

To:
The National Road Safety Strategy
Department of Infrastructure and Transport
GPO Box 594
CANBERRA, ACT 2601

NATIONAL ROAD SAFETY STRATEGY 2011 - 2020

RESPONSE TO DRAFT

**Submission to the
Australian Transport Council**



Ulysses Club Inc.

ABN 25 637 297 337
ARBN 116 090 101

February 2011

About this submission

This document has been produced by the Ulysses Club's National Road Safety Committee and is based on information gathered from public sources and from within the Ulysses Club. Compiled by John Meara, it includes the work of researcher Professor Marcus Wigan, contributions by Stuart Strickland and other Ulysses Club members, together with the experience and knowledge of the members of the club's National Road Safety Committee. The submission is based on our understanding of the relevant issues.

The Ulysses Club Inc. has taken every reasonable precaution to check the submission for relevance and accuracy. As responsibility for any decisions based on this information rests with the Commonwealth and State Governments and their agencies, the Ulysses Club Inc (and its members) are unable to accept liability for any outcomes that may arise as a result of its use.

National Road Safety Committee, Ulysses Club Inc.
February 2011

Endorsements

This submission is endorsed by the following motorcycle rider organisations:

- Motorcycle Riders Association of South Australia (MRASA)
- Motorcycle Riders Association of Victoria (MRA Vic)
- Motorcycle Riders Association of Australian Capital Territory (MRA ACT)
- Motorcycle Riders Association of Western Australia (MRA WA)
- Motorcycle Riders Association of Queensland (MRAQ)
- Bikers Unlimited (WA)
- Victorian Motorcycle Council (VMC).

Authorisation

This submission is authorised by the Ulysses Club's National Committee through its National Road Safety Coordinator, Mr Neville Gray.

Mr Neville Gray OAM
Ulysses Club Inc
ABN 25 637 297 337
ARBN 116 090 101

Return addresses and contact numbers:

Ms Jen Woods
National Committee Member
Ulysses Club Inc.
PO Box 3242
Narellan NSW 2567
Ph: (02) 6292 2558
Mob: 0418 215 336

Mr Neville Gray OAM
National Road Safety Coordinator
Ulysses Club Inc.
PO Box 3242
Narellan NSW 2567
Ph: (08) 8263 7566
Mob: 0416 050 189

Contents

Executive summary	5
1. Background	7
1.1 Introduction	7
1.2 Objectives of this submission	7
1.3 Australia's unique circumstances	7
1.4 Drivers' decreasing perception and vigilance	8
1.5 Motorcycles: A sustainable alternative in the transport mix	8
2. Flawed foundations and bias	10
2.1 Gaps, invalid and corrupted data	10
2.2 The Safe System	14
2.3 Bias in the application of a Hierarchy of Control	15
2.4 Discrimination against riders	16
3. Vision, Target, Packages	17
3.1 The vision	17
3.2 The target	17
3.3 Modelling and package options	19
3.4 Links to other strategies	19
3.5 Evaluation and reporting	20
4. Roads	21
4.1 Road and roadside design	21
4.2 Equity in infrastructure expenditure	22
4.3 Black-spots	22
4.4 Urban environments – Best practice strategy	23
4.5 Run-off road crashes	24
4.6 Wire rope barriers (WRB)	24
4.7 Standardising safer road infrastructure	25
4.8 A final note on safer roads	25
5. Speed	26
5.1 The challenges that riders face	26
5.2 Over-emphasis on speed	26
5.3 Selling the focus on speed	26
5.4 Speed cameras	27
5.5 Applying technology to speed issues	27
5.6 Other factors affecting speed	28
5.7 A final note on speed	29
6. Vehicles	30
6.1 Improving the standard of the vehicle fleet	30
6.2 Anti-lock braking systems (ABS) on motorcycles	30
6.3 Vehicles with built-in driver distraction and poor visibility	32
6.4 A final note on safer vehicles	34
7. People	35
7.1 The focus must be on people	35
7.2 Education and training for all road users	35
7.3 Effective feedback necessary for learning	37
7.4 Improving the focus on human factors	38
7.5 Rider training and licensing	39
7.6 Drink and drug driving	41

7.7	Fatigue	42
7.8	Unlicensed drivers and riders	43
7.9	Rider safety gear	43
7.10	Off-road motorcycle riding	45
7.11	Other people initiatives	46
7.12	A final note about safer people	48
8.	Making it happen	49
8.1	Best practice in motorcycle safety	49
8.2	Data and evidence: The cart is before the horse	50
8.3	Community engagement	50
8.4	Institutional structures and coordination	50
8.5	ISO 39001 Road-traffic Safety management systems	51
8.6	Funding and resource allocation	52
8.7	Stakeholder engagement	54
9.	Summary	56
9.1	Key priorities	56
9.2	Summary of submission recommendations	56
9.3	Conclusion	59
	References and other sources	60
	Appendix A: The Ulysses Club Inc.	62
	Appendix B: Motorcycles and scooters as a sustainability transport solution	63
	Appendix C: An alternative Safe System proposal	65
	Appendix D: Top priority measures OECD Norway conference	66
	Appendix E: Recommendations from Motorcycle & Scooter Safety Summit	68

Executive summary

Background

The Ulysses Club represents nearly 30,000 paid-up mature age motorcyclists and is the largest club for motorcyclists in Australia. Motorcycle riders are seriously concerned for their safety due to poor ability of drivers to sense and perceive their driving environment and drivers' decreasing levels of vigilance.

The Ulysses Club National Road Safety Committee welcomes the inclusion of motorcycles and scooters into the National Road Safety Strategy (NRSS). Our submission makes 40 recommendations and provides significant detail on safety matters that directly affect riders. Motorcyclists with many years of riding experience have provided input, including members who have held executive positions within industry and Government.

Flawed foundations

As motorcyclists we challenge the general basis of the NRSS and the assumptions made in the draft. Preferred statistical measures are proposed and we make recommendations targeted to achieve the NRSS target. The needs to involve motorcycle experts and to seek behavioural causes of crashes are emphasised. An alternative 3-pillar 'safe system' approach is proposed that we strongly believe will improve public acceptance of the NRSS.

Vision, target, packages

As clearly defined vulnerable road users, we address training, competence of drivers and riders, cultural change, evidence based data and the importance of international alliance, all specifically related to motorcycle safety.

A preferred vision statement is offered and we call for greater involvement and transparency in evaluation and reporting.

Roads

Design and maintenance of roads, equity in expenditure and the presence of unsafe road furniture all has a direct effect on power two-wheel vehicle safety. Recommendations are made covering all sectors of motorcycling in relation to roads and roadsides, with emphasis on national consistency, best practice and focussing on priorities.

Speed

Recommendations are made specifically for motorcycles where punitive measures alone will not improve motorcycle safety. An experienced motorcyclist will travel at a speed commensurate with road conditions experienced at the time of riding.

Vehicles

The importance of International design rule alignment is emphasized and the differential between technologies suited for motorcycle models, specifically on-road and off-road is covered.

People

Safer road users are emphasised as the key focus area. Training and skill development have been under-valued. A focus on human factors, community acceptance for vulnerable road users and competency-based education of motorcyclists is covered.

Tackling the national problems of alcohol abuse and poor sleep patterns are raised for incorporating into the NRSS, linking the strategy to other national strategies for cultural change. A complimentary "National Off-road Vehicular Safety Strategy" is also proposed,

We call for greater focus on fatigue and driver distraction, and respond to motorcycle-specific safety initiatives proposed by the NRSS.

Making it happen

Evidence based research; international best practice safety training and power two-wheel rider apparel is covered.

The Ulysses Club endorses the key recommendations from the Motorcycle and Scooter Safety Summit (Canberra, April 2008) and the top priority countermeasures developed by the OECD International Transport Forum (Norway, June 2008). We believe these must be incorporated into the fabric of the NRSS.

It is imperative that priority is put on funding for research, data collection and analysis to inform strategy development for 2011 to 2020. For motorcycling, this must include a MAIDS-type study for Australia.

Finally, we support stakeholder engagement and propose the development of a National Motorcycling Safety and Transport Strategy in conjunction with the Australian Motorcycle Council and other key motorcycle stakeholders,

Summary

A contribution from motorcyclists is crucial for the vision contained within the NRSS is to be achieved. Motorcycle community engagement will be a key component. Riders with motorcycling expertise have always demonstrated their interest and willingness to contribute, notably by membership of motorcycle safety lobby organisations at all State and Territory levels. The Ulysses Club with its substantial links into Australia's motorcycle community can, and is willing to be a valuable contributor towards safe motorcycling in Australia.

1. Background

1.1 Introduction

The Department of Infrastructure and Transport has developed a draft National Road Safety Strategy for 2011 to 2020 (NRSS) for public consultation. The key underlying aim of the draft NRSS is to **reduce the number of deaths and serious injuries** on Australia's roads during this ten year period.

The Ulysses Club Inc. appreciates the opportunity to respond through this submission and welcomes any invitation to provide further information to the Department, the Australian Transport Council, their delegates and associated agencies.

At the end of 2010, the Ulysses Club Inc. had about 29,300 financial members. These are mature age voters from all segments of the community and workplace.

As a result of concerns expressed by members who want a fair and reasonable approach taken for motorcycling policies in Australia, in 2009 the Ulysses Club National Road Safety Committee was formed. We are always ready (as per our aims) to work with governments and their agencies on motorcycling issues. For more background on the Ulysses Club and its interest in road safety, see Appendix A.

1.2 Objectives of this submission

The Ulysses Club Inc. makes this submission to:

1. Highlight critical inadequacies in the basis of the NRSS;
2. Suggest important improvements to the NRSS that affect all road users;
3. Ensure equity in accommodating the needs of motorcycle and scooter riders, particularly older riders;
4. Ensure that national and state efforts to reduce road trauma include motorcycling as a core component of any strategy and action plans;
5. To promote motorcycle and scooter use as a viable alternative transport solution, particularly in urban environments and to include these vehicles in transport plans.

To meet these objectives, we have reviewed the draft NRSS and offer suggestions and where applicable propose alternate strategies and recommendations in support of our objectives.

1.3 Australia's unique circumstances

Australia has a unique road/transportation structure by way of a landmass of 7,682,300 square kilometres with only 21 million inhabitants. Public transport infrastructure is inadequate and the majority of the population have personal transportation, mainly cars. Road infrastructure varies however the length of roads is vast and road freighters move the majority of freight between capital cities.

This poses a challenge for more vulnerable minority road users who find themselves vastly outnumbered by cars and trucks. Relatively long distances are travelled within capital cities due to residential boundary expansion and congestion is commonplace on roads. Extremely long distances are covered between capital cities and regional centres. This is important because Australian road safety targets and statistical comparisons are being made with countries that **do not align with Australia's situation**.

Australia should take leading edge safety technology from communities with a history of success in reducing road trauma. However implementation of rules and regulations not considered reasonable by the community for Australia's roads will only cause adverse

reaction. Future regulations must take into consideration the challenges faced by Australians as they move around the continent.

1.4 Drivers' decreasing perception and vigilance

The lack of driving skills of car drivers is of great concern to motorcycle riders. This is not simply about inadequate road craft and the over-confidence of so many road users.

Riders are seriously concerned for their safety due to poor ability of drivers to sense and perceive their driving environment and drivers' decreasing levels of vigilance.

Modern car and truck designs (particularly interiors with their built-in distractions) insulate drivers in cocoons, contributing to this serious issue. The increasing number of larger vehicles (e.g. 4WDs) put drivers in aloof positions exaggerating incorrect sensory cues. In contrast, motorcycle riding by its very nature places riders *in* the road environment – exposing them bluntly to all the traffic, obstacles and environmental cues in an immediate way.

It is commonly accepted that motorcycle riding requires a higher degree of skill than car driving. This argument is being used to support moves in some jurisdictions to restrict new riders from bikes until they've held a car licence for 12 months. Riders believe the opposite should be the case, arguing that riding a motorcycle first, makes better drivers, mainly because they become more aware of their surroundings. A motorcycle rider is trained to be better at sensing and perceiving his/her riding environment. Experienced riders have higher levels of vigilance.

1.5 Motorcycles: A sustainable alternative in the transport mix

Motorcycle and scooter transport is a sustainable alternative to car use. It is disappointing to compare the per-capita carbon footprint of large European cities, like Rome and Paris where powered-two-wheelers are an integral part of their transport solutions, to our Australian major cities where in general powered two-wheelers appear to be frowned upon. There is a need to overcome barriers and reap the benefits of including motorcycles and scooters in all transport-related strategies - for smart growth.

While car dependency is increasing, the use of motorcycles and scooters in Australia has increased at a greater rate. There should be a greater emphasis in the NRSS on elements that *support* motorcycles and scooters. The decision to use motorcycles for transport contributes to sustainability through reduced consumption of fossil fuels, reduced emissions and reduced congestion

Whilst only accounting for about 4% of the transport mix (up from 2% in 2004), the average annual increase nationally in motorcycle registrations from 2004 to 2009 was 9.5 percent, well ahead of all other vehicle types (ABS 2009).

This linear increase over a number of years is common across the OECD and mirrors the experience overseas where usage is much higher - particularly in Europe and especially in Asia where 2-wheeled transport is a critical element of transport strategy for addressing city congestion. These increases in Australia are expected to continue.

In his summary, Wigan (2005) lists a number of factors that have affected motorcycle and scooter scenarios and outcomes. These remain valid today across Australia.

Rapid growth in scooters, with a rising fraction of female riders on these motorcycle variants
 Increasing numbers of personal mobility devices and bicycle/motorcycle variants
 Continuing high levels of utility travel by motorcycles

More active user groups banding together to cooperate with Government on safety issues

Motorcycle users are very likely to have access to cars as well

Real and positive potential from [Intelligent Transport Systems] developments with active motorcycle participation

Higher standards of motorcycle-friendly traffic engineering sought.

The pivotal influencing factors were found to be:

- Attitudes towards mobility (in terms of age of access to motorised mobility)
- Different regulatory approaches
- Government actions to alter the nature of motorcycle, scooter and moped fleets.
- General mobility culture towards motorcycles.

Several specialised differential measures for treating motorcycles exist: dedicated motorcycle lanes (Malaysia); freedom from congestion charging and bridge tolls (UK); and footpath parking (Victoria). Unfortunately the data required to monitor and adjust policies and operations with a greater understanding of motorcycles are largely absent, and these data gaps need to be filled, albeit selectively.

Any reappraisal of the roles that motorcycles can, should or could be encouraged to play on the road system are hampered by the lack of a continuing knowledge base and interpretive expertise that can link the diverse areas where motorcycles are a small part - but are substantially affected if not treated from the start with understanding and timeliness.

The scenarios observed demonstrated that motorcycles can fulfill effective mobility roles considerably larger than they do now in Victoria, and that the scooter and moped variants have higher levels of utility to a broader cross section of the community than motorcycles have supplied in recent years - and that to secure the full potential will require road rules and to be reappraised in a broader context.

Wigan 2005, pp.95 & 96

Motorcycles and scooters must be welcomed and integrated into transport plans - plans that facilitate motorcycling as a choice of travel within a safe and sustainable transport framework. Appendix B provides a summary strategy for motorcycles and scooters as a sustainable transport solution.

2. Flawed foundations and bias

2.1 Gaps, invalid and corrupted data

2.1.1 Collecting valid useful data on motorcycling

Recommendation 1:

Rider representation and input be sought before data is collected or statistical analysis undertaken to ensure a credible result is achieved.

Motorcyclists continue to criticise data and analysis put forward by governments because there is an inherent lack of understanding by the bureaucracy of motorcycle model diversity, use and the environment where they are being used. Three distinctly different markets exist: road, off-road and agricultural, with subsets of each sector. Crossover occurs in each of these sectors.

The fact that 'bush tracks' are designated as roads under Australian Road Rules brings motorcycle accidents that occur in off-road environments into on-road (sealed) statistics. Accidents occurring in agriculture involving registered motorcycles get included in road related statistics. Lack of specific data related to actual use makes assumptions unreliable and lacking in credibility.

There is no standardised reporting format for motorcycle fatalities or crashes. This results in anecdotal explanations being submitted by incident attendees who have little or no knowledge of motorcycle design or handling characteristics.

Recommendation 2:

Templates used in North America be studied and a standardised reporting format be made available to authorities attending motorcycle crash scenes.

Industry (manufacturers) should be encouraged to clearly explain model variants and their use.

2.1.2 'Why' crashes happen (not just 'how')

The validity and comprehensiveness of data collected at crash scenes and during follow-up investigations must be challenged – it is insufficient to provide root causes for road user behaviour and so an inadequate basis for a NRSS. There is a clear difference between:

1. Investigations that only look as far as the "how" of a crash, using measurements and physics, and that focus on blame (to who can we issue an infringement notice), and
2. Problem solving and prevention approaches that look past the "how" to the much more important "why".

We fully endorse an evidence-based approach to all decisions as a must-have. Likewise, we respect the science-based work of police investigators, however we believe it to be limited in 2 respects:

Firstly, general crash investigations only look at part of the picture – the scientific and engineering. The behavioural factors in incidents and crashes are not fully taken into account. This is a huge lost opportunity.

Secondly, investigation of motorcycle crashes most often occurs without specialist expertise in motorcycling and its related dynamics. This specialist knowledge and input is critical to the determination of contributing factors and getting best possible outcomes.

When dealing with the causal factors of a crash, a police forensic crash unit investigator (e.g. in Qld) will use a matrix that describes two dimensions:

- The ROAD, VEHICLE and PEOPLE, and
- The PRE (crash), DURING, and POST.

Note that the 3 elements of this first dimension align precisely with the 3 preferred elements of our proposed alternative Safe System (no separate 'speed' element).

Following police investigations of fatal crashes, transport investigators may step in to look at crash scenes from a road engineering perspective. Both police and transport investigators will be familiar with general traffic crashes, and may have little or no specialist training in motorcycle-specifics.

Police forensic crash units work to establish the causes of a crash and then if there is sufficient evidence, the police commence prosecution - under legislation. Determining the physics of a crash scene supports the apportioning of blame for insurance and traffic penalties. Unfortunately when the aim is blame, this seriously hinders full disclosure of the facts and underlying reasons by those involved.

The aim of a crash investigation should be primarily to help prevent the incident from occurring again – a subtle but important shift in emphasis. Full root-cause analysis (asking “why” at least 5 times) would aim to determine the actual reasons road users do what they do that lead to incidents, and therefore lead to more effective preventative solutions.

Recommendation 3:

Road crash data collection practices for identifying contributing factors and behaviours be improved to capture and document the necessary amount and level of detail for effective responses.

