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<tr>
<td>APM</td>
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<tr>
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<td>Mike Fountain</td>
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<td>Paul Davies</td>
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<td>Bono Yu</td>
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<td>Bruce MacDonnell</td>
<td>Executive Director, Perth, Peel and South West Planning and Strategy</td>
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<tr>
<td>Alastair Bryant</td>
<td>Managing Director, Transport Services, Registration and Licensing</td>
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<tr>
<td>Iqbal Samnakay</td>
<td>General Manager of Registration and Licensing</td>
<td>Department of Transport</td>
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<td>Brett Hughes Assoc. Prof.</td>
<td>Director, C-MARC Faculty of Health Sciences' School of Public Health</td>
<td>Curtin University of Technology</td>
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<tr>
<td>Peter Palamara</td>
<td>Senior Researcher, C-MARC Faculty of Health Sciences' School of Public Health</td>
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<tr>
<td>Lynn Meuleners</td>
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<tr>
<td>Craig Wooldridge</td>
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<td>Steve Boston</td>
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<tr>
<td>Des Snook</td>
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<tr>
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<td>Director</td>
<td>Easi Fleet Management</td>
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<td>Sean O'Connell</td>
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<td>Energy Technology Company, Chevron Energy technology P/L, Perth</td>
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<td>Jon Gibson</td>
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<td>Paul Gregson</td>
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<tr>
<td>Lisa Fianculli</td>
<td>Principal Policy and Strategy Officer</td>
<td>Office of Road Safety</td>
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<td>Matt Legge</td>
<td>Road Safety Data Analyst</td>
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<td>Claire Thompson</td>
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<td>Office of Road Safety</td>
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<td>Shire of Broome</td>
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<td>Mark Mackin</td>
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<td>David Smith</td>
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<td>City of Bunbury and Bunbury Roadwise Committee</td>
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<tr>
<td>Brett Belstead</td>
<td>Director, South West Operations</td>
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<tr>
<td>Phil Ladner</td>
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<td>Bob Peters</td>
<td>Manager, Road Asset Planning</td>
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<td>Doug Morgan</td>
<td>Executive Director Planning and Technical Services</td>
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<tr>
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<tr>
<td>Anthony Vuleta</td>
<td>Committee Member Director of Technical Services, Town of Victoria Park</td>
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<td>Mike Daube</td>
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<td>Curtin University. Public Health Advocacy Institute of WA.</td>
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APPENDIX 3: Western Australia Road Safety Management Capacity Review.

Workshop Report, Attendees and Presentation, August 20th Workshop.

A workshop to consider a draft summary of the consultants findings and provide a detailed presentation of the review and findings was conducted in Perth at the University of WA on August 20th, 2010. It was well attended by a broad range of 66 governmental stakeholders and representatives of non-governmental organizations. The Minister for Road Safety, Hon. Rob Johnson attended, as did the Opposition Spokesperson for Road Safety, Margaret Quirk and all key stakeholders were represented.

The workshop was opened and facilitated by Mr Reece Waldock, Director – General of Transport, Western Australia.

Mr Rob Johnson, Minister for Road Safety, WA, welcomed attendees and the focus on implementing Towards Zero that the capacity review was bringing to current efforts to progress road safety in WA. The results of the review would support and guide actions.

Eric Howard, Jeanne Breen and Tony Bliss then presented their findings. (see copy of powerpoint presentation from Workshop attached).

1. Stakeholder responses
Stakeholders actively contributed to the discussion.

*Obtaining public support*

It was agreed that there was a need to create a demand for road safety from the public. An engagement strategy was needed to pursue this.

There was discussion around how Sweden had achieved public support for the safe system (Vision Zero) concept.

- Use of local demonstration projects e.g. the Trollhatten Vision Zero “circuit”, which generated publicity and they worked extensively with community groups at grass roots level to convey the relevant messages.

- The Swedish community gets together every 2 years – road safety practitioners, researchers, industry groups, community - to review what has been achieved in the past two years by each group (and overall) and to determine what each group is going to commit to do to improve road safety in the next two years. This is the shared responsibility concept in action.

- In addition, every fatal crash in Sweden is comprehensively analysed to consider all potential factors associated with crash causation and severity. They stress that the system should be designed to protect the most vulnerable road users, ie., children.
Local government

IPWEA representatives commented on the need to find suitable mechanisms to connect road safety to asset management and state funding at local government level. The use of suitable safety performance indicators and agreed targets to be achieved for these (together with introduction of a legal responsibility for road safety for local government) could provide incentives for future levels of State funding and improve vertical coordination.

Local government representatives

- expressed the difficulty experienced in responding to community demand for reduced speed limits when there are structural (that is, Main Roads) impediments. In addition, local government articulated the need for practical guidelines to start making safe system changes to its infrastructure and speed limits.
- indicated they were comfortable with the draft recommendations, were working on many of the issues and recognised the need for a focus on a whole of network approach rather than just considering their “own patches”.
- considered research and development and clearly defined knowledge transfer to be key challenges. With any additional funding there was a need to ensure that there was investment in increased training and capacity building rather than focusing purely on project delivery.
- expressed a desire to see road safety mainstreamed into their work, not an add-on.
- suggested that MRWA could have a person in each Region that has a broader overview of road safety, (including, but beyond infrastructure) who could work with local government and other agencies in the region to identify training needs, including in service training to help roll out safe system changes as fast as possible, and other opportunities, including information provision to elected members. These officers could be supported by the ORS.
- Commented on the road safety impacts of land use planning decisions at state and local government levels with a recognition of the need for Main Roads, Planning and Local Government to develop standards and guidelines to address impacts of changed use upon safety of the existing network.

Clarity of roles, coordination, governance and a safety performance framework

It was suggested that it was clear what needed to be done, “we just need to get on with it”, but that:

- clear roles and responsibilities needed to be developed and agreed between agencies and detailed plans prepared, funding sought, suitable resources recruited and capacity development pursued. Options for increased funding were discussed.
- increased emphasis on engagement and a team work culture was necessary as was a policy development approach which continued to be based on evidence
- it was important that appropriate governance structures were adopted to drive accountabilities at agency level through an appropriate safety performance framework, including targets.
- Inclusion of road safety performance indicators in CE’s contracts was generally supported.
- safety performance indicators to be adopted required early discussion, identification and application.
Non government stakeholder issues

Industry expressed concerns about the pace of implementation of heavy vehicle reforms, seeking faster uptake of chain of responsibility and compliance and enforcement legislation, its incorporation into codes of practice as is occurring in other States, and more action in relation to preventing, for example, European safety requirements for heavy vehicles being removed from vehicles supplied to the Australian market.

It was suggested that education of heavy vehicle operators has an important role to play and it was requested that the ‘chain of responsibility’ issues be addressed in the final Report. In discussions with Main Roads following the workshop it is understood that the Minister for Transport has recently consulted with industry about some areas of concern with the chain of responsibility legislation and now intends to place the necessary legislation before the Parliament by the end of the year (2010).

Other issues

There was discussion about the challenging but necessary task of finding the best balance between specific and general deterrence for Police enforcement, with the annual levels and trends in fatal crash numbers involving, say, drink driving, providing the most direct feedback about the success of the approach adopted to counter the illegal behaviours (in that case, drink driving).

The potential opportunities for promotion of road safety to the community through the proposed Booster Program (of demonstration projects across the sectors) were regarded as significant. Intensive social marketing plus enforcement by Police would be critical elements of these projects.

The importance of the research community “selling” the science associated with measures to the community was highlighted as was the importance of nurturing C-MARC.

2. Workshop Conclusions

In general, the review team’s assessment of the current situation, proposals for the future and the Booster program (regional and metropolitan demonstration projects) approach were broadly supported by the key road safety stakeholders.

Professor D’Arcy Holman, Independent Chair of the Road Safety Council, summed up the outcomes from the workshop and highlighted three key pillars to be pursued.

- Formalising agency responsibilities and accountabilities to achieve delivery of Towards Zero i.e. establishing/ refining a safety performance framework and targets
- Improving data collection, sharing, analysis and reporting systems
- Achieving adequate funding to deliver the strategy, including delivery of the Booster package across agencies and to local governments

In addition, it was necessary to achieve government support for the 40% reduction target, to build lead agency, other RSC agency and local government knowledge and capacity to deliver Towards Zero and to ensure a fully developed Booster safe system program is delivered so WA can show what can be achieved when everyone works together.
He expressed dissatisfaction with the current level of engagement with the community and indicated that in order to deliver the necessary change agenda, it would be necessary to substantially extend communication of the vision with at least a tenfold increase in effort (because we so often incorrectly assume the public are all experts in the public policy subject matter) and to achieve strong commitment to implementation and the vision from all partners, (he asked that practitioners seek to find ways around obstacles and not let the obstacle deter action)

D’Arcy also indicated he would write to Ministers and CE’s to support the inclusion of performance indicators in their contracts of employment.

He reminded the workshop of Gandhi’s words “We must become the change that we want to see in the world”

3. Agreed next steps

- The consultants undertook to finalise their report by the end of September, taking into account matters raised during the workshop.
- The Road Safety Council was to conduct a Planning day in the week following the workshop where a plan of immediate action would be agreed.
## APPENDIX 3, (continued). Attendees, August 20th Workshop.

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<th>First Name</th>
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APPENDIX 3, (continued).

AUGUST 20th WORKSHOP PRESENTATION SLIDES

Road Safety Management Capacity Review - Western Australia

Presentation by Eric Howard, Jeannie Breen and Tony Bliss 20th August 2010, Perth

Independent peer review
- Funded by the RSC with ORS project management.
- Carried out by international team: Eric Howard and Jeannie Breen Tony Bliss (World Bank) Bruce Corben (MJARC)

Outline
- Workshop aims
- Review aims
- Review process and context
- High level findings and recommendations
- Towards Zero: ‘Booster’ Package
- Discussion

Workshop aims
1. Brief you on our findings to date
2. Seek your response and input
3. Discuss any changes to proposals

Review aims
1. Provide an independent, qualitative peer review of WA’s road safety management capacity to deliver Towards Zero outcomes.
2. Reflect back from partners and stakeholders about current approaches (strengths and weaknesses) and initiate future discussion.
3. Recommend any further multi-sectoral ‘good practice’ action to build capacity where gaps are identified for implementing Towards Zero. Discuss next steps with senior management of the key stakeholders

Key good practice references
Towards Zero: Ambitious road safety targets through a safe system approach, OECD (2008).
Review process

Initial stakeholder questionnaires.
Meetings in May/June 2010 in Perth, other metropolitan areas, a regional and a remote area.
Face to face meetings with a wide range of stakeholders > 90 people:
Senior managers and decision-makers, road safety professionals and technical experts from the key governmental agencies, professions, NGO sector and industry.

Review process

Systematic, qualitative review conducted using the ‘state of the art’ World Bank road safety management assessment framework.
The three core elements of a jurisdiction’s management system and their interactions were systematically reviewed, through discussion with partners and stakeholders, with reference to best practice addressing:
- Institutional management functions
- Interventions
- Results

Road safety management system

Review process

The review uses 12 checklists to assess management capacity against the jurisdiction’s ambition to achieve future road safety results.
Findings are discussed transparently with the key agencies and their partners to identify next steps.
Note that the review findings do not provide a detailed blueprint for action – they provide strategic direction and if agreed on will need to be further developed by key agencies and their partners.

Review context

- Second review of this type in a high-income country, the first being Sweden, and the first application of the refined guidelines since Sweden.
- Many similarities and some critical differences – with Sweden already at the frontier of best performance and having experienced a decade of deep societal promotion and innovation.
- Similar recommendations made for WA as for Sweden – but here it is recommended that the process of learning and innovation be accelerated with a funded ‘T2 Booster Program’ to 2014, to leverage the investment strategy to 2020.

High level findings

- Institutional management functions
- Interventions
- System level results
- Conclusions
Institutional management functions

Results focus
- Coordination
- Legislation
- Funding and resource allocation
- Promotion
- Monitoring and evaluation
- Research and development and knowledge transfer

Results focus: Stakeholder views
- “Great strategy but why don’t we have commitment to actions to deliver it?”
- Widely held belief that lack of robust agreed safety targets is seriously impeding progress.
- Support for 2020 target from senior managers of key agencies.
- Desire for meaningful shared responsibility across government and embedding of TZ road safety as a core activity for key agencies.

Results focus
The new results focus is clear and unambiguous. Towards Zero has set a new long-term performance frontier for Western Australia.
- Ownership varies across the partnership with limited ‘safe system’ initiative.
- Formally adopt proposed 2020 target.
- Strengthen lead agency role.
- Specify multi-sectoral responsibilities and accountabilities.
- Focus action to achieve quick results and build multi-sectoral knowledge about TZ.

Coordination
A range of well-established coordination structures and mechanisms exist at state and local level but coordinated decision-making to achieve results across governmental agencies for policy, strategy, legislation and budgets needs tightening to address TZ goals.
- Strengthen inter-governmental horizontal and vertical coordination.
- Strengthen key delivery partnerships.
- Encourage bi-partisan Parliamentary engagement.

Legislation
WA has a generally mature and comprehensive legislative framework but further provisions are needed to align legislation to Towards Zero.
- Formally specify institutional roles, responsibilities and accountabilities for TZ.
- Enhance driving and vehicle standards.
- Enhance compliance regime to improve ‘general deterrence’ effects.

Funding
WA’s funding mechanisms are consistent with international best practice but annual levels of funding across key agencies are insufficient to address TZ budgets.
- Make appropriate funding commitments to all key agencies.
- Explore new funding mechanisms & sources.
- Establish strong business cases and a rational framework for resource allocation.
Promotion

Best practice ‘promotion’ is evident in several areas of WA activity. 
but
key elements of the ‘Safe System’ model are not generally understood or adequately promoted:
- Highlight shared responsibilities for TZ.
- More governmental leadership by example.
- Strengthen advocacy in government agencies and identify non-governmental champions.

Monitoring and evaluation

At State level, the collection, review, dissemination and sharing of data in WA presents elements of international best practice. 
but
not yet fully addressing data needs for the Towards Zero safety performance framework or making best use of existing data sets.
- Improve measurement procedures, their systematic coverage, quality and reporting.
- Strengthen lead agency capacity.

R&D and knowledge transfer

The development of State capacity for road safety R&D and knowledge transfer has commenced. 
but
needs strengthening to address the ambition of the new ‘results focus’.
- Prepare Towards Zero R & D strategy.
- Provide in-service training and rapid knowledge transfer on Safe System principles and evidence base.
- Utilise national & international best practice.

Interventions

- Planning, design, operation and use of the road network
- Entry and exit of vehicles to and from the road network
- Entry and exit of drivers to and from the road network
- Recovery & rehabilitation of victims from the road network

Planning, design, operation and use of the road network: Standards

Safe Roads and Roadsides is a cornerstone of TZ, investing in Safe System infrastructure. 
but
Current standards and guidelines do not align at all well with Safe System principles.
- Innovate and ‘go beyond Australian ‘standards’.
- Look to established International good practice.

Planning, design, operation and use of the road network: Aligning speed limits

Safe Speeds is a cornerstone of TZ:
- enhancing speed enforcement and further reflecting on the appropriateness of WA’s speed limits. 
but
WA (and Australia) has some of the highest rural and urban speed limits in developed world.
- Comprehensively match road and vehicle design standards to safe speed limits in line with international good practice.
- Implement targeted Safe System speed limit reductions in meantime.
Planning, design, operation and use of the road network: Aligning speed limits

Safe System in practice

In Sweden, much of the rural network has been changed from:

- 90 km/h to 80 km/h limits,
- divided roads have:
  - 100 km/h limits if 2+1
  - 110 km/h or 120 km/h limits if full 2+2.
- 50 km/h to 30 km/h in residential areas in general.

Planning, design, operation and use of the road network: Ensuring compliance

Safe Road Users is a cornerstone of TZ. It aims to integrate behavioral change programs with improved enforcement addressing impaired driving (alcohol, drugs, fatigue and distraction), restraint use, and speed choice.

But

- there are high rates of non-compliance with key safety rules
- reduced enforcement outputs for deterring excess alcohol and speed.

Entry and exit of vehicles to and from the road network

Safe Vehicles is a cornerstone of TZ and focuses on promoting the uptake of safer vehicles and key safety features, particular government and corporate fleets. WA activity reflects many elements of international best practices at State level.

But

- the new ‘results focus’ requires substantial and continuous improvement of national standards, ANCAP, and creating the State demand for safety equipment which needs to be sustained over the longer term.

Entry and exit of drivers to and from the road network

The driver licensing scheme compares well internationally.

But

- there is scope for entry and exit conditions (e.g. licensing, penalties) to be better aligned to TZ.
- improve graduated driver/irder licensing to national and international best practice.
- Remove anomalies in excess alcohol and excess speed compliance regimes.

Recovery & rehabilitation of victims from the road network

The emergency medical services are acknowledged by stakeholders as being integral to the new ‘results focus’.

But

- they are not yet included as a system provider for road safety in day to day strategic processes.

- Review the potential contribution of emergency medical services, trauma care and long-term rehabilitation to further reducing road deaths and serious injuries.

System results: Final outcomes

Decreasing per capita death rate in last 20 years.

But in 2009:

- Death rate of 8.5 per 100,000 population (twice as high as the global leaders)
- Death rate of 21 per 100,000 population on rural roads
- 192 deaths and 2,548 serious injuries
- Road traffic injury is the leading cause of death for the 1-24 year age group
- Road traffic injury comprises nearly 50% of all major trauma.
- Socio-economic cost of $2 billion (not WTP).
System results: Intermediate outcomes (1)

- **Speed**: widespread flouting of speed limits. 47% of drivers exceeded 60 km/h limits in Perth and 57% of drivers exceeded 110 km/h in rural and regional WA.
- **Alcohol**: no recent observational data on levels of use but expected to be high as alcohol suspected in 33% of total deaths on road crashes.
- **Seat belt use, crash helmet use**: no recent observational data on levels of use but thought to be high. 23% of occupant deaths involve non-use of belts, helmets not used in 10% of MVC deaths.

System results: Intermediate outcomes (2)

- **Safety quality of network**: nearly two-thirds of rural network is ‘unsafe’ i.e. below 4” AusRAMP.
- **Safety quality of vehicles**: not yet assessed by ANCAP rating.
- **Emergency medical response**: 88% within 15 minutes in metropolitan areas. For major trauma transfer to major Perth hospital in 1 hour in metropolitan areas and 12 hours in rural areas.

System results: Institutional outputs

- **Breach-testing**: Each driver breath-tested 0.7 times (2008/9) compared with 1.5 times in 2003/4 and 1 test per driver is current national best practice.
- **Speed checks**: The number of vehicles monitored by speed camera fell by 46% between 2002/3 and 2008/9.

Lead agency role

The ORS is recognised as carrying out its lead agency role competently and inclusively and displays many elements of good practice in its duties. But

- ORS capacity needs strengthening to lead TZ implementation.
- Relocus and increase capacity in the ORS Policy and Strategy Branch across all the institutional management functions, especially ‘results focus’, ‘coordination’, ‘funding’ and ‘monitoring and evaluation’ and for TZ Booster package.

Capacity review – overall assessment

Many elements of WA’s safety management system reflect international good and best practice.

Current road safety results indicate that WA has some way to go before it can join the global leaders in road safety performance.

WA has embarked upon a bold path and Towards Zero demands a new level of high performance and meaningful shared responsibility.

WA is at the start of its ‘establishment’ phase of Towards Zero implementation.

Overall assessment

Achieving rapid ‘growth’ in the delivery of Towards Zero activity will require a sharp multi-sectoral focus on interim goals to prevent death and disability by 2020.

Short term gains can be expected from conventional interventions derived from national and international best practice, especially enhanced enforcement.