2.1.3 Including the expertise of motorcyclists and motorcycle dynamics

Determining behavioural factors has been left to researchers, mostly with limited funding, predetermined scopes and often limited or no expertise in motorcycling.

There appears to be insufficient professional understanding of the nature of motorcycle crashes in many areas where this would be regarded as surprising. A practical example is the work of Turner et al 2009 (report ARR 370) where no consideration of the kinetic energy dissipation issues (which is fundamental in the case for speed management) is even alluded to in the motorcycle segment.

Community groups are collecting useful data. A community example is the collection of data from motorcycle and scooter crash victims from the Royal Adelaide Hospital by the 4B's (The Bent and Buckled Bikers Brigade – a division of the Motorcycle Riders Association of South Australia). Such initiatives should be supported and the data that is gathered included in a broader link of crash and trauma information nationally.

There are a number of excellent initiatives being undertaken by state agencies and community-based groups that should be considered for national rollout. Some of these that the Ulysses Club endorses are:

1. WA Road Safety Audit course

Main Roads Western Australia (MRWA) has altered the Institute of Public Works Engineering WA Road Safety Audit course to include a section on motorcycle concerns. This was compiled with the assistance of motorcycle stakeholders. Main Roads WA has since encouraged many of their motorcycle-riding employees to complete the updated course.

MRWA have now changed their procedures to include a motorcycle trained road safety auditor on every fatal and serious motorcycle incident, to investigate whether the road environment was a contributing factor to injuries. They have also undertaken to sponsor two motorcycle representatives each year from the general public to attend a Road Safety Audit course with these people being added to the MRWA database of Road Safety Auditors.

2. Qld Motorcycle Mass Action Program

Qld Motorcycle Safety Mass Action Program (MSMAP - part of DTMR’s ‘Safer Roads Sooner’ program) is a 5-year \$20 million program aimed specifically at reducing the risk of death or injury to motorcyclists. It uses a motorcycle-specific safety auditing and remedial treatment process built around motorcycle black-spots (defined as 3 or more killed and seriously injured incidents in a 250m length of road) and 60 black-lengths (5 or more crashes within a 5km length of road).

As part of the motorcycle specific safety audit of each route, an experienced motorcyclist (a road safety auditor) is required to ride through each site and identify safety deficiencies that could contribute to motorcyclists losing control. The inclusion of the experienced motorcyclist is proving to be of great benefit to DTMR road safety engineers in providing a better understanding to the risks encountered by motorcycle riders.

3. VIC East Gippsland Community Road Safety Initiative

Vicroads in partnership with RoadSafe and Local Government developed a community working party made up of predominately motorcyclists to look at motorcycle crash issues, provide advice and develop local solutions for reduced road trauma and greater road safety awareness. The working party indentified and delivered on 7 key actions which included:

- Support of Police with on-road and off-road motorcycle enforcement and education
- Provision of a fully funded motorcycle training program on braking and cornering
- Greater funding for regional motorcycle-specific road upgrades and maintenance covering identified crash zones on key motorcycle routes.

Recommendation 4:
Best practice motorcycle-specific initiatives be identified for priority funding and national rollout.

Improved data and statistics = Better research = Better understanding = Targeted action = Better outcomes and achievement of objectives.

Recommendation 5:
Road crash data collection practices be improved by the involvement of motorcycle experts for all investigations of motorcycle crashes.

2.1.4 Flawed statistical approach and measures

The NRSS will fail to achieve the desired outcomes because of the flawed statistical methodology used for determining and tracking risks. The focus has been too much on the road toll only. The inclusion of serious injuries is an important step, however the existing approach remains unsound because data and statistical analysis is not sufficiently comparative or trackable and it lacks appropriate measures.

It is clear that organisations and individuals will “manage what they measure”. It is good that the NRSS includes measures; however if these are not based on key drivers, or the

data the measures are based on is not valid (as described above), then there will be serious, even critical flaws in the strategy and it will not succeed.

Additionally, there are serious risks associated with allowing individual jurisdictions to adopt their own choice (mix) of measures (based on their own analysis of local circumstances and priorities). There should be harmonization of state laws and regulations to bring best practice through nationally consistent road rules.

A consistent set of agreed measures is necessary. Comprehensive and accurate base data and comparative exposure figures are required for valid analysis and effective decision-making.

Once the motorcycle 'park' of units per category and their use is clearly defined, it will highlight relatively small numbers and realign thinking regarding the worth of VKT (Vehicle Kilometres Travelled). It will also highlight the need to collect national data thereby ensuring reasonable numbers are represented in each case study.

Accurate, consistent comparisons across jurisdictions are required. These are imperative for the NRSS. We are concerned that statistics have been plucked to support arguments, with 'apples not being compared to apples'. An example is that states and territories are compared by total road fatality count, by population per 100,000 people, by VKT and by number of registrations. Use of these different measures is confusing.

An accurate quantitative road safety measure for calculating comparable risks per million vehicle kilometres travelled is imperative. Also, data is seriously lacking for minority road user groups (e.g. motorcycling).

Recommendation 6:

Fatalities, injuries and serious crashes per million kilometres travelled (for various modes of transport and their sub-categories) be adopted as the preferred measures.

More recent data is available than is shown in the NRSS. For example, the NRSS states that Australia's OECD ranking is 12th, however new data shows that Australia has actually slipped further in the rankings to 16th (see <http://www.internationaltransportforum.org/Press/PDFs/2010-09-15IRTAD.pdf>).

Recommendation 7:

The NRSS be updated to reflect the most recently available data.

2.1.5 Increasing exposure but reduced support for training

The numbers of pedestrian, bicyclist and motorcyclist fatalities are affected both by the number of walkers, cyclists and motorcyclists and the number of motorised vehicles with which they are likely to be in conflict.

There have been large increases in the number of motorcyclists and scooters on the roads, with a subsequent increase in exposure. Increases or reductions in the number of fatalities cannot be evaluated without also looking at these trends in mobility.

Very little analysis has been conducted on the success or otherwise of rider education and training. Researchers (e.g. Christie 2001) say there is insufficient evidence to support investment in training of road users (resulting in little investment in this NRSS). This appears to simply support the shift to punitive and revenue-raising measures. However the majority of State Governments endorse and enforce compulsory training for all learner and novice motorcycle riders.

Rather than performing literary reviews where little or no research exists, there needs to be a focus on developing new data collection processes and funding new research. This should include:

- In-depth motorcycle-specific studies, similar to MAIDS (Motorcycle Accident In-depth Study) to identify key factors relevant to motorcycle crashes, and allowing international data comparisons to be made;
- Improved and up-to-date data to evaluate the effectiveness of rider education and training;
- State and Territory agencies analysing crash statistics by vehicle class using VIN numbers to identify motorcycle types and categories such as trikes, mopeds, quad bikes and non-registered motorcycles;
- The next national census to collect specific data on motorcycle ownership and usage.

Recommendation 8:

NRSS priority and funding over the next 2 to 3 years be focussed on data collection, analysis and research to inform strategy development for 2013 to 2020.

2.2 The Safe System

2.2.1 The Safe System approach and its treatment of Speed

The Safe System approach has been developed in Australia based on:

- The 3 guiding principles:
 - a) People make mistakes
 - b) The human body is vulnerable
 - c) The road transport system should be ‘forgiving’
- Shared responsibility for road safety
- 4 cornerstones: Safe Roads, Safe Vehicles, Safe Speeds, Safe People.

A basic foundation of the Safe System approach is to devote equal attention to the 4 cornerstones. Giving equal attention to all 4 elements when one of those 4 is actually a sub-element of the other 3 creates an artificial bias.

Since the adoption of the Safe System approach by Australian jurisdictions, road safety strategies have teased out ‘speed’ initiatives from road, vehicle and people areas. This has created an over emphasis on speed and, we believe, a flawed approach which the general public has recognised.

‘Speed’ is not the panacea of all road safety ills and yet it is a primary focus of the NRSS. It should be incorporated into the other 3 areas. This topic is further developed with a recommendation later under section 5 on Speed.

2.2.2 Selling the Safe System proposal

Turner et al in ARR 370:

Community and government acceptance is likely to be a barrier to implementing a Safe System.

ARRB 2009, p.14

With this concern in mind on gaining acceptance, Appendix C shows proposed Safe System priorities for this submission.

The promotion and education of the NRSS includes:

The ultimate success of the strategy will depend on the willingness of individual community members and organisations to support the changes that are needed to improve the safety of the road transport system, and to accept their share of responsibility for road safety improvement. To this end, there is a need to promote public understanding of key policy directions in road safety and encourage public discussion about new road safety proposals.
NRSS pp.53-54

There do not appear to be any measures (page 22) of public acceptance of the strategy’s interventions where this is an important factor.

While we support the development of a web site, we are concerned about public education campaigns and resources being “aligned with the Safe System objectives of this strategy” due to the inadequacies of both the Safe System approach and government agencies in their negative treatment of motorcycling.

Rather than expenditure on promotion and education of the NRSS, there should be maximum investment in education and training of road users, particularly on their vigilance, lack of attention and hazard perception.

2.3 Bias in the application of a Hierarchy of Control

State governments appear to be using a transport risk management approach similar to (or the same as) the Hierarchy of Control used in workplace health and safety (see Figure 1). This is evidenced by the variety of road safety initiatives, past current and proposed, that fall neatly into each of the 5 levels in the hierarchy. Unfortunately for motorcyclists, the emphasis appears to be on all elements within the 5 levels except the “Instruction” element in level 4.

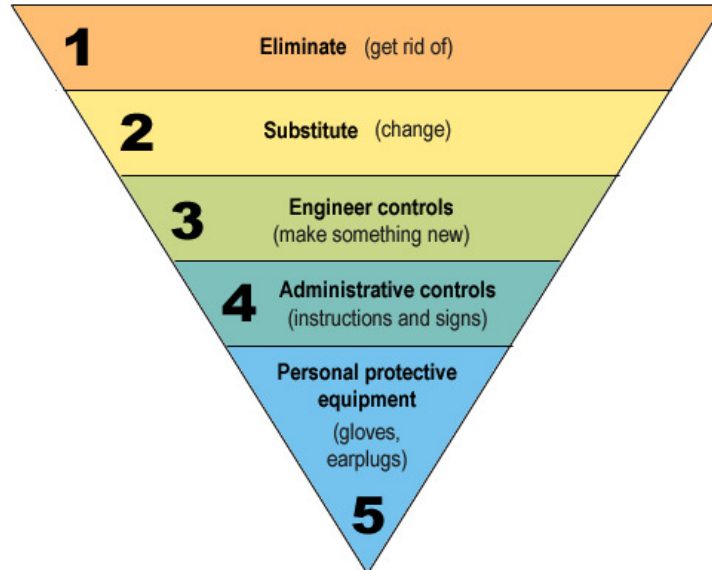


Figure 1: Occupational Health and Safety’s Hierarchy of Control

This emphasis and the lack of focus on instruction are clearly being reinforced by the Safe System approach and the NRSS. This involves subtle (even covert) measures to eliminate motorcycling (e.g. through punitive action and the inequitable increasing of costs) and force riders to substitute their preferred mode of transport.

Examples of this ‘elimination’ control are: the restrictions on motorcycle learners in Queensland that prevent their access to licences until age 18 or after a year on a car licence; excessive compulsory “training and education” for novice riders (unless subsidised); and proposing a motorcycle-specific levy (tax).

Recommendation 9:

A balanced approach to safety improvement initiatives be adopted with more weight on green and sustainable mobility options and priorities are not so restricted by the Safe System approach.

2.4 Discrimination against riders

The public and motorcyclists are being continually told how riders are over-represented in crash statistics. What always goes unsaid in this judgemental and negative view is the positive improvement in the crash statistics. Figures from the Centre for Automotive Safety Research show decreasing crash rates for motorcyclists even though there has been increasing exposure, as follows:

Riding exposure:

Johnston, Brooks and Savage (2008) reported on Australia as a whole and noted that the distance travelled per year by motorcycles had increased every year since 2002, with an average annual increase in this time of **5.7 percent**. This increase exceeded that for other passenger vehicles. [...]

Crash numbers and rates (for Australia):

From 2002 to 2007, motorcycle fatalities increased at a rate of **3.6 percent** per year
Baldock & Hutchinson pp.4 & 6

Significant improvements in motorcycle safety continue to be made, resulting in continuing reductions in road trauma rates for motorcyclists whilst exposure rates climb with more people taking up this mode of transport.

The NRSS states:

Developing interventions to address the most important road safety issues [need] not present the community with a potentially unreasonable burden.

NRSS p.19

This NRSS position must also apply to sections of the community and road user groups. We must not unfairly discriminate against powered-two-wheelers with unreasonable burden, particularly when this choice of transport has so many benefits (as evidenced by the large increases in usage). This burden includes levies. The proposed national extension of the Victorian levy entrenches discrimination against motorcyclists. Consider the popularity of a levy on all new bicycle sales or registration of all road-going bicycles, to fund road safety elements of the National Cycling Strategy.

Further to the bias noted in the application of a Hierarchy of Control, many riders believe an insidious hatred of motorcycling exists in some people in the road safety community. Unfortunately people in positions of influence have shown their extremely negative attitudes to motorcycling. Some would seek to use this influence to reduce the number of motorcycles and scooters on our roads.

Participant contributions cited in the “Safe System Infrastructure National Roundtable Report” by ARRB (Report ARR 370) included:

What should Safe System infrastructure look like?

Response: Ban [motorcyclists] on high-risk roads.

How do we measure progress?

Response: [Reduced] number of motorcyclist registrations.

Such responses are ridiculous and narrow-minded. We must emphasize that motorcyclists pay registration and third party person insurance for the right to be on the road (and additionally in many cases private insurance cover), unlike bicycle riders. Motorcyclists should not be the subject of blatant discrimination.

3. Vision, Target, Packages

3.1 The vision

The vision for road safety in Australia (“*Safe roads, Safe speeds, Safe vehicles and Safe people*”) is not inspirational and lacks punch. It does not sufficiently encapsulate what needs to be achieved.

We offer this as a sample of a preferred vision statement:

Towards zero serious casualties: Through safer roads, vehicles and people – changing the attitudes, minds and capabilities of road users.

We concur with the rationale that we will never reach zero fatalities because drivers will always make mistakes. However it is imperative that the NRSS’s road safety messages are effectively marketed to the various audiences. This is especially important of the key banner, the vision.

Not referencing ‘safe speeds’ in the vision statement above is on purpose. Speed appearing in the vision statement makes it more difficult to sell to a sceptical general public. Speed elements should be covered under ‘safer roads, vehicles and people’.

Our suggested vision statement above is also consistent with other leading international jurisdictions on the elimination of all serious casualties.

3.2 The target

We agree the target must focus on reductions in both in fatal and serious injuries. What is not clear is whether there should be two separate targets stated in the NRSS, one for fatalities and a separate one for serious injuries. Having separate targets would provide for more or less ambition for each measure.

There appear to be two schools of thought on the 30% reductions contained in the NRSS (in fatalities and serious injuries) – regarding whether this target is ambitious enough or too ambitious.

Too high?

Firstly, the targets may be considered too high, with a more achievable target of 25% or even 20%. If an overly ambitious target is unreachable or too much of a “stretch”, then it may be too easily dismissed and bring negative responses due to failure to achieve.

The ‘silver bullets’ that were introduced in the last ten years have been fired. Air bags, crumple zones and traction/stability control systems are steadily being implemented into all vehicles.

The United Nations Decade of Action target is to reduce the projected increase in road traffic fatalities by 50% from its anticipated 2020 level. This makes the NRSS target of a 30% reduction in both fatalities and serious injuries (from the end of 2010) more ambitious.

Too low?

Secondly, the targets may not be high enough. How much do we really want to save lives and reduce road trauma? Certainly with serious injuries, achieving a 30% target still leaves us short of the results of better performing countries like Sweden and Norway.

Figure 2 from the NRSS shows the trend and target in fatalities per 100,000 population. The 2000-2010 strategy failed to deliver the target 40% reduction to 5.6 Australia-wide, reaching only 6.14 (however Queensland achieved 5.51, Victoria 5.25 and ACT 5.02). We note the scale on the Y-axis starts at 5 (not zero).

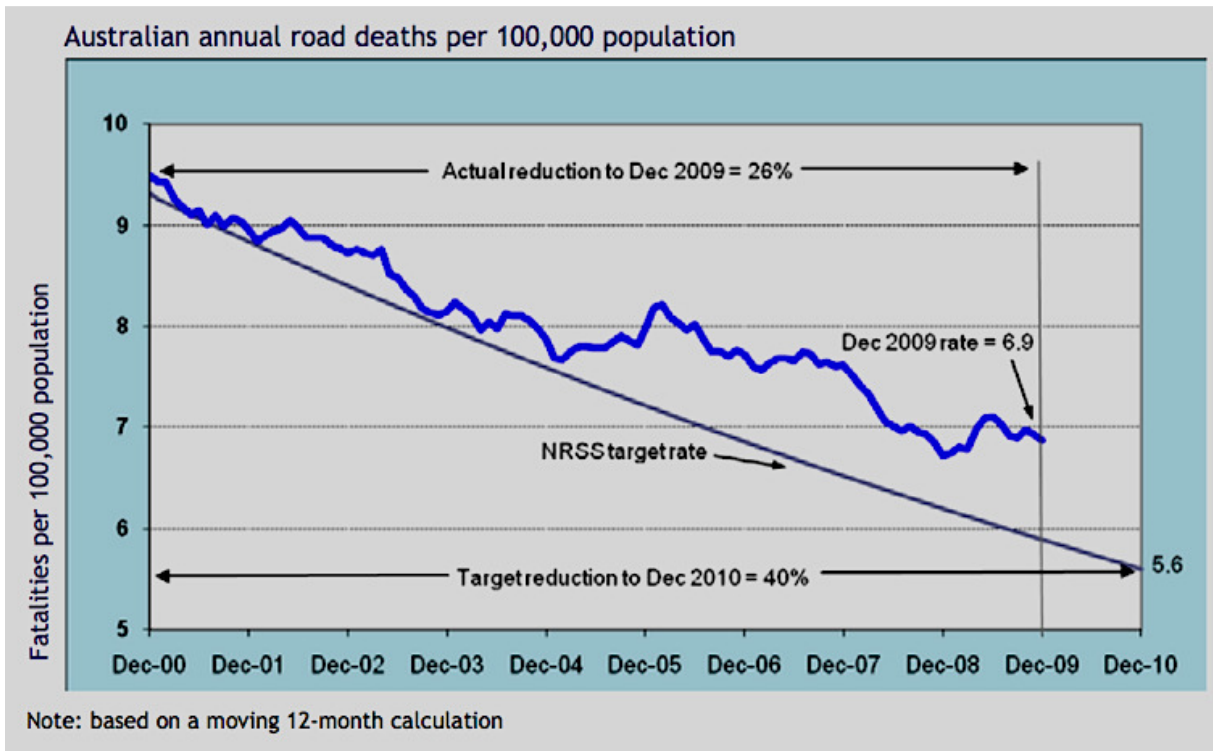


Figure 2: Australian Road Deaths per 100,000 population (NRSS p.4)

The Figure 3 chart replicates the existing data from Figure 2 but on a full scale and projects these to 2030 for discussion purposes only. The NRSS proposes a 30% reduction starting from where we are at now (red line):

The new Strategy accepts that we will never reach zero road deaths (“people will always make mistakes” sets the lowest realistic target).