Improving the protective features of the network, the vehicle fleet and the emergency medical system, will bring big benefits in the medium and longer term.
TZ “Booster” Program: Aims
- Build lead agency capacity
- Accelerate the implementation of TZ
- Build knowledge across the agencies and local government
- Focus on the goal of eliminating deaths and serious injury and target
- Carry out in urban and regional corridors using:
  - multi-sectoral components for safety engineering
  - deterrent policing and supporting publicity
  - enhanced emergency medical response
  - publicity about program through LG
  - targeted speed limit reviews where risk unable to be treated

TZ: “Booster” Program
 Recommending a focus on both major opportunities
TZ “Booster” Program – (to 2014)
System wide institutional management capacity strengthening and countermeasure roll out – (to 2020)

Recommendations: TZ – “Booster” Program
Management Capacity measures
- Build capacity - lead agency, key agencies
- Implement SPF to 2014
- Coordinate program activity - including L. Govt. & other partners
- Funding for TZ “Booster” Program & business cases
- Public promotion of TZ “Booster” program messages
- Rapid knowledge transfer
- ORS to report progress performance to RSC, CE’s and MRSC

Recommendations: TZ – “Booster” Program
Interventions – regional and urban programs
- Infrastructure safety (run off road and intersections)
- Enforcement of user compliance + publicity
- Enhance emergency medical response
- Publicity at community level
- Local govt. involvement
- Targeted speed limit reviews where risk high

Priority – The Key Regional Areas

Recommendations: TZ – “Booster” Program
Interventions – a couple of urban residential areas
- Review speed limits – MRWA and LG
- Minor traffic calming treatments
- Some enforcement of user compliance + publicity
- Publicity at community level
- Local govt. commitment essential
Recommendations: TZ – System wide

Management Capacity measures
- Adopt final outcome target – 40% reduction in deaths and serious injuries by 2020 - now
- Formalise agency responsibilities and policy commitments to Towards Zero.
- Strengthen lead agency - TZ “Booster” program and ongoing
- Develop & Implement SPF to 2020 over next 4 yrs
- Strengthen coordination activity
- Sustain appropriate funding and business cases
- Continue promotion, R&D and knowledge transfer

Issues
- Comfortable with assessment?
- Have we left anything out?
- What would be most contentious issue?
- What are the key messages you are taking away?
- Next Steps?
### APPENDIX 4: ROAD SAFETY MANAGEMENT CAPACITY REVIEW - DETAILED FINDINGS

#### 1. Results focus at system level

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>- Long-term goal to eliminate death and serious injury.</td>
<td>- Lack of agreed safety performance framework.</td>
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<td>- Professionally and publicly supported strategy based on data-led approaches and analysis.</td>
<td>- No final or intermediate outcome targets for the interim.</td>
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<td>- Road safety is clearly core business for key agencies.</td>
<td>- Current performance indicators are limited and not well-aligned to strategy.</td>
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<td>- Active lead agency</td>
<td>- Limited embedding of road safety within the core activity of many agencies and associated limited capacity is constraining whole of government activity.</td>
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<td>- Best practice use of independent peer review</td>
<td>- Lack of annual accountability.</td>
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<td>- Resulting limited effectiveness of lead agency and key agencies in implementing otherwise good practice strategy.</td>
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#### Observations

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<tr>
<th>Question</th>
<th>Answer</th>
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<td>Are estimates of the social costs of crashes available?</td>
<td>Yes</td>
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<td>Are data on road deaths and injuries readily available?</td>
<td>Yes</td>
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An upward trend in deaths since 2006, a reduction in 2009 but still 30 more deaths than the lowest number achieved in 2005. The road death rate is more than twice as high as the global leaders. The road death rate on rural roads is currently 21 deaths per 100,000 of population which is currently similar to countries such as Thailand and Burundi.
| Have the risks faced by all road users been identified? | Yes | The Towards Zero Strategy outlines the key risks and high risk groups. The latest published figures are for 2007. In terms of the relative risk of different travel modes, a study (2006) using police data and travel survey data indicated that road users with the highest risk per 10 million km travelled of serious road injury were motorcyclists (21.2), pedestrians (6.4), pedal cyclists (5.6) and car occupants (1.3). Hospital data showed that road user groups with the highest risk of hospital admission were pedal cyclists (38.2), motorcyclists (32.7) and pedestrians (6.2). The Department of Health hopes to publish shortly an update on comparative road travel risks. | Analysis of WA trauma registry data is needed to ascertain injury outcomes and risks associated with long-term injury. |
### Has a national vision for improved road safety performance in the longer-term been officially set?

- **Yes**

The **Towards Zero** strategy which aims for the elimination of death and disability was approved by the WA Parliament in 19th March 2009. Every member of the Road Safety Council (which comprises the key governmental agencies and the RACWA) is a signatory to the strategy. The cornerstones of the strategy are Safe Roads and Roadsides, Safe Speeds, Safe Vehicles, Safe Road Use and Safe System Foundations.

The consultation around the strategy demonstrated that the public is concerned about and does not accept current levels of death and serious injury, is supportive of more being done and recognises that all have a role to play.

### Have national and regional targets been set for improved safety performance?

- **Proposed**
- **No**
- **Proposed**
- **No**
- **Proposed**
- **No**
- **Proposed**
- **No**
- **Proposed**
- **No**
- **Proposed**
- **No**

- Social cost targets?
- Final outcomes targets?
- Intermediate outcomes targets?
- Intervention output targets?
- At risk group targets?
- Industry targets?
- Other targets?

A specific measurable final outcome target is proposed in the strategy based on detailed modelling and extensive consultation. **Towards Zero** states that a publicly acceptable level of activity could deliver a reduction in 11,000 deaths and serious injuries by 2020, a reduction of around 40% compared with the annual average number of KSI between 2005 and 2007. Action plans to address various scenarios have been established through the Road Safety Council.

No regional targets, intermediate outcome or institutional output targets are proposed in **Towards Zero**.

However, the proposed final outcome target has not been agreed across government although the review found support for the adoption of this target by the senior management of the key agencies.

Furthermore, while Government endorsed the **Towards Zero** strategy in 2009, it did not endorse the accompanying recommended Action Plan which had been developed by the RSC with agency inputs. Subsequently, Government invited the RSC to come back with a list of high priority actions. A list was compiled with the assistance of MUARC and the RSC agencies which identified 129 actions contributing to a 10% reduction in deaths and serious injuries between 2009 and 2011.

Subsequently 24 high priority actions were endorsed by the RSC in May 2009 as priority actions for implementation between 2009-2011 and these were endorsed by the Ministerial Council in June 2009. The majority of the actions were to be funded through the RTTF or agency resources. An analysis of the current situation with support (funding) to implement these proposed final outcome target has not been officially set.

### ORS and the partner agencies while signing up to the proposed targets, have been unsuccessful to date in persuading government as a whole to adopt interim targets.

Since the adoption of the strategy, the key agencies have yet to fully adopt **Towards Zero** in their operational strategies and identify meaningful targets and indicators (including ORS) for annual performance agreements.

The strategy is clearly in the establishment phase of implementation. It lacks the framework of an agreed safety performance framework and secured, sustainable funding. Strategic commitment appears to be getting lost in the detail across government in Cabinet and within agencies and for most, road safety remains an ad hoc activity. There is not yet a strategic understanding at the Ministerial Road Safety Council.

A formal ‘**Towards Zero – Booster Program’** to 2014 which has an identifiable form beyond a list of projects should be considered. This would comprise:

1. Establishing a clear safety performance framework to 2014 (and supporting the medium term framework development to 2020), ie., adopting final and intermediate outcome targets as well as developing clear institutional output targets which, together with a clear statement of the agency road safety role, should be established in annual performance agreements, agency operational strategies and by Memoranda of Understanding.
2. Establishing baseline data sets and surveys where there are current gaps.
3. Establishing short in-service **Safe System** courses.
Shared quantitative targets

Specifically the Government should ensure that key State agencies – the Office of Road Safety, Main Roads WA, Department of Transport, WA Police, Department of Health, WorkSafe, Department of Education and ICWA should share responsibility for final road safety outcomes by:

• adopting a final outcome target of a 40% reduction in annual deaths and serious injuries by 2020, (compared to the 2005 to 2007 average levels) and a saving of 11,000 deaths and serious injuries over the life of the strategy as set out in Towards Zero - to be reported in agency annual performance agreements.

• Adopting a short term outcome target for reduction in KSI's (from average of 2005 to 2007 levels) by the end of 2012. (It is noted that MUARC have proposed a 10% reduction in KSI's by 2012 in their review of high priority actions for the RSC and ORS in 2009, which was basis of actions recommended to government). The target to 2012 or 2014 should be reviewed and agreed. by the RSC and MRSC.

The Government should also ensure that these desired final outcomes are reflected in the annual performance contracts of the Chief Executives of each the above State agencies.
It is also recommended that a range of basic intermediate outcome performance targets and indicators are adopted and shared by ORS, Main Roads, DoT, WA Police, DoH, WorkSafe and ICWA and local governments. These might comprise:

- Targeted decreases in mean speeds on urban and rural roads
- % of fatally injured drivers with excess alcohol
- % increase in seat belt use
- % of ANCAP 4* and 5* vehicles in WA fleet
- % of Enhanced AusRAP 4* and 5* high-volume roads
- % residential access roads within 30 or 40 km/h zones

**Agency-specific targets**

Other agency specific targets for consideration include:

- **Health** – Retrieval times for crash victims compared to standards, extent of health professional media comment about road safety issues;
- **Main Roads** – State highway crash risk reduction, extent of sections of/ intersections on State highways that are safe system compliant
- **ORS** - community campaigns effectiveness; adopted legislative initiatives
- **WAPOL** – (particular specific accountability for LG’s as well as a shared accountability) % compliance of mean speeds on high risk roads with speed limits; % RBT non – compliance reduction
- **DoT** – reduced young driver fatalities; reduced recidivist offenders and unlicensed drivers (with WAPOL)
- **WorkSafe** - % of ANCAP 4* and 5* vehicles in occupational fleets

A legal duty for carrying out road safety activity in support of the State road safety strategy should be established for local government with a view to rolling out regional targets and local KPIs within the short term. These could include safe system compliance of higher pedestrian use locations.

These agencies should report on their performance measures a minimum of twice a year to the RSC, thereon to the Ministerial Council (and the new committees proposed by this review. The ORS should
<table>
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<tr>
<th>Question</th>
<th>Response</th>
<th>Notes</th>
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| Have all agencies responsible for improved safety performance been identified? | Yes       | The core responsibilities have been successfully identified, although the Towards Zero strategy did not identify the full role of Health and potential contribution of improvements in emergency medical services. The key governmental agencies are:  
  - Office of Road Safety - lead agency  
  - Main Roads WA - planning, design and operation of WA road network  
  - Department of Transport – Public transport, walking and cycling policies, driver licensing and vehicle registration  
  - Local Government – road safety in the community and on local roads  
  - WA Police – enforcement of key road safety rules  
  - Department of Health – injury prevention, access to the emergency medical system, the quality of trauma care and the rehabilitation of offenders in reducing death and disability. The St John’s Ambulance works to targets for the timely delivery of emergency medical response set by DoH.  
  - Department of Education – road safety education in schools  
  - WorkSafe – work-related road safety  
  - Insurance Commission of WA – as governmental administrator of fault-based motor vehicle crash injury insurance has a risk management duty.  
  - Department of Planning – set amenity and road safety standards for land use development, which local government is expected to adopt. “Liveable Neighbourhoods” is being reviewed, a critically important document for delivering safe speed limits, increased pedestrian activity, maximum public transport viability and limiting car dependency.  
  The Departments of Justice and Treasury are also agencies which engage regularly in discussions on road safety implementation.  
  All agencies are required by Government to have an outcomes based service delivery framework for the assumption of responsibility for preparing this report on agency performance. This performance should also be published on the ORS website, as recommended by the Chair of the RSC. |
| Are they formally held to account for performance achieved to achieve the desired focus on results? | Yes – partially for Police, Yes for emergency services | While there is improved engagement, there is much to do to embed road safety as a core activity of many agencies. Full sharing of responsibility between agencies is not yet evident and a greater focus is required on delivering cross government consensus. Stakeholders commented that the necessary accountability at most senior levels in the agencies was not universally achieved as yet and that the systemic cross government machinery was not yet working effectively. The absence of a safety performance framework, unsatisfactory budget outcomes (see funding section) and delays in many of the regulatory and legislative issues (e.g., interlocks, GDL for motorcycling, child restraints, demerit points for P plate drivers, drink driving penalties), were all suggested as evidence for this position. |
There seems to have been little change, however, in performance indicators in annual performance agreements since the introduction of Towards Zero. There is no formal accountability for the WA Towards Zero strategy in annual performance agreements for the key agencies.

It was suggested that there is limited strategic focus at State and local government levels across most sectors compared to operational approaches and competence and that this was a substantial brake on progress.

Office of Road Safety (ORS)

The ORS sits quasi-independently within Main Roads WA as the lead agency for road safety in WA. It is considered to be a competent agency and its evidence-based approach has the confidence the agencies. The Executive Director reports to the Minister of Road Safety (who is also the Minister for Police amongst other responsibilities) and the Managing Director of Main Roads WA. The ORS forms the executive arm of the Road Safety Council – the main road safety advisory body which has legislative responsibility for advising government on programs and initiatives. ORS carries out a range of management functions, though it does not have core responsibility for primary service delivery in any road casualty reduction or transport-related function. Thus, mechanisms for leverage of resource and activity of its partner agencies measured against key targets and indicators are crucial for its success.

Duties

- Leading the development of road safety strategy for WA on behalf of the RSC and the Minister for Road Safety;
- Providing executive support, coordination and evidence-based advice on road safety policy and strategy to the RSC member agencies, Government and the community;
- Delivering road safety community education campaigns focusing on key road safety issues including the major risk behaviours of speeding, drink driving, not wearing seatbelts and fatigue and encouraging the purchase of safer vehicles.

Annual Performance Agreement measures

The lead agency role in the delivery of institutional management functions is separately assessed in the capacity review framework and is reported on below in Section 12.

The specific lead agency role and duties of the ORS are not set out in legislation.
The transfer of the Office of Road Safety to Main Roads Western Australia on 1 July 2009 and the introduction of the Towards Zero state road safety strategy provided an opportunity to review the performance measures which had remained unchanged for over 10 years. This review developed appropriate measures to inform the Minister for Road Safety, the Parliament and the community about the efficiency and effectiveness of the Office's operations in line with Towards Zero.

<table>
<thead>
<tr>
<th>Effectiveness Indicator</th>
<th>Effectiveness of road safety awareness campaigns</th>
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<tr>
<td>The new effectiveness indicator measures a major outcome of the Office of Road Safety, to educate, engage and influence the community using road safety awareness campaigns though various media. This indicator will measure community attitudes before and after each campaign to determine their level of penetration and effectiveness.</td>
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<tr>
<th>Efficiency Indicators</th>
<th>% of Office of Road Safety projects completed on time</th>
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<tr>
<td>The new efficiency indicators measure the efficiency of the Office in managing road safety projects funded by the Road Trauma Trust Fund, reporting the percentage of projects completed on time and on budget.</td>
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### ORS Road Safety Business Plan (2009-2012)

The purpose is 'working towards zero deaths and serious injury on WA roads' by identifying, recommending and encouraging the Government, Road Safety Council and the Community in the implementation of proven innovative actions.

### Main Roads WA

Main Roads is Western Australia's State road authority, managing a network of over 18,000 kilometres of State roads with a value of $37 billion. It has a Road Safety Branch comprising around 11 members of staff.

### Duties set out in legislation

The Main Roads Act, 1950 sets out a general duty of proper management of a highway or main road. The objective of Main Roads WA as set out in its Annual Report 2009 is to 'provide safe and efficient road access that will enhance community lifestyles and ensure economic prosperity'. It also works to implement provisions in the Road Traffic Act 1974 and the Road safety is clearly core business for Main Roads WA. A Main Roads WA operational road safety strategy is expected shortly with targets and performance indicators.
Road safety is one of 6 programs. The road safety program seeks to reduce the State’s road fatality rate to the lowest in Australia, minimizing road factors contributing to road trauma and reducing the serious crash injury rate. The current performance indicators are:

- Community satisfaction of road safety
- Black Spot location indicator
- % of contracts completed on time
- % of contracts completed on budget

Main Roads is a signatory of the Towards Zero road safety strategy and has recently introduced (May 2010) a statement of road safety policy that “We believe no one should die or be seriously injured on the States road network, and we will manage the network to minimise the likelihood of road trauma to our road users”.

The adopted principles in this statement are:

- We have adopted the safe system approach to protect road users as we know they can make mistakes and are vulnerable in a crash;
- We are open to using innovative solutions to improve road safety;
- Our road safety decisions will always be based on evidence;
- We will measure and evaluate our performance to enable improvement;
- Demonstrate leadership and seek engagement in road safety through collaborative relationships;
- All road users needs will be considered when designing, building and operating the road network.

The objectives of this statement are to:

- Acknowledge and accept the significant responsibilities in the State Road Safety Strategy – Towards Zero and deliver on our commitments;
- Develop and implement an accredited road safety management system that will ensure road safety outcomes;
- Develop Safety Performance Indicators and
measurable targets that will drive our road safety improvements;
• Build a culture where research, development and training are fundamental to how we improve road safety;
• Embed the Safe System approach into our processes and systems to reduce road trauma.

Department of Transport (DoT)
Duties set out in legislation
The new Department of Transport began operations on 1 July 2009, after the former Department for Planning and Infrastructure was split into 3 new agencies. The Director General holds the positions of Commissioner Main Roads WA, Director-General Department of Transport and Chief Executive Officer of PTA. The Department of Transport focus is on transport policy and planning, maintenance and building of the road network; controlling access to the network through the licensing of vehicles and people; setting speed limits; public transport system; and providing for the particular needs of vulnerable road users such as cyclists and pedestrians. The stated aim is to ‘provide safe, accessible, sustainable and efficient transport services and systems which promote economic prosperity and enhance the lifestyle of all Western Australians.’

The Department has a number of key road safety related functions for licensing and vehicles. Through its Licensing Business Unit, it has a primary focus of ensuring the State has safe drivers driving safe vehicles on safe roads through customer service and interaction through the Contact Centre, metropolitan and regional licensing centres, licensing agents, vehicle examination centres and authorised inspection stations located throughout Western Australia. The Department also plays an important role providing information to assist law enforcement agencies and other authorised agencies.

Annual Performance Agreement measures
Performance measures for the Licensing Business Unit in 2008/9 while in the previous structure included:
• the total number of financial and internet transactions
• the number of practical driver assessments
• the number of vehicle licences issued

Road safety is clearly core business for the DoT. No operational road safety strategy has yet been developed.

The provision of appropriate accessible licensing and related offence data to Police and its availability for research purposes are critical requirements for WA road safety performance. The TRELLIS system seeks to meet these needs.
Preparation of road user behaviour and vehicle related legislation and regulation under the provisions of the Road Traffic Act are other substantial road safety activities.
Western Australia Police
General policing was decentralised in 1996. In 2005, the State Traffic Office was established. The Police estimate that for 2008/9 around 17-19% of policing work involved traffic duties.

Duties set out in legislation
The police have a general duty of ‘preservation of peace and order’ in Western Australia as set out in the Police Act 1892.

The WA Police mission as set out in its Annual Report 2009 is ‘to enhance the quality of life and well-being of all people in Western Australia by contributing to making our State a safe and secure place. The Police work to four primary policing outcomes:

- Lawful behaviour and community safety
- Offenders apprehended and dealt with in accordance with the law
- Lawful road user behaviour
- A safer and more secure community.

Annual Performance Agreement measures
The measures which relate most to road safety are for lawful road-user behaviour:

- Percentage of drivers tested for drink-driving who are found to exceed the lawful alcohol limit
- Percentage of vehicles monitored for speeding by speed cameras that are found to exceed the lawful speed limit
- Percentage of drivers who have never driven when they felt they might be over the alcohol limit in the last six months
- Percentage of drivers who have never exceeded the speed limit by 10 km/h or more in the last six months
- Percentage of drivers who have never driven without wearing a seat belt in the last six months
- Extent to which the community thought speeding cars, dangerous or noisy driving was a problem in their own neighbourhood

A variety of efficiency indicators are also used.

Road safety is clearly core business for the WA Police. A strategy has been produced (to 2010) which reflects a range of activity in support of Toward Zero. Its follow up could usefully include performance targets and indicators for key fields.

At the same time, there is evidence that the police has moved away from deterrent policing in recent years. There is internal and external concern that traffic enforcement capacity is being sacrificed regularly to achieve crime outcomes and that the traffic policing role is insufficiently valued.

These are self reported indicators. More specific measures to improve accountability are required as recommended above.
Traffic Policing Strategy
Western Australia Police is a signatory of the Towards Zero road safety strategy and has a Traffic Policing Strategy (2008-2010) in which it affirms responsibility for enforcing traffic laws and contributing to making WA roads safer. The targets are:

- speeding (specifically to achieve greater compliance with posted speed limits);
- alcohol and drug-driving (to contribute to a reduction in the incidence of fatalities and injuries caused by alcohol and drug-impaired drivers);
- non use of restraints (increase compliance with the wearing of seatbelts and other restraints by drivers and passengers of vehicles);
- unlicensed drivers (to reduce the number of unlicensed drivers driving on WA roads);
- road users at high risk (to reduce the incidence of fatal and serious crashes amongst road users identified as being high risk);
- heavy vehicles (to target factors that increase the likelihood of road trauma involving heavy vehicles);
- unsafe driving practices (to increase compliance with traffic laws in relation to mobile phone use and other unsafe driving practices);
- regional road users (to contribute to a reduction in fatal and serious crashes in regional WA through traffic enforcement tailored to address issues related to country driving);
- anti-social driver behaviour (to reduce the incidence of anti-social driver behaviour and increase community perception of road safety)

The approach is ‘to combine deterrent and enforcement methods to ensure that traffic offenders are aware that unsafe and anti-social driving behaviour should not and will not be tolerated.’

Department of Health

Duties set out in legislation
The Department of Health is established by the Governor under section 35 of the Public Sector Management Act 1994. It is charged with the duty of promoting, maintaining and restoring the health of the people of WA.
### Annual Performance Agreement measures

The DoH’s purpose is to ensure healthier, longer and better lives for all West Australians. Specifically, the second of three desired outcomes Outcome 2 aims for improved health of the people of WA by reducing the incidence of preventable disease, specified injury, disability and premature death. The Department plays a key role in injury surveillance and data analysis and the management of health promotion and injury prevention as well as the recovery and rehabilitation of crash victims from the road network. The DoH is a member of the RSC, has signed up to Towards Zero, and is actively engaged in key data collection and injury prevention initiatives.

### Insurance Commission of Western Australia (ICWA)

**Duties set out in legislation**

ICWA is a crown agency responsible for administering a fault–based compulsory third party insurance for motor vehicle injuries at State level. Duties impinging on road safety under the Motor Vehicle (Third Party Insurance) Act 1943 and the Insurance Commission of Western Australia Act 1986 include the duties:

- to manage and administer insurance and risk management arrangements on behalf of public authorities and eligible community organizations;
- to initiate, or participate in, and promote programs and schemes for (i) research into the treatment of industrial diseases and personal injury; and (ii) research into, education for, and promotion of public awareness relating to, the prevention of industrial diseases, personal injury and accidental death, being programs and schemes relevant to risks in respect of which the Commission is to provide insurance or manage and administer arrangements and
- to provide advice to the Government on matters relating to insurance and risk management.

ICWA supports programs aimed at reducing road-related trauma in Western Australia and recognises that improving road safety in the State requires a long-term investment. In 2009, it contributed $2.8 million to Road Safety Council approved programs. A major initiative undertaken in 2009 was the development and implementation of the first phase of the On-line Crash Reporting Facility (OCRF). This is a web-based facility for external use by customers which allows motor vehicle crashes resulting in personal injury, to be reported on.

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Road safety is clearly core business for the Department of Health. Road traffic injury represents a large proportion of major road trauma in WA (estimated at around 40%). Road traffic crashes are the lead cause of death for the age group 1-24. While the Department of Health has clearly most to gain from the successful implementation of Towards Zero, mention of road traffic injury and its prevention alongside other priority issues is missing in the DoH’s annual report.

Road safety is clearly core business for the ICWA which has a risk management, funding role and data provision role. Recommendations are made for an enhanced funding role (See Funding section).
line. The second stage aims to expand the system to accommodate the crash reporting requirements of WA Police which will, in effect, result in a whole of Government reporting facility for motor vehicle crashes in Western Australia. Western Australian motorists are offered the lowest third party injury insurance premiums in all of Australia, which has been the case for the past 12 consecutive years.

Motor Vehicle Personal Injury Claims payments (net of GST) for the year paid for the direct benefit of claimants amounted to approximately $288 million in 2008/9 representing a reduction of about 3% on the previous year.

Annual Performance Agreement measures

The Insurance Commission states that it is fully committed to the Western Australian Road Safety strategy, Towards Zero, and contributes funds annually to the State Government's Office of Road Safety. The provision of funding for road safety programs is a key risk management strategy to help control Motor Vehicle Third Party Personal Injury

The reducing claims frequency trend experienced over the past 15 years continues, with a total of 4,078 new claims received in 2009, which is approximately 3% lower than the number for the preceding year (4,195). A continued strong focus on road safety and crash-prevention initiatives, safer cars, and better roads, are some of the recognised factors influencing this pleasing, long-running, downward trend. Insurance claims costs.

Western Australian Local Governments

Local authorities do not have a specific legal duty to carry out road safety activity, although bound by a duty of care to manage its services and facilities efficiently and effectively. As indicated however in a recent Baseline Survey carried out during late 2009, only a small number of local authorities have embedded safe system principles in any of their plans, strategies or policies, although most respondents wanted more information and indicated at least some capacity to increase the inclusion of road safety in their activity. More than 50% of local government areas in WA have a formal local road safety committee. One third of these have a road safety action plan directly aligned to Towards Zero. Only two local authorities in WA have appointed road safety officers e.g. City of Joondalup which has a road safety plan and

Road safety is clearly core business for local authorities. The lack of a legislative imperative for road safety may be contributing to a lack of interest by some authorities in carrying our effective road safety work. Imposing a legal duty on local authorities to monitor fatal and serious road traffic crashes and risks and carry out road safety remedial actions on local roads has been used in good practice ‘vertical coordination’. Strategic thinking is required at local government level
incorporates road safety into a number of community services). While there is a need for improved relationships between State and Local governments in many policy areas there is always considerable tension around issues of local autonomy versus Statewide consistency.

**WALGA**

The Western Australian Local Government Association (WALGA) is active in promoting safe and sustainable approaches to LG transport infrastructure and its road safety priorities are outlined in Local Government Transport and Roads Framework strategy documents 2009-2014. These include:

- Seeking new funding and ways of funding implementing **Towards Zero** initiatives
- Working to promote **Towards Zero** and help local governments embed the safe system approach.
- Developing a business case in partnership with Main Roads for a safer local roads program and collaborating on identifying solutions and partnering with other agencies
- Advocating for a review of speed limit setting policy and for greater input by local government in producing targeted speed settings as well as advocating for Main Roads to implement safe system improvements of strategic routes.
- Support the strategy through delivering the RoadWise program.
- Developing a road safety training module for local government elected members.

WALGA is the regional coordinator for road safety. And with support of the RTTF runs the **WALGA Local Government and Community Road Safety Program** which incorporates:

- RoadWise
- Community Road Safety Grants
- Type 1 Child Car Restraints Fitting Service
- Local Government Safe System Project
- Local Government policy, advocacy and leadership

All programs have performance indicators.

Road safety is clearly core business for WALGA. A good strategy has been prepared which could usefully include performance targets and indicators for key fields.

The dependence of WA local governments for approvals, guidance etc is inhibiting evidence-based, good practice road safety activity. Even in the best examples, more attention is being given to meeting standards and guidelines that do not align well with **Towards Zero** and unsatisfactorily address safety needs rather than to innovative treatments based on well-and long established safety principles.
seems to be having a positive impact on understanding and take up of Safe System approaches. Activities target the fostering of support for speed limit reductions, uptake of effective fleet safety policies, promotion of ANCAP and Used Car Safety Ratings.

Community Road Safety Grants WALGA also manages the administration of the Community Road Safety Grants program (currently 58 community-based road safety activity worth $356,690.

Type 1 Child Car Restraints Fitting Service

Local Government Safe System Project has created 3 Safe System Coordinator positions to increase the uptake of safe system principles by local government.

Local Government policy, advocacy and leadership aims to lead, inform and engage local governments in the implementation of Towards Zero.

Department of Planning

Responsible for land use planning, the Department has key road safety responsibilities. The Department is responsible for the production of the design guide Liveable Neighbourhoods and plans to update this shortly in consultation with other agencies.

WorkSafe

The principal objective of the Occupational Safety and Health Act 1984 is to promote and secure the safety and

It is essential that the Department develops a high level of awareness of safe system thinking and approaches. Beside its key interests of access, amenity and environmental improvement, the Department is encouraged to consider the introduction of area-wide safety impact assessments in its land use planning projects. It should also review the safety of residential areas and the appropriateness of the current road hierarchy and speed limits in this environment in its Liveable Neighbourhoods work. Local governments advise that the current process of indicative guidance about speed limits by the Department of Planning has proven ineffective in supporting change. There needs to be genuine agreement with local government about how these processes will operate - as conditional approvals for development which require safety-related investment by the developer. This issue will be a topic firmly contested by the industry and the State will need to hold firm and recognise the essential and legitimate interest of local communities in delivering safer outcomes than in the past if benefits are to be achieved.

Occupational safety has been a key driver of Vision Zero in Sweden. It is recommended that WorkSafe reviews its further potential and specific contribution to
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| Towards Zero in engaging employers in evidence-based work-related safety policies and measures. ORS could work with WorkSafe to assist a refreshing of workplace safety activity in WA that relates to safety of use of the road system. CEOs of all organisations in WA could be encouraged to report the level of safety of their fleet vehicles in Annual Reports as is the requirement for other matters such as environmental compliance. |

| Road traffic injury is the leading cause of death for school-aged children. While educational contributions can help to shape attitudes, the DoE’s role in providing powerful advocacy in government of evidence based improvements to provide a safe environment between home and school is essential. |

| A concerted program from the road safety agencies to provide information to the Coroner about Towards Zero, Safe System and current road safety initiatives and programs would increase the capacity of the Coronial system to assess the potential for Inquests into certain crashes to address major road safety risks and issues |

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| Problems with reporting from one or two agencies exist in RSC working groups. |
Has a lead agency been formally established to direct the national road safety effort to achieve the desired focus on results? | Yes | (See above and Checklist 12) |
--- | --- | --- |
Is the lead agency role defined in legislation and/or policy documents and annual performance agreements to achieve the desired focus on results? | Yes | (See above and Checklist 12) |

### 2. Planning, design, operation and use of the road network

#### Strengths
- Main Roads are intent on implementing Safe System principles in the WA network and a new Main Roads road safety strategy is being prepared.
- Main Roads has a dedicated road safety branch.
- There is information about the safety quality of the WA road network.
- Safety limits for drinking and driving, drugs and driving and occupant restraint rules are generally in line with good practice.
- There is information about user compliance levels with key safety rules and how compliance can be improved.

#### Weaknesses
- The current road hierarchy does not provide the appropriate match between road function, speed limit, road layout and design required for safe use by all, as envisaged in *Towards Zero*.
- As in other Australian States, WA has some of the highest rural and urban speed limits in the developed world.
- A clear prioritisation of higher-volume, higher-risk sections requiring treatments is not available.
- Main Roads and local authorities have low capacity to implement well-established Safe System treatments.
- There is high non-compliance with several key safety rules and an unhelpful shift in emphasis away from deterrent policing of excess alcohol and speed rules.

### Observations

- Have comprehensive safety standards and rules and associated performance targets been set for the planning, design, operation and use of roads to achieve the desired focus on results?
  - National roads?
  - Regional roads?
  - Provincial roads?
  - City roads?

| No | Main Roads is the sole agency with the legislated authority for setting speed limits and standards for all roads in WA. Main Roads are committed to implementing Safe System principles on the WA network. A road safety branch is working towards these ends. Road design guidelines have recently been reviewed but not yet against Safe System road safety engineering principles. Main Roads and local government currently have low staff numbers and experience in road safety/traffic engineering areas. Main Roads seems to be focussed on the delivery of major infrastructure projects and road maintenance; staff numbers dealing with operational road safety are reported as being similar to what they were 15 years ago. | There is an urgent need for tools to be developed to enable the organisation (MRWA) to move from abstract concepts to concrete genuine treatments which can then be applied on State and local roads. Innovative thinking about tools and treatments is necessary. This requires sustained leadership and resource across the organisation to increase willingness to gain rapid access to, as well as preparedness to adopt, successful international best practice. In Main Roads, a weekly half-day Project Review group meeting at Director level might help this process (as has been found helpful elsewhere). |
years ago and budgets have reduced in real terms in recent years. The situation is reported as being no better in local government. The IPWEA has a number of working groups operating with MRWA and others which include:

- Microanalysis of black spots and innovative treatments
- Process improvement – brown fields innovative treatments
- Safe system understanding
- LG role in speed enforcement management.

Country community consistently rate road design/condition as problematic (40%). This compares to 25% of the urban community. A range of speed limits, alcohol limits, occupant crash protection rules and standards have been established aimed at safer road user behaviour (see later sections).

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| Yes      | Carried out for new projects (although the audit typically does not include audit at the feasibility stage for main roads) but not necessarily to best practice safety engineering standards. The recent Forest Highway upgrade allows seagull intersections on the 110km/h dual carriageway which would be considered poor practice when compared with international good practice.  
**Road safety inspection?**  
The State rural highway network has received an AusRAP star rating. The proportion of WA network in each star category (%):  
* 0%  
** 9.9%  
*** 53.4%  
**** 36.8%  
***** 0%  
Some other State roads have undergone RAP assessment.  
**Black spot management?**  
State Program: A total of 158 projects were funded in 2008-09, with 29 projects on State roads and 129 projects on local roads costing a total of $20 million. The projects target known crash locations or those with a high risk of crashes.  
MRWA have a panel including ORS, CMARC and others to identify treatments for the highest 100 crash rate intersections.  
Commonwealth Black Spot Program: A total of 46 projects were funded in 2008-09 from this Federal program at a cost of $5.9 million. The projects target known crash locations or those with a high risk of crashes on both State and local roads. The Federal Government has also provided funds of $9.9 million from the Economic Stimulus Packages 1 and 2 for Black Spot projects. This stimulus package has resulted in an additional 36 rural and 7 metropolitan projects being funded.  
**Network safety management?**  
Main Roads has a Road Network Operations Strategy 2006-2010 which it says will require optimizing for safety and efficiency of the road network as a fundamental component of an integrated transport system. The main objective is seen as the need for proactive treatments to reduce single vehicle crashes and improve the safety of roadsides. It is planned that systematic network safety the developer to an extent satisfactory to the responsible authority.  
The forthcoming update to *Liveable Neighbourhoods* provides an opportunity to reflect international good practice on road safety impact assessment; road hierarchies in urban areas to achieve a good match between road function, speed limit, road design and layout.|
| Pending  | Some other State roads have undergone RAP assessment.  
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There is a need for formal review of WA road hierarchy to better match road function to speed limit, road design and layout and to prioritise treatments on higher-volume, higher-risk sections in the arterial network and area-wide approaches in urban areas. There is a need for deterrent policing of key safety rules on the network and speed enforcement based on best practice.
The Safer Roads Program (introduced in 2005/6) aims to create more forgiving roads and roadsides to reduce the number of people killed or seriously injured on the highway and main roads network and specifically to reduce the incidence and consequences of single vehicle run off crashes, crashes at major intersections and other significant risks such as head on crashes.

Problems exist with funding the Safer Roads Program in line with the recommendations made in Towards Zero and in the priority action list agreed in March 2010 (See Funding section and Appendix 6).

Vulnerable road user facilities
The safety of vulnerable road users will be greatly improved by adoption of Safe System approaches for separation of dangerous mixed use, better speed management and the use of crash protective equipment.

Improvements to graduated licensing which are in discussion will be important.

The Motorcycle and Scooter Safety Forum conducted by the RAC on behalf of the RSC is addressing user concerns about a broad range of road safety issues and has produced action statements to be made available on the ORS website.

In relation to cycling facilities, the Perth Bicycle Network (PBN) comprises a network of cycling routes that provides a safer cycling environment throughout the Perth Metropolitan area. In 2008/9, the Government allocated more than $2 million to create shared paths and other cycling facilities to extend the PBN. In 2008/9, the Regional Bicycle Network program (formerly Country Pathways Grants Scheme) allocated $750,000 to local government authorities throughout the regions on a matching dollar-for-dollar basis to help with the planning, development and promotion of shared paths and cycling facilities in regional Western Australia. Following a review the development of a new PBN plan is underway.

Stakeholders are concerned about the level of non compliance with speed limits.

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<td>In 2009, it was estimated that around 32% of all fatal crashes involved excess speed. The number of deaths was around 19% less than the average over the previous five years.</td>
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areas were below the posted speed limit of the roads surveyed. A downward trend in metropolitan mean speeds on 60km/h and 70 km/h roads, an increase on 100km/h in Perth. Drivers on metropolitan 60km/h and 70 km/h roads drive on average 1-2 km/h faster than drivers on the same speed limits on rural roads.

ORS weekly surveys indicate a decline in community perception of risks associated with speeding from 59 (11/08) to 50 (12/01) and an increase in self-reported speeding behaviour (ORS Tracker survey, ppt presentation, Road Safety in WA – A community perspective, Oct. – Dec., 2009)

In 2008, for Perth, 46.7% of vehicles exceeded the speed limit in 60 m/h zones and 26.7% exceeded the limit in 100 km/h zones. For Rural and regional WA, 41% exceeded the limit in 60 km/h zones, 35% in 100 km/h zones and 57% in 110 km/h zones.

Speed camera enforcement
The numbers of vehicles monitored by speed camera fell from 20,766,824 in 2002/3 to 11,197,211 in 2008/9, a reduction of some 46%. In 2008, and in preparation for the 2009/10 year, new criteria were introduced for the use of speed cameras:

- On a road where a fatal or serious crash has occurred where speed is an element. Cameras to be positioned at a similar time of day. Crash to have occurred within last 2 years.
- At locations of speed-related complaint that demand a positive response to inappropriate or unsafe driver behaviour (complaints to be derived from the Hoon Hotline in the metropolitan area);
- At school zone locations;
- At locations where speed in excess of the posted speed limit has been recorded by more than 15% of road users;
- At locations in accordance with the above criteria only.

Evidence-based advice on best practice in speed enforcement was funded by ORS in 2006 and a recommended package of speed enforcement programs was proposed by MUARC (Cameron and Delaney, 2006). If fully implemented this Enhanced Speed Enforcement Strategy would have produced a 26% reduction in fatal crashes, (a BCR of 10 with investment of $18.6 million.

Final and intermediate outcome data as well as the results of community surveys indicate that agencies as yet are not fully focused on achieving systematic reductions in average mean speeds and excess speed.

It is recommended that mean speeds are reduced through targeted multi-sectoral activity on higher-volume, higher-risk inter-urban/rural roads, on higher risk urban arterials and in urban residential areas.

The new criteria play against the anywhere/anytime principle of deterrence and should be changed.

The introduction of vehicle “owner onus” for speed offences would increase the efficiency of speed camera enforcement.
| Partial | plus back office investment of $4 million) and a 12% reduction in serious injury crashes resulting in reduction of 36 deaths, 210 hospital admissions and 357 medically tested injury crashes annually. WA Police received funding of $30 m in 2009/2010 for upgrading the existing speed and red light camera fleet to digital operation and update back office processing systems associated with offence processing. While these measures are not inconsistent with the MUARC (Cameron) recommendations, substantial additional funding would be required to implement the Enhanced Speed Enforcement Strategy in order to achieve the projected 26% reduction in fatal crashes. Funding priorities would be additional mobile cameras and hours of operation and moving mode radar units. Main Roads WA and local authorities have installed 40km/h School Zones (7.30am-9.00am and 2.30pm-4.00pm – penalty $350 for exceeding zonal limit) at more than 500 metropolitan and 300 country schools. Main Roads is working with the Office of Road Safety on the intelligent speed assist initiative. Speed limits on the WA public road network have been mapped. The initiative utilises an in-car unit to analyse GPS location data, electronically mapped Main Roads speed limit data and the speedometer readings from the car to determine if the car is travelling over the speed limit. A flashing light is used to automatically advise drivers when they are speeding. In Western Australia, Units have been installed in 30 vehicles from different stakeholders to trial the technology. Alcohol management? Probationary licence holders are subject to a BAC of 0.02gm% and full licence holders to a BAC of 0.05gm%. A Repeat Drink Driving Strategy has been proposed comprising several measures. Currently, there is no mandatory testing for blood alcohol for serious injury and an alcohol interlock proposal has not been implemented. In 2009, alcohol was suspected in around 33% of all fatalities. The level of drinking and driving in normal traffic is not known. The number of driver/ rider fatalities with an illegal BAC was 45 in 2009... In addition, 36% of all killed and tested drivers and riders in WA in 2009 had a BAC in excess of 0.05%. High visibility operations tend to be confined to peak | This opportunity needs to be recognised and implemented as a high priority major trauma reduction Measure. The legislative framework on alcohol and in support of the Towards Zero activities needs to be completed in line with international good practice. |
holiday periods. For example, in 2009, Operation Octopus, funded by the RTT carried out 16,703 breath tests additional road traffic enforcement over the Christmas/New Year period. It focused on targeting drink affected drivers who utilise back streets en route to their home.