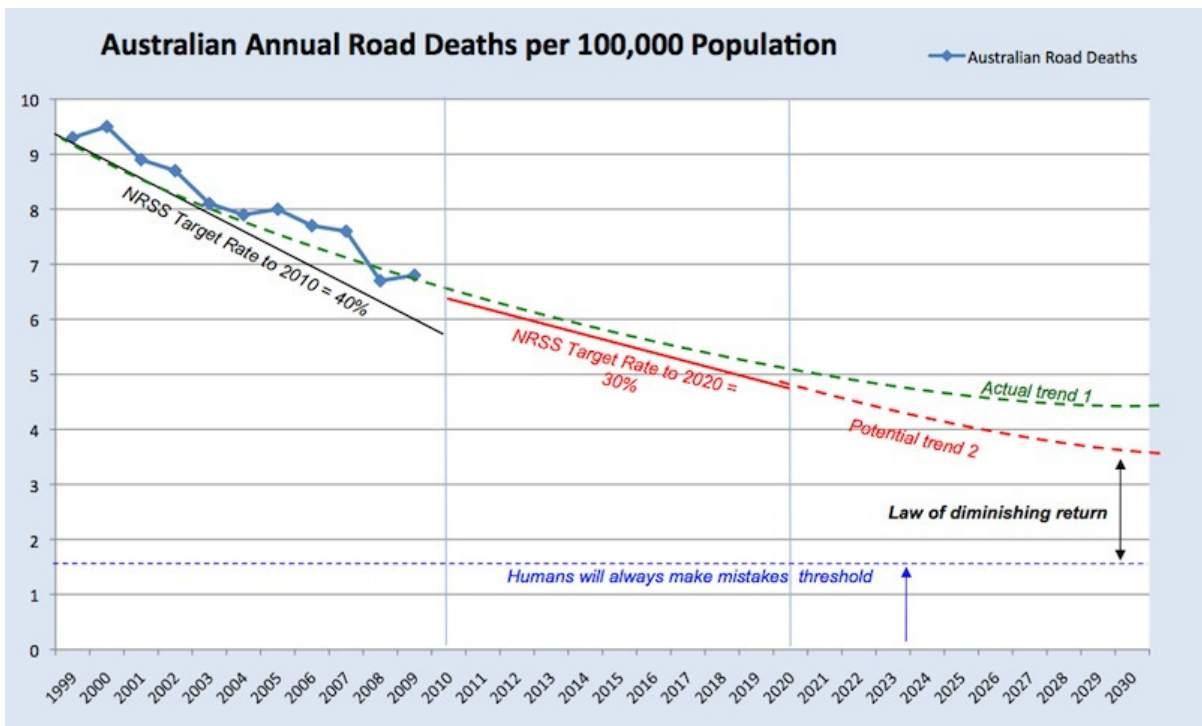


Figure 3: Projected Australian Road Deaths per 100,000 population

The difference between the green trend line 1 and the red trend line 2 could be the success/failure of the initiatives being proposed in the new strategy (e.g. zero BAC). Big gains in reducing the road toll will depend on how much we as a society are prepared to spend, sacrifice and/or change.

For road deaths to continue to be significantly reduced there must be cultural change in Australia (not just on the roads).

This means not only addressing the competence and attitude of road users (the NRSS lacks investment in this area), but to underlying causal factors, such as our society's poor sleep patterns, national alcohol abuse, and decreasing vigilance (the acceptance of driving while distracted, e.g. mobile phone use).

So to answer the question on the target: leave it at 30% until further research is undertaken on the benefits of various strategies (including proving the value of education and training). Then in 3 to 5 years, modify the strategy to incorporate initiatives devised from updated data and adjust the target to a 3.0 fatalities per 100,000 population.

3.3 Modelling and package options

The strategy is apparently based on MUARC modelling on “proven” initiatives that provide the best Return On Investment (ROI). We would like to see how the modelling was done and the assumptions that the packages are based upon.

This MUARC information must be made publically available.

We are concerned that the NRSS has considered more than the 2 options proposed in the draft and that this information is not available for public review. This review process has been limited to 2 choices (package A or B presented on pages 16 and 17).

Both packages indicate a serious lack of investment by either option in training and education to improve “safe road use” (for all road users, not just novices). It may be “difficult to quantify the benefits”, but to change our culture we must invest much more in training and education.

We would propose an initial investment in a third alternative (i.e. “Package C”) with significant additional funds allocated to training and education.

This third alternative being proposed would be somewhat of a combination of the other two, however with less investment in roads (than in package B), less speed reductions (than in package A) and beefing up Safe People initiatives (using the funds not being spent on roads). This alternative package C should also ideally capture the benefits package B offers through targeting more Local Government roads.

3.4 Links to other strategies

NRSS Linkages and synergies:

This strategy is complemented by other national strategies and activities that are addressing specific areas of road safety. These include:

- the National Railway Level Crossing Safety Strategy 2010–2020
- the Australian National Cycling Strategy
- State and Territory Road Safety Strategies.

NRSS p.13

The NRSS provides only limited links to other national and state initiatives and agendas. Others should include the Closing the Gap strategy and alignment with proposed Indigenous licensing initiatives.

There are further opportunities to leverage from common national objectives including environmental and health, particularly reducing alcohol consumption. We also recommend the establishment and support of a National Motorcycling Safety and Transport Strategy (see section 8.7).

3.5 Evaluation and reporting

The NRSS Monitoring and evaluation:

A feature of this strategy is a commitment to public accountability for its delivery. To this end, arrangements will be established to monitor national road safety progress, report on performance in implementing agreed actions, and periodically review the key elements of the strategy.

As a priority, jurisdictions will:

- Publish and regularly update the key statistical measures of road safety progress.
- Present an annual report to the Australian Transport Council documenting progress in implementing this strategy
- Undertake a full review of the strategy before the end of 2014, including an assessment of implementation progress, a review of the strategy objectives and targets, and identification of priority actions for the next three years.

NRSS p.54

We support these measures but believe they should go further and by actively engaging in critical areas with a full range of motorcycle riding experts. Rider experts may be defined by their experience gained through a combination of time riding, distance travelled, use of various types of motorcycles in different situations (on-road/off-road), technical or academic qualifications, involvement in driver/rider training environments or industry experience.

Action plans and implementation in all jurisdictions must be periodically reviewed and progress evaluated and reported publically. At each stage of all projects, evaluation against all measures and key deliverables needs to be undertaken. This must occur at project, state and national levels with formal reporting into the NRSS and full transparency, with timely public access to evaluations and reports.

Experts from various fields should be engaged in these review and evaluation processes. This should be a partnership between the agencies and departments involved in the delivery of the NRSS, expert motorcycling advisory committees (with nominees from the motorcycling community), the motorcycle industry, rider clubs and associations as well as local government.

Recommendation 10:

NRSS monitoring, evaluation and reporting processes be extended to all jurisdictional and project levels and involve partnerships with expert motorcycle riders.

The Ulysses Club has this level of expertise within, as well as substantial links into Australia's motorcycle community. Government may draw upon these resources to further the NRSS and consequent motorcycling action plans.

4.1 Road and roadside design

Input from rider representatives would be productive in initial design and ongoing maintenance of roads, thereby lessening the potential for “black-spots” to occur. The necessity for road user groups to contribute financially towards elimination of “black-spots” highlights shortcomings in road design and maintenance.

Recommendation 11:

The design and installation of roadsides and road furniture take into account the potential danger of both design and placement to vulnerable road users.

Future road design could consider segregation for vulnerable road users from cars, buses and trucks.

In addition to toll exemptions, governments should investigate other measures that provide separation of powered-two-wheelers, including: use of currently restricted access areas such as bus lanes, installation of advanced stop lines and legalised ‘filtering’ between and beside lanes of stopped traffic (similar to bicycle riders being permitted to ride beside moving and stationary traffic). There are examples of all these being legal and accepted in other countries, particularly in Europe.

Recommendation 12:

Nationally consistent road rules for powered-two-wheeler access to bus lanes, advanced stop lines and lane filtering¹, be developed and implemented to improve segregation and reduce congestion.

It is recommended that surface treatments to roads take into account that power two wheelers rely wholly on a relatively small road contact patch as opposed to vehicles. Surface treatments that effect adhesion to the road should be discontinued. Pavement surface skid resistance should be consistent along and across the entire carriageway. Road maintenance that is likely to affect the stability of motorcycles and bicycles should be clearly marked and if possible discontinued.

Road infrastructure efforts must target routes with a high proportion of motorcycle use and history of crash types that can be minimised through the provision engineering treatments or upgrading of more motorcycle friendly roadside furniture (e.g. Qld’s Motorcycle Safety Mass Action Program – see section 2.1.3).

Many roadside objects considered frangible to a car can inflict a severe injury to a rider (e.g. loss of a limb during a crash). Crash history indicates many incidents result in death due to massive blood loss prior to the arrival of emergency services. If this high-end trauma could be reduced, many lives could be saved. Forgiving roadside objects are critical in all environments to not only a motorcyclist, All road users are likely to gain safety benefits from a more forgiving roadside.

¹ “Filtering” can be clearly differentiated from “lane splitting”. Lane filtering is defined as riding between or beside stationary traffic (or very slow moving traffic). Lane splitting is defined as overtaking between two vehicles (other than motorcycles) travelling side-by-side in the same direction on a multilane road (e.g. moving at normal speeds). Lane splitting is dangerous and not condoned. Filtering can be safe and there are examples of filtering being legal and accepted in other countries, particularly in Europe.

Recommendation 13:

Studies be undertaken of international best practice for road designs that take vulnerable road users (motorcyclists, bicycle riders and pedestrians) into consideration.

4.2 Equity in infrastructure expenditure

We support the NRSS focus on road improvements for motorcyclists, cyclists, pedestrians, older road-users and users of public transport. We particularly note NRSS recognition that road surface and road infrastructure improvements can be made to make roads safer for motorcyclists. In particular we applaud the proposal to look at popular motorcycle touring routes in the first three years.

However when it comes to expenditure, there must be balance provided in the amounts apportioned to these priorities across road user groups. For example motorcyclists are concerned about inequities between the focus and expenditure of bicycle riders versus motorcycle riders.

One example is the comparison of:

- a) "Total national expenditure on specific safety-focused road works is expected to be \$506 million in 2010-11" (NRSS p.23), with
- b) The Australian National Cycling Strategy 2005-2010 which estimated that all three spheres of government in Australia were spending something in the order of \$100 million a year on cycling infrastructure and facilities, coordination and planning, road safety for cyclists and cycling promotion and education.

Bicycle riders do not pay registration or third-party person insurance, nor are they being asked to pay any levies. Given that most motorcyclists are also car owner/drivers already paying registration and insurance on cars, any proposal for a levy on compulsory third-party insurance for motorcyclists (as Victoria has done) further exacerbates the inequities between motorcyclists and other road users.

4.3 Black-spots

The NRSS includes:

Introducing motorcycle black-spot/black length programs in all jurisdictions, potentially funded by a levy on compulsory third-party injury insurance for motorcyclists (as Victoria has done).
NRSS p.28

A useful definition for black-spots and black-lengths is used by Queensland's DTMR. Their Safer Roads Unit conducted a state-wide review of motorcycle crashes occurring between 2001 and 2006 on state controlled roads. The worst locations were classified using the following criteria:

Black-spot: Total number killed and seriously injured (KSI) crashes occurring within a 250m length of road. Approximately 30 black-spots have been identified with 3 or more KSI crashes.

Black-length: Total number of motorcycle loss-of-control crashes occurring within a 5km length of road. Approximately 60 black-lengths have been identified with 5 or more crashes.

Those Qld motorcycle crash locations identified have been prioritised by the number of crashes and the cost to society. The locations with the highest number of crashes and social crash costs are the initial sites being treated.

The key characteristic of the work initiated by the Victorian Motorcycle Advisory Council (VMAC) and subsequently undertaken by VicRoads, is that the Benefit Cost Ratios (BCR) reported by the State Road Authority are lower than for general Black-spot investments made for the full range of road users. Nevertheless the BCR of motorcycle-specific black-spot identification and subsequent investments has showed solid BCR returns.

The Victorian motorcycle-specific black-spot program has focussed on fixing the roads in motorcycle-specific areas and has been very successful. It has included sealing edges, putting in frangible and flexible signage and suitable treatment of roadside barriers, sealing bell-mouths and car pull-off spaces so that gravel doesn't get onto the road, and resurfacing major motorcycle roads. The Victorian levy does not fund speed detection equipment.

The "levy" issue is dealt with in more detail in section 8.6.

Recommendation 14:

Motorcycle black-spot and black-length locations continue to be identified, prioritised and treated as a priority.

The NRSS proposal shows a clear indication that the basis for investments in motorcycle safety is not being assessed on the same basis as for other modes. The application of life and safety valuations to different road users needs to be carefully reviewed, and, as the strong thrust of the NRSS is that motorcycles are of greater concern and thus can justify greater investment, there is a clear confusion between the basis for economic assessment and safety investment evaluation and action.

While this is evident in the treatment of the ABS issue in one form, it is all too clear that the asymmetries in valuation and resource allocation are being conflated – so as to add yet further levies to motorcycle riders, most of whom are already car drivers.

It is now necessary to review economic evaluation factors used in safety and their use in both cost benefit analysis and project selection.

Recommendation 15:

A more widely based and coherent examination of the economic evaluation factors used in safety be conducted, including how these factors are used in both cost benefit analysis and project selection.

4.4 Urban environments – Best practice strategy

The NRSS states:

Infrastructure improvements can have a major effect on reducing crashes. In many cases these interventions are relatively low cost and can provide community benefit worth many times the cost.

NRSS p24.

For urban environments, the Sydney City Motorcycle Strategy (City of Sydney Council 2008) provides an excellent example of a number of low cost interventions and initiatives that also provide community benefit. The Sydney City Council strategy provides a template for rollout across all major urban centres.

4.5 Run-off road crashes

We fully support motorcycle-friendly infrastructure treatments, as exemplified on page 25 of the NRSS.

For this to be successful there must be improvements in national and state coordination and co-operation with local government departments charged with this work. The focus must continue to be on consistent application of standards and best practice, requiring training and education of designers, decision-making managers, supervisors and workers employed in installation and maintenance of roads and roadsides.

For example, the Department of Transport, Energy and Infrastructure (DTEI) in SA has curtailed the use of yellow raised pavement markers on all Government controlled roads. They have an active program for the eventual removal of these anti-motorcycle 'yellow bricks'. However adjacent Local Councils are actively placing them on pavements in their jurisdiction – an example of poor information sharing.

We acknowledge the implementation of W-Beam motorcycle-friendly barrier protective devices (BASYS System) being currently rolled out by the Department of Transport, Energy and Infrastructure in SA.

By fixing road and roadside infrastructure, there will be less need to lower speed limits (a benefit to the entire community).

4.6 Wire rope barriers (WRB)

The NRSS points out the reality that there are financial limits to how much of the major rural highway network that can be upgraded. It then goes on to highlight the claimed success of centre flexible barrier treatments in reducing head-on 'crossover' crashes.

Rolling out more centre WRB on rural highways (and elsewhere) may be the cheapest option for government, but it may not be the best option. **Certainly it is not the safest option for motorcyclists.** Isn't this strategy about safety? Aren't motorcyclists over represented in the crash statistics? Why then is a measure being proposed that increases the risks of road trauma for motorcyclists?

In the NRSS section on Head-on crashes (pp.25-26) two images show examples of centre-fitted WRB. These barriers do not appear to have sufficient clearance for passing traffic. If these barriers have been installed to design standards (AS3845), then motorcyclists (and other road users) have clear reasons for concern for this type of treatment. In the event of a crash into these barriers, a motorcyclist is at extreme risk of trauma, not so much from the wires but from the posts. In the event of a heavier vehicle crash at such locations, there appears to be an increased risk in a cross-over resulting in a head-on – exactly what these barriers are supposed to be preventing!

The high risk of injury posed by WRB posts can be reduced by incorporating panels of heavy, flexible material. Examples of such systems are already being trialled and should be reviewed for national rollout in higher motorcycle crash risk locations.

We are aware of good work in Victoria, South Australia and Queensland on trials and implementation of suitable barriers. These include: rubrails, stack cushion, polybuffer, flexible/frangible delineators, end posts and caps. More work must be done to standardise crash barriers, deploying motorcycle-friendly barrier designs in higher risk locations with suitable protection devices in lower risk locations.

Recommendation 16:

Review international and Australian best practice on motorcycle-friendly crash barriers and protection devices to determine a new national standard for implementation.

4.7 Standardising safer road infrastructure

We note the split white lines on page 25 of the NRSS, highlighting different treatments for dealing with safe overtaking being used by various states.

There are many examples of differing road designs, treatments and initiatives across state and local jurisdictions. Efforts must be strengthened to determine best practice (nationally and internationally) to the goal to achieve national consistency.

Unless the other recommendations made in this submission are taken up, then little change will occur. To do this properly requires a considerably better understanding of mode and trip choice mechanisms, and the roles and functions that ensure that engineering improvements secure actual gains.

To do this, the valuation framework needs to include travel time, comfort and all the factors that influence behaviour and are attributed a value as evident in people's wider choices and behaviours. This area is remarkably neglected in 'safety' research, and perhaps should be done in groups with a wider perspective.

4.8 A final note on safer roads

Our expectations for improved safety outcomes through safer roads must be tempered by the notion that better roads may lead to drivers taking more risks. The same offsetting effect occurs with improvements for safer cars – see section 6.4 for further explanation.

5. Speed

5.1 The challenges that riders face

Motorcyclists must acquire a high degree of skill to safely negotiate varying road conditions and the vehicles they encounter.