Drivers were breath tested around 0.7 times on average in WA during 2008/2009 compared with 1.80 times during 2000/2001 and 1.5 times during 2003/2004. This compares to accepted good practice Australian levels of 1 test per driver annually. In 2008/9 levels of breath testing fell by around 35% compared with 2003/2004 and by around 25% compared with levels in 2007/8.

The ORS Tracker survey indicates a downward trend in the number of drivers who recall being breath tested from 47% in 2004 to 30% in 2009.

Research shows that if breath testing is to reduce deaths and serious injuries, it must be highly visual, random and continuous for the general driving population to result in a long-term deterrent impact. The best measure of success for breath testing methods is the trend in the level of drink driving related fatalities. In 2004, there were 40 drink driving related fatalities comprising 22% of all fatalities. In 2009, there were 63 drink driving related fatalities comprising 33% of all fatalities (increasing from 56 in 2008 (27%).

**Drugs management**

New laws providing for roadside screening of three illegal drugs (THC, methylamphetamine and MDMA) came into effect on October 2007 accompanied by publicity. One drug/alcohol testing bus commenced operation in 2007 in metropolitan and rural areas. Further refinements have recently been improved. A publicity campaign is also envisaged.

**Seat belts and child restraints management?**

23% of fatally injured motor vehicle occupants were not wearing a seat belt at the time of the crash in 2009. This was 32% less than the average over the previous 5 years.

92% of new vehicles in Australia have seat belt reminders fitted for the driver. A voluntary agreement is being pursued covering fitment in the front seats.

WA is preparing to implement new national child restraint

Enforcement of drinking and driving laws at present requires review, based upon drink driving fatality outcomes in 2009. As indicated in the Police Manual for the STEP program (p11) “Police should not have to choose between running a deterrence based program or a detection based program. Both have a place and the distinction between them is not clearly defined. And further; Behaviours that are the result of a specific decision in time (such as drink driving) are best countered with a deterrence based program”.

There has been a shift from deterrence to detection policing which given the involvement of alcohol in the 2008/2009 fatalities, requires review of enforcement strategy.

WA should consider requiring front seat belt reminders in cars and light vans in governmental safe fleet policies and encourage fitment in the State fleet. The fitment of
### 3. Entry and exit of vehicles to and from the road network

**Strengths**
- A whole of government fleet safety policy is being implemented which promotes safety equipment
- Promotion of vehicle safety awareness and features to the public is good practice

**Weaknesses**
- Gaps exist in coverage and quality of national vehicle safety standards compared with international best practice.
- The uptake of vehicle safety features in the Australian fleet has been slower than for most OECD countries.

| Do the specified safety standards and rules and related compliance regimes clearly address the safety priorities of high-risk road user groups to achieve the desired focus on results? | Partial | See above |

| Do the specified safety standards and rules and related compliance regimes compare favorably with international good practice? | Partial | See above |

### Observations

- Vehicle design standards are set nationally.
- Many standards are in line with international best practice but there are some important gaps which have implications for Towards Zero implementation.
| Equipment to and from the road network to achieve the desired focus on results? | Cars In some cases Australian Design Rules are lagging behind other leading jurisdictions internationally e.g. legislative requirement for fitment of electronic stability control (ESC) (US), seat belt reminders, safer car fronts for pedestrians (EU).

Given that Main Roads has carried out speed limit mapping for WA, advisory ISA can now be promoted for voluntary take-up by drivers.

Motorcycles
The motorcycle manufacturing industry in EU countries has embarked on voluntary agreements for the fitment of DRL (all new vehicles) and ABS (year on year % increases in fitment to models) The European Commission has announced (20.7.2010) its intention to propose the mandatory fitting of Advanced Brake Systems, Automatic Headlamp On and updated anti-tampering measures (so speed controls cannot be removed) for certain categories of PTWs. In addition, they propose to develop technical standards on protective equipment such as clothing, and to study the feasibility of equipping motorcycles with an airbag and/or including the airbag in the protective clothing.

Commercial vehicles?
Similarly, the fitment of front, rear and side under run protection on heavy commercial vehicles has yet to be required in legislation, as they have elsewhere (EU). Light commercial vans, as elsewhere, are not required to provide effective vehicle occupant crash protection, as in cars.

Public transport vehicles?
Fitting of seat belts in long distance coaches?

Motorcycle and cycle helmets?
The national motorcycle helmet standard is reported as providing lower crash protection to ECE Reg. 22.5.

The national bicycle helmet standard appears to be in line with international good practice. Compulsory bicycle helmet wearing came into force in WA in 1992.

---

<table>
<thead>
<tr>
<th>Advocate for Australian Design Rules to cover safer car fronts for pedestrians, seat belt reminders, ESC, voluntary ISA, heavy goods vehicle under run protection. Include these features in State and organisational safe fleet policies and public procurement.</th>
<th>For each category of vehicles and safety equipment (private, commercial, public, helmets) are compliance regimes in place to ensure adherence to the specified safety standards and rules to achieve the desired focus on results?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle certification? New vehicle certification is a Commonwealth govt. responsibility as are approvals for any (limited) imports of second hand vehicles Vehicle inspection?</td>
<td>Advocate for periodic national review of the crash protective quality of the national motorcycle and bicycle helmet standards with reference to ‘real world conditions’. A national star rating system for the crash protective quality of helmets would provide useful information for helmet buyers.</td>
</tr>
</tbody>
</table>
| Do the specified safety standards and rules and related compliance regimes and safety rating surveys clearly address the safety priorities of high-risk road user groups to achieve the desired focus on results? | Pending | There is no measurement as yet of the % of 4 and 5 star ANCAP vehicles in the WA fleet. However, a national survey conducted by the AAA showed that two thirds of Western Australian consumers were aware of safety rating for vehicles compared with the national figure of 55%.

WA has been active in promoting the display of safety ratings at the point of sale through its Stars of Cars program.

See below comments on safety ratings as they affect pedestrians and children.

On Road Four wheel drive vehicles used by industry.

The industry alliance programs have been pursuing the issue of upgraded international rollover protection standards for their four wheel drive fleet and for all available hire vehicles. Moves are underway to pursue this in international vehicle forums.

Advocate for ANCAP 5 star vehicles to include good performance in pedestrian tests within the rating and require 5 star vehicles in in-house vehicle safety policies. Also consider adding seat belt reminders, voluntary ISA, and ultimately safer car fronts for pedestrians to in-house policy requirements in support of Towards Zero.

Promote alcohol ignition interlocks to encourage better industry response in employers’ work-related safety policies. |

| Do the specified safety standards and rules and related compliance regimes and safety rating surveys compare favorably with international good practice? | Partial | See above for standards, rules and compliance.

State promotion (ORS) of car safety ratings (e.g. Stars on Cars) and requirements throughout government (all agencies) that key vehicle safety equipment should be included in in-house governmental safe fleet policies is best practice.

However, EuroNCAP is arguably more stringent than ANCAP. It now includes more tests /assessments than ANCAP e.g whiplash, child occupant safety assessment, safety assist (speed limitation and seat belt reminders). It also requires good performance in the pedestrian tests to achieve a 5 star rating.

Commercial and passenger transport. Some European countries are promoting alcohol ignition interlocks in commercial and passenger transport by requiring that all vehicles delivering governmental transport contracts are fitted. |

| 4. Entry and exit of road users to and from the road network | Strengths | WA has introduced a Graduated Driver Licensing scheme which compares well internationally. |

Weaknesses |
### Gaps exist in coverage and quality of graduated driver licensing scheme compared with national best practice, particularly in the number of hours required for accompanied driving, the age of access to provisional licences and the length of the provisional license period.

<table>
<thead>
<tr>
<th>Have comprehensive safety standards and rules and associated performance targets been set to govern the entry and exit of road users to and from the road network to achieve the desired focus on results?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Private drivers and passengers?</td>
</tr>
<tr>
<td>o Cars?</td>
</tr>
<tr>
<td>o Heavy vehicles?</td>
</tr>
<tr>
<td>o Mopeds?</td>
</tr>
<tr>
<td>o Motor cycles</td>
</tr>
<tr>
<td>• Commercial drivers?</td>
</tr>
<tr>
<td>• Public transport drivers?</td>
</tr>
<tr>
<td>o Taxis?</td>
</tr>
<tr>
<td>o Buses?</td>
</tr>
<tr>
<td>o Non-motorized vehicles?</td>
</tr>
<tr>
<td>Partial</td>
</tr>
<tr>
<td>The Graduated Driver Training and Licensing scheme was introduced in February 2001 and requires 25 hours of supervised driving before eligibility for testing for a probationary license from 17 years of age. In 2008, several further provisions were introduced: six month learner phase two, up to three year learner’s permit duration, zero blood alcohol content for novice drivers and night time driving restrictions for the first six months of driving solo. Policy options for peer passenger restrictions are currently being finalised by the Novice Driver Review Implementation Group. A proposal to establish a business case to support the introduction of increased supervised driving hours for learner and provisional drivers awaits funding. Learners permits can be applied for from 16 years with applicants required to pass a theory test. Learners must be accompanied at all times by a fully licensed driver. Conditions of learner permit licensing include:</td>
</tr>
<tr>
<td>o a zero blood alcohol level at all times when driving.</td>
</tr>
<tr>
<td>o displaying L plates on the vehicle when driving.</td>
</tr>
<tr>
<td>Learners then commence obtaining experience driving.</td>
</tr>
<tr>
<td>Learners at least 16 years and 6 months old then under take the practical driving assessment.</td>
</tr>
<tr>
<td>When the driving assessment is passed, learners need to drive under supervision, maintain a log book and accumulate a minimum of 25 hours of driving experience across a range of conditions over at least 6 months.</td>
</tr>
<tr>
<td>Learners on or after their 17th birthday can then attempt the Hazard Perception Test (HPT), once the log book has been checked. After passing the HPT learners are issued with a provisional license, which enables them to drive unsupervised.</td>
</tr>
<tr>
<td>• There are certain restrictions and conditions that P-platers must adhere to.</td>
</tr>
<tr>
<td>o display ‘P’ plates at all times</td>
</tr>
<tr>
<td>o a zero blood alcohol level limit</td>
</tr>
<tr>
<td>o Committing certain driving offences as a P-plater could mean automatic loss of licence.</td>
</tr>
<tr>
<td>Observations</td>
</tr>
<tr>
<td>There are issues around access to licensing for young people in remote and urban disadvantaged communities. The vastness of WA creates problems for driver licensing. It may be necessary to reduce the mandated amount of supervised experience for learners in remote communities, even though the level is already low.</td>
</tr>
</tbody>
</table>
Practical driving or riding assessments are required before a provisional license is issued for the post learner phase.

**Motorcyclists:** A graduated rider licensing system exists and the Department of Transport is currently consulting on improvements to international best practice. Currently, riders may apply for an R-E learner's permit at 16 years of age. Applicants for an R-E learners permit must pass a motorcycle theory test and may be required to pass a road rules test. A provisional license is available from 17 years.

**Moped riders:** Riders may apply for an R-N (moped) learner's permit at the age of 15 years and 6 months.

### For each category of driver (private, commercial, public) are compliance regimes in place to ensure adherence to the specified safety standards and rules to achieve the desired focus on results?

<table>
<thead>
<tr>
<th>Process</th>
<th>Status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver testing?</td>
<td><strong>Awaiting info from DoT</strong></td>
<td>Main Roads manages an audit program for over 4 500 State accredited heavy commercial operators. As part of a compliance monitoring program, 220 random audits have been conducted during the year. Main Roads assesses the data it obtains through all its Heavy Vehicle compliance activities to determine its program of random audits.</td>
</tr>
<tr>
<td>Roadside checks?</td>
<td><strong>Awaiting info from DoT</strong></td>
<td>Following industry consultation, the Minister for Transport has indicated that Chain of Responsibility legislation to meet nationally agreed standards is to be introduced into the WA Parliament by the end of 2010.</td>
</tr>
</tbody>
</table>

### Do the specified safety standards and rules and related compliance regimes clearly address the safety priorities of high-risk road user groups to achieve the desired focus on results?

<table>
<thead>
<tr>
<th>Group</th>
<th>Status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young drivers?</td>
<td>Partial</td>
<td>Drivers are required to undertake a medical examination (to assess fitness to drive) at 75 and 78 years of age and every year after 80. From 85 years of age, drivers are required to also undertake and pass a Practical Driving Assessment each year.</td>
</tr>
<tr>
<td>Older drivers?</td>
<td>Partial</td>
<td>Road safety laws in all States and Territories except Western Australia, require all drivers, including drivers of private and commercial vehicles, to report to the Driver Licensing Authority any permanent or long-term illness that is likely to affect their ability to drive safely. (AUSTROADS)</td>
</tr>
<tr>
<td>Commercial drivers?</td>
<td>Partial</td>
<td>The Graduated Driver Licensing scheme compares well internationally. National best practice also comprises 120 hours of accompanied driving and later access to a provisional motor vehicle licence (at 18 years).</td>
</tr>
<tr>
<td>Public transport drivers?</td>
<td>Partial</td>
<td></td>
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</tbody>
</table>

### Do the specified safety standards and rules and related compliance regimes compare favorably with international good practice?

<table>
<thead>
<tr>
<th>Status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generally yes.</td>
<td>Strengths</td>
</tr>
<tr>
<td>* Trauma registries have been established in the major teaching hospitals.</td>
<td></td>
</tr>
<tr>
<td>* Emergency medical response targets are in place.</td>
<td></td>
</tr>
</tbody>
</table>

### Weaknesses

* WA's geography poses severe challenges for prompt trauma care in remote areas. |

## 5. Recovery and rehabilitation of crash victims from the road network

**Strengths**

* Trauma registries have been established in the major teaching hospitals.

**Weaknesses**

* WA's geography poses severe challenges for prompt trauma care in remote areas.
• The potential contribution of improved post impact care in reducing road traffic injury is unknown for WA.

<table>
<thead>
<tr>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have comprehensive safety standards and rules and associated performance targets been set to govern the recovery and rehabilitation of crash victims from the road network to achieve the desired focus on results?</td>
</tr>
<tr>
<td>Australia’s trauma care is generally of a high standard when compared internationally. With a sparse population spread across 2.5 million square kilometers, the geography of WA, presents challenging problems for post impact trauma care in rural areas. Western Australia has the world’s largest land mass covered by a single ambulance service. Research has shown that the total death rate from trauma in the Australian population increases with remoteness, with very remote areas having a rate 2.4 times higher than that of the major cities. On the other hand, 90 per cent of the population live within 200 km of Perth.</td>
</tr>
<tr>
<td>The Department of Health should review a) the potential for increased contribution of emergency medical services, trauma care and rehabilitation services in WA to reducing road deaths and serious injuries and b) ways in which public health could further contribute to Towards Zero activity through road injury prevention activity and road injury prevention advocacy by health professionals.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Access to the emergency medical system</th>
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<tbody>
<tr>
<td>Emergency Response is provided by the St John Ambulance, the Flying Doctor Service Western Operations, and voluntary systems in country areas. The 2009 Productivity Commission Report on Government Services reported ambulance activity which is indicated in the graph below. Across WA, 91 per cent of cases had at least one career paramedic (or career patient transport officers) with nine per cent of cases being performed by volunteer crews.</td>
</tr>
<tr>
<td>The St John’s Ambulance notes that this analysis demonstrates that only the ACT has fewer patients per capita than Western Australia. Some of the larger jurisdictions transport nearly twice as many patients to hospital as Western Australia.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>No of Cases</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan paramedic crews</td>
<td>121,736</td>
</tr>
<tr>
<td>Metropolitan paramedic volunteers</td>
<td>8,716</td>
</tr>
<tr>
<td>Metropolitan patient transport crew</td>
<td>23,961</td>
</tr>
<tr>
<td>Metropolitan volunteer crew</td>
<td>235</td>
</tr>
<tr>
<td>Metropolitan Total</td>
<td>154,066</td>
</tr>
<tr>
<td>Country paramedic crews</td>
<td>4,732</td>
</tr>
<tr>
<td>Country paramedic /volunteer</td>
<td>17,520</td>
</tr>
<tr>
<td>Country volunteer crews</td>
<td>16,848</td>
</tr>
<tr>
<td>Country Total</td>
<td>39,100</td>
</tr>
</tbody>
</table>
Emergency medical response times
A study of almost 4,500 major trauma patients in Western Australia over nine years (Fatovich et al, 2009) found that motor vehicle crashes were responsible for almost half of them. Three groups of patients were studied: (1) metropolitan major trauma transported directly to a major Perth hospital, (2) metropolitan major trauma transported initially to a secondary hospital and then to a major Perth hospital; and (3) rural major trauma transferred by the Royal Flying Doctor Service to a major Perth hospital. The time from the trauma to reaching the major hospital varied considerably between the three groups, being about 1 hour, 4 hours, and 12 hours, respectively. Another study of major trauma transfers in Western Australia (Gupta and Rao, 2003) found that the median transfer time was 9 hours 12 minutes with 93% of patients arriving at the Major Trauma Service (Royal Perth Hospital) within 24 hours. The study was not able to determine whether time delays were due to delays in initiating the transfer, prolonged travelling times, or delays in the preparation of the patient for travel.

The St John's Ambulance response time targets in metropolitan areas are as follows:
- 90% of Emergency calls within 15 minutes
- 90% of Urgent calls within 25 minutes
- 90% of Non urgent calls within 60 minutes

In 2008/9 the emergency calls results were 88.1 per cent within 15 minutes.
For urgent calls 86.1 per cent within 25 minutes
Non urgent calls 79.6 per cent within 60 minutes.

The St John's Ambulance reports that the combination of significant increases in ramp time and activity growth has meant that their “response capacity” has deteriorated to levels that make the achievement of the response time targets impossible. In early 2009, a submission was made to the Department of Health regarding increasing their response capacity to levels closer to those in other Australian states that would see them able to achieve the response time targets.

The Minister of Health announced efforts to improve ambulances services and announced on 20th May 2010 that response times were expected to fall significantly, including:
• Priority 1 responses (ambulance travel to an emergency call using its lights and sirens) to improve from 15.65 minutes to 15 minutes
• Priority 2 responses (ambulance travel to an urgent call not requiring use of lights and sirens) from 27.93 minutes to 25 minutes.
• Priority 3 responses (ambulance call that is not Priority 1, 2 or 4 with the latter being an ambulance call booked to arrive at a predetermined time) from 91.34 minutes to 60 minutes.

Trauma care system
Several jurisdictions in Australia have State Trauma Systems. A review of trauma system and services in 2007 (DoH, 2008) concluded that ‘despite a number of reviews of trauma services in Western Australia recommending the introduction of a system to streamline the delivery of trauma management, the provision of acute trauma services is still poorly coordinated in this State’. Acute trauma services are provided, with varying degrees of complexity, at the three adult and one paediatric teaching hospitals and at a number of smaller metropolitan and country hospitals. The establishment of a trauma system, trauma bypass and the dedicated State Major Trauma Service at RPH were three significant changes to trauma care in 2008. Some aspects of the trauma system services to be implemented are described below:

Extract from Trauma System and Services, Report of the Trauma Working Group, DoH, 2008

A Trauma System will be developed, encompassing the continuum of care from injury detection and control, through definitive care and rehabilitation, incorporating all hospitals and health care facilities in Western Australia. The goal of the trauma system will be to deliver each patient to the trauma care facility, which has the right resources to match his/her needs, in the shortest time possible.

Trauma care will be delivered within a tiered system of hospitals and health care facilities, each of which will be allotted a designated role based upon its capacity to provide particular levels of care that match patient needs. The system of designation of hospitals and health care facilities that has been recommended by the Trauma Working Group and will be implemented in Western
Australia is as follows:
- **Major Trauma Services**: Form the central hub of the trauma system and provide definitive care for most of the State’s major trauma caseload.
- **Metropolitan Trauma Services**: Provide a second level of trauma care to the Major Trauma Services.
- **Urban Trauma Services**: Provide definitive care for non-major trauma according to the availability of local expertise for their local communities.
- **Regional Trauma Services**: Located in a country regional centre, will provide a regional focus for definitive care of non-major trauma according to the availability of local expertise.
- **Rural Trauma Services**: Country hospitals, which have 24-hour availability of an on-duty medical practitioner, serving local communities.
- **Remote Trauma Services**: Small hospitals and health centres, which have no immediately available general practitioners, serving people in remote areas.