Riding conditions vary considerably between city, country and freeway traffic. Experienced motorcyclists will travel at an appropriate speed commensurate with road conditions faced on the day. In heavy traffic the motorcyclist must move in unison with general traffic while creating space around themselves for safety reasons. Visual contact with surrounding traffic, bicycles and pedestrians is vital and it is impractical to be looking at the speedometer as to do so stops the traffic-scanning situation. This is not to imply that there is a lack of understanding of speed restrictions; merely that motorcyclists must move with the traffic flow, positioning themselves for maximum visibility for the drivers around them.

Adhesion with the road is a key factor for safe riding and certain conditions (rain, snow, high winds) impact the speed at which a motorcycle should safely travel.

In most cases, speed related motorcycle crashes are linked to inexperience, road conditions and visibility. These areas require considerable focus within motorcycle rider training and road-craft.

5.2 Over-emphasis on speed

The 'safe system' for road safety had consisted of the three elements (safe roads and roadsides, safe vehicles and safe road users) with 'speed' considered a relevant part of each element. Over the last couple of years, governments have modified this approach to emphasise speed. In the 2011-2020 strategy, safe speed is listed as a separate pillar.

Much of the community is reacting negatively to this emphasis on speed, particularly to the increasing prevalence of speed cameras. There is also a perception that this focus on speed is at the cost of other priorities. The NRSS recognises that community acceptance is an issue (p.34).

5.3 Selling the focus on speed

There is an obvious need to sell the road safety message embodied in the NRSS. There is scepticism (even disrespect) in the community for the authorities' emphasis on speed, so efforts must focus on how to achieve speed-related safety measures based on road user acceptance. Speed needs to be sold more subtly.

This submission offers an alternative vision statement that supports this shift in gaining acceptance for all the road safety messages:

Towards zero serious casualties: Through safer roads, vehicles and people – changing the attitudes, minds and capabilities of road users.

To improve community perceptions, the NRSS section on "Compliance" should be under Safer Road Use (people) and the section on "Speed Limits" should be under Safer Roads. An alternative 3-pillar "safe system" proposal for use in the NRSS is outlined in Appendix C.

Recommendation 17:

A revised 3-pillar 'safe system' approach be adopted where speed-related elements are considered under each of the other three headings within the 'safe system' (not a stand-alone heading) to support public acceptance of the NRSS.

5.4 Speed cameras

The increasing prevalence of speed cameras has been labelled as revenue raising and having little to do with reducing road trauma. The mistrust of these speed detection strategies is exacerbated by camera placement at sites believed to have low or nil crash rates. In Victoria, speed cameras were to be installed in black-spots to reduce the accident rate - now they are everywhere. The same can be said of other states.

There should also be a "reasonable" tolerance setting that allows for vehicle speedometer variations, aligned to ADRs.

The irresponsible minority includes a group of budding Formula 1 and MotoGP road racers who appear to not care about demerit points or fines. Quite a few of this "boy-racer" demographic are professional people who have the means to pay fines without much bother. Suspension of license only means a couple of months off the road. For this group, cancellation of that class of license (rather than just suspension) would force the errant driver/rider to re-do the license program for the class (back onto a Learner's Permit and "P" plates).

Speed and enforcement strategies should not be designed to penalise the majority to catch the irresponsible minority. This includes demerit points systems that over emphasis speed rather than emphasising other dangerous practices.

Recommendation 18:

Mobile and fixed speed cameras be located only in zones that are identified as black-spots according to crash criteria.

5.5 Applying technology to speed issues

The NRSS says:

Promoting or mandating speed governing and ISA in a broader range of vehicles; Examining options for improved enforcement of motorcycle speeding.

NRSS p.36

Considerable work is currently underway regarding vehicle to vehicle and vehicle to infrastructure communication. A frequency for these communications has been reserved (5.9 GHz) and research is active regarding potential applications.

NRSS p.38

Mention of 'telematics' is of much concern, i.e. "technology in vehicles that enable electronic monitoring, management and regulation". This has been the subject of considerable heat and less light in Australia, as the major issues have been:

1. Front number plates for powered-two-wheelers
2. RFID – Radio frequency identification
3. ANPR – Automatic number plate recognition.

The first issue is largely irrelevant. Policing practices and equipment work extremely well with rear number plates and it is essentially a Police operational quirk, and does not justify any further consideration now that ANPR is deployed.

The issue that has not been adequately debated and worked out publicly is the privacy and dataveillance² aspects of mass uses of ANPR, the growing use of RFID in E-tag and other potential delivery mechanisms, and most of all, the use and abuse of Smart Phone GPS and cell-to-cell tracking records.

As is already a hot issue in Queensland (ANPR and the new Queensland licences), and the initiatives of CRIMTRAC (where Victoria has so far declined to share the complete and detailed data thereby being secured)

To maintain public confidence it is now essential that a proper public and privacy audit be undertaken of the data captured as part of speed monitoring and enforcement, and in particular the control and usage of the databases built up of people and vehicles that are fully speed compliant.

Recommendation 19:

Mechanisms and processes be developed and implemented for ensuring privacy and to audit acceptable data collection, storage and usage consistent with agreed regulations.

The moves (recently struck down by the High Court) to use prescribed membership organisations as a data source for selective law enforcement (the 'Bikie gang' measures) demonstrate the pervasive and destructive nature of neglecting these issues.

Positive use of technology

To date the narrow enforcement perspective in technology and speed issues has led to the neglect of a number of very positive moves to enhance riders' ability to comply safely with speed regulations.

Just as ESC (Electronic Stability Control) has demonstrably enabled drivers to avoid crashes, closer attention to the environmental and information factors that assail riders in a road environment may offer significant gains.

5.6 Other factors affecting speed

The NRSS approach to speed (p.34) can be interpreted as simply slowing everyone down until there is user/community outrage. An example of this (poor) approach already implemented is the Old Pacific Hwy north of Sydney. Critics have deemed this slowing down of traffic as excessive but cost-effective (for state governments) because of speed camera use ("raising revenue").

The complementary nature of infrastructure and speed limits is understood; however slowing road users down increases journey times and levels of impatience (and risk taking), stress and fatigue, thereby contributing to increasing incidence of crashes. This is especially a problem on long monotonous inland highways where fatigue and inattention are increased. Rather than blanket speed limit reductions, to address these issues there must be:

- More passing lanes and improved road design (fewer monotonous lengths),
- New and nationally consistent laws that force trucks and slow moving vehicles to keep left on dual carriageways (as in Europe),
- Laws and encouragement for slow drivers to pull over to allow others to get by (into the left lanes or off the road entirely),
- Further investigation into the impact of speed reductions on specific road lengths prior to changes, and
- Strict enforcement of these changes to bed down and maintain compliance.

² The systematic monitoring of people's actions or communications through the application of information technology.

5.7 A final note on speed

The pendulum has swung too far towards speed detection and enforcement as a cure-all resulting in the community becoming more outraged by use of indirect taxation as a compliance tool.

The community recognises the blatant disregard for many other road rules, particularly dangerous driving practices that increasingly go undetected. There needs to be balance returned to enforcement through increased police presence on the roads. Police for example should regularly blitz compliance at red lights and stop signs, giving way at intersections, use of hand-held mobile phones, tailgating and failure to keep left in multi-lane roads. There must be fear of detection and consequences for illegal behaviour if this trend is to be reversed.

A more general balanced approach to compliance, across the spectrum of critical road rules, would go some way towards restoring the public's faith in authorities.

6. Vehicles

6.1 Improving the standard of the vehicle fleet

6.1.1 Fleet turnover

Affordability is a key factor in fleet turnover. Motorcycles and scooters are affordable!

Affordability of vehicles is already a serious issue, slowing down the rate of turnover of the fleet. RACQ (2010) figures show a Holden Commodore now costs \$222.81 per week and a Hyundai Getz about \$126.16 per week. Oil prices are again rising along with insurances and registrations. Prices are also being affected by government mandating of Ethanol use and increased taxes on fuel, registration and insurance.

New vehicle purchases also include various taxes such as stamp duty.

Government should be providing incentives for owners of old vehicles to move to newer (safer) vehicles.

NRSS p.39 First steps #18: Using European-based “UNECE regs” may not always be suitable for our Australian conditions. Acceptance should not be automatic, even for minor changes as suggested, but involve review for suitability.

Large bull bars and fishing rod racks on four wheel drives (4WD) in urban environments are also a safety concern to vulnerable road users.

6.1.2 Safer motorcycles in a global marketplace

It’s been said that while there have been considerable advances in car safety over the past two or three decades, that motorcycles don’t have the same scope for change.

Manufacturers have used technological advances to improve motorcycle performance, producing lighter motorcycles with advanced braking systems, better suspension and tyres, which have improved safety.

When manufacturers clarify the numbers of models in each market segment, it will be clearly seen why Australia cannot adopt design rule regulations that do not align with international standards. The highest selling single model in Australia is Honda’s Australia Post bike, with annual registrations of approximately 2000 units. Most other models can be counted in 100’s. The Australian market is not large enough for manufacturers to develop specific models for the Australian market. (The Australian market is currently approximately 1% of the world market.)

Recommendation 20:

Motorcycle safety standards in Australia be aligned with North American, European and Japanese standards through direct dialogue with authorities working on motorcycle safety technologies in these regions.

6.2 Anti-lock braking systems (ABS) on motorcycles

The NRSS proposes that a Regulatory Impact Statement (RIS) be prepared to look at the mandating of ABS for motorcycles (First steps p.40), and regulation to improve stability, traction and braking on motorcycles (Future steps p.41).

6.2.1 Progress by the industry

Anti-lock braking systems (ABS) have formed part of motorcycle development since 1965, and have been progressively introduced along with other ‘advanced’ braking system

components as the technology has improved. ABS does not necessarily improve braking performance by motorcycle riders (this has been the subject to trials since the late 1970's), but does offer a reduced risk of a fall during extreme braking, from the same research.

The Association des Constructeurs Européens de Motocycles (the motorcycle industry in Europe) comments on progress in their latest newsletter:

The majority of the [European street motorcycles] range today is available with an advanced braking system, at least as an option.

In 2008 ACEM manufacturers agreed to renew the commitment to the EU Road Safety Charter, establishing a further 75% objective by 2015 ensuring the large-scale deployment of all systems (CBS, F-ABS, R-ABS, ABS, Combined ABS, ABS-PBS, Integral ABS, new vehicle architectures ...).

ACEM 2011

The European Commission has proposed the mandatory fitting of 'advanced braking systems' on new motorcycles (NB: *Advanced*, not *Anti-lock*).

There are high hopes in terms of safety [for ABS], and ACEM concurs with this point of view for big motorcycles, used also for recreational purposes on non-urban roads and therefore higher speeds. However, in the case of smaller capacity vehicles, especially urban-oriented vehicles such as scooters, there are more cost/beneficial systems, which the industry has successfully been designing specifically for two wheels, such as CBS (Combined Braking Systems, operating both brakes with one control), which are in line with the performance, pattern of use, and cost of these vehicles.

The EC proposal also rightly takes into account the specificities of light motorcycles. ACEM therefore is willing to accept the legislative approach proposed by the EC and the obligation to fit either ABS or CBS on light motorcycles up to 125cc and ABS on motorcycles above 125cc from 1/1/2017 for new type-approvals.

ACEM 2011

Non-European manufacturers can be expected to respond to these European moves and market forces. An increasing number of Japanese models are also being produced with advanced ABS braking systems.

6.2.2 Issues with ABS

Current issues with ABS include the moves that have effectively made motorcycles (designed to handle unsealed roads and other surfaces than sealed roads) have to comply with full Australia Design Rules (ADR). This occurred in Victoria as a result of a redefinition of the 'public road' and changes in the scope of coverage the types of land on which road-approved motorcycles must be used.

The European motorcycle industry (ACEM) position on ABS for dirt bikes:

Furthermore, the use of ABS and CBS not being compatible with off-road riding conditions requiring the possibility to lock the wheels and to use each brake independently, ACEM supports that exemptions should be introduced for specific vehicles such as enduro and trial motorcycles.

ACEM 2011

The lack of understanding of the safety factors involved in loose surface riding has reduced the safety of such riders in off-surfaced road conditions. Consideration of these issues is essential, as the enforcement of regulations that reduce the safety of the rider in other than surfaced road conditions reduces both the credibility and the value of, in this case any ABS, requirement regulation.

As is the case in many areas of powered-two-wheeler usage, there is little focussed research on establishing such factors and the safety tradeoffs involved in unsophisticated

undifferentiated training and equipment requirements. It is unreasonable to expect fitment of ABS and traction control on all scooters and Postie bikes in the short term.

Proper examination of ABS issues is highly desirable, and as it has been a formal recommendation of inquiries since 1979, such work is long overdue. It is however necessary to undertake work on a more solid and credible foundation than simply epidemiological studies of reported crashes.

6.2.3 No need to mandate or regulate

Australia has a single percent of the world vehicle market, so it is unreasonable to expect our small market to set standards that mandate ABS for motorcycles or regulate on stability, traction and braking. It would be cost prohibitive.

The Ulysses Club's National Road Safety Committee agrees with Jeremy Bowdler's recent editorial comments in Two Wheels magazine:

There is the need for people to be trained how to use the system or it is worthless, this is demonstrated by car drivers and how many cars fitted with ABS have accidents that were avoidable if the technology is used correctly.

Bowdler 2010, p.10

Over time we can expect such improvements to flow from the hi-tech Moto-GP bikes to the general bike market, initially probably as options on higher cost and higher performance models. It is unreasonable to force these changes. Again we agree with Jeremy Bowdler:

These are constantly being developed by the motorcycle manufacturers world wide, there is no need to make changes. It might be good if manufacturers make special ride days for rider training on their products, different bikes do different things.

Bowdler 2010, p10

Recommendation 21:

Advanced braking technologies on motorcycles in Australia not be mandated or regulated. Market forces and manufacturers will determine the rate at which these are introduced.

6.3 Vehicles with built-in driver distraction and poor visibility

Vehicle design, while incorporating more safety technology on one hand, is detracting from it with more 'gadgets' in the vehicle for drivers to play with creating driver distraction and an opportunity for them to try out their new air bag system!

Government must review the causal factors effecting vehicle collisions, which may only result in panel damage of a minor nature for the vehicle but has the potential to kill or injure a vulnerable road user.

A large European study (MAIDS) showed that of the 50% of crashes involving motorcycles where the primary cause was an error by another driver, 70% of those errors involved a failure to detect the motorcycle (ETSC 2008).

Mobile phones are only part of the problem. Others include: personal digital assistants, two-way radios, GPS units, changing in-car CDs, DVDs and tracks on portable music devices, plugging in USB devices are all becoming more common and considered as dangerous (or more dangerous by some) than the use of simple hands-free mobile phones.

Our position is that the most distractive influences must be heavily dealt with as a matter of urgency, with further investigation and research into limiting driver distractive influences. Of highest priority is dialling phone numbers, emailing and texting by drivers whilst vehicles are in motion, followed by all other hand-held operations requiring the driver's attention.

We are also concerned by the increasing use of earplug type headphones (as with iPods and some mobile phones) that restrict drivers' hearing sense. These practices are dangerous for more vulnerable minority road users.

Drivers should pullover and stop to conduct the more complex communication and cabin functional activities.

The NRSS Future Steps:

Investigating the case for standards to minimise driver distraction from vehicle devices, and Intelligent Transport System (ITS) standards for Human Machine Interface (HMI) and interoperability.

NRSS p.41

The Ulysses Club Inc. adopts FEMA's position on ITS:

- PTWs have different characteristics from other vehicles, and these differences must be integrated into the first stages of all V2V and V2I technology: systems must identify PTWs as such and treat them accordingly.
- All technologies implemented should be adapted to the needs, vulnerabilities and limitations of PTWs.
- ITS should not present an additional risk to motorcyclists.
- Installation must not be mandatory, when installed use must not be mandatory, and when used must be non-intrusive. The rider must be able to keep control of his driving at all times, in continuity with current international regulations.
- Data security and protection, privacy and liability issues must be addressed and tackled.
- Technologies implemented in all vehicles and infrastructure must have proven safety benefits, based on sound and objective research taking into account vulnerable road users.
- A recognition of incompatibility must be granted to vehicles manufactured before the implementation of ITS, and the right for their users to access all road systems should be maintained.
- ITS should not be used for law enforcement purposes, other than within user-subscribed services
- They should be financially and technically available to users who wish to use them.

FEMA 2009, p.5

Laws already exist and these need to be more heavily enforced. Mobile phone use (hand-held and texting) by drivers requires particular focus.

The use of technology to block phone use in running vehicles may be a future option for minimising distractions. Improving hands-free technology may also be an alternative to blanket banning of their use.

There are a multitude of other factors contributing to driver distraction or reduced vision that require attention, for example:

- The hanging of objects from rear-vision mirrors and the locating of GPS units on windscreens create blind spots in critical area of view. This is of particular concern

for motorcyclists and cyclists whose relative size in the field of view is so much smaller than other vehicles.

- Wide 'A Pillars' in the front of cars are a concern to motorcyclists as they can impede vision of motorcycles, particularly at roundabouts.
- Excessive tinting of car and trucks windows is also detrimental to the visibility of motorcycles and motorcyclists.

Recommendation 22:

Regulate, educate, enforce and penalise to reverse the increase in factors contributing to driver distraction and reduced vision.

6.4 A final note on safer vehicles

We should be cautious to not have too high expectations for safety outcomes through improvements in vehicle technology. The safer vehicles get, the more risks drivers choose to take. (The same applies to roads.)

The "Peltzman effect" describes how drivers trade a decrease in accident risk with an increase in "driving intensity". Vanderbilt cites Sam Peltzman to make this important point:

Even when the occupants of car themselves were safer, he maintained, the increase in car safety is being "offset" by an increase in the fatality rate of people who do not benefit from the safety features – pedestrians, bicyclists and motorcyclists. As drivers feel safer, everyone else has reason to feel less safe.

Vanderbilt 2008, p.27

This highlights the serious concerns of these 3 (vulnerable) road user groups and underpins the very necessary focus on car (and truck) drivers required to improve fatality and injury rates of non-car and non-truck drivers, i.e. pedestrians, bicyclists and motorcyclists.

7. People

7.1 The focus must be on people

Training and skill development have been under-valued.

Powered-two-wheelers are not looked upon as a legitimate form of transport in Australia by most governments. Australian drivers have little respect for minority road users and the Judiciary are lenient when judging penalties against drivers who kill or maim motorcyclists. There needs to be a mind-shift within the community if 'safe people' is to be realised. This can only come about in the education process and from a very young age. Powered-two-wheelers do have place in the transportation mix. Responsibility for safe riders rests with the training regime and with the recognition of drivers that they can and should safely coexist within the transport mix.

Human factors are by far the major contributing causes of road trauma and the most challenging to address. Therefore our submission provides **an emphasis on people** and so should the NRSS.

In 2010, Queensland achieved the NRSS 2001-2010 target of 5.6 per 100,000 population with a fatality rate of 5.51. The contributing factors to these rates clearly show where the emphasis needs to be if further reductions are to occur. Qld's DTMR figures demonstrate this weighting in their road toll figures for the 12 months from September 2009 to August 2010:

- 92.1% Human factors
- 11.0% Road factors
- 2.8% Vehicle factors
- 6.7% Atmospheric/Lighting conditions

As the saying goes, you can't legislate against stupidity. Unfortunately, this has seen a system develop where training and skills' improvement is under-valued. Instead there is a focus on making roads and vehicles forgiving or 'crash-proof' – if you happen to be driving a car!

People must be educated to treat driving and riding as a skill and not just a means of getting from point A to B.

7.2 Education and training for all road users

Road fatalities and crashes in Australia now have precedence over all other areas that effect the general population. Australians from a very young age believe they have the right to use the road system and the majority of the population want personalised transportation. This being the case, it is an anomaly that road safety is not deeply etched into Australia's educational system. Education is designed to equip the population for success in the community. There is a distinct shortfall through neglect to incorporate road safety in Australia's educational system and the community pay dearly for this neglect. It is recommended that this oversight be immediately corrected.

The potential contribution of education, training and skill development to the safety of motorcyclists depends on more than just their own education, training and skill development.

Education, training and skill development have important roles to play in creating cooperation between road users and enabling them to safely adapt to each other. For this reason, instruction for car drivers and heavy vehicle operators should cover characteristics of riders' behaviour and the necessary anticipation required by drivers to avoid conflicts with them.

Recommendation 23:

An instruction program for car drivers and heavy vehicle operators be implemented to improve cooperation between road users and enabling them to adapt to each other.

The two central themes recommended for this program are learning to judge speed/acceleration characteristics of motorcycles and learning to understand other road users, respect their rights and to ‘communicate’ with them.

The Australian Transport Council (ATC) diagram representing the Safe System approach (Figure 4) highlights “education and information supporting road users”. Also, the closing sentence in ARRB’s report ARR 370:

Of particular importance is an examination of how Safe System outcomes can be delivered through safer road users (e.g. education, licensing and enforcement) and safer vehicle design.

ARRB 2009, p.27

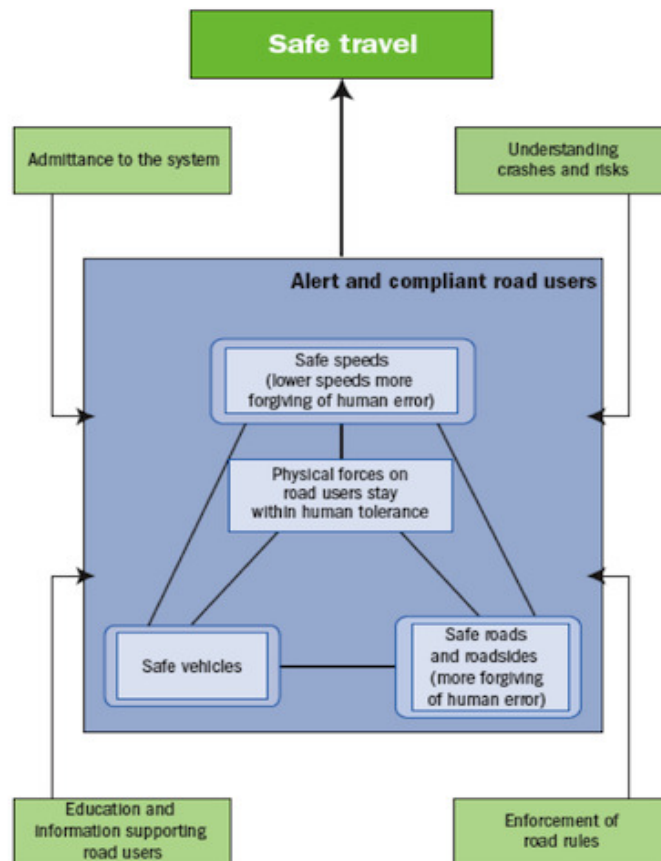


Figure 4: Diagram representing the Safe System Approach (ATC)

The Safe System approach requires that road users are advised, educated and encouraged to comply with road rules, and be unimpaired and alert, and drive according to the prevailing conditions. However we have identified a seriously inadequate focus on road user education in the NRSS. The NRSS states:

It has been estimated that people making mistakes contribute to more than 50 per cent of serious casualty road crashes.

NRSS p.42

The NRSS goes on to say that to help avoid mistakes: “by improving licensing, education and information system”, and yet little investment in training and education has been identified in the NRSS.

As highlighted by the Petlzman example in section 6.4, it is important that governments and their road and transport agencies discontinue their maintenance of separate disconnected strategies for each road user group. Integrated strategies are required that recognise the interactions in the transport “system”. In the same way elements in systems are not stand-alone but have affects on the other elements of the system, each road user group affects the safety of the other road users (with the bias on the vulnerability of motorcyclists, cyclists and pedestrians).

7.3 Effective feedback necessary for learning

As discussed above, human factors are said to account for 90% of all crashes (Vandebilt 2008, p.72) and yet there is relatively less emphasis in the NRSS on factors affecting the behaviours of people using our roads.

The fundamental key to improving human capabilities is effective and timely feedback. This is as critical to developing and improving road user behaviour and skills as it is to the workplace or other human endeavours; and yet our current road and traffic systems provide only very limited and equally ineffective feedback processes.

Accepting feedback is essential to self-awareness. Being open to constructive criticism about one’s own driving behaviour is confronting, however it is a valuable learning tool. It must also include coaching as a necessary follow up to initial feedback. Building education, training and feedback mechanisms into licensing and ongoing improvement of driver road craft is a challenge that should be addressed.

Feedback to road users on their behaviour and road craft needs to be:

- Expected (not a surprise)
- Timely (immediately or soon after an event; not in the mail a month later)
- Specific (about the behaviour and its potential consequences)
- Consistent (applied fairly and regularly to all road users doing the same things).

In his book “Traffic – Why we drive the way we do” (2008, p.68-69), Tom Vanderbilt cites an excellent example of successful feedback that drastically reduced the risky behaviour of teenage drivers. In this University of Iowa, 25 teenagers had DriveCams placed in the vehicles for a period of 13 months. The results of this program were a dramatic drop in risky behaviours and improved driving.

Coaching is also a necessary element of feedback programs. Our training and licensing systems involve very little of this. Except for learners who use professional driver trainers, the vast majority of road users are never again exposed to effective coaching-style feedback. This inadequacy is clearly evidenced in the poor driving habits and road craft demonstrated by some many road users. Some of these contribute to crashes involving motorcyclists. This is why motorcyclists (and cyclists and pedestrians) demand that safety efforts must focus on all road users and their behaviours that specifically increase risks for ‘vulnerable road users’.

There are also good examples of community-based programs throughout Australia that are providing effective feedback and coaching to drivers, particularly young drivers – helping to improve their attitudes, driving behaviours and road craft. Some of these were presented at the 2010 Qld Road Safety Awards Community Engagement Workshop (CARRS-Q).

P.A.R.T.Y., Blue Care Fleet Safety Program, and Rotary's Youth Safe Drive Program were 3 excellent examples.

The NRSS must include support for identifying, developing and more widely implementing such programs – programs that incorporate effective feedback measures. These good practices (and best practices) are already being implemented to a very limited extent in some communities, but they need support so the good initiatives can be expanded across our nation.

The goal must not simply be to improve proficiency of drivers, address over-confidence and provide effective formal and informal feedback mechanisms. We must tackle improving drivers' abilities to sense and perceive their driving environment and maximising their levels of vigilance.

Recommendation 24:

Programs that incorporate effective feedback measures be identified developed and implemented to improve drivers' abilities, particularly to sense and perceive their driving environment and maximise their vigilance.

7.4 Improving the focus on human factors

7.4.1 Stuck on enforcement

NRSS section "10. Safe People" is presented under the headings of "responsible" and "irresponsible" road use.

This reinforces a paradigm that restricts thinking on solutions to a narrow view, one that is more focused on penalties rather than training. In the absence of balance with training and skills development, one result is that enforcement is seen as a panacea for many of our road use ills.

Unfortunately for our police forces, their budgets, staffing levels, vehicle fleets and competing priorities make it near on impossible to service these enforcement demands.

One possible solution is to separate traffic responsibilities in our police forces by creating dedicated officers. These dedicated traffic officers would not need to be trained in criminal law enforcement or other policing activities, so saving public funds. They would act in some ways like the parking inspectors of the roads, dealing with moving violation, poor and risky driving behaviours (as opposed to general policing duties).

The high use of traffic infringements by state authorities is also questionable when in many cases of errant driver behaviour, an education system (as in the Victorian "Yellow flag/Black flag" initiative) would prove to be useful. This provides the opportunity for immediate detailed feedback to road users, supporting learning and greater effectiveness.

Such warning (rather than automatic penalties) should be an integral part of dealing with poor and risky driving behaviour and road craft. This would also help improve public opinion of our police services and ultimately their effectiveness.

Recommendation 25:

Greater use of warnings, like the Victorian "Black flag, yellow flag" program, be employed to facilitate direct and timely feedback to road users.

7.4.2 Speeding, drink driving and non-use of restraints versus fatigue and distraction

NRSS p.20 Review of “Safe People” in table 8: “Crash problem areas mapped to cornerstone areas”. This shows an obvious inconsistency under Behaviours.

We question why “substantial benefits” are attributed to further addressing speeding, drink driving and restraint non-use, when fatigue and distraction (and to a lesser extent drug driving) have also been highlighted as significant issues.

We are seriously concerned about what is NOT in the NRSS. This lack of emphasis on road user training and education is highlighted again by Table 8: Working on making people safer with respect to fatigue, drugs and distraction is deemed of little benefit! And yet speeding, drink driving and seat belt-type initiatives are deemed of substantial benefit! To a "vulnerable road user", this shows an awful bias that we believe must not be allowed to exist.

7.5 Rider training and licensing

7.5.1 Improve rider training

To achieve the stated objectives in the NRSS rider training and licensing must be at the forefront of all other issues related to motorcycling.

There is no doubt that the existing training needs overhauling. This should be conducted through a national forum that includes the best intellect on the subject from government, industry and riders. The outcome should be a national rider training and road craft curriculum. A system of evaluation of those trained needs to be implemented. Through such a process, identified shortcomings can be corrected and the curriculum regularly improved.

Motorcycle accident data needs to be obtained that clearly identifies specific model of motorcycle involved, use of the motorcycle at the time of accident and exact location of the accident, time and condition of the terrain/road. Previously mentioned, a template for collection of motorcycle accident data is necessary, especially for authorities attending the accident scene that have no knowledge of motorcycles. Analysis of accurate motorcycle accident data will enable rider training and road craft to address primary causal issues in the training environment.

For motorcyclists, a vulnerable road user group, riding skills and an appreciation of hazards encountered in the pursuit of riding activities are of paramount importance. Advances in training technology, simulators for example, are available and should be utilised. Training initiatives from other developed countries should be studied for possible application in Australia, if considered appropriate for Australia’s road and off-road environment.

Recommendation 26:

A national motorcycle training strategy be constructed that includes riders to develop a national rider training and road craft curriculum and evaluation process.

The NRSS states:

However, measures to inform and educate road users about risk factors and to motivate longer-lasting behaviour modification are also required.

NRSS p.46

There is community support for driver education programs; however the research evidence on the effectiveness of such programs in reducing serious crashes remains disappointing.

NRSS p.43

Whilst we endorse this first comment in the NRSS (p.46), it is unfortunately targeted only at irresponsible road use. It must apply to all road users.

This second reference (p.43) appears to be in conflict with the first comment. We often hear that there is “insufficient evidence” to support driver/rider training. We question that claim, given we train learners to drive and ride; the armed forces train their people to drive and fight, and organisations train their workers. Funds must be allocated for comprehensive research to prove the value of (correct) rider training.

The potential effectiveness of driver education programs is being dismissed far too readily. There is an urgent need to improve driver and rider education and training (subsequent research may then not show such disappointing results).

For motorcycling, it is recognised that the correct training will lead to safety improvements. This is about road craft and particularly elements like situational awareness, hazard perception and dealing with hazards; it is not about going faster around race circuits.

7.5.2 Graduated licensing

In the NRSS Directions and First steps #30 and 31:

A Graduated Licensing Scheme (GLS) for motorcyclists including those returning to motorcycling after some years

NRSS p.44

In response to a request from the National Road Safety Council, the government’s Motorcycle Safety Consultative Committee (MSCC) developed a paper on a national graduated training and licensing scheme (GLS). We understand this paper was “very well received by the Austroads Registration and Licensing Taskforce” and that more detailed work on a GLS may be proposed.

We are concerned that most of the post initial skills test proposals still do not properly address support for the initial on-road experience in a usable manner. The Victorian model starts only after this crucial phase is well and truly over. This must change.

Recommendation 27:

An evidence-based best practice model of graduated motorcycle rider licensing be developed, suitable for adoption by Australasian licensing authorities.

Of particular concern however is the implementation of a mandatory period with a car licence before obtaining a motorcycle licence. Having car-driving experience may make for a better ‘road aware’ rider more quickly, but prohibiting motorcycle licenses unless car licensed for a period is simplistic and an unsophisticated way of dealing with the issues.

Riders often argue the opposite: that having motorcycle–riding experience makes for a better driver. This is supported by MAIDS, which found that drivers who had a motorcycle licence were less likely to make an error involving failure to detect a motorcycle (ETSC 2008).

Given that the average age of motorcycle learners in Australia is now 31, this initiative may be to some degree irrelevant. However in the case of those who wish to take up motorcycling at a young age (e.g. 16), there should not be such a restriction.

Mobility and vehicle affordability are key related issues for young people. Access to cheap scooters or LAMS motorcycles is meant to address some of the issues but this access is being denied because of this ridiculous restriction.

In recognising education as being pivotal in achieving future road safety targets, licensing of riders/drivers should be undertaken at 16 years and 9 months of age, before they

undertake full time employment and have legal access to alcohol. This comment is made on the understanding that road safety is added to the educational curriculum and that individuals have achieved a pass mark. Licences issued should be provisional and motorcycles / vehicles approved for use should have a low kw per tonne horsepower rating (150kW per Tonne) being consistent to the current LAMS model.

Recommendation 28:

A best practice GLS for novice riders start at age 16 years and 9 months (not 18) and this be consistent with a GLS for novice car learners.

7.5.3 Returning riders

It is an anomaly that an individual can hold a license to use a vehicle for an extensive length of time without actually driving or riding. In every area of road safety this is surely unacceptable, placing undue risk on the driver or rider (and those around them) who may after years of non-participation in the traffic, elect to purchase a vehicle or motorcycle and start driving/riding.

This situation poses a dilemma for governments, as the only way to overcome this is annual or biannual testing of drivers/riders, which would not be supported by the community in general. Imposed licence conditions are of concern.

The NRSS, First steps #31 states:

Investigate licensing options to improve the safety of returning motorcycle riders.

NRSS p.44

Vehicle kilometres travelled (VKT) is a topic raised by government in statistical data and if such data could be accurately sourced for individuals, then those not covering a reasonable exposure to traffic could have their license category withdrawn or be required to undertake skills assessment.

Proposed solutions should focus on incorporating refresher training or coaching options.

There are problems that even very experienced motorcyclists will endure following a break and return to riding. These may be addressed with training and/or coaching targeted at returning riders. It is important though that such initiatives not turn returning riders away, but encourage their participation by making such training attractive. Incentives should be investigated. The ACT holds a training course specifically targeted to returning and mature-aged riders. The course (Mature Age Skills Transfer course) focuses on roadcraft and hazard perception and is run by a registered motorcycle training provider.

For returning riders, a mandatory basic skills course should be undertaken where the individual should exhibit proficiency for current road/traffic conditions. The course should focus on hazard perception and hazard avoidance techniques as well as basic roadcraft. These riders already have a valid motorcycle license and therefore testing should not be required.

Recommendation 29:

Licensed riders returning to motorcycling after a significant break (e.g. >5 years) will have to undertake mandatory refresher training, focussing on roadcraft and hazard perception and avoidance.

7.6 Drink and drug driving

Alcohol and drug abuse are not simply a road safety problem. We need huge cultural change in Australia (currently very much a drinking culture) and so focussing on more than

just road users. Alcohol abuse is a serious problem with social costs estimated to be over \$15 billion in Australia and so requiring community engagement on a large scale.

Crash statistics show that drivers with zero to 0.05% BAC are not the problem – it is those over 0.08% Drink and drug driving enforcement strategies should not be designed to penalise the responsible majority to catch the irresponsible minority. We believe that riding and alcohol do not mix. As older more responsible members of the community, we support responsible alcohol consumption and so do not support the move to zero BAC for experienced drivers and riders.

It is plain to see that moves to zero BAC are being fuelled by the failure of existing drink-driving campaigns to remove reticent offenders from our roads, but that these reductions will not stop such offenders continuing to drink and drive. Various state agencies and the NRSS now address irresponsible road use in this area and motorcyclists fully support all moves to get drunks and drugged drivers off our roads.

We are concerned however that motorcyclists are being targeted for special treatment with moves for a zero or 0.02 BAC for riders whilst maintaining the 0.05 limit for a car driver.

Any national move to reduce BAC limits is supported ONLY IF the same limit applies to ALL road users.

The exception would be for those already set at 0.00 BAC (e.g. L & P drivers, heavy vehicle drivers, etc).

The NRSS references “some studies” (p.47) in support of the reduction from 0.05 to 0.02 BAC. Much more research is needed and at present such a reduction may be unacceptable to the community. Restricting the majority of responsible road users to a zero BAC in order to assist drivers with “perceptions of how much alcohol they can consume to stay under the legal limit” (p.47) is a feeble argument that again dismisses education (a common theme in the NRSS).

7.7 Fatigue

A CARRS-Q study references Qld Transport 2003 statistics:

Situational driving factors, including fatigue, distraction, inattention and monotony, are recognised killers in Australia, contributing to an estimated 40% of fatal crashes and 34% of all crashes.

CARRS-Q 2009 p.5

Whilst these QT figures are now 8 years old, we believe that fatigue and associated problems with lack of sleep, distraction and inattention have grown much worse, making it imperative that efforts focus on solutions to this broad-based problem.

The NRSS states:

The effects of fatigue on serious road casualties is difficult to quantify, but is recognised as a major and potentially growing problem area.

There is evidence that sleep deprivation can have similar hazardous effects to alcohol consumption.