The Royal Perth Hospital created Western Australia’s first designated Trauma Services team in 2006. Following the 2007 review, the main Major Trauma Service will be transferred to the new Fiona Stanley Hospital after 2012.

Three major teaching hospitals run trauma registries and the 2007 review recommended the establishment of a State Trauma Registry in line with international and national good practice. Outcome data is not yet analysed systematically as a result of limited of capacity and no information is available on the level of permanent disability arising from road traffic crashes.

The Clinical Training and Education Centre (“CTEC”) at The University of Western Australia has hosted the first Western Australian course on Pre-Hospital Trauma Care aimed at saving lives through better critical trauma care before patients reach hospital.

Following a national review, there is currently a suggestion in WA to move to no fault insurance coverage for catastrophic injuries under the current fault based 3rd party insurance scheme.

For each category of post-crash service (pre-hospital, hospital, and long-term care) are compliance regimes in place to ensure adherence to the specified safety standards and rules to achieve the desired focus on results?

| For each category of post-crash service (pre-hospital, hospital, and long-term care) are compliance regimes in place to ensure adherence to the specified safety standards and rules to achieve the desired focus on results? | See above |

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Eric Howard and Associates, Jeanne Breen Consulting, Tony Bliss, Bruce Corben, September 2010
<table>
<thead>
<tr>
<th>Do the specified safety standards and rules and related compliance regimes clearly address the safety priorities of high-risk road user groups to achieve the desired focus on results?</th>
<th>The potential contribution of improved emergency medical care in reducing road traffic injury is unknown for WA.</th>
</tr>
</thead>
</table>
| Do the specified safety standards and rules and related compliance regimes compare favorably with international good practice? | Pending | A review of trauma system and services in 2007 (DoH, 2008) concluded that ‘despite a number of reviews of trauma services in Western Australia recommending the introduction of a system to streamline the delivery of trauma management, the provision of acute trauma services is still poorly coordinated in this State’.

### 6. Coordination

**Strengths**
- WA has well-established coordination structures at State and local levels.
- The Road Safety Council is an active and competent advisory body and plays a key role.
- Funding mechanisms and professional networks are in place which can be used further to strengthen vertical coordination of road safety.
- Industry Alliances are engaging in Towards Zero and are implementing good practice road safety activities.
- ORS is working actively in the development of an ISO road safety management standard for organisations.

**Weaknesses**
- The absence of a safety performance framework to achieve road safety results in the short to medium term is resulting in a lack of focus for coordination efforts.
- Senior management acknowledges that the current framework for coordination across agencies needs to be strengthened to support governmental decision-making.
- There is a need for an additional grouping of Chief Executives from the key agencies supported by a level of their Senior Managers to support the Ministerial Council.
- Vertical coordination between State and local government is weak.
- Bi-partisan Parliamentary engagement by the lead agency has not continued.

**Are interventions being coordinated horizontally across agencies to achieve the desired focus on results?**

**Partial**

WA has a range of well-established coordination structures. The main multi-sectoral coordinating bodies are the Ministerial Council on Road Safety and the advisory Road Safety Council (RSC) with the Office of Road Safety providing the executive governmental arm.

**Ministerial Council for Road Safety**

The Council brings together Ministers from 6 agencies: Police, Health, Education, Transport (including Main Roads and ORS), Planning, Local Government and Regional Development. It meets around 3 times a year and receives progress reports from the RSC monitoring trends in road trauma and implementation.

**Road Safety Council**

Based on best practice elsewhere and the coordination model recommended by the OECD and World Bank, it is recommended that in addition to existing structures and in support of the Ministerial Council, a Chief Executives Group of the key agencies (Transport, Main Roads, ORS, Health, Police, and Insurance, with a Local Government representative, Education and WorkSafe attending when relevant issues are to be discussed) and including the Chair of the RSC, be established which meets 4 times a year. This would be supported by a Road Safety Managers group meeting monthly. Previously the Road Safety Council Officers Support group fulfilled some of this role, but it is now defunct.

A group of agency representatives working together as
Chaired by an Independent Chairman, the RSC is a strong and effective advisory body comprising representatives from the range of governmental agencies with responsibilities for road safety (Transport, Main Roads, ORS, Health, Police, Education, Planning and Insurance), WALGA - the local government association as well as a motoring organization (RACWA). The Council’s functions set out in the Road Safety Council Act 2002 are:

(a) to identify measures to improve the safety of roads in the State and to reduce the deaths of people, the injuries to people, and the damage to property, resulting from incidents occurring on roads in the State;
(b) recommend to relevant bodies and persons the action that should be taken to implement those measures;
(c) coordinate the implementation of those measures by relevant bodies and persons;
(d) evaluate and monitor the effectiveness of those measures;
(e) evaluate and monitor the safety of roads in the State; and
(f) recommend to the Minister how money standing to the credit of the Account (RTTF) should be spent to implement those measures and to facilitate the performance of the Council’s functions.

The RSC presents an annual report on activities to the Minister after 1st July each year.

The RSC oversaw the development of Towards Zero and carried out extensive 3-phase consultation on Towards Zero with agencies, a Parliamentary reference group, civil society (in metropolitan and remote areas) and the business sectors between May 2007 and June 2008.

The RSC is an influential advisory body but not a decision-making body for government. Stakeholders report that while RSC meetings are well-attended by representative bodies, the CEOs of the key agencies choose not to attend meetings. There is scope for tightening current arrangements.

<table>
<thead>
<tr>
<th>Question</th>
<th>National</th>
<th>State and regional and local levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are interventions being coordinated vertically between national, state, regional, provincial and city agencies to achieve the desired focus on results?</td>
<td>Yes&lt;br&gt;Vehicle and equipment standards are negotiated nationally and need to be aligned at every opportunity with international best practice in view of their strong influence on the quality of the WA fleet.</td>
<td>Main Roads and local government in particular need to work on strengthening their partnerships. These agencies have to deliver the most substantial part of...</td>
</tr>
<tr>
<td>Pending</td>
<td>Need to work on strengthening their partnerships. These agencies have to deliver the most substantial part of...</td>
<td>...</td>
</tr>
</tbody>
</table>
Ministerial Council and various frameworks exist (e.g. funding mechanism) which provide foundations for effective working. It is clear, however, that this area presents a substantial challenge for successful implementation.

Concern was expressed that the priority for state government/local government interaction across most activities, including road safety, was strongly operational with considerable difficulty being experienced by both parties in establishing a more strategic focus.

Stakeholders reported a range of problems – e.g. concern about the amount of approvals needed before local government can implement internationally proven innovative practices; concern about the safety quality of existing standards and guidelines; concern about the safety quality of innovative treatments and the lack of consistency with State-wide programs and their funding, the lack of available funding and the challenge of capacity development of middle management and senior staff and elected members, considered a critical matter limiting progress.

RoadWise

WALGA is the regional coordinator for road safety through the Roadwise program supported by the RTTF. There are 142 local governments in WA divided into 11 regions. A centrally based development team of 6 focuses on coordinating state-wide initiatives, planning new programs, producing tools and resources and administering community road safety grants. Each regional road safety officer covers one region and services between 4 – 25 local government areas. The objective of the Roadwise/local road safety committees (comprising local government, Main Roads, Police, emergency services, Health, schools, government agencies, private sector, NGOs, community groups and individuals) is to engage and involve communities in the dissemination and sharing of information and knowledge as well as building social capital for frontline road safety. More than 50% of local government areas in WA have a formal local road safety committee.

Towards Zero and a combination of top down and bottom approaches has been shown to be effective in embedding Safe System approaches into State and local road strategies.

The application of the STEP funding mechanism through the RTTF offers opportunity to further improve the focus on key safety rules through enhanced safety policing at district level, in accordance with Towards Zero needs.

Planning is another department which has a substantial impact on safety at the local level. It is the view of a number of local governments that the safety impacts of development are failing to be assessed and remedied and this is aggravated by the process for approvals which very often fails to provide a means for local government road safety impact concerns to be addressed.

State and Local governments should focus on improving the strategic nature of their engagement through Memoranda of Understanding or other mechanisms which would encourage a broader focus than on day to day operational issues.

The program warrants additional support being provided through the ORS and MRWA subject to additional funding being made available.

The current review of the local government road funding agreement between State and local governments offers the opportunity to build an improved safety focus and safety performance measures into the local government infrastructure allocation and works process.

Have robust intervention delivery partnerships between agencies, industry, communities and the business sector been established to achieve the desired focus on results?

Partial. Examples of both strong and weak

Very good and comprehensive frameworks exist for bilateral and multi-agency partnerships and good relationships generally exist between agencies. However, stronger partnerships will be essential if "Safe Fleet" policies across government.

Creating a demand for safety equipment (e.g. seat belt
### Implementation of the Strategy

Implementation of the strategy is to be achieved. Aside from partnerships between key agencies, transport, main roads, health, ORS etc, several other notable coordination structures exist which can help to drive the road safety strategy implementation:

#### Industry Road Safety Alliances

WA has formalised commencement of a number of road safety improvement partnerships or alliances with industry, built around the Safe System approach. This has responded to a need expressed by many larger companies for a focus on improved road safety for their employees - on site, travelling to and from the worksite to/from home and for their safety on the road network in general.

The Alliances include the South West Alliance, Pilbara Alliance, Heavy Vehicles Road Safety Working Group, Utilities Working Group and the WA State Mining and Petroleum Alliance. The Alliances represent some 300,000 employees currently, with scope for extension. Some of the larger mining companies involved in these alliances have for example, developed (with the RSC through the ORS) proposals for supply by manufacturers internationally of 4 wheel drive vehicles which meet improved rollover safety standards, with a view to procuring vehicles of this standard for their operations internationally. The process has included examination of consistency of rollover protection standard required by the larger companies for on road hire vehicles in WA. These issues are now being explored at an international level through industry associations by the major companies.

Companies sign up to 2 year and 5 year agreements which are renewable.

There are numerous opportunities for partnership activities and potential to promote road safety to the broader community through informing the community about practices on site and beyond which are supported by the Companies.

Formed in November 2008, the South West Industry Alliance as an example, is a partnership agreement initially of 2 years comprising six industrial partners, three local government partners and four State government departments. It uses Toward Zero 'as a guide', has adopted the Safe System model for road safety and uses the OLA process for problem solving. Objectives include:

- reminders, alcolocks, advisory ISA) in public procurement agreements and in partnerships with professional associations, e.g. road haulage, public transport, taxi driving companies and employers would be a valuable step.

ORS and WorkSafe should combine to produce a work-related road safety strategy which provides guidance to employers on how to take forward Toward Zero strategies and measures. A new draft ISO standard on road safety management should provide one useful tool for this process.
<p>| | |</p>
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<tr>
<td></td>
<td>a coordinated and proactive approach to road safety;</td>
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<tr>
<td></td>
<td>identifying and addressing road safety hazards;</td>
</tr>
<tr>
<td></td>
<td>participation in safety improvement on road networks that service the Alliance membership; and</td>
</tr>
<tr>
<td></td>
<td>working together to educate workforces and communities about road safety within the Alliance’s sphere of influence.</td>
</tr>
<tr>
<td></td>
<td>It has led to a range of road safety initiatives including road upgrades, better street lighting, heavy haulage curfews, bus services, speed restriction, support for targeted police enforcement and driver education campaigns.</td>
</tr>
<tr>
<td>Transport Forum WA</td>
<td>This Alliance is supported by the ORS and works with the WA transport industry to examine and apply safety improvements. The developed strategy is based on adoption by an organisation of one of four levels of safety compliance (including the soon to be finalised ISO 39001 road safety management standard). This activity commenced in 2010 and it is intended that it will extend in time to every transport industry operator.</td>
</tr>
<tr>
<td>Heavy Haulage Focus Group</td>
<td>Main Roads in partnership with Transport Forum Western Australia has established a Heavy Haulage Focus Group, which represents operators in the road transport industry who move large indivisible loads with Specified Journey (Single Trip) Access Permits. Since its inception, the work carried out by the Group to address issues has significantly strengthened Main Roads’ relationship with this key stakeholder group.</td>
</tr>
</tbody>
</table>
| The Motorcycle and Scooter Safety Action Group forums | These aim to improve motorbike safety through the sharing of ideas and development of action plans. Motorbike riders are 23 times more likely (per kilometre travelled) to be involved in a crash than motorists, and make up 17% of the road toll despite representing only 3% of vehicles on the road. Main Roads played a key role in presenting and facilitating the forum in May, which was attended by over 80 representatives from relevant organisations. The consultation process invited partners to share ideas and to publicly commit to actions. An idea that came out of the forum was for motorcycle safety messages to be incorporated into the rotation of messages presented on freeway variable message signs. As a result, signs have been reminding motorists,
motorcyclists and scooter riders of safety on the road, driving an overwhelming positive feedback response. A Calendar of proposed road safety activity for the period ahead is produced as a joint planning exercise by the agencies. However, it is understood that the collaborative effort required for successful operation especially with communication within agencies has fallen away in recent years. Efforts to address this decline have not been successful to date.

<table>
<thead>
<tr>
<th>Have parliamentary committees and procedures supporting the coordination process been established to achieve the desired focus on results?</th>
<th>Partial</th>
<th>A bi-partisan approach to road safety can provide support and continuity for a long-term road safety strategy. An all-party Parliamentary reference group with an independent chair was established during the preparation of the <em>Towards Zero</em> strategy, but no longer meets.</th>
</tr>
</thead>
</table>

The continuation of a bi-partisan approach to road safety is highly recommended. This might be achieved through periodic meetings with an all party Parliamentary Road Safety group or through annual all-party Parliamentary Committee Public Inquiries/conferences on road safety as well as periodic reporting to Parliament by the ORS and Road Safety Council on progress *Towards Zero*.

### 7. Legislation

**Strengths**
- WA has a generally comprehensive legislative framework
- In general, the capacity for developing legislative proposals is good, although some business case development awaits funding
- The lead and other key agencies are active in seeking support for further legislative development in support of *Towards Zero*

**Weaknesses**
- A range of legislative instruments are required to support *Towards Zero* in the short to medium term.
- The long-term goal of the road safety strategy is not established in legislation, as in some other countries
- The institutional roles, responsibilities and accountabilities for *Towards Zero* are not formally established.
- No specific legal duty for road safety exists at local level.
  - The current speed limit framework, the driver licensing framework and some aspects of the vehicle standards framework do not reflect international and national good practice.

**Are legislative instruments and procedures supporting interventions and institutional management functions sufficient to achieve the desired focus on results?**

| Partial | A range of measures have been proposed by the RSC or are in the pipeline which would provide good support for *Towards Zero* implementation. These include: vehicle owner onus for camera offences; mandatory BAC testing in the case of serious injury, and alcolocks for repeat offenders and high risk first time offenders (programs have been introduced in other Australian states e.g. Victoria, New South Wales and Northern Territory). The capacity for effective management of speed and excess alcohol will be dependent on the quality of the legislative framework within which it has to operate.  
  
  The current speed limit framework, the driver licensing framework including the extraordinary license option. |
| --- | --- | --- |

In addition to implementing these provisions, WA should review legislative duties and accountabilities for road safety to meet *Towards Zero* needs.

It is recommended that ORS stakes the lead for the development and coordinated implementation of *Towards Zero* legislation.

It is recommended that the powers of proposing legislation and enforcing it are separated at agency level in line with international good practice.
(often applied for and made available when a full license is lost), some aspects of the vehicle standard framework do not currently represent international good practice.

In addition, local government is being inhibited from implementing innovative international best practice through a requirement to seek approvals from Main Roads for relatively small scale road safety improvements e.g. mini-roundabouts, speed management in residential areas. There is no specific legal duty for road safety on the part of local authorities.

<table>
<thead>
<tr>
<th>Are legislative instruments and procedures supporting interventions and institutional management functions regularly reviewed and reformed to achieve the desired focus on results?</th>
<th>Partial</th>
</tr>
</thead>
<tbody>
<tr>
<td>At present there is not a preamble on road safety to the Main Roads Act or the Road Traffic Act, MRWA are seeking these changes. Consolidation of rules is carried out periodically. Drive Safe – the handbook of rules for Western Australian road users is produced by the Department of Transport and is updated periodically.</td>
<td>See above</td>
</tr>
</tbody>
</table>

8. Funding and resource allocation

Strengths
- WA has an excellent range of good practice funding mechanisms including specifically allocated core funding, a road safety fund; a format for specific allocations from State to local government and an insurance sector contribution
- The Road Trauma Trust Fund provides a transparent mechanism for funding multi-agency initiatives.
- WA will adopt willingness to pay in analysis of benefits of interventions

Weaknesses
- The identified annual increases in Towards Zero, agreed across Government, are not being provided in core funding, road safety fund resource, or insurance industry support.
- A cut in Safe Roads Program funding was made for 2010/11 – the first year of strategy implementation.
- Specifically allocated core funded budget lines are not fully aligned with Towards Zero strategic fields, as in the RTTF. 
- Evidence-based road safety activity local government has been funded mainly by the RTTF.
- Cost benefit analysis is not widely used in the development of business cases.
- The allocation to the Road Trauma Trust Fund comprises only a small proportion of current camera fines and resource allocation procedures will need to be strengthened once the safety performance framework for Towards Zero is established further.

<table>
<thead>
<tr>
<th>Are sustainable funding mechanisms supporting interventions and institutional management functions in place to achieve the desired focus on results?</th>
<th>Yes – good framework allowing maximum flexibility but current levels are</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA road safety budget comprises funding from core central government funding based on fees, taxes etc., a well-established road safety fund, and small contributions from the government insurer. There is great and well justified concern amongst governmental and non governmental stakeholders that state and local governments are not committing higher...</td>
<td>WA’s funding mechanisms are consistent with international good practice but annual levels of funding are insufficient to address annual budgets for Towards Zero implementation.</td>
</tr>
</tbody>
</table>
levels of resources to safe system treatments and the implementation of Towards Zero.

Central budget?
While Government has signed off on the strategy, it is not yet committing sufficient annual resource in core funding to fund the implementation of the strategy for infrastructure at state and local government levels and for the ramping up of police speed enforcement particularly for speed compliance, on an annual basis. See specific program funding details below.

A summary of specific funding provision compared to funding identified as required to achieve Towards Zero implementation, for all of the Activities identified by the Road Safety Council in May 2010 as High Priority are set out in Annex 1. The gaps in funding are identified and they are concerning.

Safer Roads Program and Black Spot Program
The strategy envisaged that an increased level of investment of $122.5 million annually beyond current infrastructure investment was required to implement the State road infrastructure component of the strategy.

For 2009/10 government renewed funding for two existing programs comprised – the $35 million Safer Roads Program ($161 million allocated between 2005/6 and 2009/10) and the $20 million Black Spot program.

Increased annual allocations of $30 million for the Black Spots program and $90 million for the Safer Roads Programme were requested for 2010/11 and for the following 3 financial years, commensurate with the increasing level of annual investment for Safe Roads and maintenance of the black spot budget envisaged in Towards Zero. The Safer Roads program was allocated $35 million, around 50% of which is to be spent on bridge improvements, so allowing only $17.5 million for roads and roadsides over the full forward estimates period.

Core funded police enforcement
Police enforcement of key road safety rules is financed by core funding with a further $1.7m allocation from the RTTF annually for enhanced enforcement activity by Police. (STEP) (see RTTF section)

Core funding for road safety requires urgent attention in ORS, Police, Main Roads, health and local government budgets. Agencies need to give greater attention to building further capacity, to finding funding to establish strong business cases for intervention development and implementation and to fund the rapid knowledge transfer necessary is some areas to make progress.

The Office of Road Safety as lead agency carries out critical lead and coordination functions including support for the RSC. Funding is required to provide for further strengthening. At the same time, funding for conduct of public campaigns through the ORS has not been substantially increased for some years and change is needed if this activity if the Towards Zero goals are to be met.

Main Roads has sought substantial increases in funding to meet the infrastructure safety improvement objectives within Towards Zero, as identified by MUARC in the development of the Strategy. The strategy envisaged that an increased level of investment of $122.5 million annually beyond current infrastructure investment was required, comprising $30 million for the Black Spots program and $90 million for the Safer Roads Program in addition to ongoing funding. Funding, however, for the Safer Roads program was in fact reduced.

There is great concern amongst stakeholders that Main Roads WA and Local Government are not yet actively implementing the safer roads and roadsides activity envisaged in the road safety strategy. The strategy recognizes that priority focus on roads and roadsides (plus targeted increased police enforcement) can produce the largest overall reductions in deaths and serious injuries. New road safety improvements are needed on single vehicle run-off road crashes and intersection crashes.