NRSS p.48

These NRSS comments reinforce the need for far more research into this problem.

There is insufficient emphasis on Fatigue.

As with the abuse of alcohol in Australian society, poor sleep patterns are a community-wide problem, and like drink driving, lack of sleep and fatigue contribute heavily to trauma on our roads.

Presenteeism has been recognised as a significant issue facing Australian business. It is the opposite of absenteeism when employees come to work in spite of illness. As well as poor productivity, this condition has similarly negative repercussions for road safety. Workers travelling to work when unwell must be at higher risk of crashes due to reduced physical and mental capabilities.

These problems associated with poor sleep patterns, presenteeism and fatigue, show the strong link between road safety/trauma and their being public health issues.

Recommendation 30:

An increased focus on fatigue and associated factors, including poor sleep patterns and presenteeism, be adopted urgently as critical to reducing road trauma to sustainably low targets.

7.8 Unlicensed drivers and riders

Not enough being done to get unlicensed drivers and riders off the road and keep them off.

Number Plate Recognition Cameras (NPRC) are already making an impact. For example, normally in South Australia the fatality numbers for motorcyclists averaged over the previous 5 years contained between 40 to 60% of unlicensed riders and unregistered machines. In 2010 this had fallen to 7% after the introduction of NPRC's in SA.

Recommendation 31:

Enforcement to identify unlicensed drivers and riders be increased, as they are over represented in the crash statistics.

Unlicensed drivers and riders must be kept off the roads, but supported to obtain licenses.

7.9 Rider safety gear

7.9.1 Helmet ratings

The NRSS Directions & First steps #32 states:

Develop a national rating program to assess motorcycle helmets (and potentially other protective gear for safety) to promote market demand for safer helmets.

NRSS p.44

The windows of survivability of impacts which can be ameliorated by helmets is not large. Increases in impact attenuation within a defined amount of energy absorbent liner can only be managed by either increasing the foam density (which has sub fatal impact side effects) or by enlarging the helmets, thereby raising rotational energy, head and neck dynamics and other factors.

Although helmets essentially protect from falls from the height of a bicycle rider or slightly lower, for a motorcycle rider they also offer a survivability span that cannot exceed around 50-60kph direct impacts.

These tradeoffs also require a more thorough and even-handed assessment of the tradeoffs. The primary purpose of a helmet, and the reason why it is accepted as mandated piece of equipment, is the marked reduction in fatal neurological trauma that they deliver for both bicyclists and motorcyclists.

Once the survivability improves, as it has, then the economic and public balance of interest becomes much harder, and is rarely discussed. It needs to be. Sadly most of the accounting evidence shows that serious injuries, especially head injuries, count more than fatalities to

insurance bodies. These insurance bodies are not accountable for the overall public economics, but only for the accounting costs that they administer. This demonstrates that the governance of safety-related insurance also requires radical review.

This might seem to be a surprising observation, until the clear trend of safety legislation has moved from fatality prevention as a mandated measure, to cost reduction without a proper appraisal of the factors involved. This negative trend can only be balanced by better accountability and less narrow governance and economic analysis.

The discussions of full-face versus open-face helmets are a long-standing example of this trend. Australian helmet standards (for both powered and unpowered two-wheelers) do not test for impacts below the test line, and so the full-face segment is essentially not part of the life saving aspects that justified mandatory use.

Recommendation 32:
A review of the governance of safety-related insurance be conducted to ensure better accountability and less narrow governance and economic analysis.

In terms of ventilation, fatigue, visibility, comfort, storage and many other factors that matter to riders in very different climatic and environmental conditions, absolutely no weight is given to these tradeoffs other than by riders themselves. This is in part due to experience, but also from lack of solid research on a proper and less narrow focus than simply safety.

Australia’s motorcycle market is very small when compared to other developed countries. It is recommended that Australia follow international motorcycle safety standards for helmets and apparel. The Australian AS1698 helmet standard is now old and not in keeping with international best practice standards. Many high quality helmets are not available to the Australian motorcycle community because the manufacturers do not consider it economically viable to work to Australia’s unique AS1698 standard. It is important however to prevent the importing of low cost sub-standard helmets being manufactured in some developing countries.

Recommendation 33:
The Australian Standard requirement for helmets be discontinued and best existing international helmet standards be adopted (e.g. European standard).

7.9.2 Rating protective clothing

The NRSS states in Directions:

Increased use of effective protective equipment by motorcyclists. NRSS p.44

There is strong evidence to support the use of protective clothing for all two-wheel users. In the recent publication the ‘Good Gear Guide’ by researcher Liz de Rome (2009), it is stated that the average hospital stay is seven days less if riders were wearing adequate protective clothing when they crash. The right gear can prevent serious abrasion injuries that are hard to heal and usually result in some degree of infection, further lengthening time in hospital.

Protective clothing can also improve riding comfort by protecting the rider from the elements of hot, cold, moisture and hence help to prevent dehydration and lessen fatigue.

Safety standards for motorcycle apparel are extremely difficult to implement. Europe has developed a standard, which covers impact areas of motorcycle apparel. Future work on

this topic in international markets can be expected. Australia needs to have dialogue with the entities involved.

An option for consideration may be an interim step: insisting that motorcycle and scooter riders have complete coverage of all skin when riding. This would be easy to police. While not guaranteeing riders would purchase specific motorcycle clothing, it would alert riders for the need to protect their skin and there may provide the incentive to purchase suitable gear.

A further incentive to encourage wearing of motorcycle apparel would be the removal of GST on specific motorcycle safety apparel.

Recommendation 34:

Greater use of protective clothing be encouraged, not mandated. Let those who ride decide.

Appropriate riding apparel for Darwin is not appropriate for Hobart!

Currently there are no testing and certification procedures in place in Australia to check the standard of motorcycle clothing. There is already a push in some states to legislate the use of such protective clothing. Riders will resist this. Education is the key, not enforcement. The development of a certification system for protective clothing is supported.

Similar arguments as described above for helmets apply to protective clothing, where an equally long list of tradeoffs occurs. Riders seek better and more reliable information to be able to make better choices, but mandating 'protective clothing' has unexpectedly wide ramifications.

These ramifications are not simply that such clothing is very expensive, but also in terms of a change in the exploitation of common law contributory negligence issues. This is where moves in this direction, with no motivation other than for lower claim costs, have already been mooted in Victoria by the TAC. Only better governance structures and better economic assessments of the real tradeoffs will correct this.

None of this constrains strong support for the development of better information for riders about protective clothing, and steps to achieve a wider range of good quality equipment. Information and active research are as important as communications to enhance the safety and reduce the vulnerability of riders through protective clothing and equipment.

Recommendation 35:

A star rating system for protective clothing be introduced, but with no compulsory requirements other than for helmets.

7.10 Off-road motorcycle riding

We must not forget the off-road motorcycle community. The Ulysses Club Inc. has an Adventure Riders Special Interest Group involving off-road enthusiasts riding dual-purpose bikes.

The off-road group of motorcyclists are the most underrepresented entity in motorcycling despite the fact that off-road motorcycles are the largest volume sector in Australia's market. Per capita, Australia has the largest off-road market in the world. The off-road market is very diverse, incorporating trail, enduro, agricultural, motocross and mini bike riders. Half of the motorcycles sold annually in Australia are of these types. Riding skills and safety issues for these groups varies from 'on-road' riders. Unfortunately road safety statistical data tends not to separate this group in fatality and accident reporting which compromises the validity or accuracy of assumptions made.

Training curriculum being used now is of little use to riders who purchase motorcycles for predominately off-road use. This is a further anomaly that needs to be addressed with future national rider training curriculum.

Significant numbers of off-road riders are licensed and their motorcycles registered because under Australia's road rules, bush tracks are designated as a road. Riding in off-road environments requires a different set of skills and 'bush-craft' and the risk of injury is high to inexperienced riders.

Off-road motorcyclists have the same user profile as road machine users when on the public road system; the only difference is that they can spent some of their time 'off-road' and therefore are not apparently covered by the Road Safety Strategy. This is somewhat disappointing given that the two areas are clearly linked.

The Department of Infrastructure and Transport should make clear where off-road vehicular activities are covered regarding safety and how to deal with related crash trauma. The off-road categories should include: recreational four-wheel driving and trail bike riding, farm vehicle uses (e.g. 4-wheelers) and vehicle use on reserves and private property.

This last category should include Indigenous casualties. STARS (Stop Territory Aboriginal Road Sadness) is a community based program being run in partnership with NT authorities. They are dealing with many off-road casualties.

As road trauma is such a serious issue, then off-road vehicular activities must be treated as seriously.

Recommendation 36:

A parallel "National Off-road Vehicular Safety Strategy" be developed that mirrors the NRSS.

Off-road categories in this strategy should include: recreational four-wheel driving, trail bike riding, farm vehicle uses (e.g. 4-wheelers) and vehicle use on reserves and private property.

An off-road strategy would have far broader benefits than simply for motorcycling. Elements of such a strategy could be integrated with the current NRSS. We do however caution that data collection, statistics and safety initiatives remain clearly separate to minimise confusion and maintain accuracy and target responses for effectiveness.

7.11 Other people initiatives

There are insufficient measures covering performance in the following areas.

7.11.1 Older drivers

NRSS p.43 & 44 in Directions:

A best practice framework for the assessment of older drivers' fitness to drive will be available and all jurisdictions will have effective processes for managing older driver licensing.

NRSS p.44

There should be nationally consistent mandated testing and greater (legal) pressure on health professionals to assess and report drivers who are unfit for the road (rather than let unsafe drivers continue in the name of mobility).

Road safety must take precedence over and above doctor-patient confidentiality.

There should be awareness/education regarding prescription drugs and short-term conditions. Additionally, every 10 years (on licence renewal) there should be driver education and training aimed at up-skilling the driver and remediating any poor habits the driver may have developed.

7.11.2 School road safety education

NRSS p.43: Again it is claimed there is a lack of evidence (to support school road safety education) but such education is strongly supported by parents.

As with rider education and training, this is about developing and improving programs so they are effective; not avoiding or canning them because of lack of evidence.

There is a need to conduct research to get the evidence! A good starting point would be to review some of the community based safety programs, such as those mentioned in the CARRS-Q 2010 Qld Road Safety Awards Community Engagement Workshop.

7.11.3 Rewarding good behaviour

The NRSS states:

Some attempts to encourage responsible road use through incentive schemes, the effectiveness of this approach is unproven.

NRSS p.43

Again it is claimed there is a lack of evidence to support such schemes. There is a need to develop new approaches and to conduct research to get the evidence on their effectiveness.

7.11.4 Seatbelt use

The NRSS states:

Some 28 per cent of vehicle fatalities are unbelted, where restraint use is known.

NRSS p.49

This is not acceptable. The introduction of an ADR requiring seatbelt reminders is an insufficient response.

There must be a greater focus on enforcement of seat belt use.

7.11.5 Cyclists and pedestrians

In reviewing what strategies have been effective, the NRSS lists:

Pedestrian and bicyclist safety was improved through better crossing facilities, cycleways, reduced speed limits (especially at school zones) and barriers to protect pedestrians.

NRSS p.5

Separation has been shown to be a key to cyclist and pedestrian safety. In addition to these improvements, there should be greater enforcement for compliance by cyclists and pedestrians who are demonstrating irresponsible road use.

Bicycle riders

It is common to observe (road- and footpath-going) cyclists blatantly disregarding the road rules, or ignorant of them, putting themselves and pedestrians at greater risk.

Currently bicycle riders are allowed to ride two abreast (side-by-side). Motorcyclists are also permitted by law to ride two abreast, however road going motorcyclists rarely do as there is

simply insufficient room to safely ride this way (except for example in parades or when stopping at intersections, where compression reduces congestion).

It can be a source of considerable angst for road users when confronted by two bicycle riders exercising their right to ride two abreast on a narrow or hilly roadway, especially with the speed differential. We suggest a review of this law to determine the suitability of mandating only single file is used by cyclists on higher risk roads.

Pedestrians

The NRSS recognises the need to separate pedestrians from traffic. However our club members have noted an increasing number of pedestrians using urban roads in preference to footpaths and dedicated walkways.

This unsafe practice is particularly evident with people exercising (walking and running). Exacerbating this problem, most of this occurs early in the mornings, late in the afternoon or evening (in the dark) when poor light and visibility exacerbate the risks.

To reverse this trend, there must be public education, improved infrastructure (fix the footpaths) and penalties enforced for those that jaywalk.

We must get pedestrians off the roads!

7.12 A final note about safer people

There is an old adage on people management that suggests performance management and improvements involve a carrot and stick approach (basically, reward success and punish failure).

The balance required is mainly carrot (80-90% positive feedback and reward) and less stick (10-20% negative feedback and punishment). Human nature demands that getting this balance right is critical, as it must also be in road safety.

Our current road and traffic systems (and the approach adopted by the NRSS) are skewed towards punishment with little or no effective or timely feedback (except for the worst infringements).

The key to safer people (and achieving sustainable reductions in road crashes and incidents) is through effective feedback mechanisms for developing skills and improving behaviours.

8. Making it happen

8.1 Best practice in motorcycle safety

The Ulysses Club Inc. is a member of the Australian Motorcycle Council (AMC). Both Ulysses Club Inc. and the AMC are supportive of:

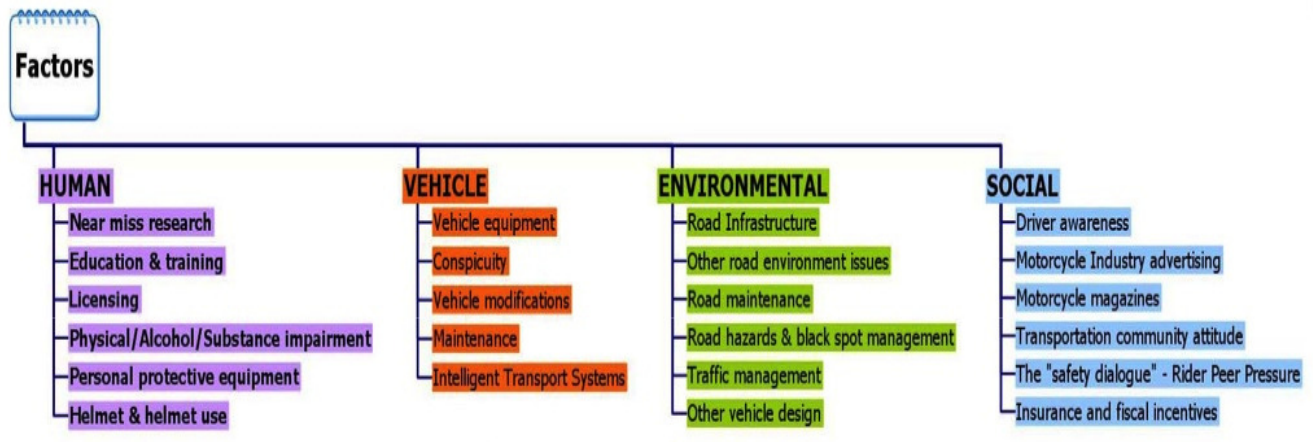
- The top 20 countermeasures from the OECD Motorcycle Conference, Norway 2008;
- The key recommendations from the Motorcycle and Scooter Safety Summit held in Canberra, April 2008.

It is surprising and disappointing that such wide support for Canberra Summit and its recommendations has not translated into effective motorcycle safety measures in the NRSS.

8.1.1 OECD Motorcycle Conference, Norway 2008

The OECD International Transport Forum held in Lillehammer, Norway in June 2008 listed their top priority countermeasures to improve safety of global powered-two-wheelers (see Appendix D).

A key theme of the Norway Forum was to end the “blame game and finger pointing” and that far greater motorcycle safety achievements could be realised if governments and other authorities worked together with motorcycle groups. The Joint Transport Research Centre at the Forum listed their factors affecting motorcycle safety under 4 main headings: Human, Vehicle, Environmental and Social:



8.1.2 Motorcycle and Scooter Safety Summit, Canberra 2008

The Department of Infrastructure, Transport, Regional Development and Local Government, and the Motorcycle Safety Consultative Committee (MSCC) held the Motorcycle and Scooter Safety Summit in Canberra in April 2008. Their report detailed the Summit's recommendation under 7 main headings:

1. Data and Analysis
2. Rider Protection
3. Training and Licensing
4. Education
5. Risk taking
6. Enforcement
7. Road Infrastructure and Roadside Hazards

These Canberra Summit recommendations were widely supported and form the basis for the AMC's key rider safety focus areas and objectives. The Summit's recommendations are shown in Appendix E.

8.2 Data and evidence: The cart is before the horse

All work MUST start with a focus on data and evidence. There is little mention in the NRSS of data collection and road safety research. A coordinated approach to data collection and research is needed nationally.

The collection of valid, accurate and up-to-date data must be priority one. The first of the key recommendations from the 2008 Motorcycle and Scooter Safety Summit highlighted critical needs in this area:

- Review data collection systems of State and Territory agencies to determine if they are consistent with the information strategy.
- To the extent possible, link separate databases held by road authorities, police, hospitals and insurers and others where deemed relevant.
- Implement periodic quality audits of databases.
- Harmonise data definitions and codes to the extent practicable.
- Move towards real time data using on-line collection.
- Use in-depth motorcycle-specific studies similar to the MAIDS (Motorcycle Accident In-depth Study) to identify key factors relevant to motorcycle crashes.
- Use new technology to improve crash investigation, including GPS data collection and digital cameras to identify crash locations accurately.
- Use improved data to evaluate the effectiveness of rider training.
- State and Territory agencies to improve analysis of crash statistics by vehicle class to identify motorcycle categories such as trikes, cross-overs, mopeds, quad bikes and non-registered motorcycles. Use VIN numbers to identify motorcycle types.

Without these improvements, decisions, priorities and actions will be based on inadequate data, resulting in ineffective programs and poor results (and NRSS targets will not be achieved).

8.3 Community engagement

The NRSS Results focus:

Other major participants within the community are encouraged to consider how they will contribute to improved road safety in Australia.

NRSS p.52

If the NRSS is trying to encourage community engagement, there must be more on this in the strategy.

The CARRS-Q 2010 Qld Road Safety Awards Community Engagement Workshop highlighted a number of excellent initiatives that could be a starting point.

8.4 Institutional structures and coordination

The NRSS Results focus states:

As a priority, jurisdictions will:
Examine the scope to improve institutional structures, capacities and delivery arrangements....

NRSS p.52

The maze of government bodies with their hand in road safety, particularly at a commonwealth level, is far too complex and reeks of duplication and waste. Streamlining this is imperative given the current fiscal constraints across federal and state agencies following the GFC and recent flood disasters.

Also, there is insufficient coordination – a few states (or all of them) believe they are the best and continue to duplicate effort, adding to national waste and rework.

There is also a need to reduce waste from duplication of effort through improved coordination across the states. Haworth, Greig and Wishart (2009) pick up this concern when they describe key components of “guidance material or guidance packages” for developing motorcycle safety initiatives:

The packages should encourage collaboration and consultation with other groups and government organisations in order that

- organisations know what others are doing;
- programs do not compete with each other; and
- the overarching road safety government bodies can better identify areas in need, areas which already have programs in place and can allocate safety resources more efficiently and effectively.

Packages should provide material in a way such that groups can choose what might best work for them in terms of the specific motorcycle issues to their area and the practicalities of implementing a successful program in that area..

Haworth, Greig & Wishart 2009, p.39

The move to national OHS harmonisation is also informative in this regard. The importance of harmonised laws has long been recognised as a critical area of regulatory reform to reduce regulatory burdens and create a seamless national economy.

Recommendation 37:

A national review be conducted as an urgent priority to harmonise road safety laws and regulations, and to streamline institutional structures, capacities and delivery arrangements through all levels of government.

8.5 ISO 39001 Road-traffic Safety management systems

The NRSS Results focus states:

As a priority, jurisdictions will:

Adopt and promote the new International Standards Organisation standard for road traffic safety management systems (ISO 39001)....

NRSS p.52

ISO 39001 is “under development”. There is only the one mention of this in the strategy and yet such a standard would seem critical.

It is important that the impact this standard will have on the strategy and implementing agencies be more fully understood and communicated.

8.6 Funding and resource allocation

8.6.1 R&D and knowledge transfer

The NRSS states:

Continued research and development effort is required to ensure that road safety risk factors, and the most effective safety measures, are understood by road safety professionals and the wider community.

However, there are gaps in national data collections that need attention;

NRSS p.54

The European Transport safety Council described MAIDS:

The MAIDS (Motorcycle Accident In-Depth Study) database, co-funded by the European Commission, is the only one dedicated to PTW crashes. It was created by the MAIDS project and included an in-depth, case control study of PTW collisions during the period 1999-2000 in France, Germany, Netherlands, Spain and Italy.

The MAIDS study used a standardised methodology, whereby 921 collisions were investigated using 2,000 variables including human, environmental and vehicle factors. For comparison a further 923 control cases were examined.

ETSC 2008, p.8

Recommendation 38:

A large MAIDS-type study be funded to obtain motorcycle related safety and crash data for Australia.

It is an understanding that in some jurisdictions, Transport Departments' databases don't "talk" to Police databases and that there is no current funding to address these problems.

Recommendation 39:

Databases be modernised with up-to-date software across all jurisdictions as a high priority.

All road crash and road trauma databases should be linked to provide a comprehensive national information system for use by researchers, governments, the private sector and interested organisations to improve road safety. Individual's privacy must be ensured.

To have hospital databases added to the information system would be an added bonus.

Funding should be provided to support the collection of crash and trauma data by non-government organisations.

8.6.2 Levies on motorcyclists

The NRSS states:

As a priority, jurisdictions will:

Explore opportunities to secure alternative sources of funding or shared funding arrangements for road safety activities, including targeted infrastructure investment.

For example, with the injury insurance industry (which would potentially see a commercial return on investment).

NRSS p.53

We assume this will likely lead to discriminatory moves for more widespread “levies” (aka taxes) on motorcyclists, which we do not support. Most motorcyclists are also car owners and so already pay multiple registrations and insurances (when they can only drive/ride one vehicle at a time).

There has been no proper and public accounting of resource allocations specific to motorcycles. This has made it impossible to compare motorcycle safety expenditure with that on other road user groups, and to justify additional charges.

Public accounting was an essential step for the Victorian levy, which was set up specifically to address additional investments in motorcycle safety, over and above existing programs. The VMAC annual reports now provide some transparency to the expenditure of levy-raised funds. Detailed accounting is a must-have while such levies are in place and help ensure that expenditure targets **additional** programs.

A significant issue with hypothecated revenue such as levies is that the total effort does not increase by the full value of the levy, because activities that were previously funded are no longer paid from Consolidated Funds or other central revenue.

The credibility of the additional levy approach has been reduced by the very extensive and substantially larger funds allocated to bicycle riders (also a highly vulnerable mode), particularly when cyclists pay no fees at all.

The accountability of the funding and resources allocated to different modes needs to be radically overhauled, and the economic evaluation procedures put on a former and more consistent basis. This is an urgent and essential step that the NRSS must incorporate.

Finally, the cost of vehicle ownership is higher in some states (e.g. Queensland and NSW) so a national levy is seen as inequitable.

A levy on motorcyclists is NOT supported. Such levies are inequitable. Priorities for road safety expenditure should be biased towards addressing the factors that will reduce road trauma for those road user groups most represented in trauma figures.

Also of concern is the referenced example source of funding: “the injury insurance industry (which would potentially see a commercial return on investment)”.

We cautiously support exploration of alternative funding sources, including with the insurance industry and especially to assist with research. However as already mentioned, insurance companies’ attempts to lower claim costs can lead to exploitation of common law contributory negligence.

8.6.3 Valuing safety with willingness-to-pay

The NRSS states:

As a priority, jurisdictions will:
Develop a nationally agreed approach to applying the willingness-to-pay methodology to value safety.

NRSS p.53

In his presentation at the 2010 Qld Road safety Awards, Acting Chief Superintendent Col Campbell (QPS) stated, “Road Safety is a public health issue and therefore part of the public health program.”

For safety to be properly valued requires that road trauma be considered a public health issue. When the true (very high) cost to the community of road trauma (fatalities and serious injuries) is fully accounted for, only then will the willingness-to-pay methodology be effective in allocating the right priority and funding levels to effectively address road safety.

8.6.4 Funding best practice initiatives

We believe there is a case for funding support of initiatives to improve motorcycling safety in Australia. Such initiatives may include a “National Motorcycle Centre of Excellence” and other best practice programs and research trials.

Examples discussed earlier in section 2.1.3 included important initiatives like the Qld Motorcycle Safety Mass Action Program (MSMAP). This program will require increased funding to further this invaluable work. Qld’s Safer Roads Unit implementing the MSMAP has no dedicated motorcycle resources and of the 100 sites identified, current funding will only treat about 20.

Not only do such programs provide effective treatment of black-spots and black-lengths for motorcyclists, 90% of the work is also good for other road users. The information collected in these programs is also useful for broader application, but without funding goes nowhere.

Also, if there can be funding support for organisations like the Australian Bicycle Council, there should be funding support for a similar coordinating motorcycle group such as the Australian Motorcycle Council.

8.7 Stakeholder engagement

8.7.1 Stakeholders working together

NRSS Coordination:

Road safety progress depends on coordinating strong road safety partnerships effectively across all sectors – government, industry, business and community. [...] There will need to be engagement with those organisations that can directly influence, and build community support for, road safety.

As a priority, jurisdictions will:

- Engage with key stakeholders, such as the peak motoring organisations, to exchange expertise, experiences and research.

NRSS pp.52-53

There are many stakeholders in motorcycling safety. All need to be involved, with particular emphasis on motorcycle riders with experience and expertise in road safety.

Opportunities need to be improved for meaningful involvement of the motorcycling community in decision-making processes relating to motorcycle safety. It is imperative that the major motorcycling groups be part of this process, by:

1. Providing direct input and comments on proposed actions
2. The formation of a permanent national committee for motorcyclists, government and road authorities. This must include the Australian Motorcycle Council Inc. (AMC).

From the road safety practitioner point of view, Liz de Rome puts this succinctly:

As road safety practitioners, we need to continue to work with the motorcycle community to ensure that our ‘good ideas’, are appropriate and will be effective. We also need to recognize that effective consultation is likely to be a partnership based on the mutual acceptance of different views.

De Rome 2009, p.5

The Ulysses Club Inc. is pleased to offer the assistance of their National Road Safety Committee as a reference group to work further with government on the NRSS and other motorcycling action plans.

8.7.2 A National Motorcycling Safety and Transport Strategy

Victoria’s “Road Safety and Transport Strategic Action Plan for Powered two wheelers 2009-2013” provides an excellent example of a strategic and comprehensive approach to improving rider safety and mobility. However we need a national strategy for motorcycling.

Guy Stanford, past Chairman of the Motorcycle Council of NSW highlighted the need for coordination at a national level:

Most States now have motorcycle safety strategies, but we need coordination at a national level to achieve integration into transport and road safety planning and in order for best practice solutions to be developed and shared across Australia.

A properly constituted and funded Australian Motorcycle and Scooter Council could emulate our bicycling colleagues in coordinating a National Motorcycling Strategy. It could also act as a jurisdictional forum providing a motorcycling perspective to Austroads on technical matters, research and the development of publications.

Stanford 2009, pp.6-7

The development of a National Motorcycling Safety and Transport Strategy should be funded by government. This strategy should be developed in conjunction with the Australian Motorcycle Council and other key motorcycling stakeholders, and based on the outcomes of the Canberra Summit. The strategy might be similar to the Australian National Cycling Strategy 2011-2016, produced by the Ausroads-backed Australian Bicycle Council.

Recommendation 40:

A National Motorcycling Safety and Transport Strategy be developed in conjunction with the Australian Motorcycle Council and other key motorcycle stakeholders, funded by government and based on best practice and incorporating the outcomes of the 2008 Canberra Summit.

9. Summary

9.1 Key priorities

The Ulysses Club Inc. would like Australian Transport Ministers, heads of transport and road agencies to create a safer environment for motorcycle and scooter riders. We believe that the best way to achieve safer outcomes for riders and reduce their over-representation in crash statistics is to:

- a) Focus NRSS priority and funding over the next 2 to 3 years on research, data collection and analysis to inform strategy development for 2013 to 2020. This should include a MAIDS-type study for Australia as early as possible;
- b) Incorporate into the NRSS the key recommendations from the Motorcycle and Scooter Safety Summit (Canberra, April 2008);
- c) Incorporate into the NRSS the top 20 countermeasures developed by the OECD International Transport Forum (Norway, June 2008);
- d) Accept the following recommendations for changes and additions to the draft NRSS.

9.2 Summary of submission recommendations

The following numbered recommendations and points are reproduced here from the body of the submission:

9.2.1 Flawed foundations

- 1: Rider representation and input be sought before data is collected or statistical analysis undertaken to ensure a credible result is achieved.
- 2: Templates used in North America be studied and a standardised reporting format be made available to authorities attending motorcycle accident scenes.
- 3: Road crash data collection practices for identifying contributing factors and behaviours be improved to capture and document the necessary amount and level of detail for effective responses.
- 4: Best practice motorcycle-specific initiatives be identified for priority funding and national rollout.
- 5: Road crash data collection practices be improved by the involvement of motorcycle experts for all investigations of motorcycle crashes.
- 6: Fatalities, injuries and serious crashes per million kilometres travelled (for various modes of transport and their sub-categories) be adopted as the preferred measures.
- 7: The NRSS be updated to reflect the most recently available data.
- 8: NRSS priority and funding over the next 2 to 3 years be focussed on data collection, analysis and research to inform strategy development for 2013 to 2020.
- 9: A balanced approach to safety improvement initiatives be adopted with more weight on green and sustainable mobility options and priorities are not so restricted by the Safe System approach.

9.2.2 Vision, target, packages

For road deaths to continue to be significantly reduced there must be cultural change in Australia (not just on the roads). This means not only addressing the competence and attitude of road users (the NRSS lacks investment in this area), but to underlying causal

factors, such as our society's poor sleep patterns, national alcohol abuse, and decreasing vigilance (the acceptance of driving while distracted, e.g. mobile phone use).

The MUARC modelling information must be made publically available.

10: NRSS monitoring, evaluation and reporting processes be extended to all jurisdictional and project levels and involve partnerships with expert motorcycle riders.

9.2.3 Roads

11: The design and installation of roadsides and road furniture take into account the potential danger of both design and placement to vulnerable road users.

12: Nationally consistent road rules for powered-two-wheeler access to bus lanes, advanced stop lines and lane filtering be developed and implemented to improve segregation and reduce congestion.

13: Studies be undertaken of international best practice for road designs that take vulnerable road users (motorcyclists, bicycle riders and pedestrians) into consideration.

14: Motorcycle black-spot and black-length locations continue to be identified, prioritised and treated as a priority.

15: A more widely based and coherent examination of the economic evaluation factors used in safety be conducted, including how these factors are used in both cost benefit analysis and project selection.

We fully support motorcycle-friendly infrastructure treatments, as exemplified on page 25 of the NRSS.

16: Review International and Australian best practice on motorcycle-friendly crash barriers and protection devices to determine a new national standard for implementation.

9.2.4 Speed

17: A revised 3-pillar 'safe system' approach be adopted where speed-related elements are considered under each of the other three headings within the 'safe system' (not a standalone heading) to support public acceptance of the NRSS.

18: Mobile and fixed speed cameras be located only in zones that are identified according to black-spot crash criteria.

19: Mechanisms and processes be developed and implemented for ensuring privacy and to audit acceptable data collection, storage and usage consistent with agreed regulations.

9.2.5 Vehicles

Government should be providing incentives for owners of old vehicles to move to newer (safer) vehicles.

20: Motorcycle safety standards in Australia be aligned with North American, European and Japanese standards through direct dialogue with authorities working on motorcycle safety technologies in these regions.

21: Advanced braking technologies on motorcycles in Australia not be mandated or regulated. Market forces and manufacturers will determine the rate at which these are introduced.

Drivers should pull over and stop to conduct the more complex communication and cabin functional activities.

22: Regulate, educate, enforce and penalise to reverse the increase in factors contributing to driver distraction and reduced vision.

9.2.6 People

- 23: An instruction program for car drivers and heavy vehicle operators be implemented to improve cooperation between road users and enabling them to adapt to each other. The two central themes recommended for this program are learning to judge speed/acceleration characteristics of motorcycles and learning to understand other road users, respect their rights and to 'communicate' with them.
 - 24: Programs that incorporate effective feedback measures be identified developed and implemented to improve drivers' abilities, particularly to sense and perceive their driving environment and maximise their vigilance.
 - 25: Greater use of warnings, like the Victorian "Black flag, yellow flag" program, be employed to facilitate direct and timely feedback to road users.
 - 26: A national motorcycle training strategy be constructed that includes riders to develop a national rider training and road craft curriculum and evaluation process.
 - 27: An evidence-based best practice model of graduated motorcycle rider licensing be developed, suitable for adoption by Australasian licensing authorities.
 - 28: A best practice GLS for novice riders start at age 16 years and 9 months (not 18) and this be consistent with a GLS for novice car learners.
 - 29: Licensed riders returning to motorcycling after a significant break (e.g. >5 years) be mandated to undertake refresher training or coaching, focussing on roadcraft and hazard perception.
- Any national move to reduce BAC limits is supported ONLY IF the same limit applies to ALL road users.
- 30: An increased focus on fatigue and associated factors, including poor sleep patterns and presenteeism, be adopted urgently as critical to reducing road trauma to sustainably low targets.
 - 31: Enforcement to identify unlicensed drivers and riders be increased, as they are over represented in the crash statistics.
 - 32: A review of the governance of safety-related insurance be conducted to ensure better accountability and less narrow governance and economic analysis
 - 33: The Australian Standard requirement for helmets be discontinued and best existing international helmet standards be adopted (e.g. European standard).
 - 34: Greater use of protective clothing be encouraged, not mandated. Let those who ride decide.
 - 35: A star rating system for protective clothing be introduced, but with no compulsory requirements other than for helmets.
 - 36: A parallel "National Off-road Vehicular Safety Strategy" be developed that mirrors the NRSS. Off-road categories in this strategy should include: recreational four-wheel driving, trail bike riding, farm vehicle uses (e.g. 4-wheelers) and vehicle use on reserves and private property.

Road safety must take precedence over and above doctor-patient confidentiality.

There must be a greater focus on enforcement of seat belt use.

We must get pedestrians off the roads!

9.2.7 Making it happen

All work must start with a focus on data and evidence. A coordinated approach to data collection and research is needed nationally. The collection of valid, accurate and up-to-date data must be priority one. Without these improvements, decisions, priorities and

actions will be based on inadequate data, resulting in ineffective programs and poor results (and NRSS targets will not be achieved).

37: A national review be conducted as an urgent priority to harmonise road safety laws and regulations, and to streamline institutional structures, capacities and delivery arrangements through all levels of government.

38: A large MAIDS-type study be funded to obtain motorcycle-related safety and crash data for Australia.

39: Databases be modernised with up-to-date software across all jurisdictions as a high priority.

A levy on motorcyclists is NOT supported. Such levies are inequitable. Priorities for road safety expenditure should be biased towards addressing the factors that will reduce road trauma for those road user groups most represented in trauma figures.

40: A National Motorcycling Safety and Transport Strategy be developed in conjunction with the Australian Motorcycle Council and other key motorcycle stakeholders, funded by government and based on best practice and incorporating the outcomes of the 2008 Canberra Summit.

The Ulysses Club Inc. is pleased to offer the assistance of their National Road Safety Committee as a reference group to work further with government on the NRSS and other motorcycling action plans.

9.3 Conclusion

The conclusions made by Wigan (2005) support our submission:

Motorcycles are currently continuing to grow in number, but with a shift on road towards scooters. This is bringing in more females and utility riders.

Supporting the safe use of motorcycles on the road system will involve both tactical (minor works auditing) and strategic measures (inclusion in transport and traffic strategies).

Two major opportunities are emerging, ITS and better data for monitoring and assessing measures supporting motorcycle mobility and safety. The two are closely linked.

Any licensing or regulatory measures introduced will affect the levels of motorcycle use.

Measures recognising that most motorcyclists have the choice of a car when choosing to use a motorcycle will be the most successful, and this group appears likely to continue to grow.

Toll road exemptions may well be justified not only by minimal usage of road capacity, but also in terms of reduced community risk costs.

A lesson from other cities is that much higher levels of motorcycle use can be accommodated on the roads [than] they are.

There are substantial benefits to be gained from taking an overall transport approach to motorcycling, and working with the riders on this with safety fully integrated into the wider context of their choice and use of this mode.

Wigan 2005, p.101

In a media release on 21 November 2008, the Chair of the Queensland Parliament's Travelsafe Committee, Jo-Ann Miller MP, said:

"If you have to spend a litre of petrol to pick up a litre of milk from the shop, you have a serious problem."

Our submission promotes motorcycle and scooter use as one very important element of a solution to this serious concern.