Royalties for regions funding for improving regional road safety would provide an opportunity to increase understanding in the regional/remote communities of the characteristics of a safe road and opportunities for early improvement of current infrastructure safety levels.
A recommended package of speed enforcement programs was proposed by MUARC (Cameron and Delaney, 2006). If fully implemented this Enhanced Speed Enforcement Strategy would have produced a BCR of 10 with investment of $18.6 million plus back office investment of $4 million and achieved a reduction of 36 deaths, 210 hospital admissions and 357 medically tested injury crashes annually.

WA Police received funding of $30 m in 2009/2010 for upgrading the existing speed and red light camera fleet to digital operation and to update back office processing systems associated with offence processing. 23 multinova cameras are to be progressively replaced in 2010 with Vitronix mobile cameras, and 30 existing wet film red light cameras are to be augmented by 30 digital Redflex speed and red light cameras during 2010. An initial trial of 14 Tru Cam hand-held lasers is occurring with a view to further purchases subject to a successful trial.

Substantial additional funding would be required to implement the MUARC recommended Enhanced Speed Enforcement Strategy in order to achieve the projected reduction in fatal crashes. Funding priorities would be additional mobile cameras and hours of operation (from 2000 per month to 12,000 per month), moving mode radar units, and point to point cameras.

This level of application was recommended as necessary to realise the road trauma savings from improved speed compliance adopted in the strategy.

Funding has not yet been provided.

All other funding directly linked to Towards Zero is funded through the Road Trauma Trust Fund.

Combined information and enforcement is essential in good practice activity. The level of funding for systematic and essential publicity activity supporting compliance of key road safety rules need to be increased. An additional $6 million is needed to restore public information activity levels to 2001 levels.

The implementation of the speed camera component of the Cameron (MUARC) Report should be a priority for government to achieve adopted Towards Zero outcomes. The need for expansion of mobile camera numbers and hours is urgent and will immediately reduce fatalities in the metropolitan and urban areas by a substantial amount (estimated to be in excess of 36 fatal crashes within 12 months of full rollout.)

Local Government

Following an agreement between Main Roads and Local Government since 1995, local government receives 27% of vehicle licensing fees for local roads. A new strategy is currently being negotiated for how these monies are to be distributed and the 2010/11 budget is expected to be around $120 million. Road safety is expected to be a priority component in the new agreement accompanied by performance indicators. The negotiation of the Agreement is on hold for one year by agreement of both
parties. This provides opportunity for infrastructure safety components to be considered and specific safety outcome performance indicators to be agreed as a condition of continued road funding.

In early 2009 the State Government announced a new $2 million program to install safety cushions over four years on local roads.

Road Fund?
The Road Safety Council Act 2002 provides that one third of all monies collected from red light and speed camera offences are credited to the Road Trauma Trust Fund. Funds held are applied for the purposes established in the Act, as approved by the Minister for Road Safety on the recommendation of the RSC. An Annual Budget is prepared by the ORS in accordance with the outcomes outlined in the State road safety strategy – Towards Zero. In 2008/9, RTTF funds were committed to research, development, implementation and monitoring of road safety activities. The activities enhance the core business expenditure from other agencies responsible for road safety. The Fund represents a transparent and good practice mechanism for funding multi-sectoral activity (going beyond core road safety business funding).

Fines revenue from camera offences is expected to rise from $37 million (2009/10) to $93 million (2010/11). Project assessment criteria have been defined:
• Towards Zero benefit
• Strategic alignment to 5 cornerstones of Towards Zero
• Political, government and community interests
• Investment value
• Project risk

Multi-agency project assessment groups have been brought together and Road Safety Council Finance sub-committee uses and recommendations for funding are made to the RSC.

A total of $23,389,000 has been assigned for 2010/11 comprising:
Safe Speeds – 7.8% (of total budget)
Safe Roads and Roadsides – 4.6%
Safe Vehicles – 5.9%
Safe Road Use – 43.8%

The RTTF is an important pillar of WA road safety funding and needs to be strengthened.

Consider increasing the allocation to at least two-thirds of camera income (if not all) to the Road Trauma Trust Fund.

The Road Trauma Trust Fund projects are delivering priority Towards Zero actions. Many of the projects funded by the RTTF could also be covered by core funding by the different agencies (e.g. business case development, legislative development etc).

Notwithstanding the efforts that are made using the current Project Assessment Criteria, the RSC should consider how these criteria can be strengthened once the safety performance framework is established in order to ensure that the RTTF is meeting Towards Zero objectives.
| Safe System Foundations - 15.6% | $15m for ORS managed expenditure and $8m grants to external agencies. |
| Strategic Traffic Enforcement Program (STEP) | The intention of STEP is to give police at district level more opportunities to target specific road safety problems using a strategic approach to enforcement thereby increasing the actual and perceived levels of enforcement in both metropolitan and regional areas and ultimately changing driver behaviour. The budgeted amount for 2010/11 is $1.7 million from the RTTF. The intended process is as follows: |
| • The WA Police submits a proposal to ORS outlining how the WA Police will ensure STEP funds are distributed so that STEP funded enforcement operations are focused on: |
| ‒ an intelligence led, analysis of the crash data |
| ‒ partnering between districts and central office so that operations are based on both local knowledge and strategic expertise |
| ‒ the locations in which crashes are occurring (in general major highways within a 400 km radius of the metropolitan area and regional centres (refer to Main Roads crash maps in the Recommended Strategy)) |
| ‒ key contributing behaviours (speed, drink driving and restraint non-use) |
| • The proposal to be based on the underlying principles to: |
| ‒ preserve and increase capacity for strategic traffic enforcement by encouraging district involvement |
| ‒ support districts through central involvement in the identification of key issues and appropriate enforcement strategies |
| • Ensuring that ‘on-road’ shoulder rubbing between Traffic Enforcement Group (TEG) personnel and regionally based officers will take place so that the highly trained metropolitan- based TEG can do ‘on the job training’ and knowledge transfer to district staff. |
| Community grants programme | WALGA also manages the administration of the Community Road Safety Grants program (currently 58 |
| The STEP funding agreement between the RSC and Police envisaged a strategic allocation of this additional funding to meet relevant local (district) traffic enforcement needs, based on crash and other related data analysis and trends over the past five years. It is understood that at least the last two six monthly allocations have been distributed equally to all Police districts by Police. |
| It is considered critical to the successful deployment of this STEP funding and the valuable contribution it can make to improved road safety performance, that the agreement between RSC and Police is clear in requiring strategic analysis of the crash characteristics in each Police region to support the allocation of top up funding to each district. Police should then centrally determine recommendations for funding allocation based on the regional analyses as well as providing districts with guidance as to which operations would be most effective in addressing the specific characteristics of road crashes in each district. STEP seeks to drive this level of strategic analysis within Police. Strengthened reporting and accountability to the RSC are required and knowledge transfer support for the Police is also likely to be necessary. Allocations to districts should be based on data analysis and relative likely benefit in reducing serious casualties in future. |
| Refreshed commitments between WAPOL and RSC to a more strategic process and outcome are necessary. | The ICWA contribution is against the background of the |
Third party insurance and levies
In 2009, the ICWA contributed $2.8 million to Road Safety Council approved education programs as well as leading a cross government initiative on an online crash injury database.

lowest injury insurance premiums in Australia, the downward trend in insurance claims and amounts paid out following motor vehicle injury claims n 2008/9 of approximately $288 million. It is recommended that ICWA substantially increases its investment in road safety in areas which will give demonstrable value for money returns. On an ongoing annual basis the increasing operating surplus - if premiums were to be held at current levels - could be allocated to specific programs (through the RTTF) for Towards Zero implementation.

A levy on motorcycles sales is needed with a 50% increase in sales over last 10 years. In Victoria there is a supplementary third party insurance levy for motorcycles with funds being directed to addressing high risk locations for motorcycling with advice about objects of expenditure provided by a Motorcycle Advisory Council reporting to the Minister for Road Safety.

Are formal resource allocation procedures supporting interventions and institutional management functions in place to achieve the desired focus on results?
- Cost effectiveness?
- Cost benefit?

Are funding mechanisms and resource allocation procedures supporting interventions and institutional management functions sufficient to achieve the desired focus on results?
- Yes
- No

Is there an official Value of Statistical Life (VoSL) and related value for injuries to guide resource allocation decisions?

Pending

The ORS and Main Roads indicate that the VoSL developed by the University of Sydney and subsequently adopted by the New South Wales RTA will be adopted and used in WA in the financial year beginning 1st July 2010.

Use of WTP is in line with international good practice, will increase the value of preventing death and disability and raise the importance of road safety projects relative to other competing societal interests. It is important that the VoSL is updated periodically.

Are funding mechanisms and resource allocation procedures supporting interventions and institutional management functions sufficient to achieve the desired focus on results?

Pending

While agencies promote evidence-based approaches and measures, cost benefit analysis is not used widely. Other allocation methods such as value for money and Towards Zero fit are used.

Business cases need to be prepared making a strong case for funding. While a BCR basis would be preferred, this may not always be possible given the relatively light traffic volumes across much of the WA road network. Alternatively, “value for money” and “strategic fit with the Strategy” should be the key principles guiding investment priorities.

Is there an official Value of Statistical Life (VoSL) and related value for injuries to guide resource allocation decisions?

Pending

The ORS and Main Roads indicate that the VoSL developed by the University of Sydney and subsequently adopted by the New South Wales RTA will be adopted and used in WA in the financial year beginning 1st July 2010.

Use of WTP is in line with international good practice, will increase the value of preventing death and disability and raise the importance of road safety projects relative to other competing societal interests. It is important that the VoSL is updated periodically.

Are funding mechanisms and resource allocation procedures supporting interventions and institutional management functions sufficient to achieve the desired focus on results?

Yes

The funding mechanisms are consistent with international good practice, but current funding levels whether core funding, road safety fund resource, insurance industry support are not sufficient to achieve significant Towards Zero results. A resource allocation framework based on value for money and cost effectiveness is required.

Alongside the lack of a safety performance framework, the low levels of funding and the lack of a rational resource allocation framework are inhibiting progress in implementing Towards Zero.

9. Promotion

Strengths
- The long-term vision of Towards Zero is being promoted by the ORS and the RSC as core business and a shared responsibility.
- Strong advocacy outside government for Towards Zero implementation has commenced.
- There are emerging examples of industry leadership positions of good road safety practice within and outside worksites which exceed currently accepted community standards

Weaknesses

Eric Howard and Associates, Jeanne Breen Consulting, Tony Bliss, Bruce Corben, September 2010
<table>
<thead>
<tr>
<th>Is road safety regularly promoted to achieve the desired focus on results?</th>
<th>Yes</th>
<th>Promotion and advocacy by government agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall vision and goals?</td>
<td>Yes</td>
<td>The RSC, ORS, Police and other agencies have been highly effective in advocating the need for the Towards Zero strategy to the government and community. WA Health and health agency organisations have a key role in road safety promotion in implementing the National Injury Prevention and Safety Promotion Plans as well as in support of Towards Zero.</td>
</tr>
<tr>
<td>Specific interventions?</td>
<td>Partial</td>
<td>Advocacy by the independent RSC Chair and agencies A communications plan is being devised by the Chair and ORS to advocate Towards Zero and RSC positions. RSC agencies have responded positively to the Chair’s request that media work be shared.</td>
</tr>
<tr>
<td>Specific target groups?</td>
<td>Yes</td>
<td>Advocacy by the research and NGO sectors The RACWA is active in advocating for governmental action on road safety expressing concerns for lack of agency accountabilities and budgets for road safety. C-MARC regularly advocates for attention to be given to key road safety problems and the Safe System approach both externally and within the University. KIDSAFE is active in promoting correct child restraint use.</td>
</tr>
</tbody>
</table>

**Specific interventions?**
Promotion of speed management which is at the core of Safe System is not being carried out at a high enough level needs to be addressed urgently. The Chairman of the RSC reports that there has been an estimated 50% cut in the activity level of safety information campaigns due to bureaucratic obstacles.

**Specific target groups?**
The RSC Chair has called for more specific targeting of the private sector towards the wider application of vehicle safety rating policies by fleet managers. A number of the industry partners are carrying out leading edge road safety practices in their worksites. Much of this information could be packaged for public awareness campaigns in an interesting and highly accessible manner.

**There is an urgent need for continuing advocacy to establish the safety performance framework, to secure sustainable increases in road safety budgets and for strong governmental leadership in launching Towards Zero.** Advocacy from independent sources is important in achieving road safety results, as is the contribution of the lead governmental agency. Other governmental agencies need also to enter into the public debate wherever possible and demonstrate responsiveness to the issues raised. There is a need to identify individuals with sufficient profile and interest in the subject of road safety to influence road safety support at community and senior government levels.

Approval processes for advertising have been restrictive in recent months but now appear to be resolved. Important combined publicity and enforcement for key safety rules by WA Police and ORS and other key agencies has not been working efficiently and needs to be fully restored.

Whilst active with ORS in establishing State governmental policy on Safe Fleets, WorkSafe could consider increasing its role in promoting road safety to employees in its occupational health and safety programs.
| 10. Monitoring and evaluation |    | 
|-----------------------------|--|---|
| **Strengths**               |    | 
| • A wide range of databases are available in support of monitoring and evaluation. |    | 
| • Best practice record linkage is conducted and may be expanded. |    | 
| • Independent peer review of road safety management system. |    | 
| • Efforts are being made to improve the quality and or efficiency of key data systems. |    | 
| **Weaknesses**              |    | 
| • There is an absence of recent, intermediate outcome data on drinking and driving, occupant crash protection, quality of the vehicle fleet. |    | 
| • Further automation of data is needed to facilitate data sharing and analysis. |    | 
| • Absence of long-term outcome analysis in trauma registries. |    | 

For each category of roads (national, regional, provincial, city) are sustainable systems in place to collect and manage data on road crashes, fatality and injury outcomes, and all related road environment/vehicle/road user factors, to achieve the desired focus on results?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Partial</th>
</tr>
</thead>
</table>

At State level, the collection, dissemination and sharing of data in WA presents elements of international best practice while at the same time not yet fully addressing Towards Zero needs. There is limited monitoring and evaluation at local level where numbers can be small. An annual report ‘Reported Road Crashes in Western Australia’ is prepared and published by ORS (although there is a time-lag of 2 years for publication).

**Vehicle and driver licensing data**

WA uses a system called TRELLIS – the Transport Executive Licensing System which is administered by the Department of Transport. The system is currently being rationalised towards greater efficiency. The sharing of licensing data is restricted at present.

The Towards Zero strategy requires rigorous performance monitoring activity and a consolidated report prepared by the lead governmental coordinating agency (ORS) to be successful.

There is also a need for significant improvement in the automation of data to assist analysis. Data is not always available and in accessible form for use by multiple agencies and there is concern about this fragmentation.

Main Roads and local government should create capacity in order to work more closely to assess safety performance of the local road network.
### Crash injury data systems

A range of data systems are in place and several agencies share responsibility for the collection of road crash statistics (WA Police, Main Roads, Health Dept, ICWA, Justice Dept., Australian Dept of Infrastructure, Transport, Regional Dev. and Local Govt, ABS and Synovate).

Crash injury database is maintained by WA Police (road crash fatalities and critical injury reported online by ORS) and Main Roads (IRIS - detailed crash description in reported annual crash statistics and other books).

Health sector data on hospital admissions (reported road crash publication by special request to ORS). Trauma registries exist at teaching hospitals e.g. the Royal Perth Hospital.

Best practice and advanced data linkage is also being carried out (by special request to ORS and forwarded to data linkage unit). By 2012 it is expected that ambulance and flying doctor information will be included to provide further input on health sector response. Driver and vehicle licensing data will be added in 2010/11 to allow case control and population level studies of crash and driver risk to be investigated.

ICWA collects detailed road crash information including insurance claims. In collaboration with a range of agencies, an ICWA Online Crash Reporting Facility (OCRF) is being developed with the ultimate aim of enabling a whole of government approach to capturing, recording and sharing of data.

The Justice Dept reviews coronial cases and findings are available by special request to the National Coronial Information System (NCIS) for a fee.

The ABS compiles data on population, the number of kilometres travelled and the number of registered motor vehicles.

With executive support from the ORS, the RSC has established the Towards Zero Outcomes Review Group which brings together several agencies on a quarterly basis. The aim is to ensure that the combined knowledge, information and data gathering resources of all RSC agencies are enhanced, applied, and shared to enable more accurate and timely measurement, analysis, mentoring and reporting of progress of the interim safety performance framework.

The ORS, RSC and key agencies should ensure that data bases, surveys etc providing information on the interim safety performance framework are established.

The ORS should be accountable for receiving all relevant outcomes and outputs and establish Memoranda of Understanding at Chief Executive level with key agencies for receipt of periodic info on performance indicators as a key to the achievement of Towards Zero. These indicators should be reported regularly to the RSC and twice a year to the Ministerial...
implementation of *Towards Zero* and to better inform future policy development and implementation. Consistent high level representation from all relevant agencies is an issue.

Council. Further capacity is needed in the ORS is support of this activity.

### For each category of roads (national, regional, provincial, city) are sustainable systems in place to collect and manage data on road network traffic, vehicle speeds, safety belt and helmet wearing rates, to achieve the desired focus on results?

<table>
<thead>
<tr>
<th>Category</th>
<th>Vehicle speeds</th>
<th>Drinking and driving levels</th>
<th>Seat belt and child restraint wearing rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Main Roads carries out surveys of mean speeds and 85% percentile speeds in representative sections of the road network. Data sharing has commenced between Main Roads/Policing and Local Government for speed information. In 2007, mean vehicle speeds in metropolitan and rural areas were below the posted speed limit of the roads surveyed. A downward trend was evident in metropolitan mean speeds on 60km/h and 70 km/h roads, an increase on 100km/h in Perth. Drivers on metropolitan 60km/h and 70 km/h roads drive on average 1-2 km/h faster than drivers on the same speed limits on rural roads. However, non-compliance levels are high.</td>
<td>There is no indication of the level of drinking and driving in normal traffic. The last systematic roadside breath testing survey at representative sites in the metropolitan road network was conducted in 2001 and indicated that around 2.1% of drivers tested were over the limit.</td>
<td>Observational seat belts surveys are conducted periodically. An observational survey in May 2006 (WC71632) indicated wearing rates of 96%. In the 1-4 age groups only 63% were correctly restrained. The Kimberley region has the lowest general wearing rate at 72% which was 15% lower than the State average. Telephone surveys of self-reported behaviour are used.</td>
</tr>
</tbody>
</table>

### For each category of roads (national, regional, provincial, city) are regular safety rating surveys undertaken to quality assure adherence to specified safety standards and rules, to achieve the desired focus on results?

<table>
<thead>
<tr>
<th>Category</th>
<th>Vehicle safety ratings?</th>
<th>Risk ratings and Road protection scores?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>WA promotes Australian New Car Assessment program (ANCAP) as well as the User Car Safety Ratings. Governmental agency fleets have to achieve 4 stars or more as well as a range of safety equipment. However, the State-wide fleet is not yet analysed according to ANCAP safety rating, although there are plans to do so.</td>
<td>The main roads network has received an AUSRAP safety rating. Main Roads is currently working on a nationally supported Enhanced AUSRAP with the aim of improving the diagnostic tool to provide an indication of the safety</td>
</tr>
</tbody>
</table>

Recommended performance indicator is % of vehicle fleet at 4 and 5 star levels.

Recommended performance indicator is the % of the higher volume network which is rated at 4 and 5 stars by enhanced AusRAP.
The standard of the rural road network. This is used as only one element in deciding on priorities since the current rating methodology does not factor into the assessment the actual crash performance nor traffic volumes. The aims is to invest in areas of the infrastructure where investment will produce greatest benefit.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Partial</th>
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<tbody>
<tr>
<td>For each category of roads (national, regional, provincial, city) are systems in place to collect and manage data on the output quantities of safety interventions implemented to achieve the desired focus on results?</td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>• Safety engineering treatments?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Police operations?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Educational activities?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Promotional activities?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Driver training?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Vehicle testing?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Emergency medical services?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and surveys are undertaken but without systematic subsequent analysis of trauma registry data on long-term outcomes. The Minister of Health announced new targets in May 2010 - there would be improvements for: Priority 1 responses (ambulance travel to an emergency call using its lights and sirens) to improve from 15.65 minutes to 15 minutes. Priority 2 responses (ambulance travel to an urgent call not requiring use of lights and sirens) from 27.93 minutes to 25 minutes. Priority 3 responses (ambulance call that is not Priority 1,2 or 4 with the latter being an ambulance call booked to arrive at a predetermined time) from 91.34 minutes to 60 minutes.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are regular surveys in place to monitor and evaluate community attitudes to road safety interventions to achieve the desired focus on results?</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External weekly telephone State-wide opinion tracking is carried out covering a broad range of issues covered in Towards Zero. Quarterly attitudinal tracking data are brought together. Issues covered in-depth are rotated.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are systems in place to monitor and evaluate safety performance against targets regularly to achieve the desired focus on results?</td>
<td>Partial</td>
<td></td>
<td></td>
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<tr>
<td>---</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Data and monitoring frameworks are partially there but need to be enhanced. Work-related deaths and serious injuries resulting from motor vehicle crashes are not systematically recorded. Key data needs for representative parts of the network which need to be readily accessible and published to all the key agencies by the lead agency are:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exposure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual population</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual registered motor vehicle traffic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual traffic volume</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual licensed drivers and riders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Final outcomes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of deaths</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of serious injuries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of deaths per 100,000 population</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of serious injuries per 100,000 population</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Intermediate outcomes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% levels of drinking and driving in normal traffic via systematic random breath testing surveys</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% levels of average mean speed by road type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of drivers exceeding speed limit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% levels of seat belt and child restraint use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% levels of crash helmet use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% levels of accompanied novice driving to 120 hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% emergency medical response times</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% levels of State fleet with 4 and 5 star ANCAP rating</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% levels of State rural network with 4 and 5 star AusRAP roads</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of intersections on urban arterial roads which are safe system compliant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of strip shopping lengths on urban arterial roads which are safe system compliant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Institutional outputs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numbers of excess speed checks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numbers of breath tests</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numbers of seat belt checks</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Numbers of police hours spend on enforcing key safety rules</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The lack of systematic evaluation of key policy developments is reported as being missing (e.g. effects of</td>
<td>Establish a review of database needs and accessible data for Towards Zero based on agreed safety performance indicators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Status</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Do all participating agencies and external partners and stakeholders have open access to all data collected?</td>
<td>Partial</td>
<td>Data sharing arrangements between key governmental and research agencies are reported as being satisfactory for crash injury databases but the efficiency of these could be improved. A few problems with the sharing of police traffic offence data were reported.</td>
<td></td>
</tr>
<tr>
<td>11. Research and development and knowledge transfer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has a State road safety research and development strategy been established to achieve the desired focus on results?</td>
<td>Pending</td>
<td>A Towards Zero road safety research strategy has not yet been developed but ORS indicates that there may be plans to do so.</td>
<td></td>
</tr>
</tbody>
</table>
| Has an independent national road safety research organization been established to achieve the desired focus on results? | Yes but limited capacity | A survey of State road safety research capacity conducted by C-MARC (Dec 2009) indicates that, notwithstanding the State access to a strong diversity of academic and skills areas for application to road safety, particularly within government, there are few experienced road safety researchers working in the field across the State.

The C-MARC (Curtin-Monash Accident Research Centre) was established with State funding in December 2008 and work commenced in April 2009. Currently, the capacity is small (3 academic members – 1 has a Research Fellowship aligned to Main Roads) and the aim is for partnership working with other University departments (e.g. Public Health, Occupational Health) and research centres in other States (e.g. MUARC). C-MARC has both research and promotional functions and is aligned to Main Roads. WA needs to increase its resource for road safety research to advance the research initiatives required of the Safe System principles underpinning the Towards Zero strategy. |
**Road Safety Management Capacity Review Western Australia: Final Report**

| Have demonstration and pilot programs been conducted to achieve the desired focus on results? | Partial and mainly towards a preparation mode | Proactive Safe System activity represents a significant difference in approach to traditionally employed ‘reactive’ approaches in WA and, indeed, in other parts of Australia. In the Netherlands – a start up program for road safety engineering was used to:  
| - Allow local authorities to identify targeted access roads in residential areas which have a residential access function with a maximum speed limit of 30km/h.  
| - Commit to implementing a certain percentage of these into residential access 30 km/h zones within a 5 year period  
| - Replace targeted signalised or other junctions with roundabouts for inter-urban rural intersections  
| - Provide specifically allocated annual resource for this activity. |
| Are mechanisms and media in place to disseminate the findings of State road safety research and development to achieve the desired focus on results? | Professional qualifications and training | There is a clear and urgent need for in-service training for rapid knowledge transfer on Safe System principles and the evidence base for speed management and deterrence policing. There are some indications that this process has started, but this needs to be escalated.  
| - Conferences?  
| - Seminars?  
| - Training?  
| - Journals?  
| - Other? |

- **Eric Howard and Associates, Jeanne Breen Consulting, Tony Bliss, Bruce Corben, September 2010**
trials/innovations review panel to promote new ideas. A new program to train traffic engineering associates has also been set up and four staff are now on the program. The program is targeted at mature age people with no technical skills and TAFE graduates. The course includes a range of road safety issues e.g. speed zoning reviews, road safety reviews etc.

The Australian Institute of Traffic Management and Planning and the Institute of Public Works Engineers Australia are considering a Traffic Engineering/Planning Diploma Course.

Questions have also been raised as to whether traffic policing is being given sufficiently high priority in the police service, both in terms of in-service training and career prospects.

**Workshops**

Main Roads and local government staff held a Safe System workshop in Perth in June 2010 with presentations from experts from other Australian States.

Under the Local Government Safe System project, WALGA is currently running workshops on Towards Zero, Safe System and the role of local government and produces a monthly electronic newsletter for disseminating information and sharing practical examples of effective local road safety action.

The Institute of Public Works Engineering (Western Australia) is well-placed to provide guidance to encourage innovative, road safety engineering techniques based on international and State good practice. The Institute and WALGA run the Local Government Road Safety Awards annually to acknowledge achievement and to showcase innovative projects that align with Towards Zero. An annual road safety conference on Towards Zero is hosted by the ICWA. However, the Institute considers that high level safe system education for senior local government practitioners is a serious gap in current education and training and look to a much stronger relationship with Main Roads and ORS to guide change.

There are concerns that lack of capacity in State Govt. agencies is preventing a timely alignment of departmental policy with Towards Zero.

**13. Lead agency role and institutional management**

**Strengths**

- The ORS is recognised as carrying out its role in a competent and inclusive manner by stakeholders.
- The ORS duties are defined in legislation.
Road Safety Management Capacity Review Western Australia: Final Report

### functions

<table>
<thead>
<tr>
<th>Weaknesses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• The ORS displays many elements of good and best practice in carrying out its management functions.</td>
<td></td>
</tr>
<tr>
<td>• The absence of an adopted safety performance framework for agreed final outcomes, intermediate outcomes and institutional outputs for the interim is a major weakness in the WA results focus and the ORS activity needs to be strengthened in this area.</td>
<td></td>
</tr>
<tr>
<td>• The ORS, like its key partners in government, does not have defined accountabilities for road safety performance in WA.</td>
<td></td>
</tr>
<tr>
<td>• The absence of this framework and associated funding by government is inhibiting road safety progress in WA and the ability of ORS to lead it.</td>
<td></td>
</tr>
<tr>
<td>• The ORS’s internal capacity in key delivery areas needs to be strengthened in view of the scale and scope of urgent Towards Zero tasks, particularly in the delivery of the ORS contribution to results focus, coordination, funding &amp; resource allocation, monitoring and evaluation and research &amp; development and knowledge transfer.</td>
<td></td>
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</tbody>
</table>

#### Lead agency

| The ORS is the lead agency for road safety in WA and the executive arm of the Road Safety Council on behalf of government. |
| The ORS business plan sees its lead agency key focus as optimizing Policy and Strategy development, Education and Communications and management of the Road Trauma Trust Fund and associated business resources to deliver effective and efficient services to benefit the community in WA. The ORS staff resource numbers 33, 6 of whom are part time, 5 of whom are temporary staff and 14 of whom are funded on RTTF contracts. |
| This assessment has focused on priority general needs for ORS development. It is recommended, however, that in addition, an internal audit is undertaken by senior ORS management against the good practice activity highlighted by the World Bank review which provides detailed information about process for each of the seven institutional management functions. |

#### Does the lead agency (or de facto lead agency/agencies) effectively contribute to the ‘results focus’ management function?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Appraising current road safety performance through high-level strategic review?</td>
<td>Yes</td>
</tr>
<tr>
<td>• Adopting a far-reaching road safety vision for the longer term?</td>
<td>Yes</td>
</tr>
<tr>
<td>• Analyzing what could be achieved in the medium term?</td>
<td>Yes</td>
</tr>
<tr>
<td>• Setting quantitative targets by mutual consent across the road safety partnership</td>
<td>Pending</td>
</tr>
<tr>
<td>• Establishing mechanisms to ensure stakeholder accountability for results?</td>
<td>No</td>
</tr>
</tbody>
</table>

The ORS has led the appraisal of road safety performance in WA. It engaged MUARC in analysis of the road safety situation and identification of evidence based initiatives, strategy options and draft strategy prior to consultation with agencies, business sector, civil society and Parliament. WA (ORS and RSC) has carried out leading best practice in commissioning an independent road safety management capacity review as it starts to implement Towards Zero. WA (ORS and RSC) is carrying out leading international best practice in adopting a long-term vision to eliminate death and serious injuries.

ORS has led the development of work and consultation on the Towards Zero strategy to define what might be acceptable to partner agencies and the community in the form of an interim final outcome target to 2020.

In good practice, the lead agency takes on the prime responsibility for proposing and seeking agreements on the ‘results focus’ framework. ORS through its Policy and Strategy development capacity has clearly worked assiduously towards these ends, but establishing a working and accountable safety performance framework to 2020 which is owned by ORS and its partners remains the immediate priority. Good practice lead agency responsibilities (which are taken up by ORS in practice) go beyond the performance indicators currently agreed for ORS relating to the community education and the administration of the RTTF.

It is recommended that the ORS strengthens its capacity and sharpens its focus internally on the performance...
ORS and the partner agencies while signing up to the proposed targets, have been unsuccessful to date in persuading government as a whole to adopt interim targets. Neither ORS nor its partners are yet accountable for road safety results.

ORS also needs to focus on proposing sharpened agency responsibilities and accountabilities for Towards Zero for inclusion in annual performance agreements, Memoranda of Understanding etc.

| Does the lead agency (or de facto lead agency/agencies) effectively contribute to the 'coordination' management function? | Pending targets | ORS plays the major role in facilitating and coordinating policy and strategy discussed in the RSC.
The ORS manages and supports the coordination activities of the Road Safety Council throughout the state, and related road safety task forces, and provides administrative support to the Ministerial Council for Road Safety.
The ORS provides advice at regional and national levels.
ORS creates road safety partnerships with key stakeholders in pursuit of strategy objectives and ensures that parliament, the business and non-governmental sectors are engaged in road safety strategy development and coordination. The ORS also supports the development of partnerships and community programs at the local level.
ORS clearly engages with all the main partners who can deliver road safety results and is very active. The lack of senior management engagement across government in multi-sectoral coordination and, an agreed safety performance framework is, however, inhibiting effective coordination.
The main priority for ORS is to strengthen and refocus coordination groups across government to ensure an effective decision-making hierarchy across government which better links the inputs of the road safety managers level with chief executives and the Ministerial Council.
ORS will also need to play a key role in sharpening vertical coordination within central, regional and local government by developing tools (e.g. updates on effective intervention, good practice guidelines, survey protocols, crash analysis tools etc) and ensuring accountabilities are set out in legislation and Memoranda of Understanding; strengthening and rolling out specific delivery partnerships and engaging in bipartisan parliamentary relations, through the Minister and supporting guidance for locally elected representatives.

| Horizontal coordination across central State government? | Partial | Yes | ORS plays the major role in facilitating and coordinating with its partners the development of the road safety legislative program in support of Towards Zero.
Specifically, ORS reviews legislative needs for the strategy in consultation with its partners in the coordination body. One example is the current proposal for alcohol interlock devices and associated provisions. It has a list of proposals which have been endorsed by the RSC and which are awaiting Ministerial adoption.
ORS plays a role in developing and consulting the road safety partnership and public on proposals for major primary as well as secondary road safety legislation and for consolidating and implementing national rules. For example, the ORS managed the implementation of new initiatives to improve novice driver safety following the relevant amendments to the Road Traffic Act 2007.
As recommended previously, the ORS should play the key role in developing, proposing, and coordinating the implementation of legislation relating to Towards Zero in consultation with its partners.

| Vertical coordination from national to State to regional and local levels of government? | Yes | Yes |
| Specific delivery partnerships between government, Parliament government, community and business at the central, regional and local levels? | Yes | Yes |
Does the lead agency (or de facto lead agency/agencies) effectively contribute to the 'funding and resource allocation' management function?

- Ensuring sustainable funding sources?
- Establishing procedures to guide the allocation of resources across safety programs?

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the lead agency (or de facto lead agency/agencies) effectively contribute to the 'funding and resource allocation' management function?</td>
<td>Yes as far as is possible</td>
</tr>
<tr>
<td>The ORS advocates for increased take-up of road safety in core funding. It plays the major role in managing the funding of road safety programs through the Road Trauma Trust Fund. The ORS facilitates evaluation of project cost-effectiveness and project prioritization. The ORS (with RSC support) has also advocated for the adoption of WTP in WA road safety resource allocation. The ORS has allocated in-house capacity in support of this activity but the tight government HR environment is restricting capacity to employ necessary staff for funded RSC/RTTF projects. There are budget restrictions due to Government Funding Criteria (an HR limit and contractual services for a maximum period of 3 months) which are also affecting all agencies on which ORS relies to make progress in implementation (e.g. on legislative changes).</td>
<td></td>
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</tbody>
</table>

The human resource levels and process necessary to establish staffing for approved RSC/RTTF-managed projects need to be resolved urgently.

In addition, a variety of proposals have been made for upgrading the investment strategy through a Towards Zero Booster Program in the short term – to 2014. This includes proposals for new funding mechanisms and for stronger business cases to be established by the RSC partners. ORS needs to play a lead role in this development of these and improved capacity should be found in the business development/safety economic section of ORS.

Does the lead agency (or de facto lead agency/agencies) effectively contribute to the 'promotion' management function?

- Promotion of a far-reaching road safety vision or goal?
- Championing and promotion at high level?
- Multi-sector promotion of effective intervention and shared responsibility?
- Leading by example with in-house road safety policies?
- Developing and supporting safety rating programs and the publication of their results?
- Carrying out national advertising?
- Encouraging promotion at local level?

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the lead agency (or de facto lead agency/agencies) effectively contribute to the 'promotion' management function?</td>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>The ORS plays a major role in promoting and facilitating a shared approach to road safety across all government agencies, local government and other partners and stakeholders. The ORS manages public relations activities, media, campaigns and mass media initiatives, community engagement, agenda setting initiatives, partnership programs and other promotional campaigns at the state level. ORS has encountered problems with approval problems for advertising (which are now reported to have been resolved) which has temporarily affected their efficient partnership work in this area for Towards Zero interventions. The ORS has established partnerships to help WA lead by example for in-house governmental fleet safety policies. The ORS also promotes local efforts in support of the state road safety strategy.</td>
<td></td>
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</tbody>
</table>

ORS embarks on a wide range of promotional activity. As indicated by the Chair of the RSC, broad multi-sectoral communication with the engagement of senior management is needed to draw in the community and business sector to better understand the shared responsibilities for Towards Zero and ORS will play a leading coordinating role in this.

Does the lead agency (or de facto lead agency/agencies) effectively contribute to the 'monitoring and evaluation' management function?

- Establishing and supporting systems to set and monitor final and intermediate outcome and output targets?
- Transparent review of the national road safety strategy and its performance?
- Making any necessary adjustments to working with its partners in DoT, WA Police in managing change and community education.

Facilitating and improving the collection, sharing and analysis of road safety data as well as monitoring and reporting on the implementation of the strategy and road safety progress in WA are key strands of the ORS business plan. This function is currently being carried out by the Policy and Strategy Team.

The delivery of the ORS monitoring and evaluation function is currently being carried out by the Policy and Strategy Team.

However, as noted earlier in relation to results focus, this does not yet extend to key system-wide intermediate outcomes and institutional outputs. Capacity is limited here and needs to be strengthened.
achieve the desired results?  

<table>
<thead>
<tr>
<th>Does the lead agency (or de facto lead agency/agencies) effectively contribute to the research and development and knowledge transfer management function?</th>
<th>Yes</th>
<th>Partial</th>
<th>Partial</th>
<th>Yes</th>
<th>Recently commenced. Pending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing capacity for multi-disciplinary research and knowledge transfer?</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Yes</td>
<td>Recently commenced. Pending</td>
</tr>
<tr>
<td>Creating a State road safety research strategy and annual program?</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Yes</td>
<td>Recently commenced. Pending</td>
</tr>
<tr>
<td>Securing sources of sustainable funding for road safety research?</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Yes</td>
<td>Recently commenced. Pending</td>
</tr>
<tr>
<td>Training and professional exchange?</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Yes</td>
<td>Recently commenced. Pending</td>
</tr>
<tr>
<td>Establishing best practice guidelines?</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Yes</td>
<td>Recently commenced. Pending</td>
</tr>
<tr>
<td>Setting up demonstration projects?</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Yes</td>
<td>Recently commenced. Pending</td>
</tr>
</tbody>
</table>

so that data on the state safety performance can be collected through surveys or analysis where gaps exist and accessed easily, efficiently and transparently. This will also rely on the key agencies providing adequate data on indicators of performance for which they have agreed to be measured and accountable in a digestible form to ORS.

As recommended previously, the ORS, RSC and other key agencies need to review data bases, survey needs, data accessibility and prompt publication of results once the safety performance framework supporting Towards Zero targets to 2020 has been agreed. Furthermore the ORS to be accountable on behalf of government should create capacity for receiving six monthly updates on all annually reported agency safety performance data and for reporting these twice a year to the RSC, Chief Executives and the Ministerial Council. A cross agency Memorandum of Understanding towards this end is required.

Does the lead agency (or de facto lead agency/agencies) effectively contribute to the research and development and knowledge transfer management function?

- Developing capacity for multi-disciplinary research and knowledge transfer?
- Creating a State road safety research strategy and annual program?
- Securing sources of sustainable funding for road safety research?
- Training and professional exchange?
- Establishing best practice guidelines?
- Setting up demonstration projects?

Yes

Recently commenced. Pending

Yes

Partial

PARTIAL

Yes

Research and development

Leading and managing the road safety research and evaluation program and leading on specific demonstration projects e.g. ISA, IDDL, RDSS, CCR are key strands of the ORS business plan. This function is currently being carried out by the Policy and Strategy Team.

Further to developing a new independent road safety research facility at C-MARC the ORS has made a start in actively assisting the RSC agencies in identifying the research that may be required to support each Agency's implementation initiatives. ORS has not yet proposed a State road safety research strategy and annual program but this is an anticipated development in the short term.

Knowledge transfer

The ORS plays a major role in building understanding and capacity in support of Towards Zero between implementing agencies, politicians, leaders and the community.

Local government representatives indicated a need for support in educating staff, executives and elected members about road safety management barriers and opportunities; and innovative safe system focused intervention development and application.

Fostering knowledge transfer is a key role for ORS, but currently it has very limited capacity in its Policy and Strategy section to effect this fundamentally important task.

Continuing innovation in Safe System approaches, particularly in vehicle and road safety engineering are key to Towards Zero and ORS needs to take the lead in ensuring research support at State and national levels.

If WA is to make rapid progress with implementing Toward Zero, an extensive knowledge transfer program needs to be agreed and carried out. This is an ongoing process which has commenced in WA and some projects are being supported in the RTTF.

ORS, Main Roads and all government agencies with road safety responsibilities should also devise a strategy to provide a substantial program of support for local government, which also includes additional targeted funding.