References and other sources

- ABS 2009, *Motor vehicle census (Cat#9309.0)*, in *Motorcycling in South Australia: Knowledge gaps for research*, Centre for Automotive Safety Research, Adelaide.
- ACEM 2011, *Some safety provisions need further attention*, Newsletter #26, Association des Constructeurs Européens de Motocycles, <http://www.acem.eu/NWSL/news126/braking.htm>.
- ARTD 2011, *Older Rider Research Summary of Findings*, ARTD Consultants. Unpublished presentation by Hawkins & Verstege to Qld Motorcycle Safety Advisory Group of TMR funded research and survey of motorcycle riders in Queensland.
- Bowdler J 2010, *Editorial*, *Two Wheels* 11/10 p.10
- Baldock M & Hutchinson T 2010, *Motorcycling in South Australia: Knowledge gaps for research* (report CASR075), Centre for Automotive Safety Research, Adelaide.
- Campbell C 2010, *Do we need new thinking - Engaging more of Queensland in Road Safety*, Qld Police Service, at the CARRS-Q 2010 Qld Road Safety Awards.
- CARRS-Q 2009, *Differential effects of monotony versus fatigue on driving performance and the effectiveness of various detection methods: Implications for road safety in the ACT*, Report to NRMA ACT-Road Safety Trust, QUT Brisbane.
- CARRS-Q 2010, *Qld Road Safety Awards Community Engagement Workshop*, QUT Brisbane.
- Christie R 2001, *The Effectiveness of driver training as a road safety measure: An international review of the literature*, RCSC Services, Melbourne.
- City of Sydney Council 2008, *Motorcycle and Scooter Strategy and Action Plan 2008-2011*, Sydney.
- Department of Infrastructure and Transport 2010, *Draft National Road Safety Strategy 2011 - 2020*, Canberra.
- Department of Infrastructure, Transport, Regional Development and Local Government, and MSCC, 2008, *Motorcycle and Scooter Safety Summit*, Canberra.
- De Rome L 2009, *The Good Gear Guide for Motorcycle & Scooter Riders*, LdeR Consulting, Erskineville NSW.
- De Rome L 2009, *Message from our Guest Editor*, *Journal of the Australasian College of Road Safety* Vol 20 No 4. ACT.
- DTMR 2011, *Motorcycle Mass Action Program Technical Guidelines*, v1.1, Department of Transport and Main Roads QLD.
- ETSC 2008, *Vulnerable riders: Safety implications of motorcycling in the European Union*, European Transport Safety Council, Brussels.
- FEMA 2009, *Intelligent transport systems (its) are at the door ; motorcyclists' needs have to be considered*, Newsletter 3, March 2009, Federation of European Motorcyclist's Associations, Belgium.

Haworth N, Greig N & Wishart D 2009, *A Survey of Motorcycle Safety Programs Across Australasia*, CARRS-Q, in *Journal of the Australasian College of Road Safety* Vol 20 No 4. ACT.

Johnston P, Brooks C, Savage H 2008, *Fatal and serious road crashes involving motorcyclists*, Monograph 20, in *Motorcycling in South Australia: Knowledge gaps for research*, Centre for Automotive Safety Research, Adelaide.

Joint Transport Research Centre 2008, *Top 20 countermeasures to improve safety of global powered two wheelers*, OECD International Transport Forum, Lillehammer, Norway.

Lennard S 2011, *Check it out: How to have your say on motorcycle safety*, Two Wheels 02/11 p.30.

RACQ 2010, *Private Vehicle Ownership Costs 2010*, RACQ website:
http://www.racq.com.au/motoring/cars/car_economy/vehicle_running_costs

Stanford G 2009, *Need for Coordination at a National Level*, *Journal of the Australasian College of Road Safety* Vol 20 No 4. ACT.

Turner B, Tziotis M, Cairney P, Jurewicz C 2009, *Safe System Infrastructure National Roundtable Report* (report ARR 370), ARRB Group Ltd, Melbourne.

Vandebilt, T 2008, *Traffic – Why we drive the way we do*, Random House, New York.

Wigan M 2011, *Comments on the NRSS for the Ulysses Club's Road Safety Committee*.

Wigan M 2005, *Review of the roles of motorcycles on Victoria's roads*, Report OS/01/05, Oxford Systematics, Victoria.

Appendix A: The Ulysses Club Inc.

1. About the Ulysses Club Inc.

The Ulysses Club Inc. is a **social club** for older motorcyclists. It is the largest organization of its kind in the southern hemisphere and is now a familiar part of Australia's riding scene. Membership number 58,557 was issued on the 30th November 2010 with current financial membership at about 29,300. There are also 6 Ulysses Clubs overseas.

Who can join the Ulysses Club? Any lady or gentleman who is over the age of 40, and who holds a current motorcycle licence, or who is a regular partner of such a person, and over 40, is eligible to join. Until members reach the grand old age of 50, they will be "junior" members, but with full membership rights and privileges.

The club has grown to 132 branches spread throughout Australia, and continues to grow, paralleling the growth in motorcycle and scooter usage in Australia. Branches arrange rides and social functions for the club members in their location. By joining the club, a member can choose to attend any branch, branch ride or function of their choice (i.e. they are members of one club; not branches).

Aims of the Ulysses Club

The Ulysses Club constitution has, at its core, three aims:

- To provide ways in which older motorcyclists can get together for companionship and mutual support.
- To show by example that motorcycling can be an enjoyable and practical activity for riders of all ages.
- To draw the attention of public and private institutions to the needs and views of older riders.

The Club has promoted road safety for almost 2 decades, more recently through the position of National Road Safety Coordinator and in 2009 by forming a National Road Safety Committee. The committee comprises members who represent every state and territory in Australia

2. Aims and purpose of the Road Safety Committee

1. To promote a safe riding culture within the Ulysses Club.
2. To ensure that the views of older riders are considered in developing road safety policy.
3. To facilitate the exchange of information between the National Road Safety Coordinator and the members of the Road Safety Committee.

To achieve this purpose involves identifying road safety issues that affect members, being involved in the formulation of policy and development of practical steps to address these issues. This committee has representative from each state, who in turn represent the Club on State government advisory councils and committees in those jurisdictions.

More information on the Club can be found on our Web site at: <http://ulyssesclub.org/>

Appendix B: Motorcycles and scooters as a sustainability transport solution

1. Car dependency, congestion and increased risks

Ulysses Club Inc. members are concerned about the extremely poor use of non-renewable resources by single occupant car drivers, the resultant congestion and additional risks being created. The Club is therefore interested in contributing to the development of strategies and solutions that reduce the community's dependence on large vehicles and their poor utilization of resources.

Car dependency is increasing while governments neglect their responsibility to facilitate motorcycling as a choice of travel within a safe and sustainable transport framework.

2. The influences on travel needs and choices: Barriers

Barriers acting as deterrents to the use of motorcycles and scooters include: lack of data for decision-making, lack of dedicated parking space, excessive tolls and poor use of tags, and security, licensing and safety concerns. Governments at all levels have not equitably accommodated the needs of motorcycle and scooter riders by removing many of these barriers to riding.

3. The benefits of encouraging travel by motorcycles and scooters and improving sustainability

Travelling by motorcycle or scooter brings benefits to riders, governments, business and the community through social, environmental and economic gains. Riding can be more enjoyable, convenient and provides low-cost accessibility. Motorcycles account for 4.0% of the vehicle fleet but only 0.3% of the emissions.

Their use as an alternative mode of transport results in reduced congestion, improved land use (a scarcity in CBDs) and drastically improved fuel consumption.

4. Measures governments should implement: The way forward

We propose measures that address the barriers and provide a number of strategies and suggestions for moving forward. These measures for riders cover:

- A wide range of improvements to parking;
- Promoting sustainability and consumer awareness, including the use of fuel-efficient and low emission vehicles and financial initiatives to influence supply and demand;
- Addressing security concerns;
- Reducing or removing tolls and offering preferred access;
- Safety;
- Initiatives that support stakeholders working together, including a mechanism for facilitating ongoing consultation.

The 'Action Plan' from the City of Sydney Council's *Motorcycle and Scooter Strategy and Action Plan 2008-2011* provides a succinct list of initiatives that the Ulysses Club Inc fully endorses. This Action Plan acts as a model for government implementation in urban areas.

5. Conclusion

Motorcycles and scooters can be a very low cost alternative to cars. They need to be welcomed and integrated into urban transport plans - plans that facilitate motorcycling as a choice of travel within a safe and sustainable transport framework.

The Ulysses Club Inc promotes motorcycle and scooter use as one serious element of a solution to the serious problem: that car drivers may be spending 'a litre of petrol to pick up a litre of milk from the shop'.

Appendix C: An alternative Safe System proposal

1. Basis for the system

The proposed basic structure of NRSS 2011-2020 is: Directions, First steps and Future steps. These each reference the Safe System approach. The following is a proposed modification to the structure of the NRSS, taking into consideration the suggestions and recommendations in this submission. “Speed” elements are integrated under each of the other 3 main headings.

2. Safe Roads

Future steps

- New roads designed to allow for error and minimise risk of death or serious injury
- Risk assessment of all roads on network to prioritise funding
- Substantial reduction in fatality and injury resulting from crashes at intersections, run off road and head on crashes
- Speed limits appropriate to the design and function of the road

3. Safe Vehicles

Future steps

- Regulation to speed up adoption of safety features in new vehicles
- Strong market demand for safer vehicles (5 star rated) including improved pedestrian protection and side curtain airbags
- Younger vehicle fleet

4. Safe Road Users

Future steps

- Nationally consistent Graduated Licensing Scheme
- Better assessment process for older drivers and medical conditions
- Road safety curriculum for schools
- Greater use of helmets and protective clothing by motorcyclists
- Effective restraint of all vehicle occupants
- Substantial reduction of death and injury resulting from impaired driving
- Reduction in unlicensed driving
- Increased access to licensing systems and safe vehicles for Indigenous people
- More people complying with speed limits

Appendix D: Top priority measures OECD Norway conference

A. GENERAL PRINCIPLES

1. Co-operation between the various stakeholders

Improving safety for motorcyclists and scooter riders implies to set up a continuing dialogue and co-operation between the various stakeholders, including the motorcyclists and scooter riders themselves, policy makers, researchers, and motorcycle manufacturers

2. Transport and infrastructure policy

It is a fundamental motorcycle safety requirement that, motorcycles should have a place in overall transport policy and infrastructure policy/management.

3. Research and evaluation

Counter measures need to be founded on evidence-based scientific research into driver and rider behaviour, and before-and-after evaluations should be conducted.

B. PRACTICAL MEASURES

1. Training programmes for motorcyclists

Countries have different training needs, based on their vehicle fleet and riding environment. Motorcycle training should therefore build on existing standards, focus on risk awareness and risk avoidance, and develop an understanding of the rider/motorcycle capacities and limitations.

2. Improved training for general drivers

A component on awareness and acceptance of motorcyclists should be included in the general training for all drivers, with a particular emphasis on the need for appropriate traffic scanning strategies.

3. Braking systems

Manufacturers should continue to introduce advanced (better) braking systems, such as combined brake systems and anti-lock-brake systems.

4. Getting safety messages to the riders and portrayal of responsible riding

Safety messages to riders should be developed in partnership with rider groups, in order to use the effectiveness of peer advice in communicating key issues to riders on issues that will impact their communities.

Codes of practice should be developed in order to promote and market motorcycling responsibly; the motorcycling press and rider organisations should also promote responsible behaviour codes.

5. Integrated awareness campaigns.

There should be regular, targeted, campaigns addressing both motorcyclists and other road users. These should be supported where necessary by other actions, e.g. enforcement, on safety-related subjects that include: mutual respect, protective equipment, speed, alcohol and drug issues.

To develop an awareness of motorcyclists and mutual respect between road users, education activities and campaigns should be set up from childhood, to emphasise that "road safety means road sharing".

6. Guidelines for the development of road infrastructure and training for road designers

Each level of government should include in their infrastructure guidelines, measures for accommodating motorcycles, developed with input from relevant stakeholders. The guidelines should be relevant to the needs of the jurisdiction concerned, and coordinated with other jurisdictions and levels of government. An international transfer of best practices is also recommended.

The needs of motorcycles should be included in the basic training for road designers, and highway and traffic engineers.

Identification and resolution of roadway design problems (e.g. accident black-spots and “corridor” analysis) should include input from rider organizations and relevant experts.

7. Protective equipment for riders

Where standards for protective equipment exist, they should be promoted; and where they do not, they should be developed, taking into account their safety performance, rider comfort, the ergonomics of their use, costs and the climate/regions where they will be used.

8. Policy dialogue

To enable communication and build mutual confidence, meetings between motorcycle stakeholders and policy makers/road authorities (e.g. forums, councils,) should be established, in order to exchange views, discuss needs and secure the necessary financing/resources for safety counter measures.

9. Motorcycles in ITS.

Enhanced awareness of motorcycles should be incorporated into the development of all vehicle ITS projects.

10. Innovation and pilot schemes

Where proposed counter-measures are not based on evidence-based objective research, but are supported by stakeholders, policy makers should test and evaluate the proposal in a pilot scheme.

11. Speed warning systems

The safe management of vehicle speeds in the road network is improved by the use of speed warning systems, which may be on the vehicle or part of the road infrastructure. Such systems should be encouraged as the technology is developed.

12. Global Technical Regulations.

The minimum safety performance of motorcycles should be based on Global Technical Regulations.

Note on Measure 13: The reference to headlamps is not recommended or endorsed by the Australian Motorcycle Council or the Ulysses Club., so is not shown. The relevant ADR was repealed in Australia many years ago.

Appendix E: Recommendations from Motorcycle & Scooter Safety Summit

1. DATA and ANALYSIS

Key Action

- A working group of stakeholder representatives be set up to develop an information strategy to define data needs in the short, medium and long term.

Future directions

- Ensure that motorcycles and scooters are included in all transport planning scenarios.
- Review data collection systems of State and Territory agencies to determine if they are consistent with the information strategy.
- To the extent possible, link separate databases held by road authorities, police, hospitals and insurers and others where deemed relevant.
- Implement periodic quality audits of databases.
- Harmonise data definitions and codes to the extent practicable.
- Move towards real time data using on-line collection.
- Use in-depth motorcycle-specific studies similar to the MAIDS (Motorcycle Accident In-depth Study) to identify key factors relevant to motorcycle crashes.
- Use new technology to improve crash investigation, including GPS data collection and digital cameras to identify crash locations accurately.
- Use improved data to evaluate the effectiveness of rider training.
- State and Territory agencies to improve analysis of crash statistics by vehicle class to identify motorcycle categories such as trikes, cross-overs, mopeds, quad bikes and non-registered motorcycles. Use VIN numbers to identify motorcycle types.

2. RIDER PROTECTION

Key Action

- Implement an Australian star rating system for protective clothing based on the European Union Standard supported by appropriate testing and widely disseminate the information including through appropriate websites.

Future directions

- Ensure that riders have access to good information on the comparative effectiveness of protective clothing options.
- Ensure that the availability of effective protective clothing to meet the needs of different types of rider is widely disseminated.
- Representatives of motorcycle and scooter organisation to seek GST-exemption for clothing that can be classified as 'safety gear' by meeting minimum standards.
- Request Standards Australia to review the motorcycle helmet standard with a view to aligning it with best practice international standards.
- Encourage insurance companies, manufacturers and other potential funding bodies to fund data collection and research to establish whether any design features of motorcycles are systematically associated with particular types of injury.

3. TRAINING AND LICENSING

Key Action

- Identify and implement key criteria for graduated licensing systems for motorcycles and scooters

Future directions

- Implement post-licence training, as a continuation of the licensing process, particularly for returning riders.
- Incorporate best practice knowledge, attitudes and higher-order cognitive skills into rider education programs.
- Provide incentives to stay on Learner Approved Motorcycle Scheme (LAMS), motorcycles through lower registration fees or lower compulsory third party insurance premium incentives.

4. EDUCATION

Key Action

- Ensure that public education strategies for motorcycle and scooter safety include key messages for both riders and other road users.

Future directions

- Identify specific motorcycle safety issues for each jurisdiction that can be addressed through education and implement appropriate targeted actions.
- Share motorcycle public education materials nationally where appropriate.
- Establish key partnerships between riders, road safety authorities and other stakeholders (e.g. insurers) in each jurisdiction to help in development and delivery of motorcycle safety messages.
- Explore new ways to communicate motorcycle safety messages – viral marketing (via internet forums, blogs, e-mails), national motorcycle awareness day.
- Conduct attitudinal and behavioural research on riders and drivers' attitudes to riders.
- Establish and maintain an effective consultative framework for road safety authorities and rider representatives to develop motorcycle and scooter safety messages.
- Evaluate existing messages in terms of the target audience.
- Provide training for crash scene police to help them identify motorcycle hazards and issues specific to motorcycle crashes.

5. RISK TAKING

Key Action

- Implement education campaigns that acknowledge that riders must have high attention levels, manage risks in everyday riding and need to take responsibility for themselves and their rider groups by not engaging in unnecessarily risky behaviour.

Future directions

- Conduct research on the role of fatigue in single-vehicle motorcycle crashes and during group riding. The results of the research to be used to develop an education program about managing the factors that cause fatigue.
- Implement education campaigns that address the problems of speeding and unlicensed, unregistered and intoxicated riders.
- Develop a targeted education campaign with the message that motorcycles and alcohol do not mix for inclusion in mainstream community communication.
- Share information on fatigue with occupational health and safety and mining industry; examine military responses to fatigue.
- Promote group rides to minimise fatigue.

6. ENFORCEMENT

Key Action

- Implement community policing campaigns (education and enforcement) aimed at educating other road users to be mindful of motorcyclists and for motorcyclists to be responsible for their own safety.

Future directions

- Target enforcement at high-risk behaviour, including offences other than speeding.
- Enforcement should be targeted at drivers and riders committing life endangering offences, particularly non-licensed riders and non-registered motorcycles.
- There is a need for both overt (visible) and covert (unmarked) enforcement. A mix of both types provides a better deterrent (anywhere, anytime) effect.
- Investigate alternative vehicle identification systems such as radio frequency identification devices.

7. ROAD INFRASTRUCTURE AND ROADSIDE HAZARDS

Key Actions

- Develop an Australia-wide website for reporting local road hazards which allows for uploading data and photos and includes details of treated hazards.

Future directions

- Scope best practice infrastructure-related motorcycle and scooter safety measures across Australia and develop national guidelines.
- Scope best practice safety measures for roadside barriers.
- Ensure that jurisdiction-based auditing schemes for roadside hazards take account of specific hazards for riders of motorcycles and scooters.
- Communicate research and best practice by facilitating professional development education for traffic engineers.
- Review national motorcycle-related black-spot funding criteria, noting that treating these black-spots will also benefit other vehicles.