The ORS should formalize its existing initiatives into the development of a State road safety research strategy and an annual program of strategic research and development.
**APPENDIX 5: EVOLUTION OF RESULTS FOCUS**


<table>
<thead>
<tr>
<th>Evolution of results focus</th>
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</thead>
<tbody>
<tr>
<td>Successive shifts in road safety management thinking and practices in high-income countries have been evident over the last fifty years. Rapid motorization and escalating road deaths and injuries began in many OECD countries in the 1950s and 1960s and concurrently the ambition to improve road safety outcomes began to grow. Since the 1950s there have been four significant phases of road safety management which have become progressively more ambitious in terms of the results desired.</td>
</tr>
</tbody>
</table>

**(i) Results Focus—Phase 1: Focus on driver interventions.**

In the 1950s and 1960s safety management was generally characterized by dispersed, uncoordinated, and insufficiently resourced institutional units performing isolated single functions (Trinca et al., 1988). Road safety policies placed considerable emphasis on the driver by establishing legislative rules and penalties, supported by information and publicity, and expecting subsequent changes in behavior. It was argued that since human error mostly contributed to crash causation it could be addressed most effectively by educating and training the road user to behave better. Placing the onus of blame on the road traffic victim acted as a major impediment to the appropriate authorities fully embracing their responsibilities for a safer road traffic system (Rumar, 1999). The weaknesses inherent in this approach are increasingly evident, but its enduring appeal should not be underestimated and it often dominates and captures the public and political debate.

**(ii) Results Focus—Phase 2: Focus on system-wide interventions.**

In the 1970s and 1980s these earlier approaches gave way to strategies which recognized the need for a systems approach to intervention. Dr. William Haddon, an American epidemiologist, developed a systematic framework for road safety based on the disease model which encompassed infrastructure, vehicles and users in the pre-crash, in-crash and post crash stages (Haddon, 1968). Central to this framework was the emphasis on effectively managing the exchange of kinetic energy in a crash which leads to injury, to ensure that the thresholds of human tolerances to injury were not exceeded. The scope of policy broadened from an emphasis on the driver in the pre-crash phase to also include in-crash protection (both for roadsides and vehicles) and post-crash care. This focused road safety management on a system-wide approach to interventions and the complex interaction of factors which influence injury outcomes. It underpinned a major shift in road safety practice which took several decades to evolve. However, the focus remained at the level of systematic interventions and did not directly address the institutional management functions producing these interventions or the results that were desired from them.

The strengths of this approach mask its inherent weakness as being viewed as embracing all the essential elements of the road safety management system, whereas the institutional context is not directly addressed. In many ways much of the contemporary debate on road safety is still bounded by the dimensions of the ‘Haddon Matrix’ which only addresses system-wide interventions and for this reason institutional management functions and the related focus on results still receive limited attention.

**(iii) Results Focus—Phase 3: Focus on system-wide interventions, targeted results and institutional leadership.**

By the early 1990s good practice countries were using intervention focused plans setting numerical outcome targets to be achieved with packages of system-wide measures based on the evidence generated from ongoing monitoring and evaluation. It had become clear that growing motorization need not inevitably lead to increases in death rates but could be reversed by continuous and planned investment in improving the quality of the traffic system. The United Kingdom, for example, halved its death rate (per 100,000 head of population) between 1972 and 1999 despite a doubling in motorised vehicles. Stronger expressions of political will were evident and institutional management functions were becoming more effective. Institutional leadership roles were identified, inter-governmental coordination processes were established and funding and resource allocation mechanisms and processes were becoming better aligned with the results required. Developments in Australasian jurisdictions (e.g., Victoria and New Zealand) further enhanced institutional management functions concerning results focus, multi-sectoral coordination, delivery partnerships, and funding mechanisms (WHO, 2004; Bliss, 2004; Wegman et al., 2006; Trinca et al., 1988). Accountability arrangements were enhanced by the use of target hierarchies linking institutional outputs with intermediate and final outcomes to coordinate and integrate multi-sectoral activities. This phase laid the foundation for today’s good practice and reflects the state of development in many higher performing countries today.

The strengths of this approach can turn into weaknesses to the extent that the focus on safer people, safer vehicles, safer roads and safer systems diverts attention away from the road network where the actual deaths and injuries are incurred. Successful targeted plans have achieved large measurable gains in improved road user behavior and this success helped to reinforce the earlier approach which focused purely on driver interventions. The sharpened emphasis on setting ambitious but achievable targets could also inhibit innovation, to the extent that targets are bounded by what is deemed to be technically feasible and institutionally manageable, thus blunting the aspiration to go beyond what existing evidence suggests is achievable.
(iv) Results Focus—Phase 4: Focus on Safe System long-term elimination of deaths and serious injuries and shared responsibility.

By the late 1990s two of the world’s best performing countries had determined that improving upon the ambitious targets that had already been set would require rethinking of interventions and institutional arrangements. The Dutch Sustainable Safety and Swedish Vision Zero strategies set a goal to make the road system intrinsically safe (Wegman et al., 1997; Tingvall, 1995; Committee of Inquiry into Road Traffic Responsibility, 1999). The emphasis on effectively managing the exchange of kinetic energy in a crash to ensure that the thresholds of human tolerances to injury were not exceeded (as originally promoted in Phase 2) was revitalized and given an ethical underpinning in the sense that road deaths and injuries were seen as an unacceptable price for mobility. The implications of this level of ambition are still being worked through in the countries concerned and elsewhere. These strategies recognize that speed management is central and have refocused attention on road and vehicle design and related protective features. The blame the victim culture is superseded by blaming the traffic system which throws the spotlight on the shared responsibility and accountability for the delivery of a Safe System.

For example, Vision Zero aims for an approach in which safe vehicle design delivers a protected occupant into a road system where conflict is minimized by design and energy transfer in crashes is safely controlled. In this system users comply with risk-averse behavioral norms created by education, enforcement and incentives. The emphasis is on the road users’ right to health in the transport system and their right to demand safer systems from decision-makers and road and vehicle providers.

The strengths of this approach are becoming increasingly evident. What was previously seen as radical and unachievable by many road safety practitioners and policymakers has quickly become the benchmark and central debating point for analyses of what constitutes acceptable road safety results. The tools and accumulated practices used to support the results management framework for the Safe System approach are the same as those used in the past to prepare targeted national plans. Targets are still set as milestones to be achieved on the path to the ultimate goal, but the interventions are now shaped by the level of ambition, rather than vice versa. Innovation becomes a priority to achieve results that go well beyond what is currently known to be achievable. In moving forward the Safe System approach reinterprets and revitalizes what is already known about road safety, and raises critical issues about the wider adoption of interventions that have proven to be effective in eliminating deaths and serious injuries (e.g., median barriers). The question becomes one of how to introduce these proven safety interventions more comprehensively and rapidly, and indeed this question applies to all elements of the road safety management system with potential for improvement.

The shift to a Safe System approach is also well attuned to the high priority global, regional and country development goals of sustainability, harmonization and inclusiveness. A Safe System is dedicated to the elimination of deaths and injuries that undermine the sustainability of road transport networks and the communities they serve. Its focus on safer and reduced speeds harmonizes with other efforts to reduce local air pollution, greenhouse gases and energy consumption. And its priority to afford protection to all road users is inclusive of the most vulnerable at-risk groups such as pedestrians, young and old, cyclists and motorcyclists. These co-benefits of shifting to a Safe System approach further strengthen the business case for its implementation.
## APPENDIX 6:

### MUARC ADVICE, RSC RECOMMENDATIONS FOR FUNDING (2008) AND CURRENT LEVELS OF FUNDING (2010) FOR TOWARDS ZERO IMPLEMENTATION

<table>
<thead>
<tr>
<th>ORIGINAL OPTIMUM OPTION FOR STRATEGY - RSC and MUARC</th>
<th>ADOPTED RSC STRATEGY - AUGUST 2008</th>
<th>ADOPTED STRATEGY BY GOVT. - MARCH 2009</th>
<th>HIGH PRIORITY ACTIONS ADOPTED BY GOVT. JUNE 09. See MUARC Report June 2009.* (Numbers in brackets in bold below refer to RSC identified priorities)</th>
<th>ACTIONS FUNDED (OR TO BE FUNDED) IN 10/11 FY BY GOVT.</th>
<th>FUNDING SHORTFALL # Annual shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUARC estimates that by introducing initiatives in four key safe system elements reductions in the number of people killed and seriously injured of up to 16,000 could be achieved over the next twelve years. 52% reduction on the average number of KSI’s – from 3000 to 1420 (from 2006 to 2020)</td>
<td>If the Towards Zero strategy is fully implemented we could see up to 11,000 fewer KSI’s on WA roads between 2008 and 2020, a reduction of up to 40 per cent on the average number of KSI’s each year between 2005 and 2007.</td>
<td>If the Towards Zero strategy is fully implemented we could see up to 11,000 fewer KSI’s on WA roads between 2008 and 2020, a reduction of up to 40 per cent on the average number of KSI each year between 2005 and 2007.</td>
<td>10 % reduction over the period 2009 to 2012 requires the 129 actions identified to be implemented especially the 24 high priority actions. These 24 actions are set out below. (See high priority number from Action sheets of RSC)</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Community feedback on the OSSO indicated diverse views on speed limit reduction. While the evidence showed that by reducing speed limits immediate reductions in trauma can be achieved at a very low cost, the community is not ready to adopt that MUARC recommendation.</td>
<td>Community feedback on the OSSO indicated diverse views on speed limit reduction. While the evidence showed that by reducing speed limits immediate reductions in trauma can be achieved at a very low cost, the community is not ready to adopt that MUARC recommendation.</td>
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<tr>
<td>Safe Roads and Roadsides – potentially saving 4,700 KSI’s.</td>
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<tr>
<td>Safe Speeds (enhanced enforcement) -</td>
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<tr>
<td>• (5) ORS (on behalf of RSC) to promote Towards Zero and Safe System approach and concept of ‘shared responsibility’, including identification of independent advocates to support Safe System approach</td>
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<td>• (6) RAC as appointed road user representative on</td>
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<tr>
<td>Funded: RTTF $0.32 m annually. (Need baseline attitudes measurement now and monitoring to measure change - through Synovate work)</td>
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</tbody>
</table>
potentially saving 4,200 KSI's (with another 5,500 KSI's potentially saved through speed limit reductions).
- Safe Vehicles - potentially saving 2,800 KSI's
- Safe Road Use - potentially saving 2,400 KSI's

*See annex to “Development of a new road safety strategy for Western Australia 2008 – 2020”, MUARC, April 2008, for assumptions/timing

trauma can be achieved at a very low cost, the community is not ready to adopt that MUARC recommendation.

MUARC adjusted its estimate for Towards Zero to reflect the impact of not including speed limit reductions in the strategy. The best we can now expect to save is 11,000 lives and serious injuries.

RSC to consult with and represent the views of all road users
(7) RAC to hold forums to engage with specific road user groups (motorcycle & scooter riders, cyclists and pedestrians); crash types and with users in specific regions (for example in the South-West of WA). Use the OLA process to facilitate.
(Measurable objectives are - a better understanding of Towards Zero and safe system principles. Also objective to consult and work with road users representatives as part of their role on RSC to represent road user groups).

Funded RTTF
Funded, RTTF

<table>
<thead>
<tr>
<th>Safer roads - $185m:</th>
<th>Safer roads - $175m:</th>
<th>Safer roads - $175m:</th>
<th>Safer roads - $175m required; $ 50m. allocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>- $20m pa blackspots continuation</td>
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<tr>
<td>$30m blackspots increase</td>
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<tr>
<td>- $35m pa safer roads continuation</td>
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<td></td>
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<tr>
<td>- $25m pa intersection</td>
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<tr>
<td>Baseline: $20m pa blackspots</td>
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<tr>
<td>Extend blackspots program by $30m</td>
<td></td>
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<tr>
<td>Metro WA; $25m pa</td>
<td></td>
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<tr>
<td>(11) MRWA to continue with base $ 20m. Blackspots program and extend the program (Auslink, state and local roads) by $30m p.a.</td>
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<tr>
<td>MRWA to continue with $35m Safer Roads program</td>
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<tr>
<td>(13) MRWA to provide Safe System Interse</td>
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Funded, RTTF
Funded, RTTF

<table>
<thead>
<tr>
<th>Safer roads - $175m:</th>
<th>Safer roads - $175m required; $ 50m. allocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Baseline: $35m pa safer roads</td>
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<tr>
<td>(11) MRWA to continue with base $ 20m. Blackspots program and extend the program (Auslink, state and local roads) by $30m p.a.</td>
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<tr>
<td>(13) MRWA to provide Safe System Interse</td>
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</tbody>
</table>

YES $ 30m.#

YES $ 3m.#

YES $ 25m.#
<table>
<thead>
<tr>
<th>Safety</th>
<th>Intersection Safety Yrs 2+3</th>
<th>Improvements (Metro Area) for the top 100 intersection crash sites (new $25m. p.a.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$75m pa safe system transformations – regional and remote WA</td>
<td>• Extend WA safer roads program, by $15m, Yrs 1,2,3</td>
<td>• (12) MRWA to extend the Safer Roads Program (state roads) on a crash priority basis (new $15m)</td>
</tr>
<tr>
<td></td>
<td>• Reg. and Remote WA; $50m pa safe system transformations –Yrs 2+3</td>
<td>• (14) MRWA to develop Safe System improvements of strategic routes from metropolitan area and around reg. centres (new $50m)</td>
</tr>
<tr>
<td></td>
<td>• WALGA to develop business case for safer local roads funding</td>
<td>• (20) WALGA to develop a business case for a safer local roads funding program for 2012</td>
</tr>
<tr>
<td></td>
<td>• WALGA to work with MRWA to transfer knowledge and identify available ROR treatments (urban &amp; rural)</td>
<td>• (21) WALGA to collaborate with Main Roads on identification of available solutions for run-off-road crashes and raise awareness among local government engineers and technical staff. Publish a best practice guide.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (2) WALGA/MRWA. Develop new barriers for urban areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• (3) WALGA through ALGA to advocate for enhancement of safety performance of Australian Standards for road building</td>
</tr>
</tbody>
</table>

$15m. required p.a  
$ NIL allocated  
$ 50m required p.a.  
$ NIL allocated  

| Funded, RTTF  | YES $ 15m.#  |
| Funded, RTTF  | YES $ 50m.#  |
| Funded, RTTF  |              |
| Funded        |              |
| Safe speeds – | Speed limit benefits campaigns, $6m, Yrs 1, 2, 3 | (15) ORS to Develop and implement strategies to inform and engage stakeholders and the community about the benefits of appropriate speed limits. |
| less tolerance above limits for enforcement | Implement recommendations of speed enforcement Steering Committee, Yrs 1, 2 | Funded, RTTF - Speeding Community Education $1.7m |
| fine tuning limits near higher risk locations | WALGA to advocate greater role for LG in MRWA speed limit setting policy | |
| reducing limits by 10kph – in 110 and 60 zones in Yr. 1 and other zones in Yr. 3. | Targeted speed limit reductions only for early years | |
| Reduce limits in CBD and in urban shopping strips to 40km/h or 30 km/h | (22) WALGA to advocate for a review of Main Roads speed limit setting policy and for greater input by local governments in setting speed limits on local roads | Funded |
| Safe vehicles | Promote community takeup of safer vehicle features (with RAC and DoT), Yrs 1, 2, 3 all of WA | (1B) ORS to strongly encourage making safer vehicles and specific safety features compulsory for government vehicles – 4* + policy by 2011. |
| ESC from Yr 1 | Yrs 1, 2 - specific strategy to promote benefits in reg & remote WA | Funded RTTF |
| Head protecting side airbags from yr 2 | ORS to work with dealers to promote safety ratings display | Funded |
| ISA from Yr 3 | All agencies to update fleet purchasing policies to include specified safety features | Funded RTTF |
| Active head restraints from yr 5 | (19) All agencies to update fleet purchasing policies to include specified safety features | |
| Safe road use: Compliance improvement for | Campaigns in Yrs 1, 2, 3 to inform re safe system approach and to target improved road user | (4) ORS to contribute to ANCAP and UCSR outcomes and work with manufacturers/ dealers to promote stars on cars |
| Drink driving | (8) ORS to develop and implement an integrated suite of road user behaviour campaigns | Funded RTTF |
- Drug driving
- Speeding #
- Restraint use
- Fatigued driving
- Distracted driving
- # See Cameron and Delaney Report, 2006

<table>
<thead>
<tr>
<th>Action</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify/implement best practice enforcement, $0.2m, yrs 1,2,3</td>
<td>Funded RTTF</td>
</tr>
<tr>
<td>(9) ORS to coordinate implementation of the repeat drink driving strategy</td>
<td>Funded by Consolidated Fund but subject to review.</td>
</tr>
<tr>
<td>(10) WA Police to identify and implement best practice in traffic enforcement.</td>
<td>WA Police currently funded $30 million to replace and upgrade existing speed and red light cameras, digitise backroom processing. The full funding required to meet the recommendations of the Enhanced speed enforcement report (Cameron Report) has not yet been realised.</td>
</tr>
<tr>
<td>(16) ORS to develop and implement strategies to inform and engage stakeholders and the community about the road safety benefits of compliance with speed limits across the WA road network</td>
<td>Up to say $20 m.</td>
</tr>
<tr>
<td>(17) WA Police to implement the recommendations of the Enhanced Speed Enforcement Steering Committee, as appropriate (with other Road Safety Council agencies), including speed devices, infringements issued.</td>
<td></td>
</tr>
<tr>
<td>Ancillary:</td>
<td></td>
</tr>
<tr>
<td>- Pedestrian and cycling infrastructure safety measures</td>
<td>RTTF funded</td>
</tr>
<tr>
<td>- Lower CBD and suburban strip shopping centre limits to 40 km/h or 30 km/h</td>
<td></td>
</tr>
<tr>
<td>- Lower limits in towns</td>
<td></td>
</tr>
<tr>
<td>- Fine tuning of speed</td>
<td></td>
</tr>
<tr>
<td>RAC to auspice OLA process with specific user groups in specific regions Promote safe system and shared responsibility including identifying independent advocates in WA</td>
<td>Funded RTTF, and $0.54m. by Department of Health, through core Data Linkage Branch funding.</td>
</tr>
<tr>
<td>(23) Health to develop and implement morbidity severity indicators to facilitate understanding of serious injury crashes in WA.</td>
<td></td>
</tr>
<tr>
<td>(24) Health to enhance data sharing through the development of reliable and valid road safety mortality and morbidity</td>
<td></td>
</tr>
</tbody>
</table>
### Limits
- Promote emerging vehicle safety features
- Data linkage and analysis.

### Outcome
- Traffic growth at 2.6% pa
- 16000 KSI's reduced from 2008 to 2020.
- From 3000 KSI's pa in 2008 to 1420 KSI's pa by 2020.
- This is a 52% reduction from 2006

### Outcome
- 11,000 fewer KSI's on WA roads between 2008 and 2020.
- A reduction of up to 40 per cent on the average number of KSI each year between 2005 and 2007.

---

**RSC Adopted Strategy**

"Subsequent to Cabinet endorsement of the strategy in 2009, the Minister for Road Safety asked agencies to review the contribution to the prevention of road deaths and serious injuries, timing, ability to deliver, implementation costs and potential funding source of each action to identify those which would achieve the best road safety outcome in this time of fiscal restraint. MUARC considers that, as a package, the full list of actions endorsed by agencies would make a significant contribution towards achieving the targeted 10 per cent reduction in deaths and serious injuries over the period 2009-2011. Of the 129 actions listed, the 24 high priority actions identified have the greatest potential to reduce deaths and serious injuries if fully implemented.

To achieve the adopted target of a 40 per cent drop in deaths and serious injuries by 2020, it is vital that the strategy be implemented according to the initiatives upon which the forecast strategy achievement is based. This means that the endorsed actions, the assumed levels of resources and the timing of implementation all need to be met (or exceeded) to assure success. Failure to implement according to the previously assumed levels is likely to result in a failure to meet the 2020 and intermediate milestone targets. As a result, proven high-impact initiatives not currently included in the agreed actions, such as reduced speed limits, may need to be introduced throughout the road transport system should it transpire that insufficient early progress needs to be overcome.

The purpose of this report is to define the actions that must be implemented to meet the strategy target, the timing of implementation and, finally, the budget implications for the first three-year period of the 12-year strategy. The submission has been structured and actions prioritised to indicate which actions:

- are significant baseline activities that Agencies were undertaking at the time of the development of the strategy that have changed since the adoption of Towards Zero and upon which Towards Zero has assumed as continuing;
- will make a substantial direct contribution to achieving reductions in road deaths and serious injuries;
- provide essential support to implementing those actions directly delivering trauma reductions;
- will build critical long-term capacity among implementing agencies and help them to transition quickly to the new ways needed to achieve sustainable Safe System performance throughout WA, and;
- are regarded as high priority by the implementing agencies."

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Figure 4: Projection of the reduction in the number of people expected to be killed or seriously injured annually
(if Towards Zero is fully implemented) 2008-2